INDEPENDENT POWER TRANSMISSION OPERATOR

INDEPENDENT POWER TRANSMISSION OPERATOR

BALANCING MARKET RULEBOOK

~~February~~

November 2024

Version ~~14~~17.0

~~SECTION I ..... 1~~
~~GENERAL PROVISIONS ..... 1~~
~~CHAPTER 1 ..... 1~~
~~OBJECTIVE OF THE BALANCING MARKET RULEBOOK ..... 1~~
~~Article 1. Balancing market: ..... 1~~
~~Article 2. Balancing Market Rulebook ..... 1~~
~~Article 3. Definitions ..... 3~~
~~CHAPTER 2 ..... 14~~
~~CONTRACTS AND PROCEDURE FOR REGISTRATION WITH THE HETS OPERATOR REGISTRY ..... 14~~
~~Article 4. HETS Operator Registry ..... 14~~
~~Article 5. Balancing Service Contract and Balance Responsible Party Contract ..... 15~~
~~Article 6. Dispute Resolution ..... 16~~
~~Article 7. Termination of the Balancing Service Contract or the Balance Responsible Party Contract 17~~
~~Article 8. Procedure for registration with the Balancing Service Providers Registry and the Balance Responsible Parties Registry ..... 19~~
~~Article 9. Rejection of application for registration with the HETS Operator Registry ..... 20~~
~~CHAPTER 3 ..... 20~~
~~REGISTRIES OF ENTITIES ..... 20~~
~~Article 10. Entities ..... 20~~
~~Article 11. Balancing Market Generating Units Registry ..... 21~~
~~Article 12. Dispatchable RES Units Portfolio Registry ..... 22~~
~~Article 13. Dispatchable Load Portfolio Registry ..... 23~~
~~CHAPTER 4 ..... 23~~
~~BALANCING MARKET SYSTEM ..... 23~~
~~Article 14. Balancing Market System Description ..... 23~~
~~Article 15. Access to the Balancing Market System ..... 24~~
~~Article 16. Balancing Market System Certification ..... 25~~
~~Article 17. Communication between the HETS Operator and the Participants ..... 25~~
~~Article 18. Participants Support ..... 26~~
~~Article 19. Record Keeping ..... 26~~
~~Article 20. Publication of Information by the HETS Operator ..... 26~~
~~CHAPTER 5 ..... 26~~
~~Hydro Resources Management ..... 26~~
~~Article 21. General Obligations for Hydro Resources Management ..... 26~~
~~Article 22. Yearly Ahead Hydro Usage Declarations ..... 28~~
~~Article 23. Weekly Mandatory Hydro Management Declarations ..... 28~~

~~Article 24. Daily Mandatory Hydro Management Declarations 29~~
~~CHAPTER 6 30~~
~~MISCELLANEOUS 30~~
~~Article 25. Balancing Market Fee 30~~
~~Article 25A. Calculation of Unit Charges of the Balancing Market Fee 31~~
~~Article 25B. Calculation of Monthly Charges of the Balancing Market Fee 32~~
~~Article 26. Force Majeure 33~~
~~Article 27. Notices 34~~
~~Article 28. Transparency – Confidentiality 34~~
~~Article 29. Release and Assignment 36~~
~~Article 30. Applicable law and jurisdiction 36~~
~~Article 31. Language and Currency 36~~
~~Article 32. Waiver 36~~
~~Article 33. Entirety of the agreement 36~~
~~Article 34. Special cases 36~~
~~Article 34A. Deficit or Surplus Management in relation to Cross-Border Physical Deliveries 37~~
~~SECTION II 38~~
~~INTEGRATED SCHEDULING PROCESS 38~~
~~CHAPTER 7 38~~
~~GENERAL PROVISIONS 38~~
~~Article 35. Scope 38~~
~~Article 36. General Provisions for the Integrated Scheduling Process 38~~
~~Article 37. Transmission of information to the HETS Operator within the framework of the ISP 39~~
~~CHAPTER 8 40~~
~~HETS OPERATOR OBLIGATIONS 40~~
~~Article 38. HETS Operator Obligations 40~~
~~Article 39. Zonal Load Forecasting 41~~
~~Article 40. Zonal RES Units Forecasting 42~~
~~Article 41. Determination of Zonal/Systemic Balancing Capacity Needs 42~~
~~CHAPTER 9 42~~
~~OBLIGATIONS OF BALANCING SERVICE PROVIDERS 42~~
~~Article 42. General Obligations of Balancing Service Providers 42~~
~~Article 43. Available Capacity 44~~
~~Article 44. Techno-Economic Declarations 44~~
~~Article 45. Techno-Economic Declaration Submission Procedure 45~~
~~Article 46. Acceptance and Rejection of the Techno-Economic Declaration by the HETS Operator 46~~

~~Article 47. Non-Availability Declarations 46~~
~~Article 48. Major Outage Declaration 47~~
~~Article 49. Acceptance and Rejection of Non-Availability Declarations and Major Outage Declarations 47~~
~~CHAPTER 10 48~~
~~BALANCING CAPACITY OFFERS TO THE ISP 48~~
~~Article 50. Submission of Balancing Capacity Offers to the ISP 48~~
~~Article 51. Content of the Balancing Capacity Offers 49~~
~~Article 52. Amendment and Acceptance of the Balancing Capacity Offers 49~~
~~Article 53. Consequences of non-submission of Balancing Capacity Offers 50~~
~~CHAPTER 11 50~~
~~BALANCING ENERGY OFFERS TO THE ISP 50~~
~~Article 54. Submission of Balancing Energy Offers to the ISP 50~~
~~Article 55. Content of the ISP Balancing Energy Offers 52~~
~~Article 56. Amendment and Acceptance of the ISP Balancing Energy Offers 53~~
~~Article 57. Consequences of non-submission of ISP Balancing Energy Offers 53~~
~~CHAPTER 12 54~~
~~EXECUTION OF THE INTEGRATED SCHEDULING PROCESS 54~~
~~Article 58. Data of Integrated Scheduling Process 54~~
~~Article 59. Integrated Scheduling Process Optimization Methodology and Algorithm 55~~
~~Article 60. Results of the Integrated Scheduling Process 58~~
~~Article 61. Surveillance of the Results of the Integrated Scheduling Process 59~~
~~SECTION III 60~~
~~BALANCING ENERGY MARKET 60~~
~~CHAPTER 13 60~~
~~GENERAL PROVISIONS 60~~
~~Article 62. Scope 60~~
~~Article 63. General Provisions 60~~
~~Article 64. HETS Operator Responsibilities 61~~
~~Article 65. Dispatch Instructions 62~~
~~Article 66. Obligations of the Balancing Service Providers in the framework of the Balancing Energy Market63~~
~~Article 67. Submission of Balancing Energy Offers to the Balancing Energy Market 64~~
~~CHAPTER 14 65~~
~~MANUAL FRR PROCESS 65~~
~~Article 68. Manual FRR Process Input Data 65~~
~~Article 69. Execution of the Manual FRR Process 66~~
~~Article 70. Immediate Activation of manual FRR 67~~

~~Article 71. Manual FRR Dispatch Instructions ..... 68~~
~~Article 72. Content of manual FRR Dispatch Instructions ..... 69~~
~~Article 72A. Manual FRR Test Dispatch Instructions ..... 69~~
~~CHAPTER 15 ..... 70~~
~~AUTOMATIC FRR PROCESS ..... 70~~
~~Article 73. Activation of the Balancing Energy for automatic FRR ..... 70~~
~~SECTION IV ..... 71~~
~~BALANCING MARKET SETTLEMENT ..... 71~~
~~CHAPTER 16 ..... 71~~
~~GENERAL PROVISIONS ..... 71~~
~~Article 74. Imbalance Settlement Period ..... 71~~
~~Article 75. Balancing Market Accounts ..... 71~~
~~Article 76. Balancing Market Settlement Object ..... 71~~
~~Article 77. Information required for the performance of the Balancing Market Settlement ..... 72~~
~~Article 78. Contract with the Clearing House ..... 74~~
~~Article 79. Obligations of the Distribution Network Operators under the Balancing Market Settlement process ..... 74~~
~~Article 80. Financial neutrality of the HETS Operator ..... 76~~
~~Article 81. Technical Decision "Balancing Market Settlement" ..... 76~~
~~CHAPTER 17 ..... 76~~
~~TRANSMISSION SYSTEM LOSSES ..... 76~~
~~Article 82. HETS Losses Management ..... 76~~
~~Article 83. HETS Losses Forecast ..... 76~~
~~CHAPTER 18 ..... 76~~
~~IMBALANCE AND BALANCING ENERGY SETTLEMENT ..... 76~~
~~Article 84. Calculation of Balancing Energy and Imbalances ..... 76~~
~~Article 85. Balancing Energy Price for Manual FRR ..... 80~~
~~Article 86. Calculation of Balancing Energy debits and credits ..... 81~~
~~Article 87. Calculation of debits and credits for energy activated for purposes other than balancing 83~~
~~Article 88. Calculation of the Imbalance Price ..... 84~~
~~Article 89. Calculation of Debits and Credits from the Imbalance Settlement ..... 85~~
~~CHAPTER 19 ..... 87~~
~~BALANCING CAPACITY SETTLEMENT ..... 87~~
~~Article 90. Calculation of the supplied quantity of Balancing Capacity ..... 87~~
~~Article 91. Calculation of Balancing Capacity Remuneration ..... 89~~
~~CHAPTER 20 ..... 92~~
~~UPLIFT ACCOUNTS ..... 92~~

~~Article 92. HETS Operator Uplift Account ..... 92~~
~~Article 93. UA-1 HETS Losses Uplift Account ..... 92~~
~~Article 94. UA-2 Balancing Capacity Uplift Account ..... 92~~
~~Article 95. UA-3 Financial Neutrality Uplift Account ..... 93~~
~~CHAPTER 21 ..... 95~~
~~NON-COMPLIANCE CHARGES ..... 95~~
~~Article 96. Consequences of non-timely commitment ..... 95~~
~~Article 97. Consequences of significant deviation from the Registered Characteristics ..... 95~~
~~Article 98. Consequences of non-compliance with manual FRR Test Instructions ..... 97~~
~~Article 99. Consequences of significant deviation from the Dispatch Instructions ..... 98~~
~~Article 100. Consequences of significant systematic demand imbalances ..... 99~~
~~Article 101. Consequences of significant systematic imbalances in the production of RES Units Portfolios 101~~
~~Article 102. Consequences of systematic failure to attain a feasible Market Schedule ..... 103~~
~~Article 103. Management of the amount of non-Compliance Charges ..... 104~~
~~CHAPTER 22 ..... 105~~
~~BALANCING MARKET SETTLEMENT PROCEDURE ..... 105~~
~~Article 104. Balancing Market Settlement Procedure ..... 105~~
~~Article 105. Content of Settlement results notified to the Participants ..... 110~~
~~Article 106. Pricing of non-Compliance Charges ..... 111~~
~~CHAPTER 23 ..... 112~~
~~DEFAULT MANAGEMENT ..... 112~~
~~Article 107. Actions of the HETS Operator and the Clearing House in case of default ..... 112~~
~~CHAPTER 24 ..... 114~~
~~SPECIAL PROVISIONS FOR THE BALANCING MARKET SETTLEMENT IF NO CLEARING HOUSE OPERATES ..... 114~~
~~Article 108. Application of Special Provisions ..... 114~~
~~Article 109. HETS Operator Accounts ..... 114~~
~~Article 110. Invoicing and Settlement ..... 115~~
~~Article 111. Actions of the Operator in case of Participant default ..... 115~~
~~Article 112. Provision of Guarantees ..... 117~~
~~SECTION V ..... 118~~
~~TRANSITIONAL PROVISIONS ..... 118~~
~~CHAPTER 25 ..... 118~~
~~TRANSITIONAL PROVISIONS ON NON-COMPLIANCE CHARGES ..... 118~~
~~Article 113. Entry into Force of non-Compliance Charges ..... 118~~
~~CHAPTER 26 ..... 118~~
~~TRANSITIONAL PROVISIONS FOR RES ..... 118~~

~~Article 114.—Commencement of balancing obligations for RES Units with Market Participation Obligation under a Contract for Differential State Aid Support ..... 118~~

~~Article 115.—Explanation of symbols ..... 119~~

~~Article 116.—Calculation of Production Imbalances for RES Units with Market Participation Obligation under a DSAS Contract ..... 119~~

~~Article 117.—Calculation of Debits and Credits for RES Units with Market Participation Obligation under a DSAS Contract ..... 119~~

~~CHAPTER 27 ..... 120~~

~~TRANSITIONAL PROVISIONS ON THE BALANCING MARKET ..... 120~~

~~Article 118.—Submission of Balancing Energy Offers to the Balancing Energy Market ..... 120~~

~~Article 118A.—Submission of Balancing Energy Offers to the Balancing Market for the period until the constraint in the Peloponnese System is lifted ..... 121~~

~~Article 118B.—Participation of the Dispatchable Load Portfolios and the Dispatchable RES Units Portfolios in the Balancing Market ..... 121~~

~~Article 119.—Execution of the Integrated Scheduling Process ..... 121~~

~~Article 120.—Registration with the HETS Operator Registry following the launch of the Balancing Market 122~~

~~Article 120A. Calculation of the Balancing Market Fee ..... 123~~

~~Article 120B. Temporary Refund Mechanism of a portion of Revenue of Day-Ahead Market ..... 123~~

~~CHAPTER 29 ..... 124~~

~~ENTRY INTO FORCE OF THE BALANCING MARKET RULEBOOK ..... 124~~

~~Article 121.—Entry into force of the Balancing Market Rulebook ..... 124~~

~~CHAPTER 30 ..... 125~~

~~TRANSITIONAL PROVISIONS RELATING TO THE OPERATION OF THE ELECTRICITY MARKET OF CRETE FROM THE DATE OF THE FIRST PHASE OF THE INTERCONNECTION UNTIL THE DATE OF THE SECOND PHASE OF THE INTERCONNECTION OF CRETE WITH THE HETS ..... 125~~

~~Article 122.—Validity of provisions for the operation of the Electricity Market of Crete from the Date of Completion of Phase A until the Date of Completion of Phase B of the Interconnection of Crete with the HETS ..... 125~~

~~Article 123.—Operation of the SIS Market of Crete from the Date of Completion of Phase A until the Date of Completion of Phase B of the Interconnection of Crete with the HETS ..... 125~~

~~Article 124.—Settlement of the virtual Balance Responsible Entity "Crete" from the Date of Completion of Phase A until the Date of Completion of Phase B of the Interconnection of Crete with the HETS 127~~

~~ANNEX I ..... I~~

~~LIST OF TECHNICAL DECISIONS ..... I~~

~~ANNEX II ..... II~~

~~LIST OF METHODOLOGIES AND SPECIAL APPROVALS ..... II~~

~~ANNEX III ..... IV~~

~~LIST OF ACRONYMS ..... IV~~

SECTION I

CONTENTS

CONTENTS i
SECTION I. GENERAL PROVISIONS 1
CHAPTER1. OBJECTIVE OF THE BALANCING MARKET RULEBOOK 1
Article 1.1 Balancing market: 1
Article 1.2 Balancing Market Rulebook 1
Article 1.3 Definitions 3
CHAPTER2. BALANCING MARKET SYSTEM 18
Article 2.1 Balancing Market System Description 25
Article 2.2 Access to the Balancing Market System 26
Article 2.3 Balancing Market System Certification 27
Article 2.4 Communication between the HETS Operator and the Participants 27
Article 2.5 Participants Support 28
Article 2.6 Record Keeping 28
Article 2.7 Publication of Information by the HETS Operator 28
CHAPTER3. MISCELLANEOUS 32
Article 3.1 Force Majeure 35
Article 3.2 Notices 36
Article 3.3 Transparency – Confidentiality 36
Article 3.4 Release and Assignment 38
Article 3.5 Applicable law and jurisdiction 38
Article 3.6 Language and Currency 38
Article 3.7 Waiver 38
Article 3.8 Entirety of the agreement 38
Article 3.9 Special cases 38
SECTION II REGISTRATION OF PARTICIPANTS 39
CHAPTER4. CONTRACTS AND PROCEDURE FOR REGISTRATION WITH THE HETS OPERATOR REGISTRY 39
Article 4.1 HETS Operator Registry 39
Article 4.2 Balancing Service Contract and Balance Responsible Party Contract 40
Article 4.3 Dispute Resolution 41
Article 4.4 Termination of the Balancing Service Contract or the Balance Responsible Party Contract 42
Article 4.5 Procedure for registration with the Balancing Service Providers Registry and the Balance Responsible Parties Registry 44
Article 4.6 Rejection of an application for registration with the HETS Operator Registry 45

CHAPTER5. REGISTRIES OF ENTITIES 45
Article 5.1 Entities 45
Article 5.2 Balancing Market Generating Units Registry 47
Article 5.3 Dispatchable RES Units Portfolio Registry 47
Article 5.4 Dispatchable Load Portfolio Registry 48
CHAPTER6. BALANCING MARKET FEE 49
Article 6.1 Balancing Market Fee 49
Article 6.2 Calculation of Balancing Market Fee Unit Charges 49
Article 6.3 Calculation of Monthly Charges of Balancing Market Fee 51
SECTION III SPECIAL PROVISIONS 53
CHAPTER7. SPECIAL PROVISIONS 53
Article 7.1 General Obligations for Hydro Resources Management 53
Article 7.2 Yearly Ahead Hydro Usage Declarations 54
Article 7.3 Weekly Mandatory Hydro Management Declarations 55
Article 7.4 Daily Mandatory Hydro Management Declarations 55
SECTION IV. INTEGRATED SCHEDULING PROCESS 57
CHAPTER8. GENERAL PROVISIONS 57
Article 8.1 Scope 57
Article 8.2 General Provisions for the Integrated Scheduling Process 57
Article 8.3 Transmission of information to the HETS Operator within the framework of the ISP 58
CHAPTER9. HELLENIC ELECTRICITY TRANSMISSION SYSTEM OPERATOR OBLIGATIONS 60
Article 9.1 HETS Operator Obligations 60
Article 9.2 Zonal Load Forecasting 61
Article 9.3 Zonal RES Units Forecasting 61
Article 9.4 Determination of Zonal/Systemic Balancing Capacity Needs 61
CHAPTER10. OBLIGATIONS OF BALANCING SERVICE PROVIDERS 62
Article 10.1 General Obligations of Balancing Service Providers 62
Article 10.2 Available Capacity 63
Article 10.3 Techno-Economic Declarations 63
Article 10.4 Techno-Economic Declaration Submission Procedure 65
Article 10.5 Acceptance and Rejection of the Techno-Economic Declaration by the HETS Operator 65
Article 10.6 Non-Availability Declarations 65
Article 10.7 Major Outage Declaration 66

Article 10.8 Acceptance and Rejection of Non-Availability Declarations and Major Outage Declarations 67
CHAPTER11. BALANCING CAPACITY OFFERS TO THE ISP 67
Article 11.1 Submission of Balancing Capacity Offers to the ISP 67
Article 11.2 Content and Form of Balancing Capacity Offers 68
Article 11.3 Validation of Balancing Capacity Offers 69
CHAPTER12. BALANCING ENERGY OFFERS TO THE ISP 70
Article 12.1 Submission of Balancing Energy Offers to the ISP 70
Article 12.2 Content and Form of Balancing Energy Offers to the ISP 72
Article 12.3 Validation of Balancing Energy Offers to the ISP 72
CHAPTER13. EXECUTION OF THE INTEGRATED SCHEDULING PROCESS 73
Article 13.1 Data of Integrated Scheduling Process 73
Article 13.2 Integrated Scheduling Process Optimization Methodology and Algorithm 74
Article 13.3 Results of the Integrated Scheduling Process 78
Article 13.4 Surveillance of the Results of the Integrated Scheduling Process 79
SECTION V. BALANCING ENERGY MARKET 80
CHAPTER14. GENERAL PROVISIONS 80
Article 14.1 Scope 80
Article 14.2 General Provisions 80
Article 14.3 HETS Operator Responsibilities 81
Article 14.4 Dispatch Instructions 82
Article 14.5 Participation of Balancing Service Providers in the Balancing Energy Market 84
CHAPTER15. BALANCING ENERGY OFFERS IN THE BALANCING ENERGY MARKET 85
Article 15.1 Submission of Balancing Energy Offers to the Balancing Energy Market 85
Article 15.2 Conversion of Balancing Energy Offers into Standardized Automatic Frequency Restoration Reserve (aFRR) Products 87
Article 15.3 Revision of the aFRR Local Merit Order Lists by Balancing Service Providers 88
Article 15.4 Revision of the aFRR Local Merit Order List 89
CHAPTER16. MANUAL FRR PROCESS 89
Article 16.1 mFRR Process Input Data 89
Article 16.2 Execution of the Manual FRR Process 90
Article 16.3 Immediate Activation of manual FRR 91
Article 16.4 Manual FRR Dispatch Instructions 92
Article 16.5 Content of manual FRR Dispatch Instructions 92

Article 16.6 Manual FRR Test Dispatch Instructions 93
CHAPTER17. AUTOMATIC FRR PROCESS 94
Article 17.1 Activation of automatic FRR 94
SECTION VI BALANCING MARKET SETTLEMENT 95
CHAPTER18. GENERAL PROVISIONS 95
Article 18.1 General Provisions 95
Article 18.2 Balancing Market Settlement Object 95
Article 18.3 Balancing Market Accounts 97
Article 18.4 Required information for the execution of the Balancing Market Settlement 97
Article 18.5 Contract with the Clearing House 99
Article 18.6 Obligations of the Distribution Network Operators under the Balancing Market Settlement process 99
Article 18.7 Deficit or Surplus Management in relation to Cross-Border Natural Supplies 101
Article 18.8 HETS Losses Management 102
CHAPTER19. IMBALANCE AND BALANCING ENERGY SETTLEMENT 102
Article 19.1 Calculation of Balancing Energy and Imbalances 102
Article 19.2 Manual FRR and Automatic FRR Clearing Prices 108
Article 19.3 Calculation of Balancing Energy debits and credits 111
Article 19.4 Calculation of debits and credits for energy activated for purposes other than balancing 114
Article 19.5 Calculation of System Imbalance 116
Article 19.6 Calculation of the Imbalance Price 116
Article 19.7 Calculation of Debits and Credits from the Imbalance Settlement 118
CHAPTER20. BALANCING CAPACITY SETTLEMENT 120
Article 20.1 Calculation of the supplied quantity of Balancing Capacity 120
Article 20.2 Calculation of Balancing Capacity Remuneration 122
CHAPTER21. UPLIFT ACCOUNTS 125
Article 21.1 HETS Operator Uplift Account 125
Article 21.2 UA-1 HETS Losses Uplift Account 125
Article 21.3 UA-2 Balancing Capacity Uplift Account 126
Article 21.4 UA-3 Financial Neutrality Uplift Account 126
CHAPTER22. NON-COMPLIANCE CHARGES 128
Article 22.1 Consequences of non-timely commitment 128
Article 22.2 Consequences of a significant deviation from the activation profile 130
Article 22.3 Consequences of non-compliance with manual FRR Test Instructions 131

Article 22.4 Consequences of significant deviation from the Dispatch Instructions .. 132
Article 22.5 Consequences of significant systematic demand imbalances 133
Article 22.6 Consequences of significant systematic imbalances in the production of RES Units Portfolios 135
Article 22.7 Consequences of systematic failure to attain a feasible Market Schedule 138
Article 22.8 Management of the amount of non-Compliance Charges 138
CHAPTER23. BALANCING MARKET SETTLEMENT PROCEDURE 140
Article 23.1 Balancing Market Settlement Procedure 140
Article 23.2 Procedure for Settlement of Non-Compliance Charges 144
Article 23.3 Balancing Market Fee Settlement Procedure 145
Article 23.4 Content of Settlement results notified to the Participants 146
Article 23.5 Pricing of non-Compliance Charges 147
CHAPTER24. DEFAULT MANAGEMENT 148
Article 24.1 Actions of the HETS Operator and the Clearing House in case of default 148
CHAPTER25. SPECIAL PROVISIONS FOR THE BALANCING MARKET SETTLEMENT IF NO CLEARING HOUSE OPERATES 150
Article 25.1 Application of Special Provisions 150
Article 25.2 HETS Operator Accounts 151
Article 25.3 Invoicing and Settlement 151
Article 25.4 Actions of the Operator in case of Participant default 151
Article 25.5 Provision of Guarantees 153
SECTION VII TRANSITIONAL PROVISIONS 155
CHAPTER26. TRANSITIONAL PROVISIONS FOR RES 155
Article 26.1 Commencement of balancing obligations for RES Units with Market Participation Obligation under a Contract for Differential State Aid Support 155
Article 26.2 Explanation of symbols 156
Article 26.3 Calculation of Production Imbalances for RES Units with Market Participation Obligation under a DSAS Contract 156
Article 26.4 Calculation of Debits and Credits for RES Units with Market Participation Obligation under a DSAS Contract 156
CHAPTER27. TRANSITIONAL PROVISIONS ON THE BALANCING MARKET 157
Article 27.1 Submission of Balancing Energy Offers to the Balancing Energy Market 157
Article 27.2 Submission of Balancing Energy Offers to the Balancing Market for the period until the constraint in the Peloponnese System is lifted 158
Article 27.3 Calculation of the Balancing Market Fee 160
Article 27.4 Temporary Refund Mechanism of a portion of Revenue of Day-Ahead Market 160

Article 27.5 Calculation of Balancing Energy and Imbalances in operation under AGC 161

CHAPTER28. TRANSITIONAL PROVISIONS RELATING TO THE OPERATION OF THE ELECTRICITY MARKET OF CRETE FROM THE DATE OF THE FIRST PHASE OF THE INTERCONNECTION UNTIL THE DATE OF THE SECOND PHASE OF THE INTERCONNECTION OF CRETE WITH THE HETS 162

Article 28.1 Validity of provisions for the operation of the Electricity Market of Crete from the Date of Completion of Phase A until the Date of Completion of Phase B of the Interconnection of Crete with the HETS..... 162

Article 28.2 Operation of the SIS Market of Crete from the Date of Completion of Phase A until the Date of Completion of Phase B of the Interconnection of Crete with the HETS 162

Article 28.3 Settlement of the virtual Balance Responsible Entity "Crete" from the Date of Completion of Phase A until the Date of Completion of Phase B of the Interconnection of Crete with the HETS 164

ANNEX I I

LIST OF TECHNICAL DECISIONS I

ANNEX II II

LIST OF METHODOLOGIES AND SPECIAL APPROVALS II

ANNEX III IV

LIST OF ACRONYMS IV

SECTION I. GENERAL PROVISIONS

~~CHAPTER 1~~

CHAPTER1. OBJECTIVE OF THE BALANCING MARKET RULEBOOK

~~Article 1.~~Article1.1 Balancing market:

1. The Balancing Market is governed by the applicable law, including the principles and provisions of Laws 4001/2011 and 4425/2016 and Regulation (EU) 2017/2195, as in force each time.

~~2.~~ The Balancing Market consists of the Balancing Capacity Market, the Balancing Energy Market and the Imbalance Settlement.

~~3.~~2. The Balancing Service Providers submit Balancing Energy Offers and Balancing Capacity Offers to the Balancing Market on behalf of the Balancing Service Entities they represent.

~~4.~~3. In the context of the Balancing Market, the HETS Operator executes the Integrated Scheduling Process (ISP) for the commitment (synchronization) or de-commitment (desynchronization) of Balancing Service Entities and for the commitment of Balancing Capacity as described in SECTION IV. of this Rulebook.

~~5.~~4. The HETS Operator operates the Balancing Energy Market for the activation of Balancing Energy Offers for manual and automatic FRR and issues manual and automatic FRR Dispatch Instructions to Balancing Service Entities, as described in SECTION V of this Rulebook.

~~6.~~5. The Balancing Market operates throughout the year, for each calendar day.

~~Article 2.~~Article1.2 Balancing Market Rulebook

1. The Balancing Market Rulebook is adopted in line with the provisions of Articles 17 and 18 of Law 4425/2016.
2. The aim of the Balancing Market Rulebook is to define the terms and conditions for the operation of the Balancing Market and in particular to:
   a) designate the Participants in the Balancing Market and describe the relevant registration procedure.
   b) set out detailed rules and conditions under which Participants may participate in the Balancing Market, including their rights and obligations, and determine the procedures that shall apply to the settlement of disputes between the Participants and the HETS Operator,
   c) define the rights and obligations of the HETS Operator vis-à-vis the Participants in connection to their participation in the Balancing Market,
   d) describe the interface between the Balancing Market, the Day-Ahead Market and the Intra-Day Market, including the exchange of information between the Energy Exchange and the HETS Operator,
   e) set out detailed rules for the validation of Balancing Energy Offers and Balancing Capacity Offers by the HETS Operator,

f) describe the input data, the operation, and the results of the Integrated Scheduling Process,

g) describe the interface between the Integrated Scheduling Process and the Energy Balancing Market,

h) describe the input data, the operation and the results of the Energy Balancing Market,

i) define the accounts kept by the HETS Operator for the purposes of the Balancing Market Settlement,

j) determine the penalties for the Participants in the event of non-compliance with the provisions of this Rulebook,

k) define the Balancing Market Settlement procedure,

l) define the procedure for exchanging information with other stakeholders,

m) specify the reporting and monitoring obligations of the HETS Operator in relation to the Balancing Market, and

n) define the procedures for the protection of commercially sensitive information.

3. Unless otherwise defined, all capitalized terms used in this Rulebook shall have the meaning specified in Article1.3 of this Rulebook. Unless otherwise defined, all capitalized terms used in this Rulebook shall have the meaning specified here ANNEX III in this Rulebook. Unless special reference is made, any reference to an Article, CHAPTER and ANNEX shall refer to the Articles, CHAPTERS and ANNEXES of this Rulebook.

4. This Rulebook ~~shall~~may be amended ~~following~~ subsequent to a proposal ~~by~~from the HETS Operator, ~~which shall be~~duly approved by ~~RAE~~the Regulatory Authority for Energy, Waste and Water (RAEWW), following ~~a~~ public consultation conducted by the Authority ~~and~~, which shall be published in the Government Gazette in accordance with the provisions of Article 17 (2)(p) of Law 4425/2016. The amendment process ~~can~~may also ~~start~~be instigated at the initiative of ~~RAE~~the RAEWW. The new text of the Rulebook, as amended each time, shall be published in a consolidated version on the website of the HETS Operator. The body of the consolidated text shall indicate the amendments, the conditions of validity thereof and any other point that facilitates public information. This codification is informal and shall ~~in~~under no ~~case take precedence over the above~~circumstances supersede texts ~~as~~ approved by RAE and published in the Government Gazette as indicated above.

5. Any amendment to this Rulebook shall automatically govern the applicable Balancing Service Contract concluded between the HETS Operator and the registered Balancing Service Provider, and the applicable Balance Responsible Party Contract concluded between the HETS Operator and the registered Balance Responsible Party, without the need for the registered Balancing Service Provider / the Balance Responsible Party to take any action and without prejudice to the right of the registered Balancing Service Provider or the registered Balance Responsible Party to request the termination of the Balancing Service Contract or the Balance Responsible Party Contract, as stipulated in ~~Article 7~~Article4.4 of this Rulebook.

6. The Balancing Market Rulebook ~~is~~may be supplemented by methodologies, parameters and other ~~specific~~special approvals as foreseen therein ~~and~~as may be decided by the Regulatory Authority for Energy ~~(RAE), following~~, Waste and Water (RAEWW) subsequent to a proposal ~~by~~from the HETS Operator and ~~is~~duly published in the Government Gazette in accordance with Article 18(4) of Law 4425/2016.

7. ~~For an~~ In view of the effective implementation of the provisions of the Balancing Market ~~Rulebook~~Regulation, the HETS Operator may issue Technical Decisions ~~to specify the~~, which regulate details ~~of~~in technical issues ~~of a~~with non-regulatory ~~nature~~content. The Technical Decisions shall be issued following public consultation and shall be posted on the website of the HETS Operator. The HETS Operator shall send ~~RAE the~~ drafts of the Technical Decisions to ~~be submitted to~~the RAEWW for submission for public consultation ~~as well as~~together with the approved Technical Decisions. In the event of any contradiction between the provisions of this Rulebook and the corresponding Technical Decisions, the provisions of this Rulebook shall prevail.

8. Technical Decisions shall be amended by decision of the HETS Operator either on its own initiative, or at the request of ~~RAE~~the RAEWW or ~~of~~ third parties ~~that have~~with a legitimate interest, pursuant to the procedure of the preceding paragraph.

~~9. Prior to the implementation of the target-model of the European Union for the internal electricity market, the HETS Operator shall submit to RAE the methodologies, parameters and other special approvals provided for in this Rulebook, which shall be approved in accordance with Article 18(4) of Law 4425/2016.~~

~~10.~~9. The Participants shall be liable to the HETS Operator for the timely and full performance of their obligations under this Rulebook and for the completeness and accuracy of the information and data submitted to the HETS Operator. This liability includes any act or omission of their representative bodies, their servants, their agents and, in particular, of the persons they use for the performance of their obligations under this Rulebook.

~~11.~~10. The HETS Operator shall not be liable to the Participants for the performance of the actions set out in this Rulebook, unless it has acted with malice or gross negligence. The HETS Operator shall take ~~the~~ appropriate measures to prevent ~~any~~ operational ~~issues~~problems in the systems it manages and shall ~~try~~strive to restore ~~any failure~~faults or ~~malfunction,~~malfunctions as ~~soon~~quickly as possible.

~~Article 3.~~Article1.3 Definitions

Apart from the definitions contained in the current legislation, and, in particular, in Law 4425/2016 and Law 4001/2011, in EU legislation, in the Day-Ahead & Intra-Day Markets Trading Rulebook, in the Clearing Rulebook for Balancing Market Positions and in the HETS Grid Code, the terms below, whether stated in the singular or plural, shall have the following meaning, for the purpose of implementation of this Rulebook.

1. Energy Balancing Market: It shall have the meaning of Article 5(l) of Law 4425/2016, i.e., the market where Participants offer electricity, which is used by the HETS Operator to maintain the System frequency within a predetermined range, as well as the balance between electricity generation and demand, while observing the electricity exchange programs with neighbouring countries.

2. Balancing Market: It shall have the meaning of Article 5(j) of Law 4425/2016, i.e., the Electricity Balancing Market, which includes the Balancing Capacity and Balancing Energy Markets and the Imbalance Settlement procedure.

3. Day-Ahead Market: It shall have the meaning of Article 5(g) of Law 4425/2016, i.e., the Electricity Market, in which electricity purchase and sale transactions are performed with the obligation of physical delivery on the day ahead (Delivery Day) and in which the transactions performed on Energy Financial Instruments with physical delivery are declared.

4. Balancing Capacity Market: It shall have the meaning of Article 5(k) of Law 4425/2016, i.e., the market in which capacity is offered to cover the System's reserve requirements, which (capacity) is retained by the Participants for a predetermined period of time.
5. Market Time Unit: It shall have the meaning of Article 2(19) of Regulation (EU) 543/2013. i.e. the period for which the market price is established or the shortest possible common time period for the two bidding zones, if their market time units are different.
6. Trading License: The license granted to carry out the activity of electricity trading.
7. Production License: The license granted to carry out the activity of electricity generation.
8. Supply License: The license granted to carry out the activity of electricity supply.
9. RES Aggregator ~~License~~Licence: The ~~license granted to carry out~~licence issued for the ~~activity~~purpose of representing ~~RES~~producers or consumers of electricity ~~producers~~ in accordance with Article 13 of Law 4001/2011.
10. Direct Clearing Member: The Clearing Member, as defined in the Clearing Rulebook for Balancing Market Positions, which participates in the clearing procedures of the Clearing House and is responsible for the fulfillment of obligations arising from the Positions it represents in accordance with the Clearing Rulebook for Positions on Balancing Market.
11. Upward Balancing Energy: The Balancing Energy that corresponds to more generated energy or less consumed energy in relation to the Market Schedule.
12. Balancing Capacity Offer Maximum Price: The upper limit on the pricing of Balancing Capacity Offers, which is imposed for technical reasons, in accordance with ~~Article 51~~Article11.2 of this Rulebook.
13. Balancing Energy Offer Maximum Price: The upper limit on the pricing of Balancing Energy Offers, which is imposed for technical reasons, in accordance with Article12.2 of this Rulebook.
14. Safety Maximum Reservoir Level: The maximum level per reservoir, above which the owners of Dispatchable Hydro Generating Units connected to the Reservoir may submit mandatory hydro injection declarations for the above Units to avoid overflow.
15. Force Majeure: It shall have the meaning referred to in ~~Article 26~~Article3.1 of this Rulebook.
16. Imbalance: It shall have the meaning of Article 2(8) of Regulation (EU) 2017/2195, i.e., the energy volume calculated for a Balance Responsible Party and representing the difference between the allocated volume attributed to that Balance Responsible Party and the final position (Market Schedule) of that Balance Responsible Party, including any imbalance adjustment applied to that Balance Responsible Party, within a given Imbalance Settlement Period.
17. Demand Response: This has the meaning ascribed to it in Article 2 (3)(41) of Law 4001/2011, that is, the changes in electrical load by end customers compared to their regular or current consumption habits, based on market signals, including the response to fluctuating electricity prices or economic incentives, or the response following the acceptance of an offer by the end customer, either individually or through aggregated representation, with the aim of selling the reduction or increase in demand at a given price in organized markets, as determined in Article 2(4) of the implementing Regulation (EU) 1348/2014 of 17 December 2014 'on the reporting of data for the implementation of Article 8(2) and (6) of Regulation (EU) 1227/2011 of the European Parliament and of the Council on the integrity and transparency of the wholesale energy market' (L 363).

~~17.~~18. Initial Settlement: It shall have the meaning of Settlement specified in ~~Article 104~~Article23.1(2) of this Rulebook.

~~18.~~19. Auto-producer: ~~It shall have~~This has the meaning ~~of~~attributed to it under Article 2 ~~paragraph~~ (3)(e) of Law 4001/2011, i.e., the producer that generates electricity mainly for its own use and injects any surplus energy into the Transmission System or the Distribution Network.

~~19.~~20. Self-Supplied customer: It shall have the meaning of Article ~~5(1~~2(3)(o) of Law ~~4425/2016, i.e.~~4001/2011, that is, the ~~natural or legal person~~market participant that chooses to purchase energy directly from the Energy Markets for ~~its~~their own exclusive use.

~~20.~~21. Automatic Generation Control (AGC): The automatic load-frequency control procedure, which aims to reduce the frequency restoration control error to zero in accordance with the provisions of Regulation (EU) 2017/1485.

~~21.~~22. RES Producer Certificate: The certificate provided for in Law 4685/2020.

~~22.~~23. Soak Trajectory: ~~The~~This is the generation profile of the unit during the soaking phase ~~(time~~, between the synchronization state and ~~technical~~ minimum generation~~). The profile~~ state of each Dispatchable Generation Unit, which is determined in steps~~, in accordance with the~~ according to the Integrated Scheduling Process (ISP) Technical Decision. A different soak trajectory is determined for each start-up state (cold, warm, hot). It is expressed in MW.

~~23.~~24. General Clearing Member: The Clearing Member, as defined in the Clearing Rulebook for Balancing Market Positions, which participates in the settlement procedures of the Clearing House and is responsible for the fulfillment of obligations arising from the Balancing Market Positions of contracted Participants or the HETS Operator in accordance with the above Rulebook.

~~24.~~25. Declared Characteristics: The characteristics defined as a combination of the following technical and operational elements of the Balancing Service Entity and constitute the actual technical capacity of the Balancing Service Entity for a specific Dispatch Period and Dispatch Day: (a) Registered Characteristics, (b) Techno-Economic Declaration, (c) Non-Availability Declaration (total or partial), and (d) Major Outage Declaration.

~~25.~~26. Major Outage Declarations: The declarations submitted by the Balancing Service Providers pursuant to ~~Article 48~~Article10.7 of this Rulebook.

~~26.~~27. Non-Availability Declarations: The declarations submitted by Balancing Service Providers pursuant to Article10.6 of this Rulebook for each Dispatch Day during which the Available Capacity for a Balancing Service Entity is reduced.

~~27.~~28. Techno-Economic Declarations: The declarations submitted by Balancing Service Providers for each Dispatch Day pursuant to Article10.3 of this Rulebook regarding the Techno-economic data of the Balancing Service Entities they represent.

~~28.~~29. Integrated Scheduling Process (ISP): It shall have the meaning of Article 2(19) of Regulation (EU) 2017/2195, i.e., an iterative process that uses at least integrated scheduling process bids that contain commercial data, complex technical data of individual power generating facilities or demand facilities and explicitly includes the start-up characteristics, the latest control area adequacy analysis and the operational security limits as an input to the process.

~~29.~~30. Inter-Zonal Corridor: A virtual link between two Bidding Zones, which is used to model the flow between the Bidding Zones.

~~30.~~31. Available Capacity: The capacity of the Balancing Service Entity as per ~~Article 43~~Article10.2 of this Rulebook.

32. Automatic Frequency Restoration Reserve (aFRR) Cross-Border Clearing Price: This is the clearing price sent by the European aFRR Platform, as set out in the Decision of the Agency for the Cooperation of Energy Regulators (ACER) on the 'Methodology for pricing Balancing Energy and Cross-Zonal Capacity used for the exchange of Balancing Energy or operating the imbalance netting process' and adopted pursuant to Article 30 of Regulation (EU) 2017/2195.

~~31.~~33. RES and Guarantees of Origin Operator (DAPEEP): The public limited company provided for in Article 118 of Law 4001/2011.

~~32.~~34. Settlement or Cash Settlement: The process implemented by the Clearing House for the fulfillment of cash obligations and the collection of the corresponding claims from the Clearing of Positions in accordance with this Rulebook and the terms of the Clearing Rulebook for Balancing Market Positions.

~~33.~~35. Distribution Network Operator: It shall have the meaning of Article 2(3)(j) of Law 4001/2011, ~~i.e. the~~ that is, any natural or legal person ~~exercising, under~~who is responsible for k) the operation, maintenance, and provision of access to customers and producers connected to it, as well as the ~~provisions~~development, if necessary, of ~~Law 4001/2011,~~ the ~~duties of an Electricity or Natural Gas~~distribution network in a given area and its interconnections with other distribution networks and transmission systems, and l) the long-term capacity of the network to meet reasonable demand for electricity distribution services. Where reference is made to Distribution System Operator, it means the Distribution Network Operator~~, including the Operators of the Closed Electricity or Natural Gas Distribution Networks~~ and vice versa.

~~34.~~36. Hellenic Electricity Distribution Network Operator (HEDNO): The public limited company provided for in Article 123 of Law 4001/2011.

~~35.~~37. HETS Operator: The public limited company provided for in Article 97 of Law 4001/2011.

~~36.~~38. Corrective Settlement: It shall have the meaning of Settlement specified in ~~Article 104~~Article23.1(3) of this Rulebook.

39. aFRR Correction Signal: An energy signal in MW sent from the European aFRR Platform to the HETS Operator concerning necessary adjustments to the local aFRR requirement in accordance with the Platform's results.

~~37.~~40. Test Dispatch Instruction: The instruction for activation of ~~manual~~a Manual FRR issued by the HETS Operator to the Balancing Service Entities, whenever necessary and without prior notice, ~~certifying~~by which the Maximum Available Capacity and the ability of the Entities to provide full reserves~~,~~ in accordance with their Registered Characteristics~~.~~ can be certified

~~38.~~41. Testing operation: The status of a Balancing Service Entity, which is registered with the HETS Operator Registry, during tests or operational controls.

~~39.~~42. Commissioning operation: The status of a pre-registered Balancing Service Entity in the course of the tests or operational controls that are conducted for its connection to the HETS, as set out in the connection contract and the relevant provisions of the HETS Grid Code, so that it can be registered with the HETS Operator Registry.

~~40.~~43. Demand Facility: It shall have the meaning of Article 2(1) of Regulation (EU) 2016/1388, that is, a facility which consumes electricity and is connected at one or more connection

points to the transmission or distribution system. A distribution system and/or auxiliary supplies of a power generating facilities do not constitute a demand facility.

41.44. Offtake Facility: The Demand Facilities and auxiliary supplies of power generating modules.

42.45. Imbalance Settlement: It shall have the meaning of Article 2(9) of Regulation (EU) 2017/2195, i.e., a financial settlement mechanism for charging or paying Balance Responsible Parties for their Imbalances

43.46. Clearing of Positions: The processes of notification of Positions by the HETS Operator to the Clearing House and their finalization by the Clearing House, calculation of net cash obligations and claims arising from the Positions, valuation of collateral, calculation and coverage of Margin requirements, as well as the announcement of Clearing results to Clearing Members, management of the Clearing Capital, management of cases of defaulting Clearing Members and any other similar issue in relation to credit risk management as set out in the Clearing Rulebook for Balancing Market Positions.

44.47. Balancing Market Settlement: The transparent calculation of the quantities of Balancing Energy and Balancing Capacity and the relevant Imbalances, and the calculation of the monetary value of the debits and credits to Participants, as detailed in Article18.2 of this Rulebook.

45.48. Clearing Member: An undertaking, as defined in the Clearing Rulebook for Balancing Market Positions, which participates in the Clearing House System for the clearing of the Positions it represents and is responsible to the Clearing House for the fulfilment of cash obligations arising from the relevant Positions in accordance with the provisions of Law 4425/2016 and the provisions specified in the above Rulebook.

46.49. Load Representative: Balance Responsible Parties representing Entities that offtake energy from the HETS or the electricity Distribution network, other than Demand Response Aggregators.

47.50. Trader: The natural or legal person that performswho engages in the commercial trade of electrical energy activity of electricity trading, as stipulated in, in accordance with Law 4001/2011.

48.51. Minimum Available Capacity: The capacity defined in Article10.2 of this Rulebook.

49.52. Safety Minimum Reservoir Level: The minimum level per reservoir, above which the Dispatchable Hydro Generating Units Providers connected to the Reservoir may submit declarations of maximum daily energy injection constraint for the above Units.

50.53. Minimum up time: The minimum time of operation, as set out in the Registered Characteristics of the Balancing Service Entity, between a start-up and the next shut-down.

51.54. Minimum down time: The minimum lost operating time of operation, as set out inbetween a shut-down and the next start-up, in accordance with the Registered Characteristics of the Balancing ServiceServices Entity, between a shut-down and the next start-up.

52.55. Balancing Energy: The energy provided by a Balancing Service Provider and used by the HETS Operator to make a balance, i.e., to cover the generation/demand imbalances. It is divided into upward and downward Balancing Energy.

53.56. Priority Price-Taking (Sell/Buy) Orders: TheBuy/sell orders with price acceptance and execution priority price-taking (sell/buy) orders , which are one-stepOne-Step Hourly Hybrid (sell/buy) Orders that are(buy/sell) submitted to the Day-Ahead Market and the Intra-Day Market (Intra-day Auctions), at a price equalequivalent to the

~~highest/lowest~~(maximum/minimum) acceptable price~~, namely~~ in the Day-Ahead Market, that is, at the ~~Market Order~~ Upper/Lower Buy Order Price ~~that applies to each of the above Markets~~, respectively.

~~54.~~57. Dispatch Instruction: The instruction issued by the HETS Operator, determining active power generation, active power increase or decrease, synchronization or desynchronization, provision of reserves and other Ancillary Services and, in general, the mode of operation of Balancing Service Entities.

58. Ancillary Service: ~~It shall have~~This has the meaning of Article 2(3)(~~q~~case 17) of Law 4001/2011, ~~i.e. a service~~that is, all services necessary for the ~~operation~~management of a transmission system or a distribution ~~system, such as voltage control,~~ network, including balancing services and non-frequency~~ control, provision~~-related ancillary services, excluding congestion management.

~~55.~~59. European aFRR Platform: The European Platform for the International Coordination of ~~reserves, provision of reactive power, Transmission~~Automated Frequency Restoration and Stable System ~~black start and load fluctuation monitoring~~Operation (PICASSO), as provided for in Article 21 of Regulation (EU) 2017/2195.

60. European Imbalance Netting Platform: The European platform facilitating the imbalances clearing procedure provided for in Article 22 of Regulation (EU) 2017/2195 (Imbalance Netting Platform — IN Platform).

~~56.~~61. Frequency Restoration Reserve (FRR): It shall have the meaning of Article 3(7) of Regulation (EU) 2017/1485, that is, the active power reserves available to restore system frequency to the nominal frequency and, for a synchronous area consisting of more than one load frequency control area, to restore power balance to the scheduled value. ~~It~~A distinction is ~~divided into~~made between FRR with automatic activation and FRR with manual activation (~~automatic~~aFRR and ~~manual FRR~~mFRR).

~~57.~~62. Frequency Containment Reserve (FCR): It shall have the meaning of Article 3(6) of Regulation (EU) 2017/1485, that is, the active power reserves available to contain system frequency after the occurrence of an imbalance.

~~58.~~63. Bidding Zone: Bidding zone is defined under Article 2(3) of Regulation (EU) 543/2013, i.e., the largest geographical area within which market participants are able to exchange energy without capacity allocation. ~~The~~ Bidding Zones are approved by decision of ~~RAE, following~~the RAEWW, subsequent to a proposal ~~by~~from the Transmission System Operator and a relevant study as provided for in the HETS Grid Code.

~~59.~~64. Physical Delivery Day: ~~It shall have~~This has the meaning ~~of~~ascribed to it under Article 5(case f) of Law 4425/2016,~~that~~ i.e. it is~~,~~ the day on which the quantities of energy traded on the Electricity Markets are delivered.

~~60.~~65. Dispatch Day: It has the meaning specified in Article8.2 of this Rulebook, that is, the day to which the ISP refers, which coincides with the Physical Delivery Day of the Day-Ahead Market and the Intra-Day Market. Dispatch Day D shall start at 01:00 EET of calendar day D and shall end at 01:00 EET of calendar day D +1.

~~61.~~66. Termination Date: The date referred to in ~~Article 7~~Article4.4(3) of this Rulebook.

~~62.~~67. Positions: The ~~cash~~monetary claims and~~ the~~ corresponding obligations of the Participants and the HETS Operator arising in relation to the Balancing Market, excluding non-Compliance Charges, as calculated by the HETS Operator in accordance with Article18.2 of this Rulebook and entered into the Clearing House system on the basis of

the relevant notifications to the HETS Operator, under the terms of the Clearing Rulebook for Balancing Market Positions.

~~63.~~68. Balancing Capacity: A volume of reserve capacity that a Balancing Service Provider has agreed to hold in each Dispatch Period and in respect to which the Balancing Service Provider has agreed to submit bids to the HETS Operator for a corresponding volume of Balancing Energy for the duration of the contract.

~~64.~~69. Downward Balancing Energy: The Balancing Energy that corresponds to less generated energy or more consumed energy in relation to the Market Schedule.

~~65.~~70. Clearing Rulebook for Balancing Market Positions: The Rulebook issued by the Clearing House and approved by ~~RAE~~the Regulatory Authority for Energy, Waste and Water (RAEWW) in accordance with Article 13(2) of Law 4425/2016.

~~66.~~71. Consumer: ~~It shall have~~This has the meaning ~~of~~ascribed by Article 2 (~~n~~1)(16) of Law 4001/2011, ~~that is,~~i.e. 1) a natural or legal person who purchases natural gas or electricity or thermal energy exclusively for their own use and 2) a natural or legal person who purchases electricity for the ~~Customer of Electricity excluding the Natural Gas System and Distribution Network Operators and the Electricity Transmission System or Distribution Network Operators.~~ purpose of providing charging services for electric vehicles (EV).

~~67.~~72. Dispatchable Generating Units: The power generating units with a valid production license, which are located on the mainland or on the interconnected islands, have made and activated a connection to HETS, have submitted an operating license and have an installed capacity over 5 MW, for which the HETS Operator may issue Dispatch Instructions, provided they are not RES Units, Emergency Reserve Units, and only during the period for which an Ancillary Service Contract or a Supplementary System Energy Contract is not in force or is not implemented, in accordance with the HETS Grid Code.

~~68.~~73. Dispatchable Generating Units with Alternative Fuel: Dispatchable Generating Units having the obligation or the ability to operate both with primary and alternative fuels.

~~69.~~74. Dispatchable HECHP Units: Partial cogeneration units with an installed capacity of over 35 MWe which, by decision of ~~RAE~~the Regulatory Authority for Waste, Energy, and Water, have been designated as Dispatchable High Efficiency CHP Units.

~~70.~~75. Multi-Shaft Combined Cycle Dispatchable Generating Units: Combined Cycle Dispatchable Generating Units in which gas turbines and steam turbines are located on different axes and are connected to distinct generators.

~~71.~~76. Emergency Situation: The Situation described in the HETS Grid Code.

~~72.~~77. Registered Characteristics: The technical and operational characteristics of Balancing Service Entities that remain stable every Dispatch Day, unless modified by the Balancing Service Providers. They are submitted as provided for in the HETS Grid Code.

~~73.~~78. Balancing Energy Offer Minimum Price: The lower limit on the pricing of Balancing Energy Offers, which is imposed for technical reasons, in accordance with ~~Article 55~~Article12.2 of this Rulebook.

~~74.~~79. Balancing Capacity Offer Minimum Price: The lower limit on the pricing of Balancing Capacity Offers, which is imposed for technical reasons, in accordance with Article11.2 of this Rulebook.

~~75.~~80. Central Counter Party: It shall have the meaning specified in Article 2(42) of Regulation (EU) 2015/1222, i.e., the entity or entities with the task of entering into contracts with market participants, by novation of the contracts resulting from the matching process,

and of organising the transfer of net positions resulting from capacity allocation with other central counter parties or shipping agents.

~~76.~~81. HETS Grid Code: The Code specified in Article 96 of Law 4001/2011.

~~77.~~82. Maximum Available Capacity: The capacity defined in Article10.2 of this Rulebook.

~~78.~~83. Maximum Available Capacity in AGC mode: The Maximum Available Capacity of the Entity while operating under AGC. It is expressed in MW. The Maximum Available Capacity in AGC mode is lower or equal to the Maximum Available Capacity.

~~79.~~84. Maximum Net Capacity: The maximum level of capacity that a Balancing Service Entity can maintain for any period of time provided that it operates under ISO conditions, it is not constrained by any equipment, technical or other limitations pertaining to the institutional or financial framework governing the Entity's operation, and that the internal service, as well as any other auxiliary load have been taken into consideration.

~~80.~~85. Maximum Net Capacity in AGC mode: The Maximum Net Capacity of the Entity while operating under Automatic Generation Control (AGC). It is expressed in MW. The Maximum Net Capacity in AGC mode cannot exceed the Maximum Net Capacity.

~~81.~~86. Maximum contribution to FCR: The technical capacity of a Balancing Service Entity to offer Frequency Containment Reserve, as derived from the test results and specified in the Registered Characteristics. It is defined separately for upward and downward Frequency Containment Reserve. It is expressed in MW.

~~82.~~87. Maximum contribution ~~to automatic FRR~~in aFRR: The technical capacity of a Balancing Service Entity to offer automatic Frequency Restoration Reserve, as derived from the test results and specified in the Registered Characteristics. It is defined separately for upward and downward automatic Frequency Restoration Reserve. It is expressed in MW.

~~83.~~88. Maximum contribution ~~to manual FRR~~in mFRR: The technical capacity of a Balancing Service Entity to offer manual Frequency Restoration Reserve, as derived from the test results and specified in the Registered Characteristics. It is defined separately for upward and downward manual Frequency Restoration Reserve. It is expressed in MW.

~~84.~~89. Maximum number of Activations per Dispatch Day: The maximum number of Activations of a Dispatchable Load Portfolio for Balancing Energy and Capacity on a Dispatch Day.

~~85.~~90. Maximum up time: The maximum number of consecutive Dispatch Periods during which a Dispatchable Load Portfolio can provide Energy and/or upward/downward Balancing Capacity.

~~86.~~91. HETS Operator Registry: The Registry provided for in ~~Article 4~~Article4.1 of this Rulebook.

~~87.~~92. Balancing Market Generating Units Registry: The Registry provided for in Article5.2 of this Rulebook.

~~88.~~93. Balancing Service Providers Registry: The Registry provided for in Article4.2 of this Rulebook.

~~89.~~94. Balance Responsible Parties Registry: The Registry provided for in Article4.2 of this Rulebook.

~~90.~~95. Dispatchable RES Units Portfolio Registry: The Registry provided for in Article5.3 of this Rulebook.

~~91.~~96. Dispatchable Load Portfolio Registry: The Registry provided for in Article5.4 of this Rulebook.

~~92.~~97. RES Unit: A unit generating electricity from Renewable Energy Sources (RES) as defined ~~in~~by Law 3468/2006.

~~93.~~98. ~~Non-Intermittent~~Controlled RES ~~Generation~~Production Units: Non-Intermittent RES and CHP units, within the meaning of Law 4414/2016, i.e. power units that use biomass or biogas, plants that use geothermal potential, solar thermal plants and CHP plants.

~~94.~~99. Intermittent RES Generation Units: Intermittent RES units, within the meaning of Law 4414/2016, i.e. RES power units that are not of controlled production, in particular wind, photovoltaic and small hydroelectric power plants.

~~95.~~100. RES Units with Market Participation Obligation: The RES Units for which a Contract for Differential State Aid Support has been concluded in accordance with the provisions of Law 4414/2016, as well as the RES Units covered by ~~the provisions of~~ Article 3 (19) and Article 12A of Law 4414/2016.

~~96.~~101. RES Units without Market Participation Obligation: RES Units for which a Feed-in Tariff Agreement has been concluded in accordance with the provisions of Law 4414/2016, as well as the RES Units for which a Power Purchase Agreement has been concluded in accordance with the provisions of Article 12 of Law 3468/2006 or a similar electricity purchase and sale agreement prior to the entry into force of Law 3468/2006.

~~97.~~102. Balance Responsible Entities: The entities represented by Balance Responsible Parties in accordance with ~~Article 10~~Article5.1 of this Rulebook.

~~98.~~103. Balancing Service Entities: The units or portfolios that are ~~capable of providing~~in a position to provide Balancing Services to the HETS Operator ~~and~~which are represented by the Balancing Service Providers in accordance with Article5.1 of this Rulebook.

~~99.~~104. Final Settlement: It shall have the meaning of Settlement as laid down in ~~Article 104~~Article23.1 (4) to (6) of this Rulebook.

105. Producer: The holder of a Production License or a relevant exemption from the obligation to obtain a Production License.

~~100.~~106. Parallel Connection: The connection of at least one generation or consumption facility with the HETS on the one hand and a Direct Line on the other.

~~101.1. Producer: The holder of a Production License or a relevant exemption from the obligation to obtain a Production License.~~

~~102.~~107. Balancing Service Provider – BSP: ~~It~~This shall have the meaning ~~of~~ascribed to it under Article 2 (6) of Regulation (EU) 2017/2195, ~~i.e.,~~that is, a market Participant with units or portfolios able to provide Balancing Services to the HETS Operator.

~~103.~~108. Imbalance Settlement Period: ~~The~~This has the meaning of Article 2(4) of Regulation (EU) 2019/943, that is, the unit of time ~~unit for which~~used to calculate the Imbalance of the Balance Responsible Parties ~~is calculated~~.

~~104.~~109. Dispatch Period: It shall have the meaning specified in Article8.2 of this Rulebook, that is, a period of time that lasts for half an hour. The first Dispatch Period of Dispatch Day D is 01:00 – 01:30 EET.

~~105.~~110. Electricity Supply Volume via Direct Line: The volume of electricity ~~volume~~ supplied to a Demand ~~Facility~~Installation with a Parallel Connection via Direct Line, to the extent ~~where this electricity~~that such energy is generated by ~~generation facilities~~generating units connected to the Direct Line, as ~~it is~~ calculated in accordance with ~~Article 77 of this Rulebook.~~Article18.4.

~~106.~~111. Shipping Agent: ~~It shall have~~This has the meaning specified in Article 2(43) of Regulation (EU) 2015/1222, ~~i.e.,~~that is, the entity or entities tasked with ~~the task of~~ transferring net positions between different central ~~counter parties~~counterparties.

~~107.~~112. Market Schedule: The net energy schedule (net position) resulting from all transactions of the entity on the wholesale market (i.e~~.,~~. transactions on the Energy Financial Market, the Day-Ahead Market or the Intra-Day Market) as defined in the Day-Ahead Market & Intra-Day Market Trading Rulebook.

~~108.~~113. ISP Schedule: The indicative generation/ consumption schedule for each Balancing Service Entity and for each Dispatch Period of the Dispatch Day as it derives from the ISP solution system.

~~109.~~114. Supplier: The natural or legal person ~~that performs~~who engages in the commercial trade of electrical energy~~ activity of electricity Supply, as stipulated in~~, in accordance with Law 4001/2011.

~~110.~~115. Default Supplier: The electricity Supplier as defined in Article 58 of Law 4001/2011.

~~111.~~116. Supplier of Last Resort: The electricity Supplier as defined in Article 57 of Law 4001/2011.

~~112.~~117. Adjusted Dispatch Instruction: The Dispatch Instruction modified in such a way as to take into account the availability of the Balancing Service Entity as laid down in the "Activated Balancing Energy Calculation Methodology".

~~113.~~118. Balancing Energy Deficit Premium: A price determined by ~~Decision of RAE~~decision of the Regulatory Authority for Waste, Energy, and Water, which ~~provides a premium on top of the manual FRR upward~~increases the Upward Balancing Energy Price~~, if~~ (mFRR) in cases where, during an Imbalance Settlement Period, energy was injected from Contracted Generating Units~~ or~~, Supplementary Energy from Emergency Imports~~ was injected~~, or Load ~~Cuts were made~~Shedding was performed.

~~114.~~119. Balancing Energy Offer: A Balancing Energy Offer corresponds to the intention to provide upward or downward Balancing Energy in relation to the Market Schedule of the respective Balancing Service Entity. Balancing Energy Offers are described in ~~Article 54~~Article12.1 of this Rulebook.

~~115.~~120. Balancing Capacity Offer: A Balancing Capacity Offer corresponds to the intention to provide reserves for Reserve Capacity products. Balancing Capacity Offers are described in Article11.1 of this Rulebook.

~~116.~~121. Regulatory Authority for Energy, Waste and Water (RAEWW): The independent authority which was established with Law 2773/1999 and is the national regulatory authority for issues of Electricity and Gas, Water services, and Municipal Waste management, as defined in Directives (EU) 2019/944 and 2009/73/EC.~~ Any reference of the Regulatory Authority for Energy (RAE) in this Rulebook shall refer to the RAEWW.~~

~~117.~~122. Ramp Up Rate: The rate of increase of the active power of a Balancing Service Entity, expressed in MW/min, when the Entity is committed and not in the start up or shut down phase.

~~118.~~123. Ramp Down Rate: The rate of decrease of the active power of a Balancing Service Entity, expressed in MW/min, when the Entity is committed and not in the start up or shut down phase.

~~119.~~124. Ramp Up Rate in AGC mode: The rate of increase of the active power of a Balancing Service Entity, expressed in MW/min, when operating under AGC.

~~120.~~125. Ramp Down Rate in AGC mode: The rate of decrease of the active power of a Balancing Service Entity, expressed in MW/min, when operating under AGC.

~~121.~~126. Balance Responsible Party (BRP): It shall have the meaning specified in Article 2(7) of Regulation (EU) 2017/2195, i.e., a Market Participant or its chosen representative responsible for its imbalances.

~~122.~~127. Balancing Service Contract: The contract concluded with the HETS Operator upon registration of the Participants in the Balancing Service Providers Registry, in accordance with ~~Article 5~~Article4.2 of this Rulebook.

~~123.~~128. Balance Responsible Party Contract: The contract concluded with the HETS Operator upon registration of the Participants in the Balancing Service Providers Registry, in accordance with Article4.2 of this Rulebook.

~~124.~~129. HETS Operator Transactions Contract: The contract between the HETS Operator and the Participants registered with the HETS Operator Registry, which is concluded as provided for in the HETS Grid Code.

~~125.~~130. Contracted Generating Units: The Dispatchable Generating Units that have concluded Supplementary System Energy Contracts or Ancillary Services Contracts with the HETS Operator in accordance with the HETS Code.

~~126.~~131. Participant: The participant in the Balancing Market, either as a Balancing Service Provider or as a Balance Responsible Party.

~~127.~~132. Supplementary Settlements: The Corrective Settlement or the Final Settlements.

~~128.~~133. Participant subject to Deletion: The Participant who has submitted a declaration ~~of termination of~~terminating the Balancing Service Provision Contract/Balance Responsible Party Contract, for the period from the day after the last active participation date until the termination takes effect, the termination of ~~its~~their Contract and ~~the~~ final deletion from the HETS Operator Registry, in accordance with the provisions of Article4.4 ~~paragraph 3 of~~ this Rulebook.

~~129.~~134. Supplementary Energy from Emergency Imports: It shall have the meaning of the HETS Grid Code, i.e. the active power quantity which the System Operator is responsible for providing to the System in order to cover the needs in Supplementary System Energy.

~~130.~~135. Balancing Market System: A system that performs all the processes and all the necessary calculations and records all the data and the results of the Balancing Market in terms of ISP, Balancing Energy Market and Balancing Market Settlement. The Balancing Market System is described in ~~Article 14~~Article2.2 of this Rulebook.

~~131.~~136. Emergency Plan: It means a plan that is drawn up in accordance with Article 73 of Law 4001/2011.

~~132.~~137. Technical Decisions: The technical decisions provided for in Article 18 of Law 4425/2016 and Annex I of this Rulebook.

~~133.~~138. Technically Minimum Generation: The minimum level of capacity that a Balancing Service Entity can maintain for any period of time, provided that it operates under ISO conditions, it is not constrained by any equipment, technical or other limitations pertaining to the institutional or financial framework governing the Entity's operation, and provided that the internal service and any other auxiliary load have been taken into consideration.

~~134.~~139. Technically Minimum Generation under Automatic Generation Control (AGC). The Technically Minimum Generation of an Entity when it is operating under Automatic Generation Control (AGC). It is expressed in MW. Technically Minimum Generation under Automatic Generation Control (AGC) may be higher or equal to Technically Minimum Generation.

~~135.~~140. ~~Manual FRR upward~~mFRR Upward Balancing Energy Price: The price calculated in accordance with Article19.2 of this Rulebook, ~~based on which~~whereby the Balancing Service Providers that provide upward Balancing Energy for ~~manual FRR~~mFRR are remunerated.

~~136.~~141. Imbalance Price: The price calculated in accordance with ~~Article 88~~Article19.6 of this Rulebook based on which the Balance Responsible Parties are debited or credited for their respective Imbalances.

142. ~~Manual FRR downward~~ mFRR Downward Balancing Energy Price: The price ~~calculated in accordance with~~ according to Article19.2 ~~of this Rulebook based on which the~~ whereby Balancing Service Providers ~~that provide~~providing downward mFRR Balancing Energy are compensated.

~~137.~~143. Standardized Product: The harmonized balancing energy product determined by all of the Transmission System Operators (TSOs) for ~~manual FRR are remunerated.~~the purpose of exchanging balancing services as part of their participation in the European Platforms, in accordance with Article 25 of Regulation (EU) 2017/2195 (Electricity Balancing Regulation).

~~138.~~144. Balancing Services: They must be interpreted according to the meaning of Article 2(3) of Regulation (EU) 2017/2195, i.e., Balancing Energy or Balancing Capacity, or both.

~~139.~~145. Clearing House: It shall have the meaning of ~~Article 2(p~~case (ist) of Article 5 of Law 4425/2016.

~~140.~~146. RES Aggregator: It ~~shall have~~has the meaning of the Cumulative Representation Body of Power Plants from Renewable Energy and Power Plants of Part 22 of Article 2~~(22)~~ of the Law. 4414/2016.

~~141.~~147. Last Resort RES Aggregator: It shall have the meaning of Article 2(case 23) of Law 4414/2016.

~~142.~~148. Demand Response Aggregator: ~~It shall have~~This has the meaning ~~of~~attributed to in Article 5(~~2)(o~~case 15) of Law 4425/2016 and in particular refers to the holder of a respective licence to carry out the activity of aggregated representation in relation to the Demand Response Service.

~~143.~~149. Dispatchable Load Portfolio Baseline: The load which corresponds to the electricity that would have been consumed by the Dispatchable Load Portfolio if it hadn't received a Dispatch Instruction to activate a Balancing Energy Offer.

~~144.~~150. Baseline of Portfolio of Intermittent Dispatchable RES Production Units: The production calculated by the HETS Operator, which corresponds to the electricity that would have been produced by the Portfolio of the Intermittent Dispatchable RES Units if it had not received a Dispatch Instruction to activate a Balancing Energy Offer.

~~145.~~151. Physical Transmission Right: The right ascribed to the holder for physical delivery of a specific quantity of electricity within a specified time unit between two bidding zones and in a specific direction.

152. Dispatchable Load Portfolio: A load portfolio~~,~~ that includes one or more ~~loads~~Demand Facilities which are connected to a specific Bidding Zone and which, based on their technical capacity, offer Balancing Services to the HETS Operator. A Dispatchable Load Portfolio ~~shall be~~is represented by a Demand Response ~~Aggregator. A Dispatchable Load Portfolio that includes only one load can be represented~~Facility or, in the case of one or more Demand Facilities owned by ~~one~~the Consumer~~.~~ themselves, by a Consumer. Each Dispatchable Pumped~~-~~Storage Hydro Generating Unit ~~shall be~~is treated as a ~~distinct~~separate Dispatchable Load Portfolio.

~~146.~~ Load Portfolio ~~and shall be represented by one Producer.~~

~~147.~~153. ~~Non-Dispatchable Load Portfolio: A~~: The load portfolio ~~that~~, which includes one or more ~~loads which are~~Offtake Facilities connected to a specific Bidding Zone ~~and which do not offer Balancing Services to the HETS Operator.~~. Each ~~Non-Dispatchable~~ Load Portfolio shall be represented by one Supplier or one Consumer.

~~148.~~154. RES Units Portfolio without Market Participation Obligation: The RES Units Portfolio for which either a Feed-in Tariff Agreement has been concluded in accordance with the provisions of Law 4414/2016, or a Power Purchase Agreement has been concluded in accordance with the provisions of Article 12 of Law 3468/2006 or a similar electricity purchase and sale agreement prior to the entry into force of Law 3468/2006 which (Units) are connected to a specific Bidding Zone. RES Units Portfolios without Market Participation Obligation shall be represented by DAPEEP. DAPEEP has balancing responsibility for the RES Units Portfolios without Market Participation Obligation.

~~149.~~155. Dispatchable RES Units Portfolio: The RES Units portfolio that includes one or more RES Units with Market Participation Obligation which are connected to a specific Bidding Zone and which, based on their technical capacity, offer Balancing Services to the HETS Operator. A Dispatchable RES Units Portfolio shall be represented by one RES Producer or by one RES Aggregator.

~~150.~~156. Non-Dispatchable RES Units Portfolio: The RES Units portfolio that includes one or more RES units with Market Participation Obligation connected to a particular Bidding Zone and which do not offer Balancing Services to the HETS Operator. Each Non-Dispatchable RES Units Portfolio shall be represented by one RES Producer or by one RES Aggregator.

~~151.~~157. Non-Compliance Charges: The charges provided for in CHAPTER22 of this Rulebook.

~~152.~~158. Energy Exchange: A public limited company that manages one or more Energy Markets and/or Energy Financial Markets.

~~153.~~159. Direct Line User: The customer or the holder of a Production License, Electricity Producer Certificate, Special Project Certificate, or Certificate for Exempted Stations, whose facilities are already connected or will be connected to a Direct Line.

~~CHAPTER 2~~

~~CHAPTER17. CONTRACTS AND PROCEDURE FOR REGISTRATION WITH THE HETS OPERATOR REGISTRY~~

~~Article 4.~~Article17.1~~HETS Operator Registry~~

~~1. The HETS Operator keeps the HETS Operator Registry, which consists of the following individual Registries:~~

~~a) the Balancing Service Providers Registry in accordance with Article 5 of this Rulebook,~~

~~b) the Balance Responsible Parties Registry in accordance with Article 5 of this Rulebook,~~

~~c) the Balancing Market Generating Units Registry in accordance with Article 11 of this Rulebook,~~

~~d) the Dispatchable RES Units Portfolio Registry in accordance with Article 12 of this Rulebook, and~~

~~e) the Dispatchable Load Portfolio Registry in accordance with Article 13 of this Rulebook,~~

~~2.~~1. ~~By virtue of registration with the HETS Operator Registry, the registrants expressly and unreservedly accept the provisions of this Rulebook and the HETS Grid Code and the Methodologies, parameters and other special approvals, Technical Decisions and Manuals issued in accordance therewith, as amended each time and in force, and they are bound to comply with their content.~~

~~3. For their registration with the HETS Operator Registry, the interested parties shall file an application as laid down in the procedure specified in Article 8 of this Rulebook and the Technical Decision "Procedure for registration with the HETS Operator Registry".~~

~~Together with the application for registration, the interested parties shall pay a registration fee both for their registration with the Registries specified in Article 5, and for the registration of each separate Balancing Service Entity represented within the Registries specified in Article 11, Article 12 and Article 13 of this Rulebook. The registration fee shall be specified by decision of RAE following a proposal by the HETS Operator. The DAPEEP, exclusively for its capacity as a representative of the Portfolios of RES Units without Obligation to Participate in the Market~~

~~4. the Supplier of Last Resort and the Default Supplier are exempted from payment of the registration fee.~~

~~5.~~1. ~~The HETS Operator shall not be responsible for the completeness, correctness and trueness of the data provided by the Participants and entered in the HETS Operator Registry. The Participants are exclusively liable therefor.~~

~~Article 5.~~Article17.1~~Balancing Service Contract and Balance Responsible Party Contract~~

~~1. Natural or legal persons, in one or more of the following capacities, shall be entitled to register with the Balancing Service Providers Registry kept by the HETS Operator, as long as they are able to provide Balancing Services:~~

~~a) Producers, holders of a Production License or a relevant Exemption, as long as they own a power generating unit with a valid production license, which is located on the mainland or on the interconnected islands and has an installed capacity of over 5 MW,~~

~~b)~~a) ~~RES Producers, holders of a Production License or a RES Producer Certificate or a relevant Exemption, for RES Units with Market Participation Obligation, as long as they own a RES unit and they are not represented by a RES Aggregator,~~

~~c)~~a) ~~Auto-producers,~~

~~d)~~a) ~~RES Aggregators, holders of a RES Aggregator License for RES Units with Market Participation Obligation~~

~~e)~~a) ~~Demand Response Aggregators, holders of a relevant license, and~~

~~f) Consumers, including Self-Supplied customers providing demand response services, as long as they are not represented by a Demand Response Aggregator.~~

~~Registration with the Balancing Service Providers Registry is mandatory for producers under item (a).~~

~~2. For registration in the Balancing Service Providers Registry, the terms and conditions described in the "Terms and Conditions for Balancing Service Providers" must be fulfilled, as approved by decision of RAE following a proposal by the Operator, as set out in Article 18(4) of Law 4425/2016.~~

~~3.~~1. ~~By virtue of registration with the Balancing Service Providers Registry, the natural or legal persons of paragraph 1 of this Article (Balancing Service Providers) conclude a Balancing Service Contract with the HETS Operator, whose content is identical to the provisions of this Rulebook. The Balancing Service Contract is deemed as concluded between the parties upon registration with the Balancing Service Providers Registry and shall not be subject to any further formalities.~~

~~4.~~1. ~~Natural or legal persons, in one or more of the following capacities, are obliged to be registered with the Balance Responsible Party Registry kept by the HETS Operator:~~

~~a) Producers, holders of a Production License or a relevant Exemption, as long as they own a power generating unit with a valid production license, which is located on the mainland or on the interconnected islands and has an installed capacity of over 5MW,~~

~~b)~~a) ~~RES Producers, holders of a Production License or a RES Producer Certificate or a relevant Exemption, for RES Units with Market Participation Obligation, as long as they own a RES unit and they are not represented by a RES Aggregator,~~

~~c)~~a) ~~Auto-producers,~~

~~d)~~a) ~~RES Aggregators, holders of a RES Aggregator License for RES Units with Market Participation Obligation, including Last Resort RES Aggregators.~~

~~e)~~a) ~~Demand Response Aggregators, holders of a relevant license,~~

~~f) Consumers, including Self-Supplied Customers providing demand response services, as long as they not represented by a Demand Response Aggregator,~~

~~g)~~a) ~~Suppliers, holders of a Supply License, including Suppliers of Last Resort and Default Suppliers,~~

~~h)~~a) ~~Self-Supplied customers,~~

~~i)~~a) ~~Traders, holders of a Trading License, and~~

~~j)~~a) ~~DAPEEP, which is the Operator of the RES Units Portfolio without Market Participation Obligation.~~

~~5. For registration in the Balance Responsible Parties Registry, the terms and conditions described in the "Terms and Conditions for Balancing Service Providers" must be fulfilled, as approved by decision of RAE following a proposal by the Operator, as set out in Article 18(4) of Law 4425/2016.~~

6.1. By virtue registration with the Balance Responsible Parties Registry, the natural or legal persons of paragraph 4 of this Article (Balance Responsible Parties) conclude a Balance Responsible Parties Contract with the HETS Operator, whose content is identical to the provisions of this Rulebook. The Balance Responsible Party Contract shall be deemed to have been entered into by the parties upon registration with the Balance Responsible Parties Registry and shall not be subject to any further formalities.

Article 6.Article17.1Dispute Resolution

1. In the event of a dispute between the parties in the Balancing Service/ Balance Responsible Parties Contract, the HETS Operator and the registered Balancing Service Provider / registered Balance Responsible Party shall initially seek an amicable settlement by mutual consultation in accordance with paragraph 2. To that end, the party raising the dispute shall send a notice to the other party, stating:

   a) the Balancing Service Contract or the Balance Responsible Parties Contract between the Parties,

   b)a)the reason for the dispute, and

   c)a)a request for a future meeting, with a view to the amicable settlement of the dispute.

2.1. The parties shall meet within twenty (20) business days from communication of the notice. The parties must conduct the consultations in good faith and in accordance with business conventions in order to settle the dispute. The results of the consultations shall be reflected in a report, which shall be signed by their representatives and shall be binding upon the parties.

3. If no agreement is reached or no response is received within thirty (30) business days from the date of the above request for a meeting, either party may refer the issue for resolution in accordance with paragraph 4 of this Article.

4.1. In the event that the dispute is not resolved through the amicable settlement process, the parties may refer the dispute to RAE, through the complaint procedure under Article 34 of Law 4001/2011, or on the basis of Article 5(8) of Regulation 2017/2195, or resort to the process of resolution through arbitration, in accordance with the provisions of Article 37 of Law 4001/2011 and the arbitration mechanism of RAE, or to another arbitration body or the competent courts. For the resolution of any dispute regarding the interpretation or the implementation of this Rulebook, the Greek law shall apply.

5. Recourse to amicable settlement, arbitration or litigation pursuant to this Article shall not relieve the parties of their duty to perform their obligations under this Rulebook and the Balancing Service Contract of the registered Balancing Service Provider or the Balance Responsible Party Contract of the registered Balance Responsible Party.

6. This Article shall also apply after the termination of the Balancing Service Contract of the registered Balancing Service Provider or the Balance Responsible Party Contract of the registered Balance Responsible Party.

Article 7.Article17.1Termination of the Balancing Service Contract or the Balance Responsible Party Contract

1. The Balancing Service Contract/Balance Responsible Party Contract shall be dissolved by termination by one of the Parties, in accordance with the provisions of this Article.

2. Each Balancing Service Provider / Balance Responsible Party is entitled to terminate the Balancing Service Contract / Balance Responsible Party Contract at any time. The Balancing Service Provider / Balance Responsible Party declares in writing, by serving a declaration by bailiff, its intention to terminate the Balancing Service Provider/Balance Responsible Party Contract, including its proposed last day of active participation. The HETS Operator accepts the declaration within a period of thirty (30) days from its notification and determines the last day of active participation, after communication with RAE, the Energy Exchange, the Clearing House and/or the Network Operator, where applicable. From the day following the last date of active participation and until the completion of all settlements provided for in this Rulebook or the HETS Grid Code or the Clearing Rulebook for Positions on Balancing Market for the period of active participation and the full and complete payment of all its liabilities arising from these settlements in accordance with this Rulebook, the Clearing Rulebook for Positions on Balancing Market and the HETS Grid Code, the Balancing Service Provider/ Balance Responsible Party shall be considered a Participant subject to Deletion. Specifically for Load Representatives, the condition for their status as a Participant subject to Deletion is the non-representation of load meters after their last day of active participation. In the event that there is no Clearing House in the Balancing Market, the prerequisite for the Participant to be placed under the Participant subject to Deletion status is the provision of guarantees in accordance with the provisions of Article 112 of this Rulebook and the "Balancing Market Participation Guarantee Calculation Methodology". The HETS Operator may extend the above deadline for acceptance of the declaration until the required actions of the Network Operator or the HETS Operator, as the case may be, regarding the change in the representation of the load meters of the declaring Load Representative or the provision of guarantees, if required as mentioned above, have been completed. The Participant subject to Deletion shall not be entitled to assume any new rights or obligations under this Rulebook or the HETS Grid Code. After the completion of all settlements provided for in this Rulebook or the HETS Grid Code or the Clearing Rulebook for Positions on Balancing Market for the period of active participation and after having verified the full and complete payment of all the liabilities of the Participant subject to Deletion arising from these settlements in accordance with this Rulebook, the Clearing Rulebook for Positions on Balancing Market and the HETS Grid Code, the termination becomes effective, the Balancing Service Provider/ Balance Responsible Party Contract is terminated and the HETS Operator finally deletes the Participant from the HETS Operator Registry.

3.1. The HETS operator may terminate the Balancing Service Contract/Balance Responsible Party Contract in the following cases:

a) if the registered Balancing Service Provider/registered Balance Responsible Party does not meet the conditions for the lawful exercise of an electricity activity and/or the conditions for participation in the Balancing Market, or

b) if the registered Balancing Service Provider/registered Balance Responsible Party is in breach of its obligations against the Clearing House, or is subject to a measure on the basis of the Clearing Rulebook for Balancing Market Positions, and, in particular, to limitations regarding its participation in the Clearing of Positions and Cash Settlement procedures carried out by the Clearing House, to suspension of its capacity to act as a Clearing Member or deletion, or, in the event that no Clearing House operates in the Balancing Market, it hasn't submitted guarantees in accordance with Article 112 of this Rulebook or it has financial obligations against the HETS Operator deriving from this Rulebook that have fallen due, or

c)a) if the registered Balancing Service Provider/registered Balance Responsible Party has not submitted guarantees for the charges foreseen in the HETS Grid Code or it has

~~financial obligations against the HETS Operator deriving from the HETS Grid Code that have fallen due, or~~

~~d)~~a) ~~if the registered Balancing Service Provider/registered Balance Responsible Party has lost the capacity to act as a Clearing Member or if is not on a contract with a General Clearing Member for the settlement of the cash claims and obligations it may have in accordance with the provisions in the Clearing Rulebook for Balancing Market Positions.~~

~~4.~~1. ~~The HETS operator may terminate the Balancing Service Contract/Balance Responsible Party Contract in the following cases:~~

~~a) if the registered Balancing Service Provider/registered Balance Responsible Party repeatedly breaches its obligations under this Rulebook or the Balancing Service Contract / Balance Responsible Party Contract, or the HETS Grid Code, or~~

~~b)~~a) ~~if the measure of deletion has been imposed on the registered Balancing Service Provider/registered Balance Responsible Party on the basis of the HeNEx Spot Trading Rulebook,~~

~~5.~~1. ~~In the cases of paragraphs 3 and 4 of this Article, the termination shall be notified in writing through a bailiff and shall enter into force and take effect as of the date of its service.~~

~~6.~~1. ~~The Balancing Service Contract/Balance Responsible Party Contract shall be dissolved ipso jure if the HETS Operator Transactions Contract provided for in the HETS Grid Code is terminated, upon termination by the HETS Operator in accordance with paragraphs 3 and 4 of subsection 1.5 of the HETS Grid Code. The Balancing Service Provider or the Balance Responsible Party shall automatically become a Participant subject to Deletion, in case they become Participants subject to Deletion in accordance with the provisions of the HETS Grid Code, following a declaration by the Participant in accordance with paragraph 2 of subsection 1.5 of the HETS Grid Code.~~

~~7.~~1. ~~The termination of the Balancing Service Contract / Balance Responsible Party Contract with Self-Supplied customers or Consumers, whose facilities are connected to HETS, shall mean that electricity supply shall cease for these facilities. In the event of termination of the Balancing Service Contract/Balance Responsible Party Contract with Self-Supplied customers or Consumers, whose facilities are connected to the Distribution Network, the HETS Operator shall notify the competent Distribution Network Operator, in order to take the necessary action to interrupt power supply as provided for in the Distribution Network Operation Code.~~

~~8. The registered Balancing Service Provider/registered Balance Responsible Party whose Balancing Service Contract/Balance Responsible Party Contract is terminated, shall continue to be liable to the HETS Operator and the Clearing House, in accordance with the provisions of this Rulebook, the Clearing Rulebook for Balancing Market Positions and the HETS Grid Code, for obligations incurred prior to the termination of the contract.~~

~~9. In the cases of paragraphs 3 and 4 of this Article, as of the termination of the Balancing Service Contract/Balance Responsible Party Contract and deletion from the HETS Operator Registry, all the obligations of the deleted participant under this Rulebook shall fall due and immediately payable.~~

~~10. The HETS Operator is required to notify the termination or the ipso jure dissolution of the Balancing Service Contract/Balance Responsible Party Contract or the placing of a Balancing Service Provider or a Balance Responsible Party under the Participant subject~~

to Deletion status, the Energy Exchange, the Clearing House, the Distribution Network Operator and any other person deemed necessary, as soon as possible.

Article 8.Article17.1Procedure for registration with the Balancing Service Providers Registry and the Balance Responsible Parties Registry

1. The interested party that wishes to register with the Balancing Service Providers Registry and/or the Balance Responsible Parties Registry shall submit the following to the HETS Operator:

a) A registration application whereby it declares that it expressly and unconditionally accepts this Rulebook, the HETS Grid Code and the Methodologies, parameters, special approvals, Technical Decisions and Manuals issued in accordance thereof, as amended and in force each time, and that it is obliged to comply with their content, including the fulfillment of their cash obligations deriving therefrom,

b)a)A solemn declaration by the interested party or its legal representative, indicating the documents attached to the Registration Application.

c)a)Documents evidencing the legal incorporation and operation of the interested party, and the legal representation of the applicant by the person signing the application and the above declarations.

d) Certificate from the Clearing House confirming that a Clearing Account has been created for the Participant as a Direct Clearing Member, or that a Clearing Account has been created for the Participant by a General Clearing Member, or Guarantees, in accordance with Article 112 in the event that no Clearing House operates in the Balancing Market, for any reason whatsoever,

e)a)Guarantees in accordance with the HETS Grid Code.

f)a)A Production License, or RES Producer Certificate, or Supply License, or Trading License, or RES Aggregator License, or Demand Response Aggregator License, depending on the capacity of the interested party. If the interested party acts in many Capacities, it should adduce an appropriate license for each capacity.

g) For RES Producers, a Copy of the Contract for Differential State Aid Support or a certificate from DAPEEP regarding the operational status of the RES and the HECHP Units covered by the provisions of Article 3(19) of Law 4414/2016.

2.1. The HETS Operator shall register the applicant with the HETS Operator Registry within fifteen (15) business days from the day of submission of a complete application. Upon registration, the HETS Operator shall issue a relevant certificate to the interested party. A copy of the certificate shall be notified to RAE, the Distribution Network Operator, the Clearing House and the Energy Exchange.

3.1. Details regarding the registration with the Balancing Service Providers Registry and the Balance Responsible Parties Registry are specified in the Technical Decision "Procedures for Registration with the HETS Operator Registry".

Άρθρο 9. Rejection of application for registration with the HETS Operator Registry

1. The HETS Operator may reject the application for registration with the HETS Operator Registry, when:

a) the applicant has not submitted a complete application or has not paid the registration fee, in accordance with Article 4 of this Rulebook,

b)a)in the past, the Applicant has been in breach of its obligations under an earlier Balancing Service Contract or a Balance Responsible Party Contract or a HETS Operator Transactions Contract, resulting in the termination of the Contract, unless the circumstances giving rise to the termination have ceased to exist,

c)a)the conclusion of a Balancing Service Contract or a Balance Responsible Party Contract with the applicant Participant is a reason of breach on the part of the HETS Operator of its obligations under any term of any mandatory legal or regulatory obligation as laid down in the applicable legislation,

d)a)the applicant has outstanding financial obligations to the HETS Operator for any reason whatsoever that have fallen due,

e)a)the relevant requirements, as set out in this Rulebook and the HETS Grid Code, are not met.

2.1.The HETS Operator shall justify the rejection of the Application. The rejection shall be notified to RAE, the Distribution Network Operator, the Clearing House and the Energy Exchange.

3. The applicant may lodge an objection within ten (10) business days from the notification of the above rejection, on which the HETS Operator shall decide within ten (10) business days. The above objection and decision shall be notified to RAE, the Distribution Network Operator, the Clearing House and the Energy Exchange.

4. In case of rejection of the application, the HETS Operator shall reimburse 80% of the registration fee paid for registration with the Registries specified in Article 5.

CHAPTER 3

CHAPTER17. REGISTRIES OF ENTITIES

Article 10.Article17.1Entities

1. The entities participating in the Balancing Market shall be categorized into Balancing Service Entities and Balance Responsible Entities. The Balancing Service Entities shall be represented by Balancing Service Providers, while the Balance Responsible Entities shall be represented by the Contracted Balance Responsible Parties.

2.1.The Balancing Service Entities shall be entitled to provide Balancing Energy and/or Balancing Capacity and shall include the following categories:

a) Dispatchable Generating Unit,

b)a)Dispatchable RES Units Portfolio,

c)a)Dispatchable Load Portfolio.

3.1.The Dispatchable RES Units Portfolios are categorised into Non-Intermittent RES Units Generation Portfolios with no technology distinction and Intermittent RES Generation Units Portfolios, based on the technology of the facilities. RES Units that are in Commissioning Operation status are not eligible to participate in Dispatchable RES Units Portfolio.

4.1.The Dispatchable RES Units Portfolios and the Dispatchable Load Portfolios have a minimum allocated capacity of 1 MW. The following are registered in the HETS Operator Registry in separate portfolios:

a) Dispatchable Load,

b)a)Dispatchable Non-Intermittent RES Generation Units,

c)a)Dispatchable Intermittent RES Generation Units with wind farms,

d)a)Dispatchable Intermittent RES Generation Units with photovoltaics,

e)a)Dispatchable Intermittent RES Generation Units with small hydroelectric plants.

5.1. The Contracted Generating Units are also included in the Entities, but they are not referred to in paragraph 2 of this Article as they do not participate in the Balancing Market procedures. The Contracted Generating Units shall provide additional services in any situation that may lead to the load and/or reserve requirements not being covered during the Integrated Scheduling Process (ISP), following conclusion of a relevant contract, as stipulated in the HETS Grid Code.

6. Entities with Balance Responsibility are the entities that assume responsibility for the imbalances they cause and include the Balancing Service Entities referred to in paragraph 2 of this Article as well as the following entities:

a) Non-Dispatchable RES Units Portfolio,

b) Non-Dispatchable Load Portfolio,

c)a)RES Units Portfolio without Market Participation Obligation,

d) Import Portfolios and Export Portfolios, not including Cross-Border Physical Deliveries that correspond to the imports and exports per coupled interconnection under the Single Day-Ahead Coupling, as calculated in the results of the Single Day-Ahead Coupling.

7. The Cross-Border Physical Deliveries that correspond to the imports and exports per coupled interconnection under the Single Day-Ahead Coupling, the Supplementary Intra-Day Regional Auctions, and the Continuous Intra-Day Trading, as calculated in the results of the Single Day-Ahead Coupling, the Supplementary Intra-Day Regional Auctions and the Continuous Intra-Day Trading, shall be declared to the HETS Operator in accordance with the provisions of the HETS Grid Code and the contract concluded between the HETS Operator and the Shipping Agent.

Article 11.Article17.1Balancing Market Generating Units Registry

1. The HETS Operator shall keep a Balancing Market Generating Units Registry for the registration of the Dispatchable Generating Units that have successfully completed the relevant pre-qualification tests described in the Technical Decision "Process and Prequalification Tests for BSPs".

2.1. The information included in the Balancing Market Generating Units Registry and any supporting documents required for registration therewith are described in detail in the Technical Decision "Procedures of Registration with the HETS Operator Registry".

3.1. The Producer is obliged to immediately notify the HETS Operator of any modification in the Generating Unit data entered in the Balancing Market Generating Units Registry.

4.1. For a power generation unit which has a valid production license, is located on the mainland or on the interconnected islands and has an installed capacity over 5 MW to be put in the Commissioning operation or to perform pre-qualification tests, the unit must have been pre-registered with the Balancing Market Generating Units Registry.

5. Each Producer is obliged to immediately notify the HETS Operator of any changes in the data held in the Balancing Market Generating Units Registry. The HETS Operator determines whether any upcoming change in the technical characteristics of the Unit requires the re-performance of prequalification tests for the Unit, as defined in the Technical Decision "Process and Prequalification Tests for BSPs". To conduct the new prequalification tests, the Producer pays again 50 % of the registration fee as applicable for Balancing Service Entities.

6. Dispatchable Generating Units shall be deleted from the Generating Units Registry if they permanently cease to operate, as a result of a relevant decision by RAE.

7.1. As regards Dispatchable Auto-producer Units, Dispatchable HECHP Units, Dispatchable Units with Alternative Fuel and Dispatchable Multi-Shaft Combined Cycle Units, the provisions of this Rulebook relating to Dispatchable Generating Units shall apply, unless otherwise expressly stated.

Άρθρο 12. Dispatchable RES Units Portfolio Registry

1. The HETS Operator shall keep a Dispatchable RES Units Portfolio Registry for the registration of the Dispatchable RES Units Portfolios that have successfully completed the relevant pre-qualification tests described in the Technical Decision "Process and Prequalification Tests for BSPs".

2.1. The information included in the Dispatchable RES Units Portfolios Registry and any supporting documents required for registration therewith are described in detail in the Technical Decision "Procedures for Registration with the HETS Operator Registry".

3.1. Each RES Producer/RES Aggregator is obliged to immediately notify the System Operator of any changes in the data held in the Dispatchable RES Units Portfolios Registry. The HETS Operator determines whether any upcoming change in the technical characteristics of the Portfolio requires the re-performance of prequalification tests for the Portfolio, either in whole or in part, as defined in the Technical Decision "Process and Prequalification Tests for BSPs". To conduct the new prequalification tests, the Aggregator or the RES Producer pays again 50 % of the registration fee as applicable for Balancing Service Entities.

4.1. For a Dispatchable RES Units Portfolio to be put in Commissioning operation or to undergo pre-qualification tests, the Portfolio must have been pre-registered with the Dispatchable RES Units Portfolio Registry. During the pre-registration, DAPEEP enters the under testing portfolios in the Table of RES and CHP Units, which it maintains and notifies to the HETS Operator in accordance with the provisions of the RES & Guarantees of Origin Operator Code.

5.1. Each Dispatchable RES Units Portfolio is required to participate separately in the Day-Ahead Market and the Intra-Day Market.

Article 13.Article17.1Dispatchable Load Portfolio Registry

1. The HETS Operator shall keep a Dispatchable Load Portfolio Registry for the registration of the Dispatchable Load Portfolios that have successfully completed the relevant pre-qualification tests described in the Technical Decision "Process and Prequalification Tests for BSPs".

2.1. The information included in the Dispatchable Load Portfolios Registry and any supporting documents required for registration therewith are described in detail in the Technical

~~Decision "Procedures of Registration with the HETS Operator Registry". The Aggregator of Dispatchable Load Portfolios submits, together with the registration documents, a technical report stating, under the responsibility of the Aggregator, the technical readiness for the provision of Balancing Services.~~

~~3.~~1. ~~Each Response Demand Aggregator and each Consumer participating in the Balancing Market as Balancing Service Provider is obliged to immediately notify the HETS Operator of any changes in the data held in the Dispatchable Load Portfolios Registry. The HETS Operator determines whether any upcoming change in the technical characteristics of the Portfolio requires the re-performance of prequalification tests for the Portfolio, either in whole or in part, as defined in the Technical Decision "Process and Prequalification Tests for BSPs". To conduct the new prequalification tests, the Demand Response Aggregator or the Consumer pays again 50% of the registration fee as applicable for Balancing Service Entities.~~

~~4.~~1. ~~Each Dispatchable Pumped Storage hydro Generating Unit shall be a distinct Dispatchable Load Portfolio. The Producers representing the above Units are obliged to immediately notify the HETS Operator of any changes in the data held in the Dispatchable Load Portfolios Registry.~~

~~5. For a Demand Response Load Portfolio to be put in the Commissioning operation or to undergo pre-qualification tests, the Portfolio must have been pre-registered with the Dispatchable Load Portfolio Registry.~~

~~6.~~1. ~~The HETS Operator maintains a Table of Meters for the Dispatchable Load Portfolios, which clearly indicates the meters of the loads included in each Portfolio of the Demand Response Aggregator, as described in the Technical Decision "Procedures of Registration with the HETS Operator Registry". The HETS Operator sends the above table to HEDNO for the purposes of the settlement procedure.~~

~~CHAPTER 4~~

CHAPTER2. BALANCING MARKET SYSTEM

~~Article 14.~~Article2.1 Balancing Market System Description

1. The Balancing Market System shall perform all the procedures and all the necessary calculations, and shall record all the data and the results of the Balancing Market in connection to the ISP, the Balancing Energy Market and the Balancing Market Settlement. The Balancing Market System shall include the following subsystems:
   a) the HETS Operator Registry,
   b) the Physical Transmission Rights Declaration Submission System of the HETS Operator,
   c) the Balancing Market Bidding Submission System,
   d) the Dispatch Information Administration System, including: the Load Forecasting / RES Injection Forecasting / Reserve Requirements Forecasting Mechanism, the interface with the Energy Exchange for acquisition of the Market Schedules of all Entities, the Integrated Schedule Process solution mechanism and the Balancing Energy Market solution mechanism, the mechanism that produces the Dispatch

Instructions in real time and the interface with the Supervisory Control and Data Acquisition System (SCADA).

e) the Balancing Market Settlement System, which carries out all ~~Settlement~~clearing calculations and processes, ~~and serves~~as well as acting as the interface with the Clearing House~~, and~~;

f) the Participant Communication System and the ~~data bases~~databases required for the operation of all of the above; and

~~f)~~g) the systems and databases required for the participation of the HETS Operator in the European Platforms as per Regulation (EU) 2017/2195.

2. The HETS Operator shall operate and maintain the Balancing Market System. The Balancing Market System must be fully compatible with the functions provided for in this Rulebook.

3. The HETS Operator shall take the appropriate measures to prevent any operational issues in the Balancing Market System and shall try to restore any failure or malfunction, as soon as possible. The HETS Operator shall not be liable to the Participants for any loss they may incur due to any unforeseen failure or malfunction in the Balancing Market System, even temporary ones, or due to any loss of data from the Balancing Market System, or due to any malicious use of the Balancing Market System or the data therein by third parties.

4. The Balancing Market System supports the commonly accepted principles of good business practices, it is based on modern, appropriate and reliable information and communication technologies and complies with strict standards of uninterrupted operation, increased reliability and integrity of information.

5. The Balancing Market System databases are protected by an appropriate security system that does not allow access to classified information to unauthorized persons. The System itself provides protection against deletion of information from the databases.

~~Article 15.~~Article2.2 Access to the Balancing Market System

1. The HETS Operator shall provide the specified access to the Balancing Market System if the following conditions are met:

   a) the registered Balancing Service Provider/registered Balance Responsible Party has fulfilled the authentication requirements. These requirements may include, inter alia, the obligation to provide an electronic certificate for signature, encryption or other authentication technology purposes, and

   b) the representative(s) of the Registered Balancing Service Provider/registered Balance Responsible Party, for whom the user account (s) is (are) created in the Balancing Market System, has (have) succeeded in the suitability test conducted by the HETS Operator on the proper use of the Balancing Market System.

2. The HETS Operator shall confirm the creation of the User Account (s) or send a rejection note to the registered Balancing Service Provider/Balance Responsible Party, no later than five (5) business days from the completion of the suitability test by the Balancing Market representative(s) of the registered Balancing Service Provider/Balance Responsible Party. The confirmation or rejection shall be sent by any means to the designated representative of the registered Balancing Service Provider / Balance Responsible Party.

3. If the conditions referred to in paragraph 1 of this Article are not met, the HETS Operator shall notify the registered Balancing Service Provider / Balance Responsible Party of the rejection and shall not grant access to the Balancing Market System.

~~Article 16.~~Article2.3 Balancing Market System Certification

1. The HETS Operator shall ensure that the Balancing Market System is certified by an independent inspection firm, which shall certify compatibility with the functions and procedures included in this Rulebook and shall conduct either:

   a) a full inspection, or

   b) A partial inspection of the changes and their impact on the remainder of the Balancing Market System.

   Such certification shall take place every time the Balancing Market System is significantly modified. The HETS operator shall publish the inspection certificate on its website.

2. Every time the HETS Operator shall determine whether a full inspection or partial inspection is needed time at its discretion.

~~Article 17.~~Article2.4 Communication between the HETS Operator and the Participants

1. Communication between the HETS Operator and the Participants, which includes all notifications or submissions provided for in this Rulebook, shall be performed by electronic means through the Balancing Market System. In case communication through the Balancing Market System is not possible for any reason, or in case of emergency, communication can take place by other means such as telephone, email or fax at the discretion of the HETS Operator.

2. The HETS Operator shall use the appropriate international standards to establish appropriate interconnection protocols for the Participants to communicate with the Balancing Market System and shall make these interconnection protocols available to all requesting persons. The Participants shall put into service systems that are suitable for effective communication with the Balancing Market System operated by the HETS Operator.

3. The Balancing Market System automatically issues an acknowledgment of receipt, which is sent directly to the Participants through the Participants Communication System.

4. In the event of a total or partial unavailability of the Participants Communication System, the HETS Operator shall immediately notify all the Participants by sending a relevant notice by any appropriate means, specifying the procedure to be followed for further communication and the expected amount of time required to restore the system availability. As soon as the system is restored, the HETS Operator shall notify all Participants electronically.

5. In any case, the Participants Communication System shall be the preferred route of communication as long as there is no unavailability issue. In that case, the provisions on Emergency Situations, as defined in the HETS Grid Code, shall apply.

6. Each Participant shall comply with specific standards in its communications with the HETS Operator. These standards shall apply with regard to the operational capability, reliability and safety of its own communication centers and the appropriate computer and data networking equipment. The equipment must be used by the Participants only for their communications with the Balancing Market System.

7. Each Participant shall be responsible for the provision and maintenance of telephone, fax and e-mail equipment at its own expense.

8. The HETS Operator shall not be liable to the Participants for the timely transmission of offers, declarations or other data from the Participants, or for technical failures in the

systems and the equipment used by the Participants to communicate with the Balancing Market System.

~~Article 18.~~Article2.5 Participants Support

The HETS Operator shall inform the Participants about the Balancing Market System and shall provide support and instructions so that they can get a suitable and compatible system for their communication with the Balancing Market System

~~Article 19.~~Article2.6 Record Keeping

1. The HETS Operator shall keep a record of all the information used for the execution of its responsibilities under this Rulebook, for at least five (5) years. The HETS Operator shall provide the Participants with a copy of the information pertaining to them, in editable form, at their request.
2. All data generated by the Balancing Market System are the property of the HETS Operator.

~~Article 20.~~Article2.7 Publication of Information by the HETS Operator

1. The HETS Operator shall publish on its web site, at the end of each calendar month, information on the operation of the Balancing Market in the preceding calendar month, which shall include at least the following items:
   a) the total electricity and maximum total HETS load per Dispatch Day,
   b) the zonal imbalances per Imbalance Settlement Period,
   c) any important HETS events,
   d) aggregate information on Dispatch Instruction violations by Balancing Service Providers.

~~CHAPTER 5~~

~~Hydro Resources Management~~

~~Article 21.Article17.1General Obligations for Hydro Resources Management~~

~~1. The Balancing Service Providers representing Dispatchable Hydro Generating Units, including Dispatchable Pumped-Storage hydro Generating Units shall submit to the HETS Operator the following hydro management declarations:~~

~~a) Yearly ahead hydro usage declarations,~~

~~b)a)Weekly mandatory hydro management declarations and~~

~~c)a)Daily mandatory hydro injection declarations.~~

~~2.1. The Balancing Service Providers representing Dispatchable Hydro Generating Units are required to:~~

~~a) submit to the HETS Operator annual curves regarding reservoir reserves for the last ten (10) years, on a monthly basis. As for the new power stations of Dispatchable Hydro~~

Generating Units, given that the historical data on water levels are limited, they must submit the estimated curves and shall take into account any available historical data.

b)a)inform the HETS Operator about the reservoir water level of the Dispatchable Hydro Generating Unit and any changes expected, and about the water supply to the reservoir of the Dispatchable Hydro Generating Unit (instantaneous or average for a specific period), one day before the Dispatch Day or on an ad hoc basis, as the HETS Operator deems appropriate.

c)a)take into account the current level of the relevant water reserves, any forecasts for the evolution of these reserves, their obligations for water supply, irrigation and ecological supply, and ensure that the Safety Minimum Reservoir Level is constantly maintained, when planning the operation of these Units and, in particular, at the time of submission of hydro management declarations and at the time of submission of Techno-Economic Declarations, which include information on the maximum daily energy injection for the Generating Units in question.

d)a)notify the HETS Operator of the forecasted changes in any components affecting mandatory hydro management as soon as possible after the occurrence of the emergency.

e)a)notify the HETS Operator, on a weekly basis, of the daily quantity of water in cubic meters and the corresponding energy in MWh that came through the spillway for each reservoir.

3. The height of the Safety Maximum Reservoir Level and the Safety Minimum Reservoir Level shall be determined for each Dispatchable hydro Generating Unit by RAE following a proposal of the relevant Balancing Service Provider and an opinion of the HETS Operator.

4.1. The Balancing Service Providers representing Dispatchable hydro Generating Units that are connected to the reservoir may:

a) submit mandatory hydro injection declarations for the above Units to avoid an overflow only when the water level in the relevant reservoir is expected to be equal or higher that the Safety Maximum Reservoir Level.

b)a)submit declarations of maximum daily energy injection constraint for the above Units only when the water level in the relevant reservoir is expected to be equal or higher that the Safety Minimum Reservoir Level.

5.1. Upon expiration of the Dispatch Day, the HETS Operator shall immediately publish the quantity of energy injected by each Dispatchable hydro Generating Unit for each Imbalance Settlement Period of the Dispatch Day.

6. The HETS Operator shall submit to RAE, on a monthly basis, a report containing the submitted requests for amendment of the weekly mandatory hydro management declarations, which shall provide the reasons for their submission, the relevant evidence submitted by the Balancing Service Providers, their acceptance or rejection by the HETS Operator and any other relevant information.

7.1. The HETS Operator shall send to RAE, by the end of the following month, a report including at least the following information on a daily basis and for each Dispatchable hydro Generating Unit.

a) the water level in the relevant reservoir,

b)a)curves on reservoir reserves,

c)a)total injected energy,

d)a)mandatory hydro injection declarations with distinct reference to the quantities by reason of overflow,

e)a)pumping energy.

8.1. The HETS Operator shall inform the Energy Exchange with regard to the mandatory hydro injection declarations in accordance with the provisions of the Day-Ahead & Intra-Day Markets Trading Rulebook.

9.1. Details on hydro resources management may be specified in the Technical Decision "Integrated Scheduling Process".

Article 22.Article17.1Yearly Ahead Hydro Usage Declarations

1. The yearly ahead hydro usage declaration refers to the upcoming twelve months and shall be submitted on a rolling basis up to five (5) days before the start of the first month to which it refers. The yearly ahead hydro usage declaration shall be submitted to the HETS Operator, accompanied by the evidence on the maximization of the hydro resources value and the overall benefit of using the Dispatchable hydro Generating Units for the electricity sector.

2.1. The yearly ahead hydro usage declaration shall determine for each month of the following twelve month period, as a sum for all Dispatch Periods of the Dispatch Days of the month, as a sum for all Dispatchable hydro Generating Units of each Balancing Service Provider, and for three (3) hydrological scenarios (high, low and intermediate total inflows) the following:

a) the schedule of forecasted energy injection due to mandatory operation,

b)a)the schedule of forecasted generation of additional energy,

c)a)the expected water inflows in the reservoirs, and

d)a)the forecasted water reserves in the reservoirs at the end of the month.

3.1. Within one (1) month from the expiration of each year, the Balancing Service Providers representing Dispatchable hydro Generating Units shall submit to the HETS Operator and to RAE a report on hydro resources management during the previous year. The report shall include:

a) The real data of paragraph 1 of this Article,

b)a)a comparison with the corresponding yearly ahead hydro usage declarations and evidence on the imbalances and

c)a)evidence on the maximization of the hydro resources value and the overall benefit of using the Dispatchable hydro Generating Units for the electricity sector.

Article 23.Article17.1Weekly Mandatory Hydro Management Declarations

1. The weekly mandatory hydro management declaration shall be submitted by the relevant Balancing Service Providers every Thursday by 12:00 EET and shall refer to a period of seven Dispatch (7) Days in total starting on the following Saturday. The weekly mandatory hydro management declaration shall specify the estimated quantity of mandatory energy injections for each Dispatchable hydro Generating Unit and for each Dispatch Period of the Dispatch Days to which the declaration refers and shall correspond to the following mandatory operations:

a) water supply,

b)a)irrigation, and

c)a)ecological supply.

2. The Balancing Service Providers representing Dispatchable Hydro Generating Units must substantiate the energy quantity declarations for the mandatory operations on a weekly basis, by submitting data on the said operations and on the inflow-outflow water balance in the reservoirs. The data substantiating the declarations shall be both actuarial and budget data and shall be published on the website of the HETS operator. The weekly mandatory hydro management declaration of each Dispatchable hydro Generating Unit is binding and cannot be amended for the energy quantities of item (c), paragraph 1 of this Article.

3.1. The Balancing Service Providers representing Dispatchable hydro Generating Units may submit a request for amendment of the weekly mandatory hydro management declaration with regard to the information of paragraph 1 of this Article for emergency reasons, which include cases of violation of the Safety Maximum Reservoir Level, other safety reasons or special works and third-party claims. The Balancing Service Provider shall fully substantiate the request for amendment. The HETS Operator may request additional information at a later stage if in its judgment the justification is not complete. In case of amendment of the weekly mandatory hydro management declaration, the HETS Operator shall notify the Participants as soon as possible.

Article 24.Article17.1Daily Mandatory Hydro Management Declarations

1. Balancing Service Providers representing Dispatchable hydro Generating Units are required to notify the HETS Operator of a forecasted change in any components affecting mandatory hydro management as soon as possible after the occurrence of the event. In particular, they are required to inform the HETS Operator with regard to:

a) the water level in the reservoir of the Dispatchable hydro Generating Units and the expected changes therein, especially if a violation of the Safety Maximum Reservoir Level is ascertained or forecasted,

b)a)the water supply in the reservoir of the Dispatchable hydro Generating Unit (instantaneous or average for a specific period),

c)a)any necessary measures taken for the safety of the reservoir dams when increased water supplies are observed,

d)a)the modification of irrigation needs,

e)a)special works and third-party claims or

f)a) other safety reasons (Force Majeure).

2. Balancing Service Providers representing Dispatchable hydro Generating Units are required to submit to the HETS Operator daily mandatory hydro injection declarations until 09:30 EET of the previous Dispatch Day. Furthermore, they are required to submit to the HETS Operator daily mandatory hydro injection declarations as soon as possible after the occurrence of an event affecting the management of mandatory hydro.

3.1. A deviation of the daily mandatory hydro injection declaration from the weekly mandatory hydro management declaration is allowed only in the following cases:

a) modification water supply needs,

b)a)modification of irrigation needs,

c)a)avoidance of overflow,

d)a)special works and third-party claims and

e)a)other safety reasons (Force Majeure).

4.1. Any deviation of the daily mandatory hydro injection declaration from the weekly mandatory hydro management declaration shall be fully substantiated by the Balancing Service Provider. The HETS Operator may request additional information at a later stage if in its judgment the justification is not complete. In case of amendment of the weekly mandatory hydro management declaration, the HETS Operator shall notify the Participants as soon as possible.

5.1. If an amended daily mandatory hydro injection declaration is submitted during the Dispatch Day to which the declaration refers, the HETS Operator shall:

a) depending on the extent of the amendment, decide if an execution of an ad hoc ISP is required,

b)a)include the amended daily mandatory hydro injection declarations in the Balancing Energy Market, and

c)a)have the possibility to allocate the additional quantities within the Dispatch Day, so that the operation of the HETS is ensured and the operation of the Balancing Market is not disturbed to the extent possible.

CHAPTER 6

CHAPTER3. MISCELLANEOUS

Article 25.Article17.1Balancing Market Fee

1. The expenditure related to the obligations of the HETS Operator in accordance with this Rulebook, the Day-Ahead and Intra-Day Market Rulebook, as well as the HETS Grid Code regarding the calculation and allocation of interconnection capacity, which are considered reasonable, efficient and compensatory, as well as the rate of return on capital employed, are recovered by the Operator through a Balancing Market Fee payable by every Balancing Service Provider and Balance Responsible Party. The details for the calculation and the procedure for the establishment of the HETS Operator Required Revenue for the operation of the Markets recovered through the Balancing Market Fee are set out in the "Methodology for the determination of the HETS Operator Required Revenue for the operation of the Markets", based in particular on the above criteria and parameters.

2.1. The Balancing Market Fee includes two components, the Imbalances Component and the Energy Component, to which the Required Revenue of the HETS Operator for the operation of the Markets is allocated as follows:

a) the Imbalances Component of the Market Balancing Fee is equal to 20% of the Required Revenue, and

b)a)the Energy Component of the Balancing Market Fee is equal to 80% of the Required Revenue.

3. The unit charges of the components of the Balancing Market Fee for year y+1 are determined annually by a decision of RAE adopted by 30 November of year y, upon HETS proposal submitted to RAE by 10 November of the same year, taking into account HETS

Operator Required Revenue for the operation of the Markets as calculated in accordance with the decision of paragraph 1.

4. The Balancing Market Fee is calculated monthly by the HETS Operator, in accordance with the provisions of Article 25B of this Rulebook.

5. The Balancing Market Fee is collected every month by the Clearing House and is paid to the HETS Operator, in accordance with the provisions of Article 104 of this Rulebook.

6.1. The HETS operator and the Shipping Agent are exempted from the obligation to pay the Balancing Market Fee.

7. For Participants subject to Deletion, the Market Balancing Fee is calculated for the period up to and including the last day of their active participation, as determined in accordance with Article 7 par. 2 of this Rulebook.

Article 25A. Calculation of Unit Charges of the Balancing Market Fee

1. The Unit Charge of the Imbalances Component is calculated as the quotient of the attributable Required Revenue to the total estimated annual amount of activated energy and imbalances, as follows:

$$UNBMF^{IMB} = \frac{0{,}2 * (Balancing\ Market\ Required\ Revenue)}{EAE^{up/dn} + EFIMB}$$

Where:

$UNBMF^{IMB}$ The Unit Charge corresponding to the Imbalance Component of the Balancing Market Fee.

$EAE^{up/dn}$ The estimate of the total upward and downward activated energy in MWh for all Balancing Service Providers for year y+1.

$EFIMB$ The estimate of the Final Imbalance in MWh for all Balance Responsible Parties p for year y+1.

Estimates of total upward and downward activated energy and Imbalances energy for year y+1 are based on the latest available 12-month reporting data.

In the above calculation, both upward and downward activated energy are considered to have a positive sign. Activated energy means the activated Balancing Energy for manual FRR and automatic FRR as well as the activated energy for non-balancing purposes.

In addition, for the estimation of the Final Imbalance, the sum of the absolute values of the Imbalances for each Participant and each Imbalance Settlement Period is taken into account for each of the following categories of Entities:

a) Non-Dispatchable Load Portfolios, including Universal Service Portfolios and Last Resort Portfolios,

b)a)Balancing Service Entities, i.e. Dispatchable Load Portfolios, Dispatchable RES Units Portfolios and Dispatchable Generating Units Portfolios,

c)a)Non-Dispatchable RES Units Portfolios and RES Units Portfolio without Market Participation Obligation, and

d)a)Import Portfolios and Export Portfolios.

2. The Unit Charge of the Energy Component is calculated as the quotient of the attributable Required Revenue to the total estimated quantity of the energy absorbed/produced and

the implemented electricity import/export schedules excluding the schedules of the HETS Operator and the Shipping Agent, as follows:

$$UNBMF^{EN} = \frac{0{,}8 * (Required\ Revenue)}{\sum_p [\sum_m \{EMQ_{p,m} + ERealSch_{p,m}\}]}$$

Where,

$UNBMF^{EN}$ The Unit Charge corresponding to the Energy Component of the Balancing Market Fee.

EMQ The estimate of the total energy absorbed (calculated at the Transmission System-Distribution System Boundary) and the energy produced for all Participants for year y+1.

$ERealSch$ The estimate for the implemented schedules for electricity imports/exports for all Participants for year y+1. Import/export schedules of the HETS Operator and the Transmission System Operator are excluded.

Estimates of total energy absorbed/produced and implemented electricity import/export schedules for year y+1 are based on the latest available 12-month reporting data.

Article 25B. Calculation of Monthly Charges of the Balancing Market Fee

1. The charge for the Imbalance Component is calculated by the HETS Operator for the Balance Responsible Entities and the Balancing Service Providers every month m of the year as follows:

$$BMF_{p,m}^{IMB} = UNBMF^{IMB} \times \{EAE_{p,m}^{up/dn} + \sum_{t \in m} \sum_{c \in p} |FIMB_{p,c,t}|\}$$

Where,

$BMF_{p,m}^{IMB}$ The Balancing Market Fee Imbalance Component for Participant p and month m.

$UNBMF^{IMB}$ The Unit Charge corresponding to the Imbalance Component of the Balancing Market Fee which is calculated in accordance with the provisions of Article 25A of this Rulebook.

$EAE_{p,m}^{up/dn}$ The sum of the total upward and downward activated energy in MWh per Balancing Service Provider p for month m.

$FIMB_{p,t}$ The amount of Final Imbalance in MWh per Balance Responsible Party p, for each Entity category c, and for each Imbalance Settlement Period t, as the algebraic sum of the Final Imbalances in MWh for each entity belonging to the Entity category, c

c The categories of entities set out in Article 25A(1) of this Rulebook.

In the above calculation, both upward and downward activated energy are considered to have a positive sign. Activated energy means the activated Balancing Energy for manual FRR and automatic FRR as well as the activated energy for non-balancing purposes.

2.1. The charge of the Energy Component is calculated by the HETS Operator for the Participants each month m of the year as follows:

$$BMF_{p,m}^{EN} = UNBMF^{EN} \times (MQ_{p,m} + RealSch_{p,m})$$

~~Where:~~

$BMF_{p,m}^{EN}$ ~~The Balancing Market Fee Energy Component for Participant p and month m.~~

~~$UNBMF^{EN}$ The Unit Charge corresponding to the Energy Component of the Balancing Market Fee which is calculated in accordance with the provisions of Article 25A of this Rulebook.~~

$MQ_{p,m}$ ~~The sum of the energy absorbed (calculated at the Transmission System-Distribution System Boundary) and the energy produced per Participant p for month m. In the above calculation, both the energy absorbed and the energy produced are considered to have a positive sign.~~

$RealSch_{p,m}$ ~~The Schedules implemented for the import/export of electricity per Participant p for month m. Import/export schedules of the HETS Operator and the Transmission System Operator are excluded. In the above calculation, both imports and exports are considered to have a positive sign.~~

~~Article 26.~~Article3.1 Force Majeure

1. For the purpose of this Rulebook Force Majeure events shall mean all events that affect the performance of obligations arising from this Rulebook, are beyond the control of the party affected by them and could not have been anticipated or prevented, despite the diligence that any prudent party might have shown.
2. If any party is unable to fulfill any of its obligations under this Rulebook due to circumstances of Force Majeure, the fulfillment of mutual claims and obligations arising from the corresponding Balancing Service Contract or the Balance Responsible Party Contract shall be suspended for the Force Majeure period.
3. In the event of Force Majeure, the HETS Operator or the registered Balancing Service Provider/registered Balance Responsible Party that invokes Force Majeure, shall have the following obligations:
   a) it shall be required to send to the other party a notice, as soon as possible, describing the nature of the Force Majeure event and its probable duration, and to continue to give reports with reasonable frequency during the period of the Force Majeure event.
   b) it shall make every possible effort to limit the consequences of the Force Majeure event, as soon as possible, after the occurrence of the Force Majeure event,
   c) it shall cooperate with the other Party in the interest of finding the best way to continue their activities to the extent possible in accordance with this Rulebook.

~~3.~~4. If the Force Majeure event continues for a period longer than six (6) months, the HETS Operator or the registered Balancing Service Provider/registered Balance Responsible Party affected by the Force Majeure event may unilaterally terminate the Balancing Service Contract or the Balance Responsible Party Contract, respectively, by notice to the other party. The termination shall take effect within ten (10) business days from the date of the notice or at any later date specified in the Termination Notice.

~~Article 27.~~Article3.2 Notices

1. In addition to communication through the Balancing Market System as described in ~~Article 17~~Article2.4 or otherwise specified in this Rulebook, any notice or other communication in the context of or in connection with this Rulebook shall be conducted by personal delivery, or by post, fax or email, and shall be addressed to the representative of the other party, as defined in the Balancing Service Contract / Balance Responsible Party Contract, or as notified by the registered Participant.
2. In particular, for any communication concerning (i) the conclusion of the Balancing Service Contract/Balance Responsible Party Contract pursuant to Article4.2, communication shall be conducted by personal delivery only or by post, with proof of receipt, or (ii) the termination thereof, according to ~~Article 7~~Article4.4, by bailiff service.
3. All notices and other communications, shall be deemed to have been received by the party they are addressed to, as follows:
   a) in case of personal delivery or delivery by post, at the time of delivery,
   b) in case of fax, at the time indicated on the proof of delivery of the sender's facsimile machine,
   c) in case of e-mail, at the time the e-mail was sent, indicated on the proof of sending.
4. If a notification or other announcement has been received outside the working hours of a business day, it shall be deemed to have been received at the beginning of the working hours on the following business day.

~~Article 28.~~Article3.3 Transparency – Confidentiality

1. The HETS Operator shall comply with all the rules laid down in the applicable legislation regarding transparency and disclosure of information with respect to the transactions carried out in the context of the Balancing Market, and, in particular, with the provisions of:
   a) Regulation (EU) 1227/2011 of the European Parliament and of the Council of 25 October 2011 on the integrity and the transparency of the wholesale energy market,
   b) Implementing Commission Regulation (EU) 1348/2014 of 17 December 2014 on the reporting of data for the implementation of Article 8 (2) and (6) of Regulation (EU) 1227/2011 of the European Parliament and of the Council on the integrity and the transparency of the wholesale energy market,
   c) Commission Regulation (EU) 543/2013 of 14 June 2013 on submission and publication of data in electricity markets and on amending Annex I to Regulation (EC) 714/2009 of the European Parliament and of the Council,
   d) Commission Regulation (EU) 2017/2195 of 23 November 2017 on establishing a guideline on electricity balancing, or
   e) any other relevant regulatory act or law.
2. The HETS Operator shall provide to third parties, and, in particular, to the Participants, following a reasoned request, information relating to transactions carried out in the framework of the Balancing Market, provided that:
   a) this act is not contrary to a provision of law,

b) the information does not constitute commercially sensitive information and its provision does not entail unfair commercial or competitive advantages to third parties and, in particular, to the registered Participants and

c) the third party, including the registered Participants, is bound by a confidentiality clause.

3. General information on the operation of the System as well as information on statistical data is not considered to be confidential.

4. Without prejudice to paragraph 3 of this Article, the HETS Operator and any registered Balancing Service Provider/registered Balance Responsible Party that receives confidential information in connection with this Rulebook shall preserve the confidentiality of such information and shall not disclose, report, publish, communicate, transfer or use, directly or indirectly, any part of the confidential information for a purpose other than that for which it was notified to it.

5. Without prejudice to paragraph 3 of this Article, the HETS Operator or the registered Balancing Service Provider/registered Balance Responsible Party may disclose confidential information of another party:

   a) to the extent provided for in this Rulebook or the Clearing Rulebook for Balancing Market Positions.

   b) to the extent required, in order to comply with the applicable national or European legislation as provided for in paragraph 1 of this Article,

   c) to the extent required by competent courts or authorities during proceedings before them, in which the addressee participates,

   d) if required for the proper fulfillment of its duties and obligations under applicable law and this Rulebook, or

   e) if required for the issuing of licenses or approvals by the competent authority.

6. Moreover, the obligations arising from this Article shall not apply:

   a) if the party receiving the information can prove that, at the time of disclosure, such information was already publicly available,

   b) if the party receiving the information presents evidence that, since the notification the information has been legally received by a third party or made available to the public,

   c) to confidential information disclosed in accordance with legal and regulatory arrangements in an aggregated form, from which no information relevant to a particular Market Participant can be deducted,

   d) to information whose publication is explicitly provided for in the present Rulebook.

7. The confidentiality obligations of this Article shall remain in effect for the entire duration and for a period of five (5) years from the termination of the Balancing Service Contract or the Balance Responsible Party Contract.

8. The conclusion of a Balancing Service Contract or Balance Responsible Party Contract and the exchange of confidential information shall not give rise to any right to patents, knowledge or any other form of copyright in respect of information or tools made available or sent by one party to another by virtue of this Rulebook.

~~Article 29.~~Article3.4 Release and Assignment

The Registered Participant may not release or assign any of the rights or obligations arising from the Balancing Service Contract or the Balance Responsible Party Contract, or this Rulebook to third parties. In particular, the above persons are allowed to assign the Clearing of Positions they may possess to a Clearing Member with respect to their cash obligations and the corresponding claims arising from such Positions in accordance with the Clearing Rulebook for Balancing Market Positions

~~Article 30.~~Article3.5 Applicable law and jurisdiction

1. This Rulebook is governed by and interpreted in accordance with the Greek law.
2. The courts of Athens are competent for resolving any dispute that may arise from or in connection with this Rulebook.

~~Article 31.~~Article3.6 Language and Currency

1. If this Rulebook is translated into English, in the event of discrepancy between the Greek text and the English version, the Greek text shall prevail over the English language version.
2. For the purposes of implementation of the provisions of this Rulebook, all amounts shall be in ~~Euro~~euros.

~~Article 32.~~Article3.7 Waiver

Omission or delay in the exercise of any right, power or judicial remedy, or individual or partial exercise of any such right, power or judicial remedy provided for by law or by this Rulebook, shall not constitute a waiver of this or any other right, power or judicial remedy.

~~Article 33.~~Article3.8 Entirety of the agreement

1. This Rulebook, the Balancing Service Contract, the Balance Responsible Party Contract, the HETS Grid Code, and the HETS Transactions Contract constitute the ~~entire~~full agreement between the HETS Operator and each registrant ~~with~~entered in the HETS Operator Registry.
2. If any provision of this Rulebook or the Balancing Service Contract or the Balance Responsible Party Contract or the HETS Grid Code or the HETS Transactions Contract is declared null, unenforceable or unlawful by the competent courts, or according to an arbitration or by order of a competent authority, such nullity, non-enforceability or unlawfulness shall not prejudice or affect the remaining provisions of this Rulebook, the Balancing Service Contract or the Balance Responsible Party Contract or the HETS Grid Code or the HETS Transactions Contract, which shall continue to be in force and have legal effects.

~~Article 34.~~Article3.9 Special cases

1. Regarding Emergency Situations, the provisions of the HETS Grid Code and the Natural Gas Emergency Plan shall apply.
2. In the event that the ~~operation of the~~ Balancing Market is ~~impossible, in particular~~rendered inoperable, specifically due to an ~~Emergency Situation~~emergency situation, or a ~~failure~~

~~of~~fault in the Balancing Market System, or ~~of the~~in other electronic systems ~~of~~utilized by the HETS Operator, the HETS Operator ~~applies~~shall apply the ~~"~~'Rules for Suspension and Restoration of ~~the~~ Market ~~Activities",~~Activities', approved by ~~RAE, following a proposal by the~~ the Regulatory Authority for Waste, Energy, and Water, subsequent to the recommendations of the HETS Operator ~~according to~~, in accordance with the provisions of Article 18(4) of Law 4425/2016.

SECTION II REGISTRATION OF PARTICIPANTS

CHAPTER4. CONTRACTS AND PROCEDURE FOR REGISTRATION WITH THE HETS OPERATOR REGISTRY

Article4.1 HETS Operator Registry

1. The HETS Operator keeps the HETS Operator Registry, which consists of the following individual Registries:
   a) the Registry of Balancing Service Providers, in accordance with the Article4.2,
   b) the Balance Responsible Parties Registry, in accordance with Article4.2,
   c) the Balancing Market Generating Units Registry, in accordance with Article5.2,
   d) the Dispatchable RES Units Portfolio Registry, in accordance with Article5.3 and,
   e) the Dispatchable Load Portfolio Registry, in accordance with Article5.4.
2. By virtue of registration with the HETS Operator Registry, the registrants expressly and unreservedly accept the provisions of this Rulebook and the HETS Grid Code and the Methodologies, parameters and other special approvals, Technical Decisions and Manuals issued in accordance therewith, as amended each time and in force, and they are bound to comply with their content.
3. In order to register with the HETS Operator Registry, the interested parties shall file an application as laid down in the procedure specified in Article4.5 and the Technical Decision 'Procedures for registration with the HETS Operator Registry'.
4. Together with the application for registration, the interested parties shall pay a registration fee both for their registration with the Registries specified in Article4.2, and for the registration of each separate Balancing Service Entity represented within the Registries specified in Article5.2, Article5.3 and Article5.4 of this Rulebook. The registration fee is determined by decision of the Regulatory Authority for Waste, Energy, and Water subsequent to a proposal from the HETS Operator. The DAPEEP, exclusively for its capacity as a representative of the Portfolios of RES Units without Obligation to Participate in the Market the Supplier of Last Resort and the Default Supplier are exempted from payment of the registration fee.
5. The HETS Operator shall not be responsible for the completeness, correctness and trueness of the data provided by the Participants and entered in the HETS Operator Registry. The Participants are exclusively liable therefor.

Article4.2 Balancing Service Contract and Balance Responsible Party Contract

1. Natural or legal persons, in one or more of the following capacities, shall be entitled to register with the Balancing Service Providers Registry kept by the HETS Operator, as long as they are able to provide Balancing Services:

   a) Producers, holders of a Production License or a relevant Exemption, as long as they own a power generating unit with a valid production license, which is located on the mainland or on the interconnected islands and has an installed capacity of over 5 MW,

   b) RES Producers, holders of a Production License or a RES Producer Certificate or a relevant Exemption, for RES Units with Market Participation Obligation, as long as they own a RES unit and they are not represented by a RES Aggregator,

   c) Auto-producers,

   d) RES Aggregators, holders of a RES Aggregator License for RES Units with Market Participation Obligation

   e) Demand Response Aggregators, holders of a relevant license, and

   f) consumers who provide Demand Response Services if they are not represented by a Demand Response Aggregator.

   Registration with the Balancing Service Providers Registry is mandatory for producers under item (a).

2. For the purposes of registration in the Balancing Service Providers Registry, the terms and conditions described in the 'Terms and Conditions of Balancing Service Providers' must be satisfied, as approved by decision of the Regulatory Authority for Waste, Energy, and Water subsequent to a recommendation from the HETS Operator, in accordance with paragraph 4 of Article 18 of Law 4425/2016.

3. On registration in the Balancing Service Providers Registry, the natural or legal persons as per paragraph 1 of this Article (Balancing Service Providers) shall conclude a Balancing Service Contract with the HETS Operator, the content of which shall be in alignment with the provisions of this Rulebook. The Balancing Service Contract is deemed as concluded between the parties upon registration with the Balancing Service Providers Registry and shall not be subject to any further formalities.

4. Natural or legal persons, in one or more of the following capacities, are obliged to be registered with the Balance Responsible Party Registry kept by the HETS Operator:

   a) Producers, holders of a Production License or a relevant Exemption, as long as they own a power generating unit with a valid production license, which is located on the mainland or on the interconnected islands and has an installed capacity of over 5MW,

   b) RES Producers, holders of a Production License or a RES Producer Certificate or a relevant Exemption, for RES Units with Market Participation Obligation, as long as they own a RES unit and they are not represented by a RES Aggregator,

   c) Auto-producers,

   d) RES Aggregators, holders of a RES Aggregator License for RES Units with Market Participation Obligation, including Last Resort RES Aggregators.

   e) Demand Response Aggregators, holders of a relevant license,

   f) Consumers, who provide Demand Response Services, if they are not represented by a Demand Response Aggregator.

g) Suppliers, holders of a Supply License, including Suppliers of Last Resort and Default Suppliers,

h) Self-Supplied customers,

i) Traders, holders of a Trading License, and

j) DAPEEP, which is the Operator of the RES Units Portfolio without Market Participation Obligation.

5. To register in the Balance Responsible Parties Registry, the terms and conditions foreseen by the 'Terms and Conditions for Balance Responsible Parties', as approved by decision of the RAEWW subsequent to the recommendations of the HETS Operator, must be met in accordance with paragraph 4 of Article 18 of Law 4425/2016.

6. On registration in the Balance Responsible Parties Registry, the natural or legal persons as per paragraph 4 of this Article (Balance Responsible Parties) shall conclude a Balance Responsible Parties Contract with the HETS Operator, the content of which shall be in alignment with the provisions of this Rulebook. The Balance Responsible Party Contract shall be deemed to have been entered into by the parties upon registration with the Balance Responsible Parties Registry and shall not be subject to any further formalities.

Article4.3 Dispute Resolution

1. In the event of a dispute between the parties in the Balancing Service/ Balance Responsible Parties Contract, the HETS Operator and the registered Balancing Service Provider / registered Balance Responsible Party shall initially seek an amicable settlement by mutual consultation in accordance with paragraph 2. To that end, the party raising the dispute shall send a notice to the other party, stating:

   a) the Balancing Service Contract or the Balance Responsible Parties Contract between the Parties,

   b) the reason for the dispute, and

   c) a request for a future meeting, with a view to the amicable settlement of the dispute.

2. The parties shall meet within twenty (20) business days from communication of the notice. The parties must conduct the consultations in good faith and in accordance with business conventions in order to settle the dispute. The results of the consultations shall be reflected in a report, which shall be signed by their representatives and shall be binding upon the parties.

3. If no agreement is reached or no response is received within thirty (30) business days from the date of the above request for a meeting, either party may refer the issue for resolution in accordance with paragraph 4 of this article.

4. In the event that the dispute is not resolved through the amicable settlement process, the parties may refer the dispute to the RAEWW, either via the complaint procedure outlined in Article 34 of Law 4001/2011 or on the basis of Article 5(8) of Regulation (EU) 2017/2195, or they may submit the case for resolution by arbitration, in accordance with Article 37 of Law 4001/2011 and the arbitration mechanism of the RAEWW, or to another arbitration body or to the competent courts. For the resolution of any dispute regarding the interpretation or the implementation of this Rulebook, the Greek law shall apply.

5. Recourse to amicable settlement, arbitration or litigation pursuant to this Article shall not relieve the parties of their duty to perform their obligations under this Rulebook and any Balancing Service Contract entered into by the registered Balancing Service Provider or a

Balance Responsible Party Contract entered into by the registered Balance Responsible Party.

6. This Article shall also apply after termination of the Balancing Service Contract of a registered Balancing Service Provider, or of the Balance Responsible Party Contract of a registered Balance Responsible Party.

Article4.4 Termination of the Balancing Service Contract or the Balance Responsible Party Contract

1. The Balancing Service Contract/Balance Responsible Party Contract may be dissolved by termination by one of the Parties, in accordance with the provisions of this Article.

2. Each Balancing Service Provider / Balance Responsible Party is entitled to terminate the Balancing Service Contract / Balance Responsible Party Contract at any time. The Balancing Service Provider / Balance Responsible Party declares in writing, by serving a declaration by bailiff, its intention to terminate the Balancing Service Provider/Balance Responsible Party Contract, including its proposed last day of active participation. The HETS Operator shall accept the declaration within a period of thirty (30) days from the date of notification and shall determine the last day of active participation, having communicated with the RAEWW, the Energy Exchange, the Clearing House and/or the Network Operator, as applicable. From the day following the last active participation date and until the completion of all settlement arrangements provided for in this Rulebook or the HETS Grid Code or the Rulebook on Clearing of Balancing Market Positions for the period of active participation and the full and complete settlement of all of its liabilities arising from these obligations in accordance with this Rulebook, the Clearing Rulebook for Balancing Market Positions and the HETS Grid Code, the Balancing Service Provider/Balance Responsible Party shall be considered a Participant subject to Deletion. Specifically for Load Representatives, the condition for their status as a Participant subject to Deletion is the non-representation of load meters after their last day of active participation. In the event that no Clearing House is in operation on the Balancing Market, another condition for establishing the Participant's status as a Deleted Participant is the presentation of guarantees in accordance with the provisions of Article25.5 and the ‘ Methodology for Calculating Balancing Market Participation Guarantees’. The HETS Operator may extend the above deadline for acceptance of the declaration until the required actions of the Network Operator or the HETS Operator, as the case may be, regarding the change in the representation of the load meters of the declaring Load Representative or the provision of guarantees, if required as mentioned above, have been completed. The Participant under Deletion shall not be entitled to assume any new rights or obligations in accordance with this Regulation or the HETS Grid Code. After the completion of all settlements provided for in this Regulation or the HETS Grid Code or the Clearing Rulebook for Balancing Market Positions for the period of active participation and after having verified the full and complete payment of all the liabilities of the Participant subject to Deletion arising from these settlements in accordance with this Rulebook, the Clearing Rulebook for Balancing Market Positions and the HETS Grid Code, the termination shall becomes effective, the Balancing Service Provider/Balance Responsible Party Contract is dissolved, and the HETS Operator shall then complete the deletion of the Participant from the HETS Operator Registry.

3. The HETS operator may terminate the Balancing Service Contract/Balance Responsible Party Contract in the following cases:

a) if the registered Balancing Service Provider/registered Balance Responsible Party does not meet the conditions for the lawful exercise of an electricity activity and/or the conditions for participation in the Balancing Market, or

b) if the registered Balancing Service Provider/registered Balance Responsible Party is in breach of its obligations against the Clearing House, or is subject to a measure on the basis of the Clearing Rulebook for Balancing Market Positions, and, in particular, to limitations regarding its participation in the Clearing of Positions and Cash Settlement procedures carried out by the Clearing House, to suspension of its capacity to act as a Clearing Member or deletion, or, in the event that no Clearing House operates in the Balancing Market, it hasn't submitted guarantees in accordance with Article25.5 of this Rulebook or it has financial obligations against the HETS Operator deriving from this Rulebook that have fallen due, or

c) if the registered Balancing Service Provider/registered Balance Responsible Party has not submitted guarantees for the charges foreseen in the HETS Grid Code or it has financial obligations against the HETS Operator deriving from the HETS Grid Code that have fallen due, or

d) if the registered Balancing Service Provider/registered Balance Responsible Party has lost the capacity to act as a Clearing Member or if is not on a contract with a General Clearing Member for the settlement of the cash claims and obligations it may have in accordance with the provisions in the Clearing Rulebook for Balancing Market Positions.

4. The HETS operator may terminate the Balancing Service Contract/Balance Responsible Party Contract in the following cases:

a) if the registered Balancing Service Provider/registered Balance Responsible Party repeatedly breaches its obligations under this Rulebook or the Balancing Service Contract/Balance Responsible Party Contract, or the HETS Grid Code, or

b) if the measure of deletion has been imposed on the registered Balancing Service Provider/registered Balance Responsible Party on the basis of the HeNEx Spot Trading Rulebook,

5. In the cases of paragraphs 3 and 4 of this Article, termination shall be notified in writing by a bailiff and shall enter into force and take effect as of the date of service thereof.

6. The Balancing Service Contract/Balance Responsible Party Contract shall be dissolved ipso jure if the HETS Operator Transactions Contract provided for in the HETS Grid Code is terminated, upon termination by the HETS Operator in accordance with paragraphs 3 and 4 of subsection 1.5 of the HETS Grid Code. The Balancing Service Provider or the Balance Responsible Party shall automatically become a Participant subject to Deletion, in case they become Participants subject to Deletion in accordance with the provisions of the HETS Grid Code, following a declaration by the Participant in accordance with paragraph 2 of subsection 1.5 of the HETS Grid Code.

7. The termination of the Balancing Service Contract / Balance Responsible Party Contract with Self-Supplied customers or Consumers, whose facilities are connected to HETS, shall mean that electricity supply shall cease for these facilities. In the event of termination of the Balancing Service Contract/Balance Responsible Party Contract with Self-Supplied customers or Consumers, whose facilities are connected to the Distribution Network, the HETS Operator shall notify the competent Distribution Network Operator, in order to take the necessary action to interrupt power supply as provided for in the Distribution Network Operation Code.

8. The registered Balancing Service Provider/registered Balance Responsible Party whose Balancing Service Contract/Balance Responsible Party Contract is terminated, shall continue to be liable to the HETS Operator and the Clearing House, in accordance with the provisions of this Rulebook, the Clearing Rulebook for Balancing Market Positions and the HETS Grid Code, for obligations incurred prior to termination of the contract.

9. In the cases of paragraphs 3 and 4 of this Article, as of the termination of the Balancing Service Contract/Balance Responsible Party Contract and deletion from the HETS Operator Registry, all obligations of the deleted participant under this Rulebook shall become due and immediately payable.

10. The HETS Operator is required to notify termination or ipso jure dissolution of the Balancing Service Contract/Balance Responsible Party Contract or the placing of a Balancing Services Provider/Balance Responsible Party under the status of Participant subject to Deletion, to the RAEWW, the Energy Exchange, the Clearing House, the Distribution Network Operator and any other person deemed necessary, as soon as possible.

Article4.5 Procedure for registration with the Balancing Service Providers Registry and the Balance Responsible Parties Registry

1. The interested party that wishes to register with the Balancing Service Providers Registry and/or the Balance Responsible Parties Registry shall submit the following to the HETS Operator:

   a) A registration application whereby it declares that it expressly and unconditionally accepts this Rulebook, the HETS Grid Code and the Methodologies, parameters, special approvals, Technical Decisions and Manuals issued in accordance thereof, as amended and in force each time, and that it is obliged to comply with their content, including the fulfillment of their cash obligations deriving therefrom,

   b) A solemn declaration by the interested party or its legal representative, indicating the documents attached to the Registration Application.

   c) Documents evidencing the legal incorporation and operation of the interested party, and the legal representation of the applicant by the person signing the application and the above declarations.

   d) Certificate from the Clearing House confirming that a Clearing Account has been created for the Participant as a Direct Clearing Member, or that a Clearing Account has been created for the Participant by a General Clearing Member, or Guarantees, in accordance with Article25.5 in the event that no Clearing House operates in the Balancing Market, for any reason whatsoever,

   e) Guarantees in accordance with the HETS Grid Code.

   f) Generating Licence, or RES Generation Certificate, or a Supply Licence, Trading Licence, or Aggregator's Licence, depending on the capacity in which the interested party is acting. If the interested party acts in many Capacities, it should adduce an appropriate license for each capacity.

   g) For RES Producers, a copy of the Differential State Aid Support Contract or a certificate from the Renewable Energy Sources Operator and Guarantees of Origin (DAPEEP) regarding the operational status of RES and HECHP Units covered by the provisions of Article 3(19) of Law 4414/2016.

2. The HETS Operator shall register the applicant with the HETS Operator Registry within fifteen (15) business days from the day of submission of a complete application. Upon registration, the HETS Operator shall issue a relevant certificate to the interested party. A copy of the certificate shall be forwarded to the RAEWW, the Distribution Network Operator, the Clearing House and the Energy Exchange.
3. Details regarding the registration with the Balancing Service Providers Registry and the Balance Responsible Parties Registry are specified in the Technical Decision "Procedures for Registration with the HETS Operator Registry".

Article4.6 Rejection of an application for registration with the HETS Operator Registry

1. The HETS Operator may reject an application for registration with the HETS Operator Registry, when:
   a) the applicant has not submitted a complete application or has not paid the registration fee, in accordance with Article4.1 of this Rulebook,
   b) in the past, the Applicant has been in breach of its obligations under an earlier Balancing Service Contract or a Balance Responsible Party Contract or a HETS Operator Transactions Contract, resulting in the termination of the Contract, unless the circumstances giving rise to the termination have ceased to exist,
   c) the conclusion of a Balancing Service Contract or a Balance Responsible Party Contract with the applicant Participant is a reason of breach on the part of the HETS Operator of its obligations under any term of any mandatory legal or regulatory obligation as laid down in the applicable legislation,
   d) the applicant has outstanding financial obligations to the HETS Operator for any reason whatsoever that have fallen due,
   e) the relevant requirements, as set out in this Rulebook and the HETS Grid Code, are not met.
2. The HETS Operator shall justify the rejection of the Application. The rejection shall be notified to the RAEWW, the Distribution Network Operator, the Clearing House and the Energy Exchange.
3. The applicant may lodge an objection within ten (10) business days from the notification of the above rejection, on which the HETS Operator shall decide within ten (10) business days. The above objection and decision shall be notified to the RAEWW, the Distribution Network Operator, the Clearing House and the Energy Exchange.
4. In case of rejection of the application, the HETS Operator shall reimburse 80% of the registration fee paid for registration with the Registries specified in Article4.2.

CHAPTER5. REGISTRIES OF ENTITIES

Article5.1 Entities

1. The entities participating in the Balancing Market shall be categorized into Balancing Service Entities and Balance Responsible Entities. The Balancing Service Entities shall be represented by Balancing Service Providers, while the Balance Responsible Entities shall be represented by the Contracted Balance Responsible Parties.

2. The Balancing Service Entities shall be entitled to provide Balancing Energy and/or Balancing Capacity and shall include the following categories:
   a) Dispatchable Generating Unit,
   b) Dispatchable RES Units Portfolio,
   c) Dispatchable Load Portfolio.
3. The Dispatchable RES Units Portfolios are categorised into Non-Intermittent RES Units Generation Portfolios with no technology distinction and Intermittent RES Generation Units Portfolios, based on the technology of the facilities. RES Units that are in Commissioning Operation status are not eligible to participate in Dispatchable RES Units Portfolio.
4. The Dispatchable RES Units Portfolios and the Dispatchable Load Portfolios have a minimum allocated capacity of 1 MW. The following are registered in the HETS Operator Registry in separate portfolios:
   a) Dispatchable Load,
   b) Dispatchable Non-Intermittent RES Generation Units,
   c) Dispatchable Intermittent RES Generation Units with wind farms,
   d) Dispatchable Intermittent RES Generation Units with photovoltaics,
   e) Dispatchable Intermittent RES Generation Units with small hydroelectric plants.
5. Contracted Generating Units are also included among the Entities, but are not referred to in paragraph 2 of this Article since they do not participate in the Balancing Market procedures. The Contracted Generating Units shall provide additional services in any situation that may lead to the load and/or reserve requirements not being covered during the Integrated Scheduling Process (ISP), following conclusion of a relevant contract, as stipulated in the HETS Grid Code.
6. Balance Responsible Entities are those entities that assume responsibility for imbalances created and include the Balancing Service Entities referred to in paragraph 2 of this Article as well as the following entities:
   a) Non-Dispatchable RES Units Portfolio,
   b) Load Portfolio,
   c) RES Units Portfolio without Market Participation Obligation,

~~Article 34A. Deficit or Surplus Management in relation to~~Import Portfolios and Export Portfolios, excluding the Cross-Border Physical Deliveries

~~1.~~d) ~~Any deficit in coupled markets in relation to Cross-Border Physical Deliveries that correspond~~ corresponding to imports and exports ~~per~~under the coupled interconnection ~~under~~within the framework of the Single Day-Ahead Market Coupling~~,~~ ~~Supplementary Intra-Day Regional~~ (SDAC), Intraday Auctions, and Continuous ~~Intra-Day~~Intraday Trading, ~~to~~as calculated in the ~~extent where it is not covered by a potential relevant surplus deriving from~~results of the ~~Cross-Border Physical Deliveries to the HETS Operator or the Shipping Agent, shall be covered as follows:~~Single Day-Ahead Market Coupling, Intraday Auctions, and Continuous Intraday Trading, respectively.

~~a)~~7. ~~initially, by any remuneration paid due to failure of the contracting parties to fulfil their obligations relating to the~~ Cross-Border Physical Deliveries ~~that correspond~~corresponding to imports and exports ~~per~~through coupled ~~interconnection under~~interconnections within the framework of Single Day-Ahead Market Coupling, ~~Supplementary Intra-Day Regional~~Intraday Auctions, and Continuous ~~Intra-Day~~Intraday Trading, as calculated in the corresponding results of the Single Day-Ahead Market Coupling, Intraday Auctions, and Continuous Intraday Trading, respectively, shall be declared to the HETS Operator in accordance with the provisions of the HETS Grid Code and the contract concluded between the HETS Operator and the Shipping Agent ~~and the HETS Operator~~.

Article5.2 Balancing Market Generating Units Registry

1. The HETS Operator shall keep a Balancing Market Generating Units Registry for the registration of the Dispatchable Generating Units that have successfully completed the relevant pre-qualification tests described in the Technical Decision "Process and Prequalification Tests for BSPs".
2. The information included in the Balancing Market Generating Units Registry and any supporting documents required for registration therewith are described in detail in the Technical Decision "Procedures of Registration with the HETS Operator Registry".
3. The Producer is obliged to immediately notify the HETS Operator of any modification in the Generating Unit data entered in the Balancing Market Generating Units Registry.
4. For a power generation unit which has a valid production license, is located on the mainland or on the interconnected islands and has an installed capacity over 5 MW to be put in the Commissioning operation or to perform pre-qualification tests, the unit must have been pre-registered with the Balancing Market Generating Units Registry.
5. Each Producer is obliged to immediately notify the HETS Operator of any changes in the data held in the Balancing Market Generating Units Registry. The HETS Operator shall determine whether any upcoming change in the technical characteristics of the Unit requires the repeat execution of prequalification tests for the Unit, as defined in the Technical Decision 'Process and Prequalification Tests for BSPs'. The Producer shall again pay 50 % of the registration fee applicable to Balancing Service Entities for the execution of new prequalification tests.
6. Dispatchable Generating Units shall be deleted from the Generating Units Registry when they permanently cease to operate, as arising from the relevant decision of the RAEWW.
7. As regards Dispatchable Auto-producer Units, Dispatchable HECHP Units, Dispatchable Units with Alternative Fuel and Dispatchable Multi-Shaft Combined Cycle Units, the provisions of this Rulebook relating to Dispatchable Generating Units shall apply, unless otherwise expressly stated.

Article5.3 Dispatchable RES Units Portfolio Registry

1. The HETS Operator shall keep a Dispatchable RES Units Portfolio Registry for the registration of the Dispatchable RES Units Portfolios that have successfully completed the relevant pre-qualification tests described in the Technical Decision "Process and Prequalification Tests for BSPs".
2. The information included in the Dispatchable RES Units Portfolios Registry and any supporting documents required for registration therewith are described in detail in the Technical Decision "Procedures for Registration with the HETS Operator Registry".

3. Each RES Producer/RES Aggregator is obliged to immediately notify the System Operator of any changes in the data held in the Dispatchable RES Units Portfolios Registry. The HETS Operator determines whether any upcoming change in the technical characteristics of the Portfolio requires the re-performance of prequalification tests for the Portfolio, either in whole or in part, as defined in the Technical Decision "Process and Prequalification Tests for BSPs". To conduct the new prequalification tests, the Aggregator or the RES Producer pays again 50 % of the registration fee as applicable for Balancing Service Entities.
4. For a Dispatchable RES Units Portfolio to be put in Commissioning operation or to undergo pre-qualification tests, the Portfolio must have been pre-registered with the Dispatchable RES Units Portfolio Registry. During the pre-registration, DAPEEP enters the under testing portfolios in the Table of RES and CHP Units, which it maintains and notifies to the HETS Operator in accordance with the provisions of the RES & Guarantees of Origin Operator Code.
5. Each Dispatchable RES Units Portfolio is required to participate separately in the Day-Ahead Market and the Intra-Day Market.

Article5.4 Dispatchable Load Portfolio Registry

1. The HETS Operator shall keep a Dispatchable Load Portfolio Registry for the registration of the Dispatchable Load Portfolios that have successfully completed the relevant pre-qualification tests described in the Technical Decision "Process and Prequalification Tests for BSPs".
2. The information included in the Dispatchable Load Portfolios Registry and any supporting documents required for registration therewith are described in detail in the Technical Decision "Procedures of Registration with the HETS Operator Registry". The Aggregator of Dispatchable Load Portfolios submits, together with the registration documents, a technical report stating, under the responsibility of the Aggregator, the technical readiness for the provision of Balancing Services.
3. Each Response Demand Aggregator and each Consumer participating in the Balancing Market as Balancing Service Provider is obliged to immediately notify the HETS Operator of any changes in the data held in the Dispatchable Load Portfolios Registry. The HETS Operator determines whether any upcoming change in the technical characteristics of the Portfolio requires the re-performance of prequalification tests for the Portfolio, either in whole or in part, as defined in the Technical Decision "Process and Prequalification Tests for BSPs". To conduct the new prequalification tests, the Demand Response Aggregator or the Consumer pays again 50% of the registration fee as applicable for Balancing Service Entities.
4. Each Dispatchable Pumped-Storage hydro Generating Unit shall be a distinct Dispatchable Load Portfolio. The Producers representing the above Units are obliged to immediately notify the HETS Operator of any changes in the data held in the Dispatchable Load Portfolios Registry.
5. Placement of a Load Portfolio with Demand Response capability under commissioning operation or under execution of prequalification tests requires prior registration in the Dispatchable Load Portfolio Registry.
6. The HETS Operator maintains a Table of Meters for the Dispatchable Load Portfolios, which clearly indicates the meters of the loads included in each Portfolio of the Demand Response Aggregator, as described in the Technical Decision "Procedures of Registration

with the HETS Operator Registry". The HETS Operator sends the above table to HEDNO for the purposes of the settlement procedure.

CHAPTER6. BALANCING MARKET FEE

Article6.1 Balancing Market Fee

1. The expenditure related to the obligations of the HETS Operator in accordance with this Rulebook, the Day-Ahead and Intra-Day Market Rulebook, as well as the HETS Grid Code regarding the calculation and allocation of interconnection capacity, which are considered reasonable, efficient and compensatory, as well as the rate of return on capital employed, are recovered by the Operator through a Balancing Market Fee payable by every Balancing Service Provider and Balance Responsible Party. The details for the calculation and the procedure for the establishment of the HETS Operator Required Revenue for the operation of the Markets recovered through the Balancing Market Fee are set out in the "Methodology for the determination of the HETS Operator Required Revenue for the operation of the Markets", based in particular on the above criteria and parameters.
2. The Balancing Market Fee includes two components, the Imbalances Component and the Energy Component, to which the Required Revenue of the HETS Operator for the operation of the Markets is allocated as follows:
   a) the Imbalances Component of the Market Balancing Fee is equal to 20% of the Required Revenue, and
   b) the Energy Component of the Balancing Market Fee is equal to 80% of the Required Revenue.
3. The unit charges of the components of the Balancing Market Fee for year y+1 are determined annually by decision of the RAEWW adopted before 30 November of year y, after a proposal from the HETS Operator submitted to the RAEWW before 10 November of the same year, taking into account the HETS Operator Required Revenue for operation of the Markets as calculated in accordance with the decision as per paragraph 1.
4. The Balancing Market Fee is calculated monthly by the HETS Operator, in accordance with the provisions of Article6.3.
5. The Balancing Market Fee is collected monthly by the Clearing House and is paid to the HETS Operator, in accordance with the provisions of Article23.1.
6. The HETS operator and the Shipping Agent are exempted from the obligation to pay the Balancing Market Fee.
7. For Participants subject to Deletion, the Market Balancing Fee is calculated for the period up to and including the last day of their active participation, as determined in accordance with Article4.4 par. 2.

Article6.2 Calculation of Balancing Market Fee Unit Charges

1. The Unit Charge of the Imbalances Component is calculated as the quotient of the attributable Required Revenue to the total estimated annual amount of activated energy and imbalances, as follows:

$$UNBMF^{IMB} = \frac{0{,}2 * (\text{Απαιτούμενο Έσοδο Αγοράς Εξισορρόπησης})}{EAE^{up/dn} + EFIMB}$$

Where:

$UNBMF^{IMB}$ The Unit Charge corresponding to the Imbalance Component of the Balancing Market Fee.

$EAE^{up/dn}$ The estimate of the total upward and downward activated energy in MWh for all Balancing Service Providers for year y+1.

$EFIMB$ The estimate of the Final Imbalance in MWh for all Balance Responsible Parties p for year y+1.

Estimates of total upward and downward activated energy and Imbalances energy for year y+1 are based on the latest available 12-month reporting data.

In the above calculation, both upward and downward activated energy are considered to have a positive sign. Activated energy means the activated Balancing Energy for mFRR and aFRR as well as activated energy for non-balancing purposes.

In addition, for the estimation of the Final Imbalance, the sum of the absolute values of the Imbalances for each Participant and each Imbalance Settlement Period is taken into account for each of the following categories of Entities:

a) Load Portfolios, including Universal Service Portfolios and Last Resort Portfolios,

b) Balancing Service Entities, i.e. Dispatchable Load Portfolios, Dispatchable RES Units Portfolios and Dispatchable Generating Units Portfolios,

c) Non-Dispatchable RES Units Portfolios and RES Units Portfolio without Market Participation Obligation, and

d) Import Portfolios and Export Portfolios.

~~b)a) in the case that the amount of (a) does not suffice, by the payment of the remaining balance in the non-Compliance Charges Account held by the Energy Exchange in accordance with the Day-Ahead & Intra-Day Markets Trading Rulebook and the process described in section 3.12.8 thereof.~~

~~c) in the case that the~~The Energy Component Unit Charge is calculated as the quotient of the Required Revenue to the total estimated amount of ~~(a) and (b) does not suffice, by the payment of the remaining balance in the non-Compliance Charges Account held by the HETS Operator, pursuant to Article 103(1)(b) of this Rulebook.~~

2. ~~Any surplus in coupled markets in relation to Cross-Border Physical Deliveries that correspond to~~energy absorbed/produced and the trading schedules for electricity imports ~~and~~ /exports ~~per coupled interconnection under the Single Day-Ahead Market Coupling, Supplementary Intra-Day Regional Auctions and Continuous Intra-Day Trading, as calculated in the results of the Single Day-Ahead Market Coupling, Supplementary Intra-Day Regional Auctions and Continuous Intra-Day Trading respectively, which remains after covering potential relevant deficits deriving from the Cross-Border Physical Deliveries to the HETS Operator or~~, excluding the schedules of the HETS Operator and the Shipping Agent, ~~shall be transferred to the non-Compliance Charges Account held by the HETS Operator.~~as follows:

$$UNBMF^{EN} = \frac{0{,}8 * (\text{Απαιτούμενο Έσοδο})}{\sum_p [\sum_m \{EMQ_{p,m} + \text{ER}ealSch_{p,m}\}]}$$

Where,

$UNBMF^{EN}$ The Unit Charge corresponding to the Energy Component of the Balancing Market Fee.

EMQ The estimate of the total energy absorbed (calculated at the Transmission System-Distribution System Boundary) and the energy produced for all Participants for year y+1.

$ERealSch$ The estimated amount for trading schedules in electricity imports/exports for all Participants for year y+1. Import/export schedules of the HETS Operator and the Transmission System Operator are excluded.

Estimates of total energy absorbed/produced and electricity import/export trading schedules for year y+1 are based on the latest available 12-month reporting data.

Article6.3 Calculation of Monthly Charges of Balancing Market Fee

1. The charge for the Imbalance Component is calculated by the HETS Operator for Balance Responsible Entities and Balancing Service Providers for each month m of the year, as follows:

$$BMF_{p,m}^{IMB} = UNBMF^{IMB} \times \{EAE_{p,m}^{up/dn} + \sum_{t \in m} \sum_{c \in p} |FIMB_{p,c,t}|\}$$

Where,

$BMF_{p,m}^{IMB}$ The Balancing Market Fee Imbalance Component for Participant p and month m.

$UNBMF^{IMB}$ The Unit Charge corresponding to the Imbalance Component of the Balancing Market Fee, which is calculated in accordance with the provisions of Article6.2.

$EAE_{p,m}^{up/dn}$ The sum of the total upward and downward activated energy in MWh per Balancing Service Provider p for month m.

$FIMB_{p,t}$ The amount of Final Imbalance in MWh per Balance Responsible Party p, for each Entity category c, and for each Imbalance Settlement Period t, as the algebraic sum of the Final Imbalances in MWh for each entity belonging to the Entity category, c

c The categories of entities specified in Article6.2 paragraph 1.

In the above calculation, both upward and downward activated energy are considered to have a positive sign. Activated energy means the activated Balancing Energy for mFRR and aFRR as well as activated energy for non-balancing purposes.

2. The charge for the Energy Component is calculated by the HETS Operator for Participants for each month m of the year, as follows:

$$BMF_{p,m}^{EN} = UNBMF^{EN} \times (MQ_{p,m} + RealSch_{p,m})$$

Where:

$BMF_{p,m}^{EN}$ The Balancing Market Fee Energy Component for Participant p and month m.

$UNBMF^{EN}$ The Unitary Charge corresponding to the Energy Component of the Balancing Market Fee, which is calculated in accordance with the provisions of Article6.2.

$MQ_{p,m}$ The sum of the energy absorbed (calculated at the Transmission System-Distribution System Boundary) and the energy produced per Participant p for month m. In the above calculation, both the energy absorbed and the energy produced are considered to have a positive sign.

$RealSch_{p,m}$ The Trading Schedules for Imports/Exports of Electricity per Participant p for the month m. Import/export schedules of the HETS Operator and the Transmission System Operator are excluded. In the above calculation, both imports and exports are considered to have a positive sign.

SECTION ~~II~~III SPECIAL PROVISIONS

CHAPTER7. SPECIAL PROVISIONS

Article7.1 General Obligations for Hydro Resources Management

1. The Balancing Service Providers representing Dispatchable Hydro Generating Units, including Dispatchable Pumped-Storage hydro Generating Units shall submit to the HETS Operator the following hydro management declarations:
   a) Yearly ahead hydro usage declarations,
   b) Weekly mandatory hydro management declarations and
   c) Daily mandatory hydro injection declarations.
2. The Balancing Service Providers representing Dispatchable Hydro Generating Units are required to:
   a) submit to the HETS Operator annual curves regarding reservoir reserves for the last ten (10) years, on a monthly basis. As for the new power stations of Dispatchable Hydro Generating Units, given that the historical data on water levels are limited, they must submit the estimated curves and shall take into account any available historical data.
   b) inform the HETS Operator about the reservoir water level of the Dispatchable Hydro Generating Unit and any changes expected, and about the water supply to the reservoir of the Dispatchable Hydro Generating Unit (instantaneous or average for a specific period), one day before the Dispatch Day or on an ad hoc basis, as the HETS Operator deems appropriate.
   c) take into account the current level of the relevant water reserves, any forecasts for the evolution of these reserves, their obligations for water supply, irrigation and ecological supply, and ensure that the Safety Minimum Reservoir Level is constantly maintained, when planning the operation of these Units and, in particular, at the time of submission of hydro management declarations and at the time of submission of Techno-Economic Declarations, which include information on the maximum daily energy injection for the Generating Units in question.
   d) notify the HETS Operator of the forecasted changes in any components affecting mandatory hydro management as soon as possible after the occurrence of the emergency.
   e) notify the HETS Operator, on a weekly basis, of the daily quantity of water in cubic meters and the corresponding energy in MWh that came through the spillway for each reservoir.
3. The Maximum Reservoir Safety Level and the Minimum Reservoir Safety Level are determined for each Dispatchable Hydroelectric Generation Unit by the RAEWW following a proposal from the respective Balancing Service Provider and the recommendations of the HETS Operator.
4. The Balancing Service Providers representing Dispatchable hydro Generating Units that are connected to the reservoir may:
   a) submit mandatory hydro injection declarations for the above Units to avoid an overflow only when the water level in the relevant reservoir is expected to be equal or higher that the Safety Maximum Reservoir Level.

b) submit declarations of maximum daily energy injection constraint for the above Units only when the water level in the relevant reservoir is expected to be equal or higher that the Safety Minimum Reservoir Level.

5. Upon expiration of the Dispatch Day, the HETS Operator shall immediately publish the quantity of energy injected by each Dispatchable hydro Generating Unit for each Imbalance Settlement Period of the Dispatch Day.

6. The HETS Operator shall submit a report to the RAEWW on a monthly basis, containing requests submitted for amendment of weekly mandatory hydro management declarations, outlining the reasons for submission, the supporting documentation provided by the Balancing Service Providers, and the acceptance or rejection of these requests by the HETS Operator, and any other relevant information.

7. The HETS Operator shall send a report to the RAEWW by the end of the following month, which shall include at least the following information per day for each Dispatchable Hydro Generating Unit.

   a) the water level in the relevant reservoir,

   b) curves on reservoir reserves,

   c) total injected energy,

   d) mandatory hydro injection declarations with distinct reference to the quantities by reason of overflow,

   e) pumping energy.

8. The HETS Operator shall inform the Energy Exchange with regard to the mandatory hydro injection declarations in accordance with the provisions of the Day-Ahead & Intra-Day Markets Trading Rulebook.

9. Details on hydro resources management may be specified in the Technical Decision "Integrated Scheduling Process".

Article7.2 Yearly Ahead Hydro Usage Declarations

1. The yearly ahead hydro usage declaration refers to the upcoming twelve months and shall be submitted on a rolling basis up to five (5) days before the start of the first month to which it refers. The yearly ahead hydro usage declaration shall be submitted to the HETS Operator, accompanied by the evidence on the maximization of the hydro resources value and the overall benefit of using the Dispatchable hydro Generating Units for the electricity sector.

2. The yearly ahead hydro usage declaration shall determine for each month of the following twelve-month period, as a sum for all Dispatch Periods of the Dispatch Days of the month, as a sum for all Dispatchable hydro Generating Units of each Balancing Service Provider, and for three (3) hydrological scenarios (high, low and intermediate total inflows) the following:

   a) the schedule of forecasted energy injection due to mandatory operation,

   b) the schedule of forecasted generation of additional energy,

   c) the expected water inflows in the reservoirs, and

   d) the forecasted water reserves in the reservoirs at the end of the month.

3. Within one (1) month of the end of each year, the Balancing Service Providers representing Dispatchable Hydro Generating Units shall submit a report to the HETS Operator and the RAEWW regarding hydro resource management during the previous year. The report shall include:
   a) The accounting statements pursuant to paragraph 1 of this Article,
   b) a comparison with the corresponding yearly ahead hydro usage declarations and evidence on the imbalances and
   c) evidence on the maximization of the hydro resources value and the overall benefit of using the Dispatchable hydro Generating Units for the electricity sector.

Article7.3 Weekly Mandatory Hydro Management Declarations

1. The weekly mandatory hydro management declaration shall be submitted by the relevant Balancing Service Providers every Thursday by 12:00 EET and shall refer to a period of seven Dispatch (7) Days in total starting on the following Saturday. The weekly mandatory hydro management declaration shall specify the estimated quantity of mandatory energy injections for each Dispatchable hydro Generating Unit and for each Dispatch Period of the Dispatch Days to which the declaration refers and shall correspond to the following mandatory operations:
   a) water supply,
   b) irrigation, and
   c) ecological supply.
2. The Balancing Service Providers representing Dispatchable Hydro Generating Units must substantiate the energy quantity declarations for the mandatory operations on a weekly basis, by submitting data on the said operations and on the inflow-outflow water balance in the reservoirs. The data substantiating the declarations shall be both actuarial and budget data and shall be published on the website of the HETS operator. The weekly mandatory hydro management declarations for each Dispatchable Hydro Generating Unit are binding and cannot be amended for energy quantities corresponding to paragraph 1, item (c), of this article.
3. Balancing Service Providers representing Dispatchable Hydro Generating Units may submit a request for amendment of the weekly mandatory hydro management declaration with regard to the information as per paragraph 1 of this Article for emergency reasons, which include cases of violation of the Maximum Reservoir Safety Level, other safety reasons or special works and third-party claims. The Balancing Service Provider shall fully substantiate the request for amendment. The HETS Operator may request additional information at a later stage if in its judgment the justification is not complete. In case of amendment of the weekly mandatory hydro management declaration, the HETS Operator shall notify the Participants as soon as possible.

Article7.4 Daily Mandatory Hydro Management Declarations

1. Balancing Service Providers representing Dispatchable hydro Generating Units are required to notify the HETS Operator of a forecasted change in any components affecting mandatory hydro management as soon as possible after the occurrence of the event. In particular, they are required to inform the HETS Operator with regard to:

a) the water level in the reservoir of the Dispatchable hydro Generating Units and the expected changes therein, especially if a violation of the Safety Maximum Reservoir Level is ascertained or forecasted,

b) the water supply in the reservoir of the Dispatchable hydro Generating Unit (instantaneous or average for a specific period),

c) any necessary measures taken for the safety of the reservoir dams when increased water supplies are observed,

d) the modification of irrigation needs,

e) special works and third-party claims or

f) other safety reasons (Force Majeure).

2. Balancing Service Providers representing Dispatchable Hydro Generating Units are required to submit daily mandatory hydro injection declarations to the HETS Operator before 09:30 EET on the previous Dispatch Day. Furthermore, they are also required to submit daily mandatory hydro injection declarations to the HETS Operator as soon as possible after the occurrence of any event affecting the management of hydro resources subject to mandatory reporting.

3. A deviation of the daily mandatory hydro injection declaration from the weekly mandatory hydro management declaration is allowed only in the following cases:

a) modification water supply needs,

b) modification of irrigation needs,

c) avoidance of overflow,

d) special works and third-party claims and

e) other safety reasons (Force Majeure).

4. Any deviation of the daily mandatory hydro injection declaration from the weekly mandatory hydro management declaration shall be fully substantiated by the Balancing Service Provider. The HETS Operator may request additional information at a later stage if in its judgment the justification is not complete. In case of amendment of the weekly mandatory hydro management declaration, the HETS Operator shall notify the Participants as soon as possible.

5. If an amended daily mandatory hydro injection declaration is submitted during the Dispatch Day to which the declaration refers, the HETS Operator shall:

a) depending on the extent of the amendment, decide if an execution of an ad-hoc ISP is required,

b) include the amended daily mandatory hydro injection declarations in the Balancing Energy Market, and

c) have the possibility to allocate the additional quantities within the Dispatch Day, so that the operation of the HETS is ensured and the operation of the Balancing Market is not disturbed to the extent possible.

SECTION IV. INTEGRATED SCHEDULING PROCESS

~~CHAPTER 7~~

CHAPTER8. GENERAL PROVISIONS

~~Article 35.~~Article8.1 Scope

This section presents:

~~1)~~a) the exchange of information between the Day-Ahead Market and the Intra-Day Market on the one hand and the Balancing Market on the other,

~~2)~~b) the procedure and the conditions for the submission of a Total or Partial non-Availability Declaration by the Balancing Service Providers for the Balancing Service Entities they represent,

~~3)~~c) the procedure for the submission of a Techno-Economic Declaration by the Balancing Service Providers for the Balancing Service Entities they represent,

~~4)~~d) the procedure for the submission of ISP Balancing Energy Offers by the Balancing Service Providers for the Balancing Service Entities they represent,

~~5)~~e) the procedure for the submission of Balancing Capacity Offers by the Balancing Service Providers for the Balancing Service Entities they represent, and

~~6)~~f) details on the implementation of the Integrated Scheduling Process (ISP).

~~Article 36.~~Article8.2 General Provisions for the Integrated Scheduling Process

1. ISP aims to (a) commit the Balancing Capacity needed in the short term and (b) to achieve a schedule that shall meet the technical constraints of the HETS and the Balancing Service Entities based on ex ante estimation of any HETS Imbalances.
2. All procedures and actions related to ISP shall refer to a specific Dispatch Day D.
3. The Dispatch Day to which the ISP refers, coincides with the Delivery Day of the Day-Ahead Market and the Intra-Day Market. Dispatch Day D shall start at 01:00 EET of calendar day D and shall end at 01:00 EET of calendar day D +1.
4. A Dispatch Day consists of individual Dispatch Periods. The duration of each Dispatch Period is set at half an hour. The first Dispatch Period of Dispatch Day D is 01:00 – 01:30 EET.
5. The ISP shall be executed at three scheduled times:
   a) one (ISP1) which shall be executed at 16:45 EET on calendar day D-1 and shall cover all Dispatch Periods of Dispatch Day D,
   b) one (ISP2) which shall be executed at 00:00 EET on calendar day D and shall cover all Dispatch Periods of Dispatch Day D, and
   c) one (ISP3) which shall be executed at 12:00 EET on calendar day D and shall cover the last twenty-four (24) Dispatch Periods of Dispatch Day D,
6. The HETS Operator may execute the ISP at any time for all or for certain Dispatch Periods ("ad-hoc ISP"), in the event of an occurrence which significantly affects the scheduling of the Balancing Service Entities and the dispatch of the Balancing Capacity. Such events

include but are not limited to, significant changes in the zonal Load Forecast, or zonal RES Units Forecast, or the availability of resources, or the HETS conditions.

7. The following products shall be used in the ISP:
   a) upward and downward Balancing Energy without distinction between ~~manual FRR~~mFRR and ~~automatic FRR.~~aFRR;
   b) the following Balancing Capacity products:
      i. Upward and downward FCR,
      ii. Upward and downward ~~automatic FRR~~aFRR, and
      iii. Upward and downward ~~manual FRR.~~mFRR,
8. The submission of ~~the~~ Balancing Capacity Offers and ~~the~~ ISP Balancing Energy Offers ~~of the~~by Balancing Service Providers to the ISP, for Dispatch Day D shall start at 14:00 EET on calendar day D-1 and shall end at 16:45 EET on calendar day D-1. During this time period, the Balancing Service Providers may submit Offers for the Balancing Service Entities they represent, as many times as they wish. Only the last validated Offers shall be taken into consideration in the execution of the ISP.
9. The Deadline for the Submission of ISP Offers is set at 16:45 EET.
10. The HETS Operator shall draw up a timetable for the activities governing the actions required for the execution of the ISP, which shall include the actions required during calendar days D and D-1. This ~~timetable shall be published on~~schedule is set out in the ~~website of~~Technical Decision pertaining to the ~~HETS Operator.~~Integrated Scheduling Process.
11. Details on the ISP are provided in the Technical Decision: “Integrated Scheduling Process”.

~~Article 37.~~Article8.3 Transmission of information to the HETS Operator within the framework of the ISP

1. The Energy Exchange shall transmit ~~to the HETS Operator, for~~details of each Market Time Unit ~~of~~for each Dispatch Day~~, no later than 15~~ to the HETS Operator delivered within 20 minutes ~~after~~of the ~~last Local Intra-Day Auctions Gate Closure Time or~~final deadline for submission of bids in either the ~~Complementary Regional Intra-Day~~Intraday Auction or ~~the~~ Continuous ~~Intra-Day~~Intraday Trading, containing the following information:
   a) The Scheduled Energy Exchanges and the corresponding purchase prices, for each inter-zonal corridor, as calculated in the results of the Day-Ahead Market and the Intra-Day Market.
   b) The Market Schedules, i.e. the algebraic sum of the energy volumes of the accepted Day-Ahead and Intra-Day Market Orders per Market Time Unit of the Dispatch Day for each of the following Entities:
      ~~1.~~i. Dispatchable Generating Units in normal operation,
      ~~2.~~ii. Dispatchable Generating Units in Testing Operation:
      ~~3.~~iii. generating units in Commissioning Operation,
      ~~4.~~iv. Dispatchable RES Units Portfolios per Bidding Zone in normal operation,
      ~~5.~~v. Dispatchable RES Units Portfolios per Bidding Zone in Testing Operation,
      ~~6.~~vi. Non-Dispatchable RES Units Portfolios per Bidding Zone in normal operation,

~~7.~~vii. Non-Dispatchable RES Units Portfolios per Bidding Zone in Testing Operation or in Commissioning Operation,

~~8.~~viii. RES Units Portfolio without Market Participation Obligation per Bidding Zone,

~~9.~~ix. Load Portfolios per Bidding Zone,

x. Dispatchable Load Portfolios per Bidding Zone,

~~10.~~xi. Pumping load from Dispatchable Pumped Storage hydro Generating Units.

c) The Market Schedules related to the HETS Losses per Bidding Zone, as calculated in the results of the Day-Ahead Market and the Intra-Day Market.

2. The Distribution Network Operators shall notify the HETS Operator as soon as possible in case of disconnection:

   a) of any component of the Distribution Network that may affect the normal operation of the HETS in real time,

   b) of any load connected to the Distribution Network which may affect the zonal Load Forecast performed by the HETS Operator in the context of the Balancing Market operation, and

   c) of any RES Unit connected to their Distribution Network, which may affect the zonal RES Forecast performed by the HETS Operator in the context of the Balancing Market operation.

3. The Distribution Network Operators shall immediately notify the HETS Operator, on justifiable grounds, if they plan to have a load curtailment or any other Network operations that are expected to cause a decrease in load in excess of ten (10) MW at a specific point of connection to the HETS.

4. The Load Representatives that have submitted a Buy Order to the Electricity Markets managed by the Energy Exchange are obliged to immediately notify the HETS Operator of any possible changes in the energy volumes that correspond to the load meters they represent. The Load Representatives that have not submitted a Buy Order to the Electricity Markets managed by the Energy Exchange for load meters they represent on the Dispatch Day in question, in accordance with the Meter to Load Representative Correspondence Table as defined in the HETS Grid Code, are obliged to notify the HETS Operator of any possible changes in the total load they expect those load meters to offtake for each Dispatch Period of the Dispatch Day.

5. The RES Producers and / or RES Aggregators representing RES Units Portfolios, shall submit injection forecasts for each Dispatch Period of the Dispatch Day no later than two (2) hours prior to the execution of each scheduled ISP.

~~CHAPTER 8~~

CHAPTER9. ~~HETS~~HELLENIC ELECTRICITY TRANSMISSION SYSTEM OPERATOR OBLIGATIONS

~~Article 38.~~Article9.1 HETS Operator Obligations

1. In the framework of the ISP, the HETS Operator shall prepare and then publish on its website until 09:30 EET of calendar day D-1 the following forecasts for each Dispatch Period of Dispatch Day D:
   a) The zonal Load Forecasts,
   b) The zonal RES Units Forecasts, which includes the forecast of the Portfolios of non-Dispatchable RES Units and of the Portfolios of Dispatchable Intermittent RES Generation Units,
   c) ~~the~~ zonal and systemic upward and downward ~~HETS~~ needs of the HETS in FCR, ~~automatic FRR~~aFRR, and ~~manual FRR~~mFRR.
2. The above forecasts shall be updated by the HETS Operator and shall be published on its website in three programmed time periods:
   a) in the framework of ISP1 at 13:30 EET of calendar day D-1,
   b) in the framework of ISP2 at 21:00 EET of calendar day D-1, and
   c) In the framework of ISP3 at 9:00 EET of calendar day D,
3. The HETS Operator shall keep records of the data and the parameters used for the above forecasts, as well as the results of such forecasts for each calendar year.
4. The HETS Operator shall not be liable for the accuracy of the forecasts it prepares in the framework of its obligations under this Rulebook.
5. The HETS Operator publishes statistical data on the accuracy of the above forecasts within two (2) months from the end of each calendar year. The above data shall be communicated to ~~RAE~~the RAEWW.
6. The HETS Operator determines the inter-zonal transfer capacity between the internal Bidding Zones and identify the imbalances in the import/export schedules in the interconnections for the execution of the ISP.
7. The HETS Operator publishes on its website the availability of the Dispatchable Generating Units based on their Non-Availability Declarations at 09:30 EET of calendar day D-1, three (3) hours prior to the execution of each scheduled ISP and whenever there is a significant change in availability.
8. The HETS Operator calculates the constraints in the maximum daily energy injection from Dispatchable Natural Gas Units for the total of Dispatchable Natural Gas Units or for individual groups of Dispatchable Natural Gas Units after having received the volumes of the maximum daily Natural Gas consumption from DESFA.
9. The HETS Operator executes the ISP, it shall notify each Balancing Service Provider of the ISP results that refer to the Balancing Service Entities it represents and shall publish the results on its website.
10. ~~By~~Before the end of week W+1, the HETS Operator ~~sends~~shall send to ~~RAE~~ the RAEWW details of the minimum variable cost of ~~power~~ generation ~~incurred by the~~ for thermal

Dispatchable ~~thermal~~ Generating Units for each day of Settlement Week W. The cost for each thermal Dispatchable ~~thermal~~ Generating Unit shall be calculated, based on the data ~~in~~of the table ~~set out~~presented in Article10.3 of this Rulebook, in accordance with the ~~provisions in~~'Methodology for Calculating the ~~"~~Variable ~~Cost Parameters for~~Costs of Dispatchable Thermal ~~Generating Units Calculation Methodology".~~Units'.

~~Article 39.~~Article9.2 Zonal Load Forecasting

The HETS Operator shall prepare the zonal Load Forecasts for the Dispatch Periods under consideration, taking into account the following information:

a) Historical data on Load Portfolios and statistics deriving from the processing of the historical data, including, but not limited to, the evolution of load per energy use category,

b) the weather forecast, historical data on load under similar weather conditions, comparable statistics, as well as the covariance of load and weather parameters,

c) events that the HETS Operator already anticipates,

d) operations in the HETS and/or the Distribution Network affecting the half-hourly energy offtake at a Transmission Meter, of which the HETS Operator has been informed, and

e) other information collected and notified to the HETS Operator.

~~Article 40.~~Article9.3 Zonal RES Units Forecasting

The HETS Operator shall prepare the zonal RES Units Forecasts for the Dispatch Periods under consideration, taking into account the following information:

a) historical data on injections of RES Units, as well as statistics deriving from the processing of the historical data,

b) weather forecasts (wind speed, sunshine, etc.), historical data on injections of RES Units under similar weather conditions, comparable statistics, as well as the covariance of RES Units injections and weather parameters,

c) events that the HETS Operator already anticipates,

d) other information collected and notified to the HETS Operator.

~~Article 41.~~Article9.4 Determination of Zonal/Systemic Balancing Capacity Needs

The HETS Operator shall determine the zonal and ~~system~~systemic needs in Balancing Capacity for the (a) FCR, (b) ~~automatic FRR~~aFRR and (c) ~~manual FRR~~mFRR, in order to ensure an adequate system response ~~/~~ /regulation ~~/~~ /reserve within the acceptable limits as established in the HETS Grid Code, taking into account the particular characteristics of the HETS, as defined in the ~~"~~'Methodology for Determination of Zonal/Systemic Balancing Capacity ~~Needs",~~Needs', which is approved by ~~RAE~~the RAEWW following a proposal by the HETS Operator in accordance with the provisions of ~~par.~~paragraph 4 of Article 18 of Law 4425/2016.

~~CHAPTER 9~~

CHAPTER10. OBLIGATIONS OF BALANCING SERVICE PROVIDERS

~~Article 42.~~Article10.1 General Obligations of Balancing Service Providers

1. Balancing Service Providers representing Dispatchable Generating Units ~~have the obligation to submit~~and Dispatchable Pumped Hydroelectric Generating Units shall submit the following to the HETS Operator:
   a) ISP Balancing Energy Offers,
   b) Balancing Capacity Offers,
   c) Techno-Economic Declarations,
   d) Non-Availability Declarations and
   e) Major Outage Declarations.
2. Balancing Service Providers representing Dispatchable RES Units Portfolios or Dispatchable Load Portfolios are entitled to submit to the HETS Operator:
   a) ISP Balancing Energy Offers, and
   b) Balancing Capacity Offers.
3. In ~~case~~the event that the Balancing ~~Service~~Services Providers representing Dispatchable RES ~~Units~~Unit Portfolios or Dispatchable Load Portfolios should submit ~~to the HETS Operator~~ ISP Balancing Energy Offers and/or Balancing Capacity ~~Offers~~Bids to the HETS Operator, they ~~may~~must submit Non-Availability Declarations to the HETS Operator for ~~that particular~~the specific Dispatch Day~~.~~.
4. Balancing Service Providers representing Balancing Service Entities, which wish to be placed under Commissioning Operation regime lasting more than four (4) hours and Balancing Service Providers representing entities under Testing Operation regime are obliged to submit to the HETS Operator preliminary Declarations of Operating Schedules in Commissioning Operation or Testing Operation at 08:00 EET for Dispatch Day, D and revised by 09:30 EET of Dispatch Day D-1. The above Balancing Service Providers have the right to submit to the HETS Operator updated schedules of Commissioning Operation or Testing Operation. The initial Declarations of Operation Schedules and the updated schedules of Commissioning Tests or Testing Operation are accepted after the approval of the HETS Operator, which is communicated to the Balancing Service Providers.
5. The above Declarations of Operation Schedules concern an entire Dispatch Day and the relevant Operation Schedule for the last hour of the specific Dispatch Day is zero. Exceptionally, the above Declarations of Operation Schedules may include a non-zero quantity at the last hour of the Dispatch Day if the Commissioning Operation or Operation Tests continue on the following Dispatch Day.
6. The Balancing Service Providers representing Balancing Service Entities, which wish to be placed under Commissioning Operation regime lasting four (4) hours or more for the Dispatch Day, D submit to the HETS Operator Declarations of Operation Schedules for Commissioning Operation until 17:00 EET in Dispatch Day, D-1 and updated Commissioning Operation schedules within Dispatch Day, D. The above declarations are not considered in the Day-Ahead Market as well as in ISP. The ~~relevant Operation~~respective Operating Schedule for ~~the~~ Dispatchable ~~Generation~~Generating Units and Dispatchable ~~Intermittent~~ RES Portfolios for the last mFRR Time Unit of ~~the~~ Commissioning Trial Operation must be equal to the relevant Market Schedule for that specific Market Time Unit. The above Commissioning Operation is carried out after

approval by the HETS Operator. In particular, for the Dispatchable Generation Units and the Portfolios of Dispatchable Intermittent RES Units, the above Commissioning Operation is carried out after approval by the HETS Operator if the following are cumulatively met:

a) according to the results of the ISP for each Dispatch Period within the intended duration of the Commissioning Operation, the Generation Unit or the Portfolio of Dispatchable Intermittent RES Units is loaded at least to its Technically Minimum Generation, and

b) after checking by the HETS Operator, no problems arise in the safe operation of the System during the intended duration of the Commissioning Operation

7. The Balancing Service Providers representing Dispatchable hydro Generating Units have the obligation to submit to the HETS Operator hydro resources management declarations in accordance with CHAPTER7 of this Rulebook.

8. The Balancing Service Providers representing Dispatchable hydro Generating Units shall submit, if required, to the HETS Operator declarations of maximum daily energy Injection constraint in accordance with ~~CHAPTER 5~~CHAPTER7 of this Rulebook. The Regulatory Authority for Energy, ~~exercising~~Waste and Water may exercise its powers~~, may~~ to request and ~~check~~review the ~~above~~aforementioned declarations.

~~Article 43.~~Article10.2 Available Capacity

1. The Available Capacity of the Balancing Service Entities is used in the ISP and in the Balancing Energy Market.

2. Minimum Available Capacity means the Technically Minimum Generation, as modified by the Balancing Service Entity.

3. Maximum Available Capacity of a Dispatchable Generation Unit means the Maximum Net Capacity, as modified on the basis of the Non-Availability Declarations and Major Outage Declarations of the Balancing Service Provider representing it. In case of Total Non-Availability, Maximum Available Capacity is zero. In case of Partial non-Availability, Maximum Available Capacity is modified on the basis of the non-Availability Declaration.

4. Available Capacity of a Dispatchable RES Units Portfolio or a Dispatchable Load Portfolio means the dispatchable capacity resulting from the Registered Characteristics of the Portfolio, as modified by the Balancing Service Provider representing it on the basis of the Non-Availability Declarations.

~~Article 44.~~Article10.3 Techno-Economic Declarations

1. Balancing Service Providers representing Dispatchable Generating Units shall submit Techno-Economic Declarations to the HETS Operator, separately for each Balancing Service Entity.

2. The Balancing Service Providers representing Dispatchable Generating Units with Alternative Fuel are required to submit separate Techno-Economic Declarations for the operation both with the primary and the alternative fuel.

3. The Producers representing Dispatchable Multi-Shaft Combined Cycle Generating Units are additionally required to submit separate Techno-Economic Declarations for all possible configurations (combinations of gas turbine and steam turbine operation) of their Dispatchable Generating Units.

4. The Techno-Economic Declarations shall include the data of the following tables. The financial data of the Techno-Economic Declaration must reflect the actual operating costs of the Balancing Service Entities.

A. Technical parameters				
Description		**Numerical value**	**Unit of Measurement**	
Maximum daily energy injection			MWh	
B. Variable Cost Parameters for Dispatchable Thermal Generating Units				
Fuel cost by fuel type	Fuel A		€/unit of quantitative measurement	
	Fuel B			
	Fuel C			
Lower Heating Value of Fuel by fuel type	Fuel A		GJ/unit of quantitative measurement	
	Fuel B			
	Fuel C			
Percentage composition of fuels on each capacity interval of the Specific Heat Consumption function.	**Net Generation Level (MW)**	**Fuel A (%)**	**Fuel B (%)**	**Fuel C (%)**
	1.			
	2.			
	3.			
	4.			
	5.			
	6.			
	7.			
	8.			
	9.			
	10.			
Average Special cost of raw materials besides fuel for all capacity intervals of the Specific Heat Consumption function.	**Net Generation Level (MW)**		**Cost (euro/MWh)**	
Average Special cost of additional maintenance costs due to operation, (excluding fixed maintenance costs) for all capacity intervals of the Specific Heat Consumption function.	**Net Generation Level (MW)**		**Cost (euro/MWh)**	
Average special cost of CO^2 emissions for all capacity intervals	**Net Generation Level (MW)**		**Cost (euro/MWh)**	

of the Specific Heat Consumption function.		

5. The fuel cost referred to in the Techno-Economic Declarations corresponds to all costs incurred by the Balancing Service Provider for the supply of fuel irrespective of the type of individual cost factors. The cost per one unit of fuel quantity shall be calculated as if the fuel was supplied to the Balancing Service Provider by an independent third party at a uniform fuel price for each unit of fuel quantity. In case that fuel cost cannot be evidenced by documents, it shall be calculated as the ratio between the total expenses or the total cost for fuel supply, as recorded over a reasonable period of time, and the total quantity of fuel supplied to the Balancing Service Provider for the Dispatchable Generating Unit over the same period of time.
6. A Techno-Economic Declaration submitted for a Dispatchable Auto-producer Unit, shall refer only to the part of Unit Capacity that corresponds to the Maximum Net Capacity of the Unit, as defined in the Balancing Market Generating Units Registry.

~~Article 45.~~Article10.4 Techno-Economic Declaration Submission Procedure

1. Techno-Economic Declarations shall be submitted for each Dispatch Day, within the Deadline for Submission of the ISP Offers. For the duration of that period, Balancing Service Providers may submit Declarations for the Balancing Service Entities they represent as many times as they wish. Only the last validated Declarations shall be taken into consideration in the execution of the ISP.
2. The Techno-Economic Declaration may refer to one or more Dispatch Days. A more recent Techno-Economic Declaration shall replace the one preceding it, provided it is submitted in accordance with paragraph 1 of this Article.
3. Declarations submitted to the ISP shall be taken into consideration for the execution of ISP1, ISP2 and ISP3, as well as for any ad hoc ISP. Any submission of a Techno-Economic Declaration after the Expiration of the Deadline for Submission of ISP Offers (for the first Dispatch Day to which the Declaration refers) shall not be accepted.

~~Article 46.~~Article10.5 Acceptance and Rejection of the Techno-Economic Declaration by the HETS Operator

The HETS Operator shall accept the Techno-Economic Declarations provided that they have been submitted in time and comply with the requirements set out in Article10.3 and Article10.4 of this Rulebook. In the event that a Techno-Economic Declaration does not meet the above requirements, the last legally submitted Declaration.

~~Article 47.~~Article10.6 Non-Availability Declarations

1. ~~The~~ Balancing Service Providers, who have a corresponding obligation pursuant to Article10.1 of this Rulebook, shall ~~immediately~~ submit ~~to the HETS Operator a~~a Declaration of Total or Partial Non-Availability ~~Declaration~~ for each Balancing Service Entity directly to the HETS Operator for each Dispatch Day during which there is reduced Available Capacity of the Balancing Service Entity ~~has a reduced Available Capacity in comparison~~compared to ~~the one~~that arising out of the Declared Characteristics. Reduced Available Capacity may occur in case of failure for technical reasons, related to the operation or the safety of its facilities, or for other reasons.

2. The Balancing Service Providers submit the initial Non-Availability Declarations for the Balancing Service Entities they represent for the Dispatch day, D until 09:00 EET f Dispatch Day, D-1 and the updated Non-Availability Declarations immediately after a reduction in the available capacity entries into force.
3. The Producers representing Dispatchable Units with Alternative Fuel are required to submit separate non-Availability Declarations for the operation of their Dispatchable Generating Units both with the primary and the alternative fuel.
4. The Producers representing Dispatchable Multi-Shaft Combined Cycle Generating Units are obliged to submit separate non-Availability Declarations for each configuration of their Dispatchable Generating Units.
5. The Total or Partial non-Availability Declarations shall include at least the following:
   a) the Dispatch Periods within a Dispatch Day or the Dispatch Days when non-availability is expected to occur,
   b) the non-Available Capacity for each Dispatch Period of the Dispatch Day or the Dispatch Days, and
   c) a detailed technical description of the reasons for the total or partial non-availability.
6. Without prejudice to the provisions of Article10.8 hereof, non-Availability Declarations shall remain in effect for all the Dispatch Periods to which they refer, unless they are revoked or amended by the Balancing Service Providers that submitted them.

~~Article 48.~~Article10.7 Major Outage Declaration

1. The Balancing Service Provider is required to submit directly to the HETS Operator a Major Outage Declaration for each Dispatchable Generating Unit it represents, if the respective Balancing Service Entity is unable to operate for technical reasons, for a period that is expected to exceed a continuous period of ten (10) consecutive days in periods of high-demand (from 15 June to 15 August and from 10 December to 31 January) and two months for the remainder of the year, for each Dispatch Day during which the outage exists.
2. The Producers representing Dispatchable Generating Units with Alternative Fuel are required to submit separate Major Outage Declarations for the operation of their Dispatchable Generating Units both with the primary and the alternative fuel.
3. The Producers representing Dispatchable Multi-Shaft Combined Cycle Generating Units are obliged to submit separate Major Outage Declarations for each configuration of their Dispatchable Generating Units.
4. The Major Outage Declarations shall include at least the following:
   a) the Dispatch Days on which the failure is expected to occur,
   b) a detailed technical description of the causes of the failure and the expected recovery time.
5. Major Outage Declarations shall remain in effect for all the Dispatch Periods to which they refer, unless they are revoked or amended by the Balancing Service Providers that submitted them.

~~Article 49.~~Article10.8 Acceptance and Rejection of Non-Availability Declarations and Major Outage Declarations

1. The HETS Operator shall accept the submitted non-Availability or Major Outage Declarations provided they meet the conditions of this Chapter. ~~In case~~If the ~~submitted~~ Declarations submitted do not meet the conditions of this Chapter, ~~the Declarations~~they shall ~~not~~ be ~~accepted~~rejected by a ~~reasoned~~duly justified decision of the Operator, which shall be ~~notified~~forwarded to the Balancing Service Provider and to ~~RAE~~the RAEWW.
2. The Balancing Service Provider is entitled to object to the decision of the HETS Operator within five (5) days from the notification of the decision. The HETS Operator shall issue a final reasoned decision on the objection within five (5) days from the notification of the objection. If no decision is issued within that period, the objection shall be considered to have been tacitly rejected.
3. In case the Partial non-Availability Declaration or the Total non-Availability Declaration or the Major Outage Declaration for a Dispatch Period is rejected, the Available Capacity of the Dispatchable Generating Unit shall be equal to Maximum Available Capacity.

~~CHAPTER 10~~

CHAPTER11. BALANCING CAPACITY OFFERS TO THE ISP

~~Article 50.~~Article11.1 Submission of Balancing Capacity Offers to the ISP

1. Balancing Capacity Offers represent the intention to provide reserves for the Balancing Capacity products referred to in ~~Article 36~~Article8.2(7) of this Rulebook:
   a) Upward and downward FCR,
   b) Upward and downward ~~automatic FRR~~aFRR, and
   c) Upward and downward ~~manual FRR.~~mFRR,
2. The Balancing Service Providers representing Dispatchable Generating Units that are registered with the Balancing Market Generating Units Registry are obliged to submit to the ISP, for each Balancing Capacity product, on condition that they possess the relevant technical capacity:
   a) an upward Balancing Capacity Offer per Balancing Service Entity for each Dispatch Period of the Dispatch Day, for a total upward Balancing Capacity quantity that corresponds to the Registered Characteristics (Maximum contribution to FCR, Maximum contribution to ~~automatic FRR~~aFRR, Maximum contribution to ~~manual FRR~~mFRR) and
   b) a downward Balancing Capacity Offer per Balancing Service Entity for each Dispatch Period of the Dispatch Day, for a total downward Balancing Capacity ~~quantity that corresponds~~amount corresponding to ~~the~~its Registered Characteristics (Maximum contribution to FCR, Maximum contribution to ~~automatic FRR~~aFRR, Maximum contribution to ~~manual FRR~~mFRR).

~~3. The Producers representing Dispatchable Generating Units with Alternative Fuel are obliged to submit separate Balancing Capacity Offers for the operation both with the primary and the alternative fuel.~~

~~4.~~3. The Producers representing pumped storage Dispatchable hydro Generating Units are obliged to submit separate Balancing Capacity Offers for generation and pumping. The submission of Balancing Capacity Offers for the pumping operation is not obligatory.

~~5.~~4. The Producers representing Dispatchable Multi-Shaft Combined Cycle Generating Units are required to submit separate Balancing Capacity Offers for each configuration of their Units.

~~6.~~5. The Balancing Service Providers representing Dispatchable RES Units Portfolios are entitled to submit to the ISP for each Balancing Capacity product:

a) an upward Balancing Capacity Offer per Balancing Service Entity for each Dispatch Period of the Dispatch Day, for a ~~total~~ quantity no greater than ~~its~~the Registered Characteristics (Maximum contribution to FCR, Maximum contribution to ~~automatic FRR~~aFRR, Maximum contribution to ~~manual FRR~~mFRR), and

~~a)~~b) a downward Balancing Capacity Offer per Balancing Service Entity for each Dispatch Period of the Dispatch Day, for a quantity no greater than ~~its~~the Registered Characteristics (Maximum contribution to FCR, Maximum contribution to ~~automatic FRR~~aFRR, Maximum contribution to ~~manual FRR~~mFRR).

~~7.~~6. The Balancing Service Providers representing Dispatchable Load Portfolios are entitled to submit to the ISP for each Balancing Power Product:

a) an upward Balancing Capacity Offer per Balancing Service Entity for each Dispatch Period of the Dispatch Day, for a ~~total~~ quantity ~~which shall be~~ no ~~higher~~greater than its Registered Characteristics (Maximum contribution to FCR, Maximum contribution to ~~automatic FRR~~aFRR, Maximum contribution to ~~manual FRR), and~~mFRR).

b) a downward Balancing Capacity Offer per Balancing Service Entity for each Dispatch Period of the Dispatch Day, for a ~~total~~ quantity ~~which is~~ no ~~higher~~greater than its Registered Characteristics (Maximum contribution to FCR, Maximum contribution to ~~automatic FRR~~aFRR, Maximum contribution to ~~manual FRR~~mFRR).

~~8.~~7. The offers submitted to the ISP shall be taken into consideration for the execution of ISP1, ISP2 and ISP3, as well as for any ad-hoc ISP. A re-submission of Offers before ISP2 and ISP3 or for any ad hoc ISP is not allowed.

~~9.~~8. Details of how to submit Balancing Capacity Offers to ISP are described in the Technical Decision “Integrated Scheduling Process”.

~~Article 51.~~Article11.2 Content and Form of ~~the~~ Balancing Capacity Offers

1. The Balancing Capacity Offers for each Balancing Service Entity and for each Dispatch Period shall consist of individual steps and shall refer to all types of Balancing Capacity for which their Balancing Service Entities have the required technical capacity as per their Registered Characteristics. Each step shall contain the price of the Balancing Capacity Offer in €/MW - hour, accurate to two (2) decimal places, and the quantity of the Balancing Capacity Offer in MW, accurate to one (1) decimal place.

~~1.~~2. The minimum quantity of the Balancing Capacity Offer shall be equal to one (1) MW.

~~2.~~3. The upward Balancing Capacity Offer shall include between one (1) and ten (10) steps. The Balancing Capacity Offer price for each successive step may not be reduced in relation to the price of the Offer for the preceding step.

~~3.~~4. The downward Balancing Capacity Offer shall include between one (1) and ten (10) steps. The Balancing Capacity Offer price for each successive step may not be reduced in relation to the price of the Offer for the preceding step.

~~4.~~5. ~~The~~ Balancing Capacity Offers for each Dispatch Period of ~~the~~a Dispatch Day shall be submitted separately for upward and downward FCR Balancing Capacity, for upward and downward ~~automatic FRR~~aFRR Balancing Capacity and for upward and downward ~~manual FRR~~mFRR Balancing Capacity. The price for each step of the above offers shall be greater or equal to the Balancing Capacity Offer Minimum Price and less than or equal to the Balancing Capacity Offer Maximum Price for each type of reserve. ~~The above Balancing Capacity Offer Prices shall be submitted in €/MW per hour per Dispatch Period and shall be accurate to two (2) decimal places.~~

~~5.~~6. The numerical values of the Balancing Capacity Offer Minimum Price and the Balancing Capacity Offer Maximum Price are specified in the Technical Decision "Technical limits on bidding and clearing prices in the Balancing Market". This Technical Decision shall be issued at least two (2) months prior to the date of enforcement of the new values of the above limits.

~~Article 52.~~Article11.3 ~~Amendment and Acceptance~~Validation of ~~the~~ Balancing Capacity Offers

1. In the event that a Balancing Capacity Offer is not submitted in accordance with Article11.1 and Article11.2, the Balancing Capacity Offer for all Dispatch Periods of the Dispatch Day shall be automatically rejected by the Balancing Market System. In that case, the grounds for the rejection shall be notified to the Balancing Service Providers through the Balancing Market System. The Balancing Service Provider may re-submit a Balancing Capacity Offer until the Expiration ~~of the Deadline~~Date for ~~the~~ Submission of ~~ISP~~ Offers to the ISP. If the Balancing Capacity Offer is submitted in accordance with Article11.1 and Article11.2, the Balancing Capacity Offer shall be validated. Only the last validated Balancing Capacity Offers shall be taken into consideration for the execution of the ISP.

2. In case the Balancing Service Providers representing Dispatchable RES Units Portfolios or Dispatchable Load Portfolios do not submit Balancing Energy Offers for a quantity that corresponds at least to the offered quantity of Balancing Capacity for a Dispatch Period, the Balancing Capacity offers for the respective Dispatch Period shall be automatically rejected by the Balancing Market System.

3. After the Expiration ~~of the Deadline~~Date for ~~the~~ Submission of ~~ISP~~ Offers~~,~~ to the ISP, Balancing Capacity Offers ~~cannot~~may not be modified and shall be used as ~~they are~~ is for ~~the execution~~resolution of the Integrated Scheduling Processes of ISP1, ISP2, ISP3, and ~~ISP3~~any other ISP requirement.

~~**Άρθρο 53. Consequences of non-submission of Balancing Capacity Offers**~~

4. In case of non-submission or non-acceptance of Balancing Capacity Offers for a Dispatch Day in connection with a Balancing Service Provider that is obliged to submit a Balancing Capacity Offer in accordance with Article11.1, the Balancing Market System shall automatically create Balancing Capacity Offers for the respective Dispatchable Generating Unit and for all Dispatch Periods of the Dispatch Day, establishing prices equal to the corresponding prices included in the last validated Balancing Capacity Offer of the previous day. The Offers which are created automatically by the Balancing Market System shall be considered as having been submitted by the Participant and shall produce all the

results provided for in this Rulebook, as if these Offers had been submitted by the Participant.

~~CHAPTER 11~~

CHAPTER12. BALANCING ENERGY OFFERS TO THE ISP

~~Article 54.~~Article12.1 Submission of Balancing Energy Offers to the ISP

1. ~~An~~ ISP Balancing Energy ~~Offer corresponds~~Offers correspond to ~~the~~an intention to provide upward or downward Balancing Energy in relation to the Market Schedule of the respective Balancing Service Entity.
2. An upward ISP Balancing Energy Offer is:
   a) the possibility of increase in the production level of the Dispatchable Generating Units and Dispatchable RES Units Portfolios in comparison to their Market Schedule,
   b) the possibility of decrease in the consumption level of Dispatchable Load Portfolios in comparison to their Market Schedule.
3. A downward ISP Balancing Energy Offer is:
   a) the possibility of decrease in the production level of the Dispatchable Generating Units and Dispatchable RES Units Portfolios in comparison to their Market Schedule,
   b) the possibility of increase in the consumption level of Dispatchable Load Portfolios in comparison to their Market Schedule.
4. The Balancing Service Providers representing Dispatchable Generating Units registered with the Balancing Market Generating Units Registry are obliged to submit to the ISP:
   a) an upward ISP Balancing Energy Offer per Balancing Service Entity for each Dispatch Period of the Dispatch Day, for a total upward Balancing Energy quantity equal to the Maximum Net Capacity of the Balancing Service Entity as set out in its Registered Characteristics and
   b) a downward ISP Balancing Energy Offer per Balancing Service Entity for each Dispatch Period of the Dispatch Day, for a total downward Balancing Energy quantity equal to the Maximum Net Capacity of the Balancing Service Entity as set out in its Registered Characteristics.

~~5. The Producers representing Dispatchable Generating Units with Alternative Fuel are obliged to submit separate Balancing Energy Offers for their operation both with the primary and the alternative fuel.~~

~~6.~~5. The Producers representing pumped storage Dispatchable hydro Generating Units are obliged to submit separate Balancing Energy Offers for generation and pumping. The submission of Balancing Energy Offers for the pumping operation is obligatory. In the event of ~~non-submission of~~failure to submit Balancing Energy Offers for ~~the~~ pumping ~~operation~~operations for ~~an~~a Dispatch Day or ~~for~~ certain Dispatch Periods of the Dispatch Day, the Balancing Market System shall automatically generate Balancing Energy Offers for the pumping operation for the corresponding Balancing Service Entity for all Dispatch Periods of the Dispatch Day or for ~~the~~ Dispatch Periods of the Dispatch Day for which no offer was submitted, by setting offer quantities equal to the Maximum Net ~~Capacity~~Power of the Balancing Service Entity ~~and~~, with offer prices equal to the Maximum and Minimum Balancing Energy Offer Limits, as set out in the Technical Decision ~~"~~'Technical limits on

bidding and clearing prices in the Balancing ~~Market",~~Market', subject to the provisions of ~~Article 118A of~~Article27.2 this Rulebook. The Offers which are created automatically by the Balancing Market System shall be considered as having been submitted by the Participant and shall produce all the results provided for in this Rulebook, as if these Offers had been submitted by the Participant.

~~7.~~6. The Producers representing Dispatchable Multi-Shaft Combined Cycle Generating Units are obliged to submit separate Balancing Energy Offers for each configuration of their Dispatchable Generating Units.

~~8.~~7. The Balancing Service Providers representing Dispatchable RES Units Portfolios are entitled to submit to the ISP:

a) an upward ISP Balancing Energy Offer per Balancing Service Entity for each Dispatch Period of the Dispatch Day, for a total upward Balancing Energy quantity which shall be no higher than the dispatchable capacity of the Balancing Service Entity as set out in its Registered Characteristics and

b) a downward ISP Balancing Energy Offer per Balancing Service Entity for each Dispatch Period of the Dispatch Day, for a total downward Balancing Energy quantity which shall be no higher than the dispatchable capacity of the Balancing Service Entity as set out in its Registered Characteristics.

~~9.~~8. The Balancing Service Providers representing Dispatchable Load Portfolios are entitled to submit to the ISP:

a) an upward ISP Balancing Energy Offer per Balancing Service Entity for each Dispatch Period of the Dispatch Day, for a total upward Balancing Energy quantity which shall be no higher than the dispatchable capacity, and

b) a downward ISP Balancing Energy Offer per Balancing Service Entity for each Dispatch Period of the Dispatch Day, for a total downward Balancing Energy quantity which shall be no higher than the dispatchable capacity.

~~10.~~9. ~~The~~ Balancing Service Providers representing Dispatchable RES Units Portfolios or Dispatchable Load Portfolios, with the exception of Dispatchable Hydroelectric Generation Units with pumped storage capacity are obliged to submit upward and downward Balancing Energy Offers to the ISP, provided that they also submit the corresponding Balancing Capacity Offers.

~~11.~~10. The offers submitted to the ISP shall be taken into consideration for the execution of ISP1, ISP2 and ISP3, as well as for any ad-hoc ISP. The re-submission of Offers is not allowed after the Expiration of the Deadline for the Submission of ISP Offers.

~~12. In the event that it is impossible to cover the expected imbalances and/or the zonal/systemic Balancing Capacity requirements for a Dispatch Period of the Dispatch Day, the HETS Operator is entitled to submit an ISP Balancing Energy Offer for each of the Contracted Units and for each Dispatch Period of the Dispatch Day. The Offer price (€/MWh) shall be determined on the basis of the relevant Supplementary System Energy Contract.~~

11. Balancing Energy Offers submitted to the ISP are used in both the mFRR and aFRR Processes as set out in Article15.1.

~~13.~~12. Details of how to submit Balancing Energy Offers to ISP are described in the Technical Decision "Integrated Scheduling Process".

~~Article 55.~~Article12.2 Content and Form of ~~the ISP~~ Balancing Energy Offers to the ISP

1. The upward and downward ISP Balancing Energy Offers for each Balancing Service Entity and for each Dispatch Period shall consist of individual steps. Each step shall contain the price of the Balancing Energy Offer in €/MW, accurate to two (2) decimal places, and a quantity representing the generation/load level of the Balancing Service Entity in MW, accurate to one (1) decimal place. The minimum quantity of the Offer shall be equal to one (1) MW.

2. The upward ISP Balancing Energy Offer shall include between one (1) and ten (10) steps. The price of the ISP Balancing Energy Offer for each successive step may not be reduced in relation to the price of the Offer for the preceding step. For the Balancing Service Entities for which a Technically Minimum Generation is applied, the quantity of the first step of the upward ISP Balancing Energy Offer in MW shall be equal to, at least, the Technically Minimum Generation.

~~3. The quantity of the upward ISP Balancing Energy Offer taken into account in the ISP corresponds to the difference between the Available Capacity of the Balancing Service Provider and the capacity resulting from the Balancing Service Provider's Market Schedule, as in force at the time of submission of the Offer.~~

~~4.~~3. The downward ISP Balancing Energy Offer shall include between one (1) and ten (10) steps. The price of the ISP Balancing Energy Offer for each successive step may not be increased in relation to the price of the Offer for the preceding step. For the Balancing Service Entities for which a Technically Minimum Generation is applied, the quantity of the last step of the downward ISP Balancing Energy Offer in MW shall be equal to, at least, the Technically Minimum Generation.

~~5. The quantity of the downward ISP Balancing Energy Offer corresponds to the difference between zero quantity and the capacity resulting from the Balancing Service Provider's Market Schedule as in force at the time of submission of the Offer.~~

~~6.~~4. ~~The~~ ISP Balancing Energy Offer prices must be within the Balancing Energy Offer Maximum Price and the Balancing Energy Offer Minimum Price, as in force for the Dispatch Period to which the Balancing Energy Offer corresponds.

~~7.~~5. The numerical values of the Balancing Energy Offer Minimum Price and the Balancing Energy Offer Maximum Price are specified in the Technical Decision "Technical limits on bidding and clearing prices in the Balancing Market". This Technical Decision shall be issued at least two (2) months prior to the date of enforcement of the new values of the above limits.

~~8.~~6. In ~~the stepwise~~stepped ISP Balancing Energy Offers for ~~manual FRR~~mFRR of ~~the~~ Dispatchable Load Portfolios, ~~the~~ Balancing Service Providers ~~are entitled~~shall have the right to include a specific quantity per step, which is offered as a ~~whole~~single set and can~~,~~ therefore~~,~~ either be accepted in its entirety or rejected in its entirety by the ISP. The above right is granted to Balancing Service Providers after approval by the HETS Operator following the submission of justification and technical documentation by the Balancing Service Providers.

~~Article 56.~~Article12.3 ~~Amendment and Acceptance~~Validation of ~~the ISP~~ Balancing Energy Offers to the ISP

1. In the event that an ISP Balancing Energy Offer was not submitted in accordance with Article12.1 ~~and Article 55~~ and Article12.2, the ISP Balancing Energy Offer for all Dispatch Periods of the Dispatch Day shall be automatically rejected by the Balancing Market

System. In case of rejection, the grounds for the rejection shall be notified to the Balancing Service Providers through the Balancing Market System. ~~The~~ Balancing Service ~~Provider~~Providers may re-submit an ISP Balancing Energy Offer ~~until the Expiration of~~before the Deadline for ~~the~~ Submission of ISP Offers. If the ISP Balancing Energy Offer is submitted in accordance with Article12.1 and Article12.2, the ISP Balancing Energy shall be validated. Only the last validated ISP Balancing Energy Offers shall be considered for the execution of the ISP.

2. After the ~~Expiration of the~~ Deadline for ~~the~~ Submission of ~~ISP~~ Offers~~,~~ to the ISP, Balancing Energy Offers ~~cannot~~may not be modified and shall be used as ~~they are~~ is for ~~the execution~~resolution of the Integrated Scheduling Processes of ISP2, and ISP3.

~~Άρθρο 57. Consequences of non-submission of ISP Balancing Energy Offers~~

3. In ~~case~~the event of non-submission of ISP Balancing Energy Offers for a Dispatch Day by a Balancing Service Provider who is obliged to submit a Balancing Energy Offer in accordance with Article12.1, the Balancing Market System shall automatically create ISP Balancing Energy Offers for the respective Dispatchable Generating Unit, and for all Dispatch Periods of the Dispatch Day, setting bidding prices equal to the corresponding prices of the last validated ISP Balancing Energy Offer of the Balancing Service Entity on the previous day. The Offers which are created automatically by the Balancing Market System shall be considered as having been submitted by the Participant and shall produce all the results provided for in this Rulebook, as if these Offers had been submitted by the Participant.

~~CHAPTER 12~~

CHAPTER13. EXECUTION OF THE INTEGRATED SCHEDULING PROCESS

~~Article 58.~~Article13.1 Data of Integrated Scheduling Process

1. The HETS Operator shall execute the ISP based on the following data, for each Dispatch Period concerned:
   a) The price - quantity pairs of the stepwise ISP Balancing Energy Offers.
   b) The price-quantity pairs of the Balancing Capacity Offers for upward and downward FCR, upward and downward ~~automatic FRR~~aFRR and upward and downward ~~manual FRR~~mFRR.
   c) The Registered Characteristics of the Balancing Service Entities.
   d) The Techno-Economic Declarations submitted by the Balancing Service Providers for the Balancing Service Entities they represent.
   e) The Total and Partial non-Availability Declarations and the Major Outage Declarations submitted by the Balancing Service Providers for the Balancing Service Entities they represent.
   f) The operational status of the Balancing Service Entities at the start of the scheduling period, namely the number of half-hours already in operation or out of operation and the scheduled injection or consumption at the start of the ISP scheduling period.

g) The Market Schedules of all the Balancing Service Entities.

h) Any updated schedules for the scheduled operation of the generating units in Commissioning Operation.

i) Any updated schedules for the scheduled operation of the Dispatchable Generating Units in Testing Operation.

j) The mandatory schedules for hydroelectric power generation, as submitted by the respective Producers to the HETS Operator through the daily mandatory hydro injection declarations.

k) The zonal Load Imbalances.

l) The zonal RES Units Imbalances.

m) The available flows in the Inter-Zonal Corridors.

n) The import/export schedule Imbalances at the interconnections imposed by the HETS Operator.

o) The zonal and systemic needs of the HETS in Balancing Capacity.

p) Events that are notified to the HETS Operator, in accordance with the HETS Grid Code.

q) The declarations of maximum daily energy injection constraint.

r) Other information collected and/or notified to the HETS Operator in accordance with the HETS Grid Code, as well as other technical data and simulation data regarding the operation of the HETS.

2. On the basis of the data sent by the Energy Exchange, the HETS Operator shall determine:

a) the Final Internal Schedules per Dispatch Period of the Dispatch Day, which correspond to Balancing Service Entities and Balance Responsible Entities in Greece and are equal to the Market Schedules sent by the Energy Exchange, and

b) the Final External Schedules per Dispatch Period of the Dispatch Day, which correspond to import/export schedules at the interconnections, and take into account the Market Schedules, the schedules among Transmission System Operators, any imbalances due to technical constraints on interconnection lines and the import/export imbalances included in the latest Physical Transmission Rights Declarations of the Participants, caused:

i. either by the difference between the imported quantity included in the Market Schedule of a Participant and his nomination of long-term Physical Transmission Rights for electricity imports through an interconnection where there is an obligation for physical delivery,

ii. or by the difference between the quantities of energy sold/bought on the Day-Ahead Market that correspond to the short-term Physical Transmission Rights and the quantities of energy sold/bought on the Day-Ahead Market(s) of neighboring countries that correspond to the same short term Physical Transmission Rights.

~~Article 59.~~Article13.2 Integrated Scheduling Process Optimization Methodology and Algorithm

1. The ISP is executed as a Mixed Integer Linear Programming model.

2. The quantity of the upward ISP Balancing Energy Offer taken into account in the ISP corresponds to the difference between the Available Capacity of the Balancing Service Provider and the capacity resulting from the Balancing Service Provider's Market Schedule, as in force at the time of submission of the Offer. The quantity of the downward ISP Balancing Energy Offer corresponds to the difference between zero quantity and the capacity resulting from the Balancing Service Provider's Market Schedule as in force at the time of submission of the Offer. If the Balancing Energy prices of the ISP Balancing Energy Offers for the same Dispatch Period arithmetically coincide, and the respective Balancing Energy quantities of such ISP Balancing Energy Offers are not fully included in the ISP results, then the following order of priority shall be applied for the bidding segments: (a) Dispatchable RES Units Portfolio, (b) Dispatchable hydro Generating Units, (c) Dispatchable Load Portfolio, and (d) Dispatchable thermal Generating Units. Among bidding segments that belong to the same category, priority shall be given to the segments of the offers corresponding to the Balancing Service Entity with the highest Ramp Up Rate. For bidding segments that come into the same category and have the same Ramp Up Rate there will be random selection.

3. If the Balancing Capacity prices of the Balancing Capacity Offers for the same Dispatch Period arithmetically coincide, and the respective Balancing Capacity quantities of those Balancing Capacity Offers are not fully included in the ISP results, the bidding segments shall be selected in the following order of priority: (a) Dispatchable RES Units Portfolio, (b) Dispatchable hydro Generating Units, (c) Dispatchable Load Portfolio, and (d) Dispatchable thermal Generating Units. Among bidding segments that belong to the same category, priority shall be given to the segments of the offers corresponding to the Balancing Service Entity with the highest Ramp Up Rate. For bidding segments that come into the same category and have the same Ramp Up Rate there will be random selection.

4. The Integrated Scheduling Process Optimization Algorithm is briefly described as follows:

   a) The ISP execution produces:

      i. the commitment status ~~(synchronization or de-synchronization)~~ of each Balancing Service Entity, for each Dispatch Period of the Dispatch Day,

      ii. the upward and downward Balancing Capacity for FCR in MW per Balancing Service Entity for each Dispatch Period of the Dispatch Day,

      iii. the upward and downward Balancing Capacity for aFRR in MW per Balancing Service Entity for each Dispatch Period of the Dispatch Day,

      ~~iii.~~ the upward and downward Balancing Capacity for ~~automatic FRR in MW per Balancing Service Entity for each Dispatch Period of the Dispatch Day,~~

      iv. ~~the upward and downward Balancing Capacity for manual FRR~~mFRR in MW per Balancing Service Entity for each Dispatch Period of the Dispatch Day,

      v. the inter-zonal flows,

      vi. the potential energy surplus in MW for every Dispatch Period of the Dispatch Day, and

      vii. the Balancing Capacity requirements limitation in MW, when required, for every Dispatch Period of the Dispatch Day.

   b) The algorithm works in such a way that the total Balancing Energy and Balancing Capacity procurement cost is minimized. The total cost of providing Balancing Energy may include the estimated cost of real-time activation of Balancing Capacity. Total cost of Balancing Energy and Balancing Capacity procurement means the sum of the Balancing Energy and Balancing Capacity procurement for all Dispatch Periods of

Dispatch Day D in the case of ISP1 and ISP2, or for the remaining Dispatch Periods of Dispatch Day D in the case of ISP3 and any other execution of any ad hoc ISP during the Dispatch Day.

c) The algorithm must comply with the following constraints:

i. the HETS Imbalances constraint, according to which the sum of the allocated upward and downward ISP Balancing Energy is equal to the forecasted HETS Imbalances, per Bidding Zone and as a total,

ii. the inter-zonal constraints,

iii. the sum of the Balancing Capacity for FCR of all Balancing Service Entities that have been chosen to provide Balancing Capacity for FCR must be greater than or equal to the total requirements per Bidding Zone or/and of HETS as a whole with respect to upward and downward Balancing Capacity for FCR,

iv. the sum of the Balancing Capacity for ~~automatic FRR~~aFRR of all Balancing Service Entities that have been chosen to provide Balancing Capacity for ~~automatic FRR~~aFRR must be greater than or equal to the total requirements per Bidding Zone or/and of HETS as a whole or of the bidding zone with respect to upward and downward Balancing Capacity for ~~automatic FRR~~aFRR,

v. the sum of ~~the~~ Ramp Up or Ramp Down Rates of ~~the~~ Balancing Service Entities that have been ~~chosen~~selected to provide Balancing Capacity for ~~automatic FRR~~aFRR must be greater than or equal to the total requirements of the HETS with respect to Ramp Up and Ramp Down ~~Rate~~Rates for ~~automatic FRR~~aFRR,

vi. the sum of the Balancing Capacity for ~~manual FRR~~mFRR of all Balancing Service Entities that have been chosen to provide Balancing Capacity for ~~manual FRR~~mFRR must be greater than or equal to the total requirements per Bidding Zone or/and of HETS as a whole with respect to upward and downward Balancing Capacity for ~~manual FRR~~mFRR,

vii. the updated operation schedules of generating units in Commissioning Operation,

viii. the updated operation schedules of Dispatchable Generating Units in Testing Operation,

ix. the daily mandatory hydro management declarations,

x. the technical constraints of the Balancing Service Entities that are included in their Declared Characteristics such as Balancing capacity supply constraints, Balancing Energy constraints, Technically Minimum Generation and Maximum Net Capacity and Available Capacity constraints under normal operation or under AGC, synchronization time, soak time and desynchronization time, time and generation of the Dispatchable Generating Unit between synchronization and the Technically Minimum Generation, the logical status of commitment constraints, the minimum up/down time constraints, the ramp rate of power output and Balancing Capacity of the Units constraints, the Maximum Operating Time per activation and the Maximum Number of Activations per Dispatch Day,

xi. the constraints ~~in~~on the maximum daily energy injection from Dispatchable Natural Gas Generating Units,

xii. the constraints ~~in~~on the maximum daily energy injection from Dispatchable ~~hydro~~Hydro Generating Units based on the constraints declarations ~~of~~for

maximum daily energy injection ~~constraints~~ from Dispatchable ~~hydro~~Hydro Generating Units,

xiii. in each Dispatch Period~~ the Pumped Storage~~, pumped storage Dispatchable ~~hydro~~Hydro Generating Units shall operate either as Dispatchable Generating Units or as pumping loads,

~~xiv. in each Dispatch Period the Dispatchable Generating Units with Alternative Fuel shall produce either with the primary or with the secondary fuel,~~

~~xv.~~xiv. in each Dispatch Period the Dispatchable Multi-Shaft Combined Cycle Generating Units shall operate only in one configuration,

xv. in each Dispatch Period, the Dispatchable Load Portfolios ~~and the Dispatchable Intermittent RES Generation Units Portfolios shall provide~~may be allocated either as (a) Balancing ~~Capacity~~Energy for ~~manual FRR~~mFRR and/or FCR or (b) Balancing ~~Power~~Energy for ~~automatic FRR~~aFRR and/or FCR. Additionally, if the Dispatchable Load Portfolio has a non-zero Market Schedule or a non-zero ISP Schedule during a Dispatch Period, it cannot be assigned aFRR Balancing Energy.

xvi. In each Dispatch Period, Dispatchable Intermittent RES Units Portfolio may be allocated either as (a) Balancing Energy for mFRR and/or FCR or (b) Balancing Energy for aFRR and/or FCR. In addition, if the Dispatchable Intermittent RES Unit Portfolio has a non-zero ISP Schedule during a Dispatch Period, it cannot be assigned aFRR Balancing Energy,

xvii. the constraints for the transition between two virtual entities, as those are defined and specified in the Technical Decision “Integrated Scheduling Process”.

d) In cases where ~~maintaining~~observance of the energy balance is not feasible, in order to achieve the desired ~~algorithm~~ convergence~~,~~ of the algorithm, and especially in cases of excess energy~~ surplus~~, the algorithm may ~~solve~~resolve it by displaying the energy surplus in the ISP results. Relevant details are described in the Technical Decision “Integrated Scheduling Process”.

e) In cases where maintaining Balancing Capacity zonal/systemic requirements is not feasible, in order to achieve the desired algorithm convergence, the algorithm may solve by limiting the Balancing Capacity requirements up to a maximum specified volume. Relevant details are described in the Technical Decision “Integrated Scheduling Process”.

~~5.~~5) ~~If~~In the event that, after ~~re-executing~~resolution of the ISP, ~~infeasibilities still occur in covering the~~coverage of anticipated imbalances and/or ~~the~~ zonal~~ / system~~/systemic Balancing Capacity requirements remains impossible, any available ISP Balancing Energy Offers for Contracted Generating Units shall be included, the following constraints shall be gradually lifted, and the ISP shall be executed again. The procedure for lifting constraints ~~shall be lifted using the following order~~is as follows:

a) First of all, the constraint on Balancing Capacity requirements ~~constraint~~ for upward and downward ~~manual FRR~~mFRR is not implemented ~~in~~across its ~~entire~~full range,

b) Then, the Balancing Capacity requirements constraint for upward and downward FCR is not implemented in its entire range,

c) ~~Further~~Furthermore, the constraint on Balancing Capacity requirements ~~constraint~~ for upward and downward ~~automatic FRR~~aFRR is not implemented ~~in~~across its ~~entire~~full range,

d) Finally, the HETS Imbalances constraint is not implemented in its entire range.

~~6. The Dispatchable Generating Units with Alternative Fuel may operate on the alternative fuel for the Dispatch Days for which the National Natural Gas System (ESFA) Operator has placed the ESFA at alert level (alert level 2) or at emergency level (alert level 3) according to the Emergency Plan. The fuel, primary or alternative, of the Dispatchable Generating Units with Alternative Fuel in the above cases shall be decided on the basis of the ISP results. The Dispatchable Generating Units with Alternative Fuel may only operate on one of the two fuel types in each Dispatch Period. The ISP algorithm shall take into account the Declared Characteristics corresponding to the fuel selected for each Dispatch Period.~~

~~7.~~6) The HETS Operator shall include in the ISP data the declarations of maximum daily energy injection constraint from Dispatchable Natural Gas Generating Units. The quantity of injected electricity that is included in the ISP for the Dispatchable Natural Gas Generating Units, to which the submitted declarations of maximum daily energy injection constraint from Dispatchable Natural Gas Generating Units refer, may not exceed the quantity specified in the above declarations.

~~8.~~7) The HETS Operator shall include in the ISP data the declarations of maximum daily energy injection constraint from Dispatchable hydro Generating Units. The quantity of injected electricity that is included in the ISP for the Dispatchable hydro Generating Units, to which the submitted declarations of maximum daily energy injection constraint from Dispatchable hydro Generating Units refer, may not exceed the quantity specified in the above declarations.

~~Article 60.~~Article13.3 Results of the Integrated Scheduling Process

1. The results of the ISP, shall include:
   a) the commitment ~~/ decommitment~~(synchronization/desynchronization) schedule of the Balancing Service Entities,
   b) the Balancing Capacity for FCR, ~~manual FRR~~mFRR and ~~automatic FRR~~aFRR in ~~any~~either direction (upward and downward) for each Balancing Service Entity and for each Dispatch Period of the Dispatch Day.
   c) the potential energy surplus in MW for every Dispatch Period of the Dispatch Day
   d) the constraint of Balancing Capacity requirements ~~limitation~~ in MW, ~~if~~when required, for every Dispatch Period of the Dispatch Day, and
   e) the inter-zonal flows.
2. For each Dispatch Period, the sum of the upward and downward Balancing ~~Capacity~~Power awarded by the ISP to each Balancing Service Entity calculated separately for each of the Balancing ~~Capacity~~Power Products (FCR, ~~manual FRR~~mFRR and ~~automatic FRR~~aFRR) cannot be less than a specified limit. This limit is calculated for Dispatchable Generating Units as 2% of the Maximum Net Capacity and for Dispatchable Load Portfolios or Dispatchable RES Units Portfolios as 2% of the dispatched capacity. The above limit is rounded to a whole number and is assigned values from 1MW to 10MW. In cases where this limit is calculated to be less than 1MW, it is assigned the value 1 MW and in cases where it is calculated to be greater than 10MW it is assigned the value 10 MW.
3. An indicative generation/consumption schedule also results from the ISP, for each Balancing Service Entity and for each Dispatch Period of the Dispatch Day ("ISP schedule"). The differences between the ISP schedule and the automatic Dispatch Instruction mechanism (Balancing Energy Market) shall not be considered deviations from the ISP. In addition, an indicative schedule may also result from the ISP, which corresponds to the energy surplus, in MW, for every Dispatch Period of the Dispatch Day.

The energy surplus observed in real time can differ significantly from the indicative schedule mentioned above and can be addressed with appropriate measures taken by the HETS Operator close to real-time.

4. Without prejudice to paragraph 5 of this Article, ~~as for~~with regard to the results of the ISP for Balancing Capacity, the following shall apply:
   a) The results of ISP1 shall not be binding.
   b) The results of ISP2 shall be binding for the first twenty-four (24) Dispatch Periods of Dispatch Day D.
   c) The results of ISP3 shall be binding for the last twenty-four (24) Dispatch Periods of Dispatch Day D.
   d) The results of the ad hoc ISPs shall be binding for the Dispatch Periods to which they refer.
5. The results of all ISP executions shall be binding with regard to the commitment schedule of the Balancing Service Entities.
6. The Balancing Service Providers are obliged to comply with the binding results of the ISP executions. In case of non-compliance, the Balancing Service Providers shall not be entitled to a fee and shall be subject to non-Compliance Charges, in accordance with CHAPTER22 of this Rulebook.
7. The HETS Operator shall publish the results forty-five (45) minutes after the execution of each ad-hoc ISP. Within the same deadline, it shall inform the Balancing Service Providers whose Balancing Energy and Balancing Capacity Offers were submitted to the ISP and accepted of the results of the ISP that concern them.
8. The HETS Operator may deviate from the results of the ISP in all cases where it has substantiated evidence to consider that such a deviation is necessary so as to ensure the safe operation of the HETS and the smooth operation of the Balancing Market.

~~Article 61.~~Article13.4 Surveillance of the Results of the Integrated Scheduling Process

Until 11:00 EET on each D+1 calendar day, the HETS Operator shall notify ~~RAE~~the RAEWW of all ~~the~~ data, ~~the~~ parameters and ~~the~~ results of the ISP ~~that were~~ executed on Dispatch Day D in editable form, in order for the Authority to ~~supervise~~review the ~~normal~~regular operation of the ISP and ~~to~~ identify ~~possible~~potential distortions in the ISP results ~~of the ISP~~ and the scheduling of ~~the~~ Balancing Service Entities.

SECTION III

V. BALANCING ENERGY MARKET

CHAPTER 13

CHAPTER14. GENERAL PROVISIONS

Article 62.Article14.1 Scope

This Section presents:

a) the obligations of the HETS Operator in the framework of the Balancing Energy Market,

b) the obligations of the Balancing Service Providers in the framework of the Balancing Energy Market,

c) The transmission of data between the Integrated Scheduling Process and the Energy Balancing Market,

d) the conditions and the procedure for the submission of Balancing Energy Offers by the Balancing Service Providers for the Balancing Service Entities,

e) details regarding input data, the optimization model, the clearing methodology, and the Balancing Energy Market results, and

f) the Dispatch Instructions issued for each of the Balancing Service Providers., and

Άρθρο 63. General Provisions

g) The Balancing Energy Market is the marketprocedures required in which quantities and prices are determined for the activationcontext of Balancing Energy participation by the respective Balancing Service Providers, in order to balance energy supply and demand, taking into account the Market Schedules and the state of the HETS Operator in the European Platforms provided for in real time. Regulation (EU) 2017/2195.

Article14.2 General Provisions

1. The Balancing Energy Market includes the manual FRR process andmFRR Process and the aFRR Process. mFRR Process means those processes that are carried out locally by the HETS Operator to activate mFRR Balancing Energy Offers. aFRR Process means those processes that are carried out within the automatic FRR processframework of the European aFRR Platform and in the framework of the Automatic Regulation of Production by the HETS Operator to activate aFRR Balancing Energy Offers.

2. In the Balancing Energy Market, the following products are used:

   a) The upward and downward Balancing Energy for manual FRR, which is(mFRR) activated by executingthrough the manual FRR processmFRR Process for each manual FRR TimemFRR Unit. of Time.

   c) The upward and downward Balancing Energy (aFRR) activated through the aFRR Process for each aFRR Process execution cycle.

~~a)~~3. The Balancing Service Providers ~~shall~~ submit Balancing Energy Offers ~~for manual FRR~~(mFRR and aFRR) by Bidding Zone, that is, Balancing Energy Offers ~~that correspond~~corresponding to ~~the~~ activation of mFRR and aFRR. Balancing Energy Offers (aFRR) are converted into aFRR Standard Products by the ~~manual FRR.~~ HETS Operator.

4. The ~~upward and downward~~ HETS Operator participates in the European Automatic Frequency Restoration Reserve (aFRR) Platform for the exchange of Balancing Energy ~~for automatic FRR, which is activated through the operation of the Automatic Generation Control. The Balancing Service Providers shall submit~~from aFRR Standard Products. Balancing Energy exchange means activation of aFRR Balancing Energy Offers for ~~automatic FRR,~~the supply of Balancing Energy from Balancing Service Providers in a scheduling area other than the scheduling area of the HETS Operator.

~~b)~~5. The European aFRR Platform operates using a Balancing Energy exchange model that ~~is,~~incorporates a Common Merit Order List (CMOL). The Common Merit Order List refers to the common list of all aFRR Balancing Energy Offers ~~that correspond to the activation of the automatic FRR.~~from the aFRR Standard Products of all the TSOs participating in the European aFRR Platform, ranked according to their offer prices, which is used for the purpose of activating those offers.

~~3.~~6. ~~The manual FRR Time Unit is defined as the 15-minute~~The mFRR Process is carried out periodically. The mFRR Process execution cycle takes place during an mFRR Time Unit, which is a period~~, starting at~~ of 15 minutes, commencing as of 01:00 EET on the Dispatch Day. ~~The manual FRR process is executed periodically for each manual FRR Time Unit.~~ mFRR Time Units are sequential and do not overlap.

7. ~~The manual FRR process shall adopt~~The aFRR Process is carried out periodically. The execution cycle of the European aFRR Platform is referred to as the aFRR optimisation cycle. The Automatic Generation Control execution cycle is referred to as the AGC cycle.

~~4.~~8. The mFRR Process adopts, without modification or review, the binding results of the ISP for each Balancing Service Entity unless the Entity in question is subject to a forced interruption~~, resulting~~ arising from ~~the~~ submission of a Partial or Total Non-Availability Declaration, or a Major Outage Declaration. In that case, the Balancing Service Entity shall be considered unavailable and the ISP may be executed again.

~~5.~~9. The Balancing Capacity for FCR, automatic FRR, and manual FRR, determined in the ISP, as per Article13.2 of this Rulebook, shall remain in effect during all Dispatch Periods of the Dispatch Day. In case that a Balancing Service Entity is not available due to a failure, the ISP may be executed again in order to award a Balancing Capacity for the FCR, automatic FRR and manual FRR that are actually available.

~~Article 64.~~Article14.3 HETS Operator Responsibilities

1. The HETS Operator:

   a) shall collect, in real time, the telemetered electricity generation/consumption values of the Balancing Service Entities,

   b) shall ~~realize~~realise very short-term zonal Load Forecasts for ~~the manual FRR~~mFRR Time ~~Unit of~~Units in each ~~manual FRR process~~mFRR Process that is ~~performed~~executed,

   c) shall ~~realize~~realise very short-term zonal Forecasts for RES Units for ~~the manual FRR~~mFRR Time ~~Unit of~~Units in each ~~manual FRR process~~mFRR Process that is ~~performed~~executed,

d) shall receive any updated Balancing Energy Offers and the non-Availability Declarations of the Participants,

e) shall operate the Use Declaration Submission System of the HETS Operator,

f) shall calculate the zonal Imbalances to be covered by activating Balancing Energy Offers,

g) shall calculate the remaining available flows of the inter-zonal corridors for ~~executing the manual FRR process,~~the execution of mFRR and aFRR Processes;

h) shall ~~perform the manual~~execute mFRR and ~~automatic FRR processes,~~aFRR Processes;

i) shall create an aFRR Local Merit Order List (LMOL), on the basis of the aFRR Balancing Energy Offers submitted by the Balancing Service Providers;

j) shall calculate the upward or downward aFRR requirements of the HETS for each AGC cycle;

~~i)~~ shall issue and send out Dispatch Instructions to ~~the Balancing Service Entities,~~

~~j)~~k) ~~shall issue and send Automatic Generation Control Instructions to the~~ Balancing Service Entities~~,~~;

~~k)~~l) shall monitor the compliance of Balancing Service Entities with Dispatch Instructions,

~~l)~~m) shall manage and use the Dispatch ~~information~~Information Administration System, and

~~m)~~n) shall submit information to the Transparency Platform of the European Network of Transmission System Operators for Electricity (ENTSO-e) and the Agency for the Cooperation of Energy Regulators (ACER).

2. The HETS Operator is obliged to maintain a complete database on the dispatch process, including:

   a) an ISP Schedule record,

   b) a Dispatch Instructions record,

   c) a proof of delivery record for the Dispatch Instructions.

3. The information contained in the above records shall be kept by the HETS Operator for at least five (5) years from their entry. Upon a reasoned request, the Balancing Service Providers shall have the right to access the above information for their Balancing Service Entities as well as for other Balancing Service Entities only in the context of dispute settlement in accordance with the procedure set out in the HETS Grid Code.

~~Article 65.~~Article14.4 Dispatch Instructions

1. The HETS Operator shall issue Dispatch Instructions to the Dispatchable Generating Units whereby it shall determine the Active Power generation, their synchronization or ~~-~~de-synchronization with the HETS, the provision of Reserves and other Ancillary Services and, in general, their mode of operation. The HETS Operator shall issue Dispatch Instructions to the other Balancing Service Entities whereby it shall determine the injection or offtake of Active Power, the provision of Reserves and other Ancillary Services and, in general, their mode of operation.

2. In particular, the Dispatch Instructions issued by the HETS Operator in the framework of the Balancing Market, shall be as follows:

a) Commitment Dispatch Instructions (i.e. synchronization Dispatch Instructions for the Dispatchable Generating Units) or decommitment (i.e. de-synchronization Dispatch Instructions for the Dispatchable Generating Units) or transition (i.e. transition Dispatch Instructions between operating configurations for Multishaft Combined Cycle Dispatchable Generating Units) in the framework of the ISP.

b) ~~Manual FRR~~mFRR Dispatch Instructions~~.~~

c) ~~Automatic FRR~~aFRR Dispatch Instructions;

d) ~~Manual FRR~~mFRR Test Dispatch Instructions.

3. In addition to the above Dispatch Instructions, the HETS Operator shall issue other instructions for the activation of Balancing Energy Offers for ~~manual FRR~~mFRR for purposes other than balancing, in order to ensure ~~the~~ reliable operation of the HETS, in particular ~~as regards the HETS~~with regard to frequency, voltage, and current of the HETS at important nodes or ~~elements of the HETS.~~component parts. The Balancing Energy Offers for ~~manual FRR~~mFRR that are activated for purposes other than balancing shall be marked with the appropriate indications.

4. The Dispatch Instructions shall be issued by the HETS Operator to the Balancing Service Entities through the Dispatch information Administration System, or by alternative means of communication, such as telephone and e-mail.

5. In case of interruption or failure of the Dispatch information Administration System, which makes the issuing of Dispatch Instructions impossible, alternative ways of communication, such as telephone, e-mail and fax, shall be used.

6. Without prejudice to the specifications of the following paragraphs, Dispatch Instructions shall be mandatory for the Balancing Service Providers. The Balancing Service Providers shall ensure that the operational mode of their Balancing Service Entities complies with the Dispatch Instructions and that they change their operation only upon a new Dispatch Instruction. In case of non-compliance, the Balancing Service Providers shall be subject to non-Compliance Charges, in accordance with ~~Article 98~~Article22.3 and ~~Article 99~~Article22.4 of this Rulebook.

7. When Compliance with a Dispatch Instruction is impossible due to constraints on the operation of a Balancing Service Entity, which constraints are included in the Balancing Service Entity's Declared Characteristics, then the respective Balancing Service Provider shall immediately notify the HETS Operator both by telephone and e-mail or fax. In that case, the HETS Operator may withdraw the original Dispatch Instruction and issue a new one.

8. When Compliance with a Dispatch Instruction is impossible for reasons solely attributable to the security of the personnel or the facilities of a Balancing Service Entity, then the respective Balancing Service Provider shall immediately notify the HETS Operator. In that case, the HETS Operator may issue a new Dispatch Instruction taking into account the updated Characteristics of the respective Balancing Service Entity.

9. Balancing Service Providers shall be considered to ~~comply~~have complied with the Dispatch Instructions ~~on~~for the synchronization or de-~~synchronization~~commitment of their Balancing Service Entities, if they execute them with a ~~deviation~~variance of ~~up to~~no more than ten (10) minutes from the time specified in the ~~orders~~instructions, as described in the Technical Decision ~~"~~'Dispatch ~~Instructions "~~.Instructions'.

10. ~~In case of non-compliance of the~~ Balancing Service ~~Provider with the~~ Entities selected to provide aFRR Balancing Energy shall comply with the activation profile of aFRR Standard Products. The permitted activation profile shall take into account the characteristics of

the aFRR Standard Products and a tolerance range as specified in the Technical Decision 'Dispatch ~~Instruction, the~~Instructions'.

~~10.~~11. The HETS Operator ~~shall point the fact to the relevant~~may perform checks on Balancing Service ~~Provider indicating the respective Balancing Service Entity, the Dispatch Instruction and the time it was issued. The Balancing Service Provider shall under no circumstances be relieved of its obligations under the Dispatch Instructions and the consequences that may result from its non-~~Entities to establish compliance with ~~these Instructions.~~the permitted activation profile. If any discrepancy is found, the HETS Operator shall impose Non-Compliance Charges in accordance with Article22.2.

~~11. In the Dispatch Instructions issued for Dispatchable Units with Alternative Fuel, the fuel type shall be specified.~~

~~Article 66.~~Article14.5 ~~Obligations~~Participation of ~~the~~ Balancing Service Providers in the ~~framework of the~~ Balancing Energy Market

1. Participation in the ~~manual FRR process~~mFRR Process is mandatory for all Dispatchable Generating Units having that obligation, in accordance with the HETS Grid Code, for all their Available Capacity, regardless of the mFRR Balancing Capacity awarded in the ISPs.

2. ~~Participation in the manual FRR process~~Participation in the aFRR Process is optional for Dispatchable RES Units Portfolios and Dispatchable Load Portfolios, with the exception of capacity volumes corresponding to the aFRR Balancing Capacity awarded in the ISPs, for which participation is mandatory.

3. Participation in the aFRR Process is mandatory for all Dispatchable Generating Units having that obligation, in accordance with the HETS Grid Code, regardless of the aFRR Balancing Capacity awarded in the ISPs.

~~2.~~4. Participation in the aFRR Process is optional for Dispatchable RES Units Portfolios and Dispatchable Load Portfolios, except for the capacity volume corresponding to the ~~manual FRR~~aFRR Balancing Capacity ~~they were~~ awarded to them in the ISPs, for which participation is mandatory.

~~3.~~ Participation in the ~~automatic FRR process is mandatory for all Dispatchable Generating Units having that obligation, in accordance with the HETS Grid Code, regardless of the Balancing Capacity awarded in the ISPs.~~

~~4. Participation in the automatic FRR process is optional for Dispatchable RES Units Portfolios and Dispatchable Load Portfolios except for the capacity volume corresponding to the automatic FRR Balancing Capacity they were awarded in the ISPs, for which participation is mandatory.~~

5. ~~Participation in the manual FRR process~~mFRR Process shall confer the following obligations on the Balancing Service Providers:

   a) the submission of Total or Partial non-Availability Declarations and Major Outage Declarations, immediately after the occurrence of ~~an event~~events affecting their availability,

   b) ~~the~~ submission of upward mFRR Balancing Energy Offers ~~for manual FRR by~~on behalf of the Balancing ~~Service Providers for the Balancing Service~~Services Entities they represent,

   c) ~~the~~ submission of downward mFRR Balancing Energy Offers ~~for manual FRR by~~on behalf of the Balancing ~~Service Providers for the Balancing Service~~Services Entities they represent,

d) availability for operation according to their Declared Characteristics, and

e) compliance with the Dispatch Instructions issued by the HETS Operator.

6. Participation in the ~~automatic FRR process~~aFRR Process shall confer the following obligations on the Balancing Service Providers:

a) the submission of Total or Partial non-Availability Declarations, immediately after the occurrence of an event affecting their availability~~,~~;

b) ~~the~~ submission of upward aFRR Balancing Energy Offers ~~for automatic FRR by~~on behalf of the Balancing ~~Service Providers for the Balancing Service~~Services Entities they represent,

c) ~~the~~ submission of downward aFRR Balancing Energy Offers ~~for automatic FRR by~~on behalf of the Balancing ~~Service Providers for the Balancing Service~~Services Entities they represent,

d) availability for operation according to their Declared Characteristics, and

e) compliance with the Dispatch Instructions issued by the HETS Operator.

7. Balancing Service Providers shall not be obliged to submit upward ~~and~~or downward mFRR and aFRR Balancing Energy Offers for ~~manual FRR or upward and downward Balancing Energy Offers for automatic FRR for~~ the Balancing Service Entities they represent, and for which they have a corresponding obligation ~~exists under~~in accordance with paragraphs 1 to 4 of this Article, only in the following cases:

a) for the period during which the Balancing Service Entity is in scheduled maintenance, in accordance with the HETS Grid Code, and

b) for the period of validity of the corresponding Total non-Availability Declaration or the Major Outage Declaration of the Balancing Service Entity.

CHAPTER15. BALANCING ENERGY OFFERS IN THE BALANCING ENERGY MARKET

~~Article 67.~~Article15.1 Submission of Balancing Energy Offers to the Balancing Energy Market

1. Balancing Energy Offers ~~for manual and automatic FRR may be~~are submitted ~~no later than~~by the ~~Expiration of the Deadline for the Submission of~~ Balancing Service Providers for each Balancing Service Entity and for each mFRR Time Unit of the Dispatch Day, separately for mFRR and aFRR.

~~1.~~2. Balancing Energy ~~Market~~ Offers~~. The Expiration of~~ for mFRR may be submitted, at the latest, until the respective Deadline for Submission of mFRR Offers. The Deadline for ~~the~~ Submission of ~~Balancing Energy Market~~mFRR Offers ~~is~~shall be fifteen (15) minutes ~~prior to~~before each ~~manual FRR~~mFRR Time Period to which the submitted mFRR Balancing Energy Offer applies.

3. Balancing Energy Offers for aFRR may be submitted, at the latest, until the respective Deadline for Submission of aFRR Offers. The Deadline for Submission of aFRR Offers shall be forty-five (45) minutes before each aFRR Time Period to which the submitted aFRR Balancing Energy Offer applies.

4. Each Balancing Energy Offer is assigned to a specific mFRR Time Unit during the Dispatch Day. In all other respects, the submission of mFRR and aFRR Balancing Energy Offers, with

regard to the terms governing their content and form, shall be in accordance with the provisions laid down in Article12.2.

~~2.~~5. For Dispatchable Generating Units~~, including pumping~~ and Pumped Storage Dispatchable Hydroelectric Generating Units, the ISP Balancing Energy Offers per Dispatch Period ~~shall~~are automatically ~~be~~ converted into ~~corresponding~~equivalent 15-minute mFRR and aFRR Energy Market Offers ~~for manual FRR~~. Each ISP Balancing Energy Offer per Dispatch Period shall be converted into two (2) equivalent 15-minute Balancing Energy Offers for ~~manual FRR~~mFRR and aFRR, in the same form and for the same Balancing Energy ~~quantities~~volumes and prices as those in the original offer. These automatically created Offers shall be deemed as submitted by the Participant and shall produce all the results provided for in this Rulebook, as if the Offers had been submitted by the Participant.

~~3. For Dispatchable Generating Units, including pumping, the ISP Balancing Energy Offers per Dispatch Period shall automatically be converted into corresponding 15-minute Energy Market Offers for automatic FRR. Each ISP Balancing Energy Offer per Dispatch Period shall be converted into two (2) equivalent 15-minute Balancing Energy Offers for automatic FRR, in the same form~~The price of the Balancing Energy Offers for mFRR and ~~for the same Balancing Energy quantities and prices as those in the original offer. These automatically created Offers shall be deemed as~~aFRR submitted ~~by the Participant and shall produce all the results provided for in this Rulebook, as if the Offers had been submitted by the Participant.~~

~~4.~~6. ~~The price of the Balancing Energy Offers for manual and automatic FRR submitted~~ pursuant to paragraph 1 of this Article by Balancing Service Providers representing Dispatchable Generating Units ~~pursuant to paragraph 1 of this Article~~, including ~~pumping~~Dispatchable Hydro Generation Units with pumped storage capability, must be an improved price in relation to the ~~price of the~~ ISP Balancing Energy Offer submitted to the ISP for the Dispatch Period which includes the ~~manual FRR~~mFRR Time ~~Period~~Unit. The term improved price means a lower price for upward Balancing Energy Offers and a higher price for downward Balancing Energy Offers. The ~~quantities~~price of the Balancing Energy Offers for ~~manual~~mFRR and ~~automatic FRR~~aFRR submitted ~~by Balancing Service Providers representing Dispatchable Generating Units~~ pursuant to paragraph 1 of this Article~~, including pumping, may not be modified~~ by Balancing Service Providers representing Dispatchable Generating Units, including Dispatchable Hydro Generation Units with pumped storage capability, cannot be changed in relation to the ~~quantities~~volume of the ISP Balancing Energy Offer submitted to the ISP for the Dispatch Period which includes the ~~manual FRR~~mFRR Time ~~Period~~Unit.

~~5.~~7. For the Dispatchable RES Units Portfolios and the Dispatchable Load Portfolios after each ISP, for each Dispatch Period until the end of the Dispatch Day for which there is a corresponding obligation ~~pursuant to~~ , in accordance with **Article14.5**, the ISP Balancing Energy Offers shall be automatically converted into corresponding 15-minute ~~manual~~mFRR and ~~automatic FRR~~aFRR Energy Market Offers and shall replace any other currently valid offers. Each ISP Balancing Energy Offer per Dispatch Period shall be converted into two (2) equivalent 15-minute ~~manual~~mFRR and ~~automatic FRR~~aFRR Energy Market Offers with the same Balancing Energy prices and a ~~quantity~~volume corresponding to the sum of the ~~amount~~volumes of ~~the~~ Balancing Energy awarded ~~to~~under the ISP, together with the ~~ISP and the quantity~~volume of Balancing Energy corresponding to the Balancing Capacity for ~~manual~~mFRR or ~~automatic FRR~~aFRR supply awarded ~~to~~under the ISP.

~~6.~~8. The price of ~~the manual~~mFRR and ~~automatic FRR~~aFRR Balancing Energy Offers submitted pursuant to paragraph 1 of this Article by Balancing Service Providers representing Dispatchable Load Portfolios, and Dispatchable RES Units Portfolios must be improved

compared to the price of the ISP Balancing Energy Offer for the Dispatch Period that includes the ~~manual FRR Time Period~~mFRR Unit for ~~the Energy~~volumes of Balancing ~~quantities~~Energy corresponding to the Balancing Energy awarded ~~to~~under the ISP and for the Balancing Energy ~~quantities~~volumes corresponding to the Balancing Capacity ~~quantity~~volume for ~~manual~~mFRR or ~~automatic FRR~~aFRR supply awarded ~~to~~under the ISP. The term improved price means a lower price for upward Balancing Energy Offers and a higher price for downward Balancing Energy Offers. The ~~quantities~~volumes of ~~the manual~~mFRR and ~~automatic FRR~~aFRR Balancing Energy Offers submitted pursuant to paragraph 1 of this Article by Balancing Service Providers representing Dispatchable Load Portfolios, and Dispatchable RES Units Portfolios may not be reduced for the Dispatch Period that includes the ~~manual FRR~~mFRR Time ~~Period compared~~Unit in relation to the sum of the ~~Energy~~volumes of Balancing ~~quantity~~Energy awarded ~~to~~under the ISP and the volumes of Balancing Energy ~~quantities~~ corresponding to the Balancing Capacity ~~quantity~~ for ~~manual~~the provision of mFRR and ~~automatic FRR supply~~aFRR awarded ~~to~~under the ISP.

~~7.~~9. The energy quantities included in the upward and downward Balancing Energy Offers ~~that are~~ submitted to the Balancing Energy Market by the Dispatchable Generating Units, including ~~pumping~~Dispatchable Hydro Generation Units with pumped storage capability, and the Dispatchable RES Units Portfolios shall be deemed to ~~be~~have been injected/absorbed at the meter connection point.

~~8.~~10. The energy quantities included in the upward and downward Balancing Energy Offers submitted to the Balancing Energy Market by the Dispatchable Load Portfolios shall be considered to be injected/absorbed at the Transmission System-Distribution System Boundary.

~~9.~~11. Details on the submission of Balancing Energy Offers are provided in the Technical Decisions "Manual FRR " and "Automatic FRR".

~~CHAPTER 14~~

Article15.2 Conversion of Balancing Energy Offers into Standardized Automatic Frequency Restoration Reserve (aFRR) Products

1. The HETS Operator shall carry out the process of converting aFRR Balancing Energy Offers into Standard Products as follows:
   a) at three scheduled times to take into account the most recent execution of the ISP,
   b) after the Deadline for the Submission of Offers for aFRR Balancing Energy on the Balancing Energy Market, and
   c) at any other time deemed necessary by the HETS Operator.
2. The local aFRR merit order list is created through the Offer conversion process for both upward and downward directions during each mFRR Time Unit of the Dispatch Day, which includes eligible steps of upward and downward aFRR Balancing Energy Offers from the Balancing Service Providers, to whom aFRR Balancing Capacity has been awarded in accordance with the latest ISP resolution, without prejudice to the provisions of paragraph 6 of this Article.

3. Offers are ranked by price in the local aFRR merit order list. For upward aFRR Offers the ranking is from lowest to highest price, while for the downward aFRR Offers the ranking is from highest to lowest price.

4. Without prejudice to paragraph 6 of this Article, during execution of the conversion process for aFRR Balancing Energy Offers, the HETS Operator shall take into account the characteristics of aFRR Standard Products and the following information regarding the Entities to which aFRR Balancing Energy has been conferred:

   a) the steps of upward and downward aFRR Balancing Energy Offers,

   b) the Balancing Energy awarded for upward and downward aFRR in accordance with the latest resolution of the ISP,

   c) technical constraints in accordance with Registered Characteristics,

   d) the Market Schedules,

   e) the Available Capacity, based on the most recent Non-Availability Declarations submitted.

5. In carrying out the conversion process of the aFRR Balancing Energy Offers, the HETS Operator shall identify the steps eligible for activation of aFRR Offers as follows:

   a) The upward aFRR Balancing Energy Offer steps are selected from the Balancing Services Entity's aFRR Reference Point and for a volume equal to the upward aFRR Balancing Energy granted to the Entity.

   b) The downward aFRR Balancing Energy Offer steps are selected from the Balancing Services Entity's aFRR Reference Point and for a volume equal to the downward aFRR Balancing Energy granted to the Entity.

   The aFRR Reference Point means the ISP Schedule and is used to determine the steps of Offers eligible for activation under the aFRR Process.

6. In exceptional cases where the provision of aFRR Balancing Capacity other than the results of the ISP is required for operational security reasons, the volume and the aFRR Reference Point referred to in paragraph 4 of this Article may be amended. More specifically, the volume may differ from the assigned aFRR Balancing Capacity, and the aFRR Reference Point may differ from the ISP Schedule, taking into account the Registered Characteristics and Availability of the Entity as well as the aFRR needs of the HETS.

7. Details of the conversion of aFRR Balancing Energy Offers into Standardized Products are described in the Technical Decision 'Rules for the conversion of Balancing Energy Offers into Standardized Products on the Local Merit Order List.

Article15.3 Revision of the aFRR Local Merit Order Lists by Balancing Service Providers

1. On completion of the process of converting aFRR Balancing Energy Offers into Standard Product offers, the HETS Operator shall communicate the Local Merit Order List to the Balancing Service Providers.

2. In the event of an event affecting the activation of one or more eligible steps of the Offers, Balancing Service Providers shall promptly and without undue delay revise their availability on the Local aFRR Merit Order List, and shall submit appropriate justification at the same time. Eligible steps to provide upward aFRR are reviewed in descending order, starting with the step with the highest Balancing Energy Offer price. Eligible steps to

provide downward aFRR are reviewed in ascending order, starting with the step with the lowest Balancing Energy Offer price.

Article15.4 Revision of the aFRR Local Merit Order List

The HETS Operator may revise the local aFRR merit order list for one or more mFRR Time Units due to operational security reasons, concerning the availability and/or the quantity of eligible Offer steps.

CHAPTER16. MANUAL FRR PROCESS

~~Article 68.~~Article16.1 ~~Manual FRR~~mFRR Process Input Data

The HETS Operator shall draw up the results of a specific 15-minute solution of the Balancing Energy Market taking into consideration the following input data:

a) the Market Schedule for each Balancing Service Entity as recorded by the Use Declaration Submission System of the HETS Operator,

b) the operation schedules of the Dispatchable Generating Units / Dispatchable and non-Dispatchable RES Units Portfolios in Testing Operation, submitted by the respective Producers, through the operation schedule Declarations for units in testing operation,

c) the operation schedules of the generating units/ non-Dispatchable RES Units Portfolios in Commissioning Operation, submitted by the respective Producers, through the Operation Schedule Declarations for units in Commissioning Operation,

d) the mandatory generation schedules for Dispatchable hydro Generating Units, as submitted by the respective Producers through the daily mandatory hydro injection declarations,

e) the Imbalances in the import/export schedules at the interconnections used for the ISP execution, along with actual tripping on interconnections, if any,

f) the already established flows in the inter-zonal corridors between the Bidding Zones deriving from the Market Schedule of all Entities, in order to calculate the residual flows available in the inter-zonal corridors for the solution of the Balancing Energy Market,

g) the information on Balancing Service Entities received by the Energy Management System (e.g. unit in or out of operation, SCADA measurements of the production of Dispatchable Generating Units),

h) the Automatic Generation Control (AGC) status of ~~the~~ Balancing Service Entities ~~that provide automatic FRR~~providing aFRR, which is received by the HETS Operator Energy Management System ~~of the HETS Operator~~,

i) the awarded Balancing Capacity of the Balancing Service Entities for upward and downward FCR, ~~automatic FRR~~aFRR, and ~~manual FRR~~mFRR, as received ~~from the last ISP~~after execution of the latest ISP,

j) the mFRR Energy Offers ~~for manual FRR according to~~, in accordance with Article15.1,

k) the Available Capacity of all Balancing Service Entities, based on the most recently submitted non-Availability Declarations,

l) the latest updated operation schedule of the Balancing Service Entities that have activated a constraint in the maximum quantity of daily energy injection by their Techno-Economic Declaration,

m) the Declared Characteristics of the Balancing Service Entities,

n) the initial ~~generation~~level of production/consumption ~~level~~ of the Balancing Service Entities before and as close as possible to the start of the ~~manual FRR~~mFRR Time Unit of the specific ~~manual FRR process solution~~mFRR Process resolution,

o) the zonal Load Imbalances,

p) the zonal RES Units Imbalances.

~~Article 69.~~Article16.2 Execution of the Manual FRR Process

1. The ~~manual FRR process~~mFRR Process is executed as a mixed integer linear programming model for each ~~manual FRR~~mFRR Time Period.

2. The objective function for ~~the solution~~resolution of ~~the manual FRR minimizes~~mFRR minimises the cost ~~for~~of covering ~~the~~ zonal imbalances for all ~~the~~ Bidding Zones~~,~~ using ~~the submitted~~ upward and downward mFRR Energy Offers ~~for manual FRR of the~~submitted by Balancing Service Entities. The cost ~~for~~of covering ~~the~~ HETS zonal imbalances ~~derives~~arises from the mFRR Energy Offers ~~for manual FRR~~ that ~~get~~are accepted.

3. The constraints ~~of the manual FRR~~on mFRR problem ~~solution~~resolution shall include at least:

   a) the zonal Imbalance constraint for each Bidding Zone,

   b) the constraints on electricity flows between the Bidding Zones,

   c) the technical constraints of the Balancing Service Entities,

   d) the constraints ~~which ensure~~ensuring that the overall HETS requirements for ISP Balancing Capacity and ~~automatic FRR~~aFRR are maintained,

   e) any restrictions on mandatory injections, and

   f) any constraints on maximum daily electricity injection from Dispatchable Generating Units.

4. In the event that~~, for~~ the offer prices of two or more Balancing Energy Offers pertaining to the same ~~manual FRR~~mFRR Time Unit~~, the offer prices~~ are identical, and, at the same time, the respective Balancing Energy quantities of the above offers are not included in their entirety in the mFRR Process results ~~of~~resolution, the ~~manual FRR solution, the bidding~~offer segments shall be selected in the following order of priority: (a) Dispatchable RES Units Portfolio, (b) Dispatchable hydro Generating Units, (c) Dispatchable Load Portfolio, and (d) Dispatchable thermal Generating Units. Among bidding segments that belong to the same category, priority shall be given to the segments of the offers corresponding to the Balancing Service Entity with the highest Ramp Up Rate. For bidding segments that come into the same category and have the same Ramp Up Rate there will be random selection.

5. In the event that no feasible result is produced for a ~~manual FRR~~mFRR Time Unit ~~from~~under the ~~manual FRR process solution, i.e. it~~mFRR Process resolution, that is ~~not possible to cover~~, covering the short-term forecasted imbalances by observing the constraints in paragraph 3 of this Article is unfeasible, the HETS Operator shall repeat the ~~manual FRR process~~mFRR Process having~~,~~ indicatively undertaken to:

   ~~a) included the ISP~~a) include Balancing Energy Offers from Contracted Generating Units~~,~~;

~~b)~~ ~~relaxed~~b) relax the constraints indicated in paragraph 3 (4) of this Article in order to ~~achieve~~reach a feasible solution.

If, after following the above steps, there is still no feasible solution, the manual FRR process shall be performed once again in accordance with the provisions on Emergency Situations, as defined in the HETS Grid Code.

6. ~~During~~When resolving the manual FRR ~~process solution, it is possible to execute optimization~~Process, mFRR Balancing Energy Offers that may have been submitted by Dispatchable Intermittent RES Units Portfolios or Dispatchable Load Portfolios are not taken into account if they are supplying aFRR during the specific manual FRR Time Unit.

~~6.~~7. When resolving the mFRR Process, optimisation may be executed for three consecutive 15-minute periods, so that the ~~effect~~impact of ~~the~~ HETS conditions during the ~~next manual FRR~~subsequent mFRR Time Units ~~is~~are effectively taken into account for each ~~manual FRR~~mFRR Time Unit. In this case, only the results of the first ~~manual FRR~~mFRR Time Unit shall be binding. ~~The results~~Results related to ~~the~~ subsequent ~~manual FRR~~mFRR Time Units shall be indicative.

~~Article 70.~~Article16.3 Immediate Activation of manual FRR

1. Immediate activation of ~~manual FRR~~mFRR means ~~the~~ activation of ~~the manual FRR~~mFRR Balancing Energy at a time that does not coincide with the scheduled periodic performances of the ~~manual FRR process~~mFRR Process in 15-minute cycles.

2. The HETS Operator is entitled to proceed ~~to~~with an immediate activation of ~~the manual FRR~~mFRR Balancing Energy and to send ~~the~~ Dispatch Instructions to ~~the~~ Balancing Service Entities in order to balance the HETS or to address technical constraints at any point in time between the scheduled ~~solutions~~resolutions of ~~the manual FRR processes~~mFRR Processes.

3. To ~~that~~this end, the HETS Operator may, for example, execute the ~~manual FRR process~~mFRR Process within the 15-minute cycle and/or use two ~~commitment rows it had~~merit order lists already created based on the submitted Balancing Energy ~~Offers~~Bid prices, one for the upward direction and one for the downward direction.

4. When two ~~rows~~merit order lists are used in accordance with the provisions of paragraph 3 of this Article, the ~~quantity~~volume of ~~manual FRR~~mFRR Balancing Energy that can be supplied by each Balancing Service Entity ~~-~~shall be calculated on the basis of the ~~quantity~~volume of its Balancing Energy Offers and its technical characteristics. The HETS Operator is entitled to select and activate the ~~manual FRR~~mFRR Balancing Energy sequentially ~~by order of commitment of~~in accordance with the respective merit order list for the corresponding direction~~.~~ (upward or downward).

5. ~~The~~ Balancing Energy Offers that are related to ~~the~~ immediate activation of ~~the manual FRR~~mFRR are taken into account when calculating the ~~manual FRR~~mFRR Energy Price for the specific ~~manual FRR~~mFRR Time Unit ~~in~~within the framework of ~~the~~ Balancing Market Settlement.

6. In the event that the HETS Operator issues Dispatch Instructions that differ from the result of the ~~manual FRR solution~~mFRR resolution, the HETS Operator shall submit a report to ~~RAE~~the RAEWW justifying the ~~selection~~choice of ~~the~~ Balancing Service Entities ~~that~~selected to cover the imbalance in the HETS ~~Imbalance~~. The report shall be submitted for each month, within one (1) month from the end of the month to which it refers.

~~Article 71.~~Article16.4 Manual FRR Dispatch Instructions

1. The results of executing the ~~manual FRR process~~ mFRR Process include the activation ~~quantities~~volumes of the upward and downward Balancing Energy Offers ~~of~~from the Balancing Energy Entities~~,~~ that are used to issue Dispatch Instructions to the Balancing Service Entities, in order to achieve ~~balancing of the HETS.~~balance in the Hellenic Electricity Transmission System. No Dispatch Instructions shall be issued ~~in case~~if the ~~quantity~~volume of upward or downward Balancing Energy Offer activated by the manual FRR Process ~~is less than~~falls below a specific a limit. This limit is calculated as ¼ of 2% of the Maximum Net Capacity for Dispatchable Generating Units and as ¼ of 2% of the dispatchable capacity for Dispatchable Load Portfolios or Dispatchable RES Units Portfolios. These quantities which are calculated as 2% of the Maximum Net Capacity for Dispatchable Generating Units and as 2% of the dispatchable capacity for Dispatchable Load Portfolios or Dispatchable RES Units Portfolios, shall be rounded to a whole number. The above limit is assigned values from 0.25MWh to 1MWh. In cases where this limit is calculated to be less than 0.25MWh, it is assigned the value 0.25MW and in cases where it is calculated to be greater than 1MWh it is assigned the value 1MWh.
2. The HETS Operator shall issue Dispatch Instructions to the Balancing Service Entities for each ~~manual FRR~~mFRR Time Unit, in accordance with the results of the ~~manual FRR process~~mFRR Process.
3. Each subsequent Dispatch Instruction shall replace ~~any~~each preceding one, as ~~regards~~far as the same ~~manual FRR~~mFRR Time Unit is concerned.
4. In emergency situations, the HETS Operator may issue Dispatch Instructions to a Dispatchable Generating Unit (with the agreement of the Balancing Service Provider) in order to operate at a capacity greater than the Maximum Net Capacity, as specified in its Registered Characteristics. In that case, there shall be no additional fee for the Dispatchable Generating Unit.
5. In the event that the HETS Operator issues Dispatch Instructions that differ from the result of the ~~manual FRR solution~~mFRR resolution, the HETS Operator shall submit a report to ~~RAE~~the RAEWW justifying the ~~selection~~choice of ~~the~~ Balancing Service Entities ~~that~~selected to cover the imbalance in the HETS ~~Imbalance~~. The report shall be submitted for each month, within one (1) month from the end of the month to which it refers.
6. The Balancing Service Entities that are selected to provide Balancing Energy shall have the obligation to follow the Dispatch Instructions issued by the HETS Operator that concern the chosen quantities and the time period.
7. The HETS Operator may issue Dispatch Instructions to activate mFRR Balancing Energy Offers for non-balancing purposes, and Test mFRR Dispatch Instructions.

~~Article 72.~~Article16.5 Content of manual FRR Dispatch Instructions

1. The HETS Operator shall issue Dispatch Instructions which shall determine the generation/offtake level of the Balancing Service Entities.
2. ~~The~~ Dispatch Instruction shall be notified by the HETS Operator to the Balancing Service Entity before or at the start of each ~~manual FRR~~mFRR Time Unit, except in the case of ~~Immediate Activation~~immediate activation of ~~the manual FRR.~~mFRR.

3. The Dispatch Instruction ~~shall expire~~expires at the end of the ~~manual FRR~~mFRR Time Unit ~~in~~to which the Dispatch Instruction was issued, unless a new Dispatch Instruction has been issued in the meantime.
4. The execution by the Balancing Service Provider of the Dispatch Instruction relating to the Balancing Energy through ~~the~~ immediate activation of ~~the manual FRR shall begin immediately~~mFRR begins directly after the ~~relevant~~respective Dispatch Instruction has been transmitted, and ~~shall stop~~ceases at the end of the ~~manual FRR~~mFRR Time Unit in which the Dispatch Instruction was issued.
5. Dispatch Instructions are consistent with the Declared Characteristics of Balancing Service Entities.
6. Details ~~on~~regarding the ~~issuance~~issue and execution of ~~manual FRR~~mFRR Dispatch Instructions are provided in the Technical Decision ~~"~~'Dispatch ~~Instructions".~~Instructions'.

~~Άρθρο 73.~~Article16.6 ~~Article 72A.~~ Manual FRR Test Dispatch Instructions

1. The HETS Operator may issue ~~manual FRR~~mFRR Test Dispatch Instructions to Balancing Service Entities whenever necessary and without prior notice.
2. The ~~manual FRR~~mFRR Test Dispatch Instructions transmitted to ~~the~~ Dispatchable Generating Units ~~concern~~relate to the activation of the Minimum or Maximum Available Capacity.
3. The ~~manual FRR~~mFRR Test Dispatch Instructions to the Dispatchable Load Portfolios and ~~the~~ Dispatchable RES Unit Portfolios ~~refer~~relate to ~~an~~ activation of Balancing Energy corresponding to ~~the~~ full activation of the ~~awarded~~ Balancing Capacity awarded for ~~manual FRR~~mFRR.
4. The HETS Operator may issue a maximum of thirteen (13~~ manual FRR~~) Test Dispatch Instructions (mFRR)to a Balancing Service Entity in a rolling twelve (12) month period. If a Balancing Service Entity fails to comply with ~~a manual FRR Test~~an mFRRTest Dispatch Instruction, the number of ~~manual FRR~~mFRR Test Dispatch Instructions issued during the previous twelve (12) month period shall be set to zero for the purposes of this calculation. In the event that a Balancing Service Entity complies with two consecutive ~~manual FRR~~mFRR Test Dispatch Instructions, the maximum number is reduced from 13 to 6.
5. Balancing Service Entities shall be obliged to comply with the ~~manual FRR~~mFRR Test Dispatch Instructions issued by the HETS Operator ~~and~~which relate to the ~~quantities~~volumes and time period for which a corresponding Test Dispatch Instruction has been issued. In the event of non-compliance with ~~a manual FRR Test~~an mFRR Dispatch Instruction, Non-Compliance Charges shall be imposed on the respective Balancing Service Provider, calculated in accordance with Article22.3 of this Rulebook.
6. Details on the procedure for issuing ~~manual FRR~~mFRR Test Dispatch Instructions are provided in the Technical Decision ~~"~~'Dispatch ~~Instructions".~~Instructions'.

~~CHAPTER 15~~

CHAPTER17. AUTOMATIC FRR PROCESS

~~Article 73.~~Article17.1 Activation of ~~the Balancing Energy for~~ automatic FRR

1. The ~~automatic FRR~~ Balancing Energy ~~shall be~~(aFRR) is automatically activated ~~by using~~through the use of the Automatic Generation Control (AGC) function ~~of~~by the HETS Operator ~~for~~to regulate frequency~~ control~~, as defined in ~~Commission~~ Regulation (EU) 2017/1485~~ of 2nd August 2017 laying down~~.

~~1.~~2. The HETS Operator shall send the ~~guidelines for~~local aFRR merit order list to the ~~operation of~~European aFRR Platform no later than ten (10) minutes prior to the ~~electricity transmission system.~~start of the mFRR Time Unit.

~~2. All Balancing Service Entities that were awarded an automatic FRR in the last ISP shall be activated almost simultaneously by the HETS Operator for the supply of Automatic FRR Balancing Energy.~~

3. ~~The~~ For each AGC cycle, the HETS Operator calculates and sends to the European aFRR Platform a demand for aFRR, taking into account the current conditions in the Hellenic Electricity Transmission System (HETS). The aFRR European Platform executes the relevant optimisation algorithm and sends the aFRR Correction Signal back to the local AGC controller.

4. For each AGC cycle, the required activation of aFRR Balancing Energy serviced locally is the algebraic sum of the aFRR requirement and the most recent aFRR Correction Signal.

5. The local AGC controller selects aFRR Balancing Energy Offers from the local aFRR Merit Order List in order to cover the requisite aFRR Balancing Energy activation, based on criteria ~~for activating~~that include at least activation costs.

6. After the execution of each AGC cycle, the HETS Operator issues the respective aFRR Dispatch Instructions to the Balancing ~~Energy for automatic FRR shall be the~~Services Entities located in the AGC to supply aFRR Balancing Energy ~~Offer prices for automatic FRR and the rate of change~~in accordance with the local aFRR Merit Order List.

~~3.~~7. In specific situations that result in changes in communication and/or data exchange with the European aFRR Platform, the HETS Operator shall disconnect from the European aFRR Platform and carry out the aFRR Process locally. During local execution of the ~~output capacity of the Balancing Service Entities~~aFRR Process, the aFRR Correction Signal received from the European aFRR Platform is set to zero.

~~4.~~8. More details on the activation of ~~the automatic FRR~~aFRR Balancing Energy are provided in the Technical Decision ~~"~~'Automatic ~~FRR".~~FRR'.

SECTION IV

VI BALANCING MARKET SETTLEMENT

CHAPTER 16

CHAPTER18. GENERAL PROVISIONS

Article18.1 ImbalanceGeneral Provisions

Άρθρο 75. mbalance Settlement Period

1. The 15-minute time period forover which the Imbalance of the Contracted Balance Responsible Parties is calculated shall be called the Imbalance Settlement Period. The Balancing Energy and the Balancing Capacity shall also be settled per Imbalance Settlement Period.
2. The Electricity Transmission System Operator remains financially neutral in the management of the Balancing Market. The financial neutrality of the HETS Operator in the operation of the Balancing Market is ensured through the debits and credits to Balance Responsible Parties, as described in Article21.4 of this Rulebook.
3. Details and examples of calculations regarding the Balancing Market Settlement are described in Technical Decision "Balancing Market Settlement".
4. For the execution of the Balancing Market Settlement pursuant to this Section, the provisions of the Balancing Market Regulation shall apply, as applicable at the given time in relation to respective settlement period.

Article18.2 Balancing Market Settlement Object

Article 75.Article17.1Balancing Market Accounts

1. The HETS Operator shall keep the following Balancing Market Accounts:
   - a) Balancing Energy Account,
   - b)a)Account for Energy supplied for purposes other than balancing,
   - c)a)Imbalances Account,
   - d)a)Balancing Capacity Account,
   - e)a)Uplift Account,
   - f)a) Non-compliance Charges Account,
   - g)a)Balancing Market Fees Account,
   - h)a)Account for debit or credit amounts due to corrective settlements for intended exchanges of energy pursuant to Article 50 of Regulation (EU) 2017/2195 and/or unintended exchanges of energy pursuant to Article 51 of Regulation (EU) 2017/2195.

~~2. The Accounts in items a) to e) and h), paragraph 1 of this Article are not for accounting purposes and shall be solely kept for the monitoring of the Balancing Market by the HETS Operator.~~

~~3. The Accounts in items f) to g), paragraph 1 of this Article are for accounting purposes.~~

~~Article 76.~~Article17.1~~Balancing Market Settlement Object~~

1. Balancing Market Settlement means the transparent calculation of the ~~quantities~~volumes of Balancing Energy and Balancing Capacity and the calculation of the monetary value of the Participants' debits and credits in the context of the Balancing Market, as detailed in paragraph 2 of this Article.

2. The Balancing Market Settlement shall include the following calculations for each Dispatch Day:

   a) calculation of the Balancing Energy for ~~manual FRR~~mFRR for each Balancing Service Entity and for each Imbalance Settlement Period of the Dispatch Day,

   ~~a)~~b)calculation of the Balancing Energy for aFRR for each Balancing Service Entity and for each Imbalance Settlement Period of the Dispatch Day,

   ~~b) calculation of the Balancing Energy for automatic FRR for each Balancing Service Entity, for each Imbalance Settlement Period of the Dispatch Day,~~

   c) calculation of the energy supplied for purposes other than balancing, for each Balancing Service Entity, for each Imbalance Settlement Period of the Dispatch Day,

   d) calculation of Imbalances, for each Balance Responsible Entity, for each Imbalance Settlement Period of the Dispatch Day,

   e) calculation of Imbalances Adjustment, for each Balance Responsible Entity, for each Imbalance Settlement Period of the Dispatch Day,

   f) calculation of the Balancing Capacity for FCR for each Balancing Service Entity and for each Imbalance Settlement Period of the Dispatch Day,

   g) calculation of the Balancing Capacity for ~~manual FRR~~mFRR for each Balancing Service Entity and for each Imbalance Settlement Period of the Dispatch Day,

   h) calculation of the Balancing Capacity for ~~automatic FRR~~aFRR for each Balancing Service Entity and for each Imbalance Settlement Period of the Dispatch Day,

   i) calculation of the debits and credits to the Balancing Service Provider for Balancing Energy and Balancing Capacity for each of the Balancing Service Entities it represents and for each Imbalance Settlement Period of the Dispatch Day,

   j) calculation of the debits and credits to the Balancing Service Provider for energy supplied for purposes other than balancing for each of the Balancing Service Entities it represents and for each Imbalance Settlement Period of the Dispatch Day,

   k) calculation of the debits and credits to the Balance Responsible Party for Imbalances for each of the Balance Responsible Entities it represents and for each Imbalance Settlement Period of the Dispatch Day,

   l) calculation of the cost of HETS Losses, for each Imbalance Settlement Period of the Dispatch Day,

   m) calculation of any ~~non~~Non-Compliance Charges imposed,

   n) calculation of debits and credits related to Uplift Accounts,

o) calculation of the Balancing Market Fees for each Participant, and

p) calculation of the amount that ensures the financial neutrality of the Balancing Market.

Article18.3 Balancing Market Accounts

1. The HETS Operator shall keep the following Balancing Market Accounts:

   a) Balancing Energy Account,

   b) Account for Energy supplied for purposes other than balancing,

   c) Imbalances Account,

   d) Balancing Capacity Account,

   e) Uplift Account,

   f) Non-compliance Charges Account,

   g) Balancing Market Fees Account,

   h) Account for debit or credit amounts due to corrective settlements for intended exchanges of energy pursuant to Article 50 of Regulation (EU) 2017/2195 and/or unintended exchanges of energy pursuant to Article 51 of Regulation (EU) 2017/2195.

2. ~~Information required for the performance~~The Accounts in items a) to e) and h), in paragraph 1 of this Article are not used for accounting purposes and are kept exclusively by the HETS Operator for the purpose of Balancing Market monitoring.

3. The Accounts in items f) to g), in paragraph 1 of this Article are used for financial accounting purposes.

~~Article 77.~~Article18.4 Required information for the execution of the Balancing Market Settlement

1. For the performance of the Balancing Market Settlement, the HETS Operator shall use the following information:

   a) the Market Schedule of every Balance Responsible Entity, as it results from the Day-Ahead Market and the Intra-Day Market,

   b) the Balancing Energy Offers for ~~manual FRR (quantity~~mFRR (volume and price) ~~per manual FRR Time Unit~~ awarded in the ~~Balancing Energy Market~~mFRR Process,

   c) the Balancing Energy Offers for ~~automatic FRR (quantity~~aFRR (volume and price) ~~per manual FRR Time Unit~~ awarded in the ~~Balancing Energy Market~~aFRR Process,

   d) the HETS Operators requirements for aFRR per AGC cycle,

   ~~d)~~e) the activated energy offers for purposes other than balancing,

   ~~e)~~f) the Dispatch Instructions,

   ~~f)~~g) the Supervisory Control and Data Acquisition System (SCADA) measurements for the Balancing Service Entities that supply ~~automatic FRR~~aFRR Balancing Energy,

   ~~g)~~h) the indications marking the energy supplied for purposes other than balancing,

~~h)~~i) The certified energy measurement data for the Balancing Service Entities and the interconnections, including the Electricity Supply Volume via Direct Lines,

~~i)~~j) the ~~quantity~~volume of electricity absorbed by Low and Medium Voltage consumers, as notified to the HETS Operator by Distribution Network Operators,

~~j)~~k) the energy profiles ~~per consumer~~by category for non-~~telemetered Entities by the~~metered Absorption Installations from Distribution Network ~~Operator~~Operators,

~~k)~~l) the total injections of the RES Units connected to the Low Voltage Network, as notified to the HETS Operator by the Distribution Network Operators,

~~l)~~m) the Declared Characteristics of the Balancing Service Entities,

~~m)~~n) any submitted Declarations of Total or Partial non-Availability or Major Outage Declarations of the Balancing Service Entities,

~~n)~~o) the ISP results for upward and downward FCR, automatic FRR and manual FRR Balancing Capacity for the Balancing Service Entities, in MW,

~~o)~~p) the Balancing Capacity Offers for the Balancing Service Entities,

~~p)~~q) the actual availability of the Balancing Service Entities for the supply of any type of Balancing Capacity,

~~q)~~r) the Baseline Load of the Dispatchable Load Portfolios and the Dispatchable Intermittent RES Generation Units,

~~r)~~s) the indications marking the energy ~~provided~~supplied for ~~a manual FRR~~an mFRR Test Dispatch Instruction, and

~~s)~~t) the total injections of the Dispatchable RES Generation Units Portfolios and the total offtake of the Dispatchable Load Portfolios.

2. For every Imbalance Settlement Period, the HETS Operator shall calculate the Electricity Supply Volume via a Direct Line for Demand Facilities with a Parallel Connection, as the lowest of the following:

   a) the metered generation by the generating unit that is connected to the Direct Line,

   b) the energy corresponding to the HETS Operator's Dispatch Instructions issued to the generating unit that is connected to the Direct Line,

   c) the metered energy drawn from the Direct Line, which is the lowest measurement value of the meters installed at the connection points between the Direct Line and the Direct Line Users,

   d) the metered energy consumed by the Demand Facility that is connected to the Direct Line,

   e) the declaration submitted by the owner of the Demand Facility to the HETS Operator.

3. The declaration provided for in point (e) of paragraph 2~~(e)~~ of this ~~Article~~article includes the maximum amount of electricity ~~volume, in MWh,~~ that the ~~Direct Line can supply to the~~ Demand Facility~~, as well as~~ can procure through the Direct Line in MWh and the Load Representative(s) to whom, as specified in paragraph 3 of this article, the Quantity of Electricity Supply ~~Volume via~~through the Direct Line of the Demand Facility is ~~apportioned to, as specified in paragraph 3 of this Article~~allocated. The declaration is submitted by the start of operation of the Direct Line at the latest and updated by the owner of the Demand Facility in a timely manner, before any modification of the information included therein.

4. For every Imbalance Settlement Period, the Electricity Supply Volume via Direct Line corresponding to a Demand Facility is apportioned to the Load Representatives based on their load representation rate, in accordance with the Load Meter Representation Declaration submitted by the Demand Facility pursuant to subsection 10.10 of the HETS Grid Code for that specific Imbalance Settlement Period. Volume ~~is~~shall not ~~apportioned to~~be charged against the Load Representatives if they ~~have~~were not ~~been~~ included in the declaration provided for in paragraph 2(e) of this Article.

~~Article 78.~~Article18.5 Contract with the Clearing House

1. The HETS Operator shall assign the Clearing of Positions, risk management and Cash Settlement procedures that need to be performed in the context of the operation of the Balancing Market to a Clearing House, as set out in Article 12 and 17 of Law 4425/2016 and this Rulebook. The Clearing House shall have a Clearing Rulebook for Balancing Market Positions, which shall be issued as laid down in Articles 12 and 13 (2) of Law 4425/2016.
2. The Clearing House shall perform the Clearing of Positions, risk management and Cash Settlement procedures in accordance with this Rulebook, the Clearing Rulebook for Balancing Market Positions and the Implementing and Technical Decisions issued for their performance, and shall undertake all the duties and responsibilities arising from them vis-a-vis the HETS Operator and any other third party involved in their implementation. The Participants shall be liable to fulfill their ~~cash~~monetary obligations arising from this Rulebook as set out in the ~~Clearing Rulebook~~Regulation for the Settlement of Balancing Market Positions CHAPTER22 and in ~~CHAPTER 22 and~~ CHAPTER23 of this Rulebook.

~~Article 79.~~Article18.6 Obligations of the Distribution Network Operators under the Balancing Market Settlement process

1. For the purposes of the Initial Settlement, the Distribution Network Operators shall communicate to the HETS Operator, every day~~,~~ D, for day D ~~+~~ +2, the ~~ex-ante estimated representation rates per~~amounts calculated in advance for each Load Representative and per ~~Profile Category regarding the~~ profile category of consumption of non-~~telemetered~~metered Low Voltage ~~customers~~Absorption Facilities of the HETS ~~as provided in~~Operator, in accordance with the Hellenic Electricity Distribution Network Code.
2. For the purposes of the Initial Settlement, the Distribution Network Operators shall communicate to the HETS Operator, every day, D, for the previous day D-1, per Imbalance Settlement Period:
   a) The measurements ~~/~~ /estimates of total electricity offtake corresponding to ~~the~~ telemetered ~~consumers~~Absorption Facilities connected to the HETS Low Voltage network, ~~adjusted~~normalised to the Transmission System ~~-~~– Distribution Network ~~Limit~~boundary, per Load Representative, ~~as provided in~~in accordance with the provisions of the Hellenic Electricity Distribution Network Operator (HEDNO) Management Code,
   b) The measurements ~~/~~ /estimates of total electricity offtake corresponding to ~~the~~ HETS Medium Voltage ~~consumers, adjusted~~Facilities, normalised to the Transmission System - Distribution Network ~~Limit~~boundary, per Load

Representative, ~~as provided in~~in accordance with the provisions of the Hellenic Electricity Distribution Network Operator (HEDNO) Management Code,

c) The measurements / estimates of total production by RES Units connected to the HETS Low Voltage network, as provided in the Hellenic Electricity Distribution Network Code,

d) The measurements of the total electricity offtake of the Distributed Load Portfolios for the installations connected to the Medium and/or Low Voltage network, adjusted to the Transmission System - Distribution System Limit, based on the Table of Meters for Dispatchable Load Portfolios referred to in ~~Article 13~~Article5.4 of this Rulebook,

e) The measurements of the total electricity production of the Dispatchable RES Units Portfolios for the units connected to the Low Voltage network, based on the Table of RES and CHP Units referred to in Article5.3 of this Rulebook.

3. For the purposes of the Corrective Settlement, the Distribution Network Operators shall communicate to the HETS Operator, until Monday of Settlement W+6, for every Settlement Week, W, per Imbalance Settlement Period, the following revised data:

a) The measurements~~ / ~~/estimates of total electricity offtake corresponding to ~~the~~ telemetered ~~consumers~~Absorption Facilities connected to the HETS Low Voltage network, ~~adjusted~~normalised to the Transmission System ~~-~~– Distribution Network ~~Limit~~boundary, per Load Representative, ~~as provided in~~in accordance with the provisions of the Hellenic Electricity Distribution Network Operator (HEDNO) Management Code,

b) The measurements~~ / ~~/estimates of total electricity offtake corresponding to ~~the~~ HETS Medium Voltage ~~consumers, adjusted~~Facilities, normalised to the Transmission System - Distribution Network ~~Limit~~boundary, per Load Representative, ~~as provided in~~in accordance with the provisions of the Hellenic Electricity Distribution Network Operator (HEDNO) Management Code,

c) The measurements / estimates of total production by RES Units connected to the Interconnected System Low Voltage network, as provided in the Hellenic Electricity Distribution Network Code,

d) The measurements of the total electricity offtake of the Distributed Load Portfolios for the installations connected to the Medium and/or Low Voltage network, adjusted to the Transmission System - Distribution System Limit, based on the Table of Meters for Dispatchable Load Portfolios referred to in ~~Article 13~~Article5.4 of this Rulebook,

e) The measurements of the total electricity production of the Dispatchable RES Units Portfolios for the units connected to the Low Voltage network, based on the Table of RES and CHP Units referred to in ~~Article 12~~Article5.3 of this Rulebook.

4. For the purposes of the Final Settlement of the first Half-Year Settlement Period of year Y~~-1~~, the Distribution Network Operators shall ~~communicate~~send details to the HETS Operator, ~~by~~before the twenty-sixth (~~26~~26th) Tuesday of year Y+3, the final measurements for items a to e ~~of~~in paragraph 3 of this Article.

5. For the purposes of ~~the~~ Final Settlement of the second Half-Year Settlement Period of year Y~~-1~~, the Distribution Network Operators shall communicate to the HETS Operator, by the fifty-second (52) Tuesday of the year Y+3, the final measurements for items a to e of paragraph 3 of this Article.

6. Any corrections to the data provided in this Article after ~~expiration of~~ the deadlines set out in paragraphs 4 and ~~5~~5 of this Article shall not be taken into account for the Balancing Market Settlement pursuant to this Rulebook.

Article18.7 Deficit or Surplus Management in relation to Cross-Border Natural Supplies

1. Any deficit in coupled markets in relation to Cross-Border Physical Deliveries that correspond to imports and exports per coupled interconnection under the Single Day-Ahead Market Coupling, Intra-Day Auctions and Continuous Intra-Day Trading, to the extent where it is not covered by a potential relevant surplus deriving from the Cross-Border Physical Deliveries to the HETS Operator or the Shipping Agent, shall be covered as follows:
   a) Initially, by any remuneration paid due to failure of the contracting parties to fulfil their obligations relating to the Cross-Border Physical Deliveries that correspond to imports and exports per coupled interconnection under the Single Day-Ahead Market Coupling, Intra-Day Auctions and Continuous Intra-Day Trading, in accordance with the provisions of the contract between the Shipping Agent and the HETS Operator.
   b) in the case that the amount of (a) does not suffice, by the payment of the remaining balance in the non-Compliance Charges Account held by the Energy Exchange in accordance with the Day-Ahead & Intra-Day Markets Trading Rulebook and the process described in section 3.12.8 thereof.

~~Άρθρο 81. Financial neutrality of the HETS Operator~~

~~The financial neutrality of the HETS Operator in the operation of the Balancing Market is ensured through the debits and credits to Balance Responsible Parties, as described in Article 95 of this Rulebook.~~

~~Άρθρο 82. Technical Decision "Balancing Market Settlement".~~

~~1. Details and examples of calculations regarding the Balancing Market Settlement are described in Technical Decision "Balancing Market Settlement".~~

~~CHAPTER 17~~

~~TRANSMISSION SYSTEM LOSSES~~

   c) if the amount of cases (a) and (b) is not sufficient, by the payment of the available balance of the Non-Conformity Debit Account maintained by the HETS Operator in accordance with Article22.8 paragraph 1, case (b).

2. Any surplus in coupled markets in relation to Cross-Border Physical Deliveries that correspond to imports and exports per coupled interconnection under the Single Day-Ahead Market Coupling, Intra-Day Auctions and Continuous Intra-Day Trading, as calculated in the results of the Single Day-Ahead Market Coupling, Intra-Day Auctions and Continuous Intra-Day Trading respectively, which remains after covering potential relevant deficits deriving from the Cross-Border Physical Deliveries to the HETS Operator or the Shipping Agent, shall be transferred to the non-Compliance Charges Account held by the HETS Operator.

~~Article 82.~~Article18.8 HETS Losses Management

1. The HETS Operator ~~shall predict the~~makes provision for expected HETS Losses and shall take the necessary action to cover the ~~said~~respective quantities of energy ~~by submitting Priority~~ through submission of Price-Taking Orders ~~at~~with Execution Priority in the Day-Ahead Market ~~or/~~and/or through the ~~Intra-Day~~Intraday Market ~~or/~~and/or through the Energy Financial Market ~~or/~~and/or through contracts concluded following a tender procedure.
2. The HETS Operator shall calculate the actual losses of the HETS and shall calculate the debit/credit of these losses to the Imbalance Settlement.
3. The total cost of HETS Losses shall be recovered by the HETS Operator through the corresponding Uplift Account as defined in ~~Article 93~~Article21.2 of this Rulebook.

~~Άρθρο 84. HETS Losses Forecast~~

4. HETS Losses are estimated based on the "HETS Losses Calculation Methodology". The HETS Operator shall use the ~~"~~'HETS Losses Calculation ~~Methodology"~~Methodology' for the hourly ~~Forecast~~Forecasting of ~~the~~ HETS Losses that ~~have to~~must be purchased in accordance with ~~Article 82 of~~ this ~~Rulebook~~Article.

~~CHAPTER 18~~

CHAPTER19. IMBALANCE AND BALANCING ENERGY SETTLEMENT

~~Article 84.~~Article19.1 Calculation of Balancing Energy and Imbalances

1. The activated energy for each Imbalance Settlement Period *t* shall be calculated separately for ~~the manual FRR, the automatic FRR~~mFRR, aFRR and for purposes other than balancing. An upward activated energy shall be always calculated with a positive value, while the downward activated energy shall be always calculated with a negative value.
2. The activated Balancing Energy for ~~manual FRR~~mFRR is ~~defined~~determined as follows:

   ~~a)~~ The upward activated Balancing Energy ~~for manual FRR~~mFRR, $ABE_{e,t}^{mFRR,up}$, of a Balancing Service Entity e for an Imbalance Settlement Period *t* ~~($ABE_{e,t}^{mFRR,up}$) is (a) for Dispatchable Generating Units and Dispatchable RES Units Portfolios, the additional energy corresponding to the Adjusted Dispatch Instruction for manual FRR in relation to their respective Market Schedules and (b) for Dispatchable Load Portfolios, the reduction in energy consumption corresponding to the Adjusted Dispatch Instruction for manual FRR in relation to their respective Market Schedules and~~

   ~~b)a) The downward activated Balancing Energy for manual FRR of a Balancing Service Entity e for an Imbalance Settlement Period *t* ($ABE_{e,t}^{mFRR,dn}$) is (a) for Dispatchable Generating Units and Dispatchable RES Units Portfolios, the reduction in energy corresponding to the Adjusted Dispatch Instruction for manual FRR in relation to their respective Market Schedules and (b) for Dispatchable Load Portfolios, the increase in energy consumption corresponding to the Adjusted Dispatch Instruction for manual FRR in relation to their respective Market Schedules.~~

~~3.1. The activated Energy supplied for purposes other than balancing is defined as follows:~~

a) ~~The upward activated energy for purposes other than balancing of a Balancing Service Entity e for an Imbalance Settlement Period t ($AOE_{e,t}^{mFRR,up}$)~~ is (a) for Dispatchable Generating Units and Dispatchable RES Units Portfolios, the additional energy corresponding to the Adjusted Dispatch Instruction for mFRR and (b) for Dispatchable Load Portfolios, the reduction in energy absorption corresponding to the Adjusted Dispatch Instruction for mFRR, in accordance with the provisions of paragraph 5 of this article, and

b) The downward activated Balancing Energy mFRR,$ABE_{e,t}^{mFRR,dn}$, of an Balancing Service Entity *e* for a Balancing Settlement Period *t* is (a) with respect to the Dispatchable Generation Units and the Dispatchable RES Units Portfolios, the reduction of the energy corresponding to the Adjusted Dispatch Instruction for mFRR and (b) with respect to Dispatchable Load Portfolios, the increase in energy absorption corresponding to the Adjusted Dispatch Instruction for mFRR, as defined in paragraph 5 of this Article.

3. The activated Energy supplied for purposes other than balancing is defined as follows:

a) The upward activated energy for purposes other than balancing,$AOE_{e,t}^{FRR,up}$, of a Balancing Service Entity *e* for an Imbalance Settlement Period *t* (is (a) for Dispatchable Generating Units and Dispatchable RES Units Portfolios, the additional energy corresponding to the Adjusted Dispatch Instruction for purposes other than balancing ~~in relation to the respective Market Schedules~~, and (b) for Dispatchable Load Portfolios, the reduction in energy ~~consumption~~absorption corresponding to the Adjusted Dispatch Instruction for purposes other than balancing ~~in relation to the respective Market Schedules~~, in accordance with the provisions of paragraph 5 of this Article, and

b) The downward activated energy for purposes other than balancing, $AOE_{e,t}^{mFRR,dn}$, of a Balancing Service Entity *e* for an Imbalance Settlement Period *t* ~~($AOE_{e,t}^{mFRR,dn}$)~~ is (a) for Dispatchable Generating Units and Dispatchable RES Units Portfolios, the reduction in energy corresponding to the Adjusted Dispatch Instruction for purposes other than balancing ~~in relation to the respective Market Schedules~~, and (b) for Dispatchable Load Portfolios, the additional energy ~~consumption~~absorption corresponding to the Adjusted Dispatch Instruction for purposes other than balancing, in ~~relation to~~accordance with the ~~respective Market Schedules~~provisions of paragraph 5 of this Article.

4. The Adjusted Dispatch Instruction and the activated energy shall be calculated according to the ~~"~~'Activated Balancing Energy Calculation ~~Methodology",~~Methodology', which takes into account at least the actual availability of the Balancing Service Entities.

~~5. The Instructed Energy of a Balancing Service Entity e for an Imbalance Settlement Period t is equal to the Market Schedule $MS_{e,t}$ plus the upward Balancing Energy activated for manual FRR, $AOE_{e,t}^{mFRR,up}$, plus the downward Balancing Energy activated for manual FRR $ABE_{e,t}^{mFRR,dn}$, plus the upward energy activated for purposes other than balancing $AOE_{e,t}^{mFRR,up}$, plus the downward energy activated for purposes other than balancing, $AOE_{e,t}^{mFRR,dn}$, as given below:~~

5. ~~$INST_{e,t} = MS_{e,t} + ABE_{e,t}^{mFRR,up}$~~The mFRR Instructed Energy of a Balancing Services Entity *e* for a Balancing Settlement Period *t*,$INST_{e,t}^{mFRR}$, shall be calculated as follows:

a) For Dispatchable Generation Units and for Dispatchable Intermittent RES Units Portfolios:

$$INST_{e,t}^{mFRR} = MS_{e,t} + ABE_{e,t}^{mFRR,up} + ABE_{e,t}^{mFRR,dn} + AOE_{e,t}^{mFRR,up} + AOE_{e,t}^{mFRR,dn}$$

b) For Dispatchable Intermittent RES Units Portfolios:

$$INST_{e,t}^{mFRR} = BL_{e,t} + ABE_{e,t}^{mFRR,up} + ABE_{e,t}^{mFRR,dn} + AOE_{e,t}^{mFRR,up} + AOE_{e,t}^{mFRR,dn}$$

c) ~~In the above formula~~ For Dispatchable Load Portfolios (with the exception of Dispatchable Load Portfolios with pumped storage capability):

$$INST_{e,t}^{mFRR} = BL_{e,t} + MS_{e,t} - ABE_{e,t}^{mFRR,up} - ABE_{e,t}^{mFRR,dn} - AOE_{e,t}^{mFRR,up} - AOE_{e,t}^{mFRR,dn}$$

d) For Dispatchable Load Portfolios with pumped storage capability:

$$INST_{e,t}^{mFRR} = MS_{e,t} - ABE_{e,t}^{mFRR,up} - ABE_{e,t}^{mFRR,dn} - AOE_{e,t}^{mFRR,up} - AOE_{e,t}^{mFRR,dn}$$

where:

$MS_{e,t}$ the Market Schedule of the Balancing Services Entity e for the Balancing Settlement Period *t*, where a) for Dispatchable Generation Units and ~~for the~~ Dispatchable RES Units Portfolios~~,~~ is always positive (+) and refers to the generation level of the Entity,b) for Dispatchable Load Portfolios (with the exception of Dispatchable Load Portfolios with pumped storage capability) it refers to the differential quantities absorbed with respect to the corresponding Reference Load, which is negative (-) when it comes to reduced absorption or positive when it concerns increased absorption from the Portfolio, and (c) for Dispatchable Load Portfolios with pumped storage capability it is always positive (+) and refers to the absorption level of the Portfolio.

$ABE_{e,t}^{mFRR,up}$ the upward activated Balancing Energy mFRR awarded to a Balancing Services Entity *e* for an Imbalance Settlement Period *t*.

$ABE_{e,t}^{mFRR,dn}$ the downward activated Balancing Energy mFRR awarded to a Balancing Services Entity *e* for an Imbalance Settlement Period *t*.

$AOE_{e,t}^{mFRR,up}$ the upward activated energy ~~($ABE_{e,t}^{mFRR,up}$,$AOE_{e,t}^{mFRR,up}$) has a positive sign while the~~ mFRR for purposes other than balancing awarded to a Balancing Services Entity *e* for an Imbalance Settlement Period *t*.

$AOE_{e,t}^{mFRR,dn}$ the downward activated energy ~~($ABE_{e,t}^{mFRR,dn}$,$AOE_{e,t}^{mFRR,dn}$) has a negative sign~~mFRR for purposes other than balancing awarded to a Balancing Services Entity *e* for an Imbalance Settlement Period *t*.

~~In the above formula for the Dispatchable Load Portfolios, the upward activated energy ($ABE_{e,t}^{mFRR,up}$,$AOE_{e,t}^{mFRR,up}$) has a negative sign while the downward activated energy ($ABE_{e,t}^{mFRR,dn}$,$AOE_{e,t}^{mFRR,dn}$) has a positive sign.~~

$BL_{e,t}$ the Balancing Services Entity's Reference Load *e* for the Balancing Settlement Period *t*, as calculated by the HETS Operator and corresponding to a) the electricity that would be generated by the Dispatchable RES Units Portfolio in the event of non-activation of the respective Balancing Energy Offers and b) the electricity that would have been absorbed from the Dispatchable Load Portfolio in the event of non-activation of the respective Balancing Energy Offers. Details and the rules for calculating the Baseline are provided in the "Baseline Calculation Methodology".

For ~~the~~ calculation of the Instructed Energy mFRR, a tolerance limit ~~can~~may be set per category of Balancing Service Entity by decision of ~~RAE, upon~~ the RAEWW, subsequent to a proposal ~~by~~from the HETS Operator.

6. ~~The~~ In the event that a Balancing Services Entity, *e*, operates under AGC, then the activated Balancing Energy for aFRR, $ABE_{e,i}^{aFRR}$ shall be calculated over a period of a minute *i*, as follows:

   ~~6.~~a) For Dispatchable Generating Units or Dispatchable Non-Intermittent RES Units Portfolios, the activated aFRR Balancing Energy $ABE_{e,i}^{aFRR}$ shall be equal to the integral of the difference between the measurements of the Supervisory Control and Data Acquisition System (SCADA) ~~measurements of a Balance Responsible Entity e within an Imbalance Settlement Period t that are greater than~~ and the Instructed Energy, ~~$INST_{e,t}$, is defined as the SCADA Upward Quantity $SQ_{e,t}^{up}$.~~ $INST_{e,i}^{mFRR}$ of the Entity *e* within minute *i*.

   b) ~~The~~ For Dispatchable Intermittent RES Units Portfolios, the activated aFRR Balancing Energy, $ABE_{e,i}^{aFRR}$ shall be equal to the integral of the difference between the measurements of the Supervisory Control and Data Acquisition System (SCADA) ~~measurements of a Balance Responsible Entity e within an Imbalance Settlement Period t that are lower than~~ and the Reference Load, $BL_{e,i}$ of the Entity *e* within minute *i*.

   c) For Dispatchable Load Portfolios, the activated aFRR Balancing Energy is $ABE_{e,i}^{aFRR}$ equal to the integral of the difference between, on the one hand, the measurements of the Supervisory Control and Data Acquisition System (SCADA) and, on the other, the sum of the Reference Load and Market Schedule, $BL_{e,i} + MS_{e,i}$ of the Entity *e* within minute *i*.

   On the basis of the above calculations, when the activated aFRR Balancing Energy in minute *i* is positive, $ABE_{e,i}^{aFRR,up}$, it is considered to be upward, and when it is negative, it is considered to be downward, $ABE_{e,i}^{aFRR,dn}$.

7. In the event that a Balancing Service Entity *e* operates under AGC during an Imbalance Settlement Period *t*, then the Instructed Energy, ~~$INST_{e,t}$ is defined as the SCADA Downward Quantity $SQ_{e,t}^{dn}$.~~ $INST_{e,t}$ is calculated as follows:

   a) For Dispatchable Generation Units or a Dispatchable non-Intermittent RES Units Portfolio:

$$INST_{e,t} = INST_{e,t}^{mFRR} + \sum_{i=1}^{15} ABE_{e,i}^{aFRR,up} + \sum_{i=1}^{15} ABE_{e,i}^{aFRR,dn}$$

   b) For a Dispatchable Intermittent RES Units Portfolio:

$$INST_{e,t} = BL_{e,t} + \sum_{i=1}^{15} ABE_{e,i}^{aFRR,up} + \sum_{i=1}^{15} ABE_{e,i}^{aFRR,dn}$$

   c) For Dispatchable Load Portfolios (with the exception of Dispatchable Load Portfolios with pumped storage capability):

$$INST_{e,t} = BL_{e,t} - \sum_{i=1}^{15} ABE_{e,i}^{aFRR,up} - \sum_{i=1}^{15} ABE_{e,i}^{aFRR,dn}$$

   d) For Dispatchable Load Portfolios with pumped storage capability:

$$INST_{e,t} = INST_{e,t}^{mFRR} - \sum_{i=1}^{15} ABE_{e,i}^{aFRR,up} - \sum_{i=1}^{15} ABE_{e,i}^{aFRR,dn}$$

~~8.~~ In the event that a Balancing Service Entity *e* operates under AGC during an Imbalance Settlement Period *t*, then~~:~~ the Instructed Energy $INST_{e,t}$ is equal to the Instructed mFRR Energy $INST_{e,t}^{mFRR}$.

~~a) the upward Balancing Energy activated for automatic FRR for Dispatchable Generating Units or Dispatchable RES Units Portfolio shall have a positive sign and shall be equal to:~~

$$\cancel{ABE_{e,t}^{aFRR,up} = SQ_{e,t}^{up}}$$

~~b) the downward Balancing Energy activated for automatic FRR for Dispatchable Generating Units or Dispatchable RES Units Portfolio shall have a negative sign and shall be equal to:~~

$$\cancel{ABE_{e,t}^{aFRR,dn} = SQ_{e,t}^{dn}}$$

~~c) the upward Balancing Energy activated for automatic FRR for Dispatchable Load Portfolios shall have a positive sign and shall be equal to:~~

$$\cancel{ABE_{e,t}^{aFRR,up} = SQ_{e,t}^{dn}}$$

~~d) the downward Balancing Energy activated for automatic FRR for Dispatchable Load Portfolio shall have a negative sign and shall be equal to:~~

$$\cancel{ABE_{e,t}^{aFRR,dn} = SQ_{e,t}^{up}}$$

8. In the event that the operation of a Balancing Services Entity, *e*, under AGC is suspended at the responsibility of the Entity for more than 5 minutes during a Balancing Settlement Period, *t*, then for that Balancing Settlement Period: (a) the entity shall not supply Balancing Energy, (b) The difference between the energy injected or absorbed and the Market Schedule or Reference Load is deemed to be an Imbalance, and (c) the entity shall not be remunerated for aFRR Balancing Energy.

9. The Imbalance of a Balance Responsible Entity providing Balancing Services, *e*, for an ~~Imbalance~~Imbalances Settlement Period *t* ~~shall be~~is equal to the difference between the quantity of energy that results on the basis of the Entity's certified measurement data $MQ_{e,t}$ and the Entity's Market Schedule, $MS_{e,t}$ or the Reference Load, $BL_{e,t}$, as given below:

   a) for Dispatchable Generating Units or Dispatchable RES Units Portfolio:

   $$IMB_{e,t} = MQ_{e,t} - MS_{e,t}$$

   b) for Dispatchable Load ~~Portfolio~~Portfolios (with the exception of Dispatchable Load Portfolios with pumped storage capability):

   $$IMB_{e,t} = BL_{e,t} - MQ_{e,t}$$

   ~~b)~~c) for Dispatchable Load Portfolios with pumped storage capability:

   $$IMB_{e,t} = MS_{e,t} - MQ_{e,t}$$

   In the above functions, a positive sign corresponds to the injection of more energy ~~supply~~ or absorption of less energy ~~offtake~~ by the Balance Responsible Entity, while a negative sign corresponds to the injection of less energy ~~supply~~ or absorption of more energy ~~offtake~~ in relation to its Market Schedule.

10. The Imbalances adjustment of a Balancing Service Entity *e* that provides Balancing Energy for ~~manual FRR~~mFRR or energy for purposes other than balancing for an Imbalance Settlement Period *t* is given in the following functions:

a) for Dispatchable ~~Generating~~Generation Units or a Dispatchable Non-Intermittent RES Units Portfolio:

$$IMBADJ_{e,t} = MS_{e,t} - INST_{e,t}$$

b) For Dispatchable Intermittent RES Units Portfolio:

$$IMBADJ_{e,t} = BL_{e,t} - INST_{e,t}$$

~~b)~~c) for Dispatchable Load ~~Portfolio:~~Portfolios (with the exception of Dispatchable Load Portfolios with pumped storage capability):

$$IMBADJ_{e,t} = INST_{e,t} - BL_{e,t}$$

d) for Dispatchable Load Portfolios with pumped storage capability:

$$IMBADJ_{e,t} = INST_{e,t} - MS_{e,t}$$

11. The Final Imbalance of a Balancing ~~Service~~Services Entity *e* ~~that was not operating under AGC~~ for ~~an Imbalance~~a Balancing Settlement Period *t* ~~shall be~~is equal to the ~~Imbalance plus~~sum of the ~~Imbalances adjustment~~Imbalance and the Balancing Adjustment, as given below:

$$FIMB_{e,t} = IMB_{e,t} + IMBADJ_{e,t}$$

~~12.~~ The Final Imbalance of a ~~Balancing Service Entity *e* that was operating under AGC for an Imbalance Settlement Period *t* shall be equal to zero.~~

~~13.~~12. ~~The Final Imbalance of a~~ Balance Responsible Entity *e* that is not providing Balancing Services shall be equal to the Imbalance as ~~it is~~ calculated on the basis of paragraph 9 of this Article. In particular:

a) For non-Dispatchable RES Units Portfolio, RES Units Portfolio without Market Participation Obligation and Electricity Exports from the Interconnections, the Final Imbalance shall be equal to

$$FIMB_{e,t} = MQ_{e,t} - MS_{e,t}$$

b) ~~for Non-Dispatchable RES Units Portfolio~~For Load Portfolios and Electricity Exports from the Interconnections, the Final Imbalance shall be equal to

$$FIMB_{e,t} = MS_{e,t} - MQ_{e,t}$$

The Final Positive Imbalance (a) for Dispatchable Generating Units and Dispatchable RES Units Portfolios shall correspond to higher metered energy injection compared to the respective Adjusted Dispatch Instruction, and (b) for Dispatchable Load Portfolios ~~shall correspond~~and Dispatchable Load Portfolios with pumped storage capability to a lower metered energy ~~consumption~~absorption compared to the ~~respective~~corresponding Adjusted Dispatch Instruction.

The Final Positive Imbalance (a) for ~~non~~Non-Dispatchable RES Units Portfolio and RES Units ~~Portfolio~~Portfolios without Market Participation Obligation shall correspond to higher metered energy injection compared to the respective Market Schedule, and (b) for ~~non-Dispatchable~~ Load Portfolios shall correspond to lower metered energy ~~consumption~~absorption compared to the respective Market Schedule.

The Final Negative Imbalance (a) for Dispatchable Generating Units and Dispatchable RES Units Portfolios shall correspond to lower metered energy injection in real time compared to the respective Adjusted Dispatch Instruction, and (b) for Dispatchable Load Portfolios ~~shall correspond~~and Dispatchable Load Portfolios with pumped storage capability to a higher metered energy ~~consumption~~absorption in real time compared to the ~~respective~~corresponding Adjusted Dispatch Instruction.

The Final Negative Imbalance (a) for ~~non~~Non-Dispatchable RES Units Portfolio and RES Units ~~Portfolio~~Portfolios without Market Participation Obligation shall correspond to lower metered energy injection compared to the respective Market Schedule, and (b) for ~~non-Dispatchable~~ Load Portfolios shall correspond to higher metered energy consumption compared to the respective Market Schedule.

~~Details and examples of calculations regarding the above are described in Technical Decision "Balancing Market Settlement".~~

~~14. For Dispatchable Load Portfolios with the exception of pumping and for Imbalance Settlement Periods for which balancing energy is provided, the Market Schedule shall be considered equal to their Reference Load, which is calculated by the HETS Operator for the respective period, and corresponds to the electricity that would have been consumed by the Dispatchable Load Portfolio had the relevant Balancing Energy Offers not been activated. Details and the rules for calculating the Reference Load are provided in the "Baseline Calculation Methodology".~~

~~15. Regarding the calculation of the Instructed Energy, $INST_{e,t}$ and the Imbalances Adjustment $IMBADJ_{e,t}$, for the Dispatchable Intermittent RES Generation Units and for the Imbalance Settlement Periods for which they provide Balancing Energy, the Market Schedule is considered equal to their Baseline. The Baseline is calculated by the HETS Operator for the respective Imbalance Settlement Period and corresponds to the electricity that would be produced by the Dispatchable RES Units Portfolio in case the relevant Balancing Energy Offers are not activated. Details and the rules for calculating the Baseline are provided in the "Baseline Calculation Methodology".~~

~~16.~~13. For the Imbalance Settlement Periods for which the entities are under Commissioning Operation or under Operation tests or under Prequalification Tests, the activated Balancing Energy and the Imbalances Adjustment will be equal to zero. The Final Imbalance of the above Balancing Service Entities is equal to the ~~imbalance~~Imbalance as calculated in accordance with ~~par.~~paragraph 9 of ~~the present~~this Article.

~~Article 85.~~Article19.2 ~~Balancing Energy Price for~~ Manual FRR and Automatic FRR Clearing Prices

1. The clearing prices of mFRR and aFRR are calculated in €/MWh.

~~1.~~2. If there is no congestion between Bidding Zones, the upward Balancing Energy Price for ~~manual FRR (in EUR/MWh),~~mFRR, $BEP_{z,t}^{up}$, for each Imbalance Settlement Period, *t*, for the activation of upward mFRR Balancing Energy ~~for manual FRR~~ shall be equal to the maximum ~~of the~~ Balancing Energy Offer prices for the ~~manual FRR~~mFRR steps that were activated to cover the HETS Imbalances. ~~If~~In the event there is congestion between the Bidding Zones, the clearing price for upward ~~Balancing Energy Price for manual FRR~~mFRR for each Imbalance Settlement Period, *t*, for ~~the~~ activation of upward Balancing Energy for each Bidding Zone ~~shall be~~is equal to the maximum prices of the mFRR Balancing Energy Offer ~~prices for the manual FRR~~ steps that were activated to cover the ~~deviation~~imbalance in the specific Bidding Zone, *z*.

~~2.~~3. If there is no congestion between Bidding Zones, the downward ~~Balancing Energy Price for manual FRR~~mFRR clearing price (in EUR/MWh), $BEP_{z,t}^{dn}$, for each Imbalance Settlement Period, *t*, for the activation of downward mFRR Balancing Energy ~~for manual FRR shall be~~is equal to the minimum ~~of the~~ Balancing Energy Offer prices for the ~~manual FRR~~mFRR steps that were activated to cover the HETS Imbalances. If there is congestion between the Bidding Zones, the clearing price for downward ~~Balancing Energy Price for manual FRR~~mFRR for each Imbalance Settlement Period, *t*, for ~~the~~ activation of downward

Balancing Energy for each Bidding Zone ~~shall be~~is equal to the ~~maximum~~minimum prices of the mFRR Balancing Energy Offer ~~prices for the manual FRR~~ steps that were activated to cover the ~~deviation in~~imbalance of the specific Bidding Zone, *z*.

~~3.~~4. The upward and downward Balancing Energy Offers for ~~manual FRR~~mFRR activated for purposes other than balancing shall be marked and excluded from the calculation of upward and downward ~~Balancing Energy~~clearing prices for ~~manual FRR~~mFRR. The activation purposes which fall into the category of "purposes other than balancing" shall be defined in the methodology for classifying the activation purposes of Balancing Energy Offers in accordance with Article 29(3) of Regulation (EU) 2017/2195.

~~4.~~5. The upward and downward Balancing Energy Offers for ~~manual FRR~~mFRR for the Balancing Service Entities and for the Imbalance Settlement Periods which are set out in the ~~"Infeasible Market Schedule~~ 'Calculation Methodology~~"~~ for Unfeasible Market Schedule' shall be marked and excluded from the calculation of upward and downward ~~Balancing Energy~~mFRR clearing prices ~~for manual FRR~~.

~~5.~~6. ~~The upward~~Upward and downward mFRR Balancing Energy Offers for ~~manual FRR for~~ the Balancing Service Entities and for ~~the~~ Imbalance Settlement Periods ~~which~~that are activated for ~~the purposes of manual FRR~~ Test Dispatch ~~Instructions~~ Instruction purposes shall be marked and excluded from the calculation of upward and downward ~~Balancing Energy~~mFRR clearing prices ~~for manual FRR~~.

~~6. If during an Imbalance Settlement Period energy from Contracted Units or Supplementary Energy from Emergency Imports was injected, or Load Cuts were made, the upward Balancing Energy Price for manual FRR may be increased by the Balancing Energy Deficit Premium in €/MWh for the specific Imbalance Settlement Period. The Balancing Energy Deficit Premium price in €/MWh shall be determined by a RAE Decision, following a proposal by the HETS Operator.~~

7. If the calculation of the ~~Balancing Energy Prices~~mFRR and aFRR clearing prices is impossible, in particular due to an Emergency Situation, or failure of the Balancing Market System or of the other electronic systems of the HETS Operator, the HETS Operator shall apply the procedure provided for in the ~~"~~'Rules for settlement in case of suspension of market ~~activities".~~activities'.

8. The aFRR Clearance Price shall be derived per Balancing Services Entity, for each minute *i* of the Balance Settlement Period *t*, according to the direction of the Balancing Action activated, as follows:

   a) To activate upward aFRR Balancing Energy:

$$SP_{e,i}^{aFRR,up} = max\left(SP_{WAE,i}^{aFRR,up}, OPBE_{e,s,i}^{aFRR,up}\right)$$

Where:

$SP_{WAE,i}^{aFRR,up}$ The weighted clearing price of upward aFRR in €/ MWh for minute *i*, in accordance with paragraph 9 of this Article.

$OPBE_{e,s,i}^{aFRR,up}$ The price of step *s* of the Balancing Energy Offer for upward aFRR of the Balancing Services Entity corresponding to the activated upward aFRR energy calculated for minute *i*, in accordance with the 'Activated Energy Calculation Methodology'.

   b) To activate downward aFRR Balancing Energy:

$$SP_{e,i}^{aFRR,dn} = min(SP_{WAE,i}^{aFRR,dn}, OPBE_{e,s,i}^{aFRR,dn})$$

Where:

$SP_{WAE,i}^{aFRR,dn}$ The weighted clearing price for downward aFRR in €/MWh for minute *i*, in accordance with paragraph 10 of this Article.

$OPBE_{e,s,i}^{aFRR,dn}$ The price of step *s* of the Balancing Energy Offer for downward aFRR of the Balancing Services Entity corresponding to the activated upward aFRR energy calculated for minute *i*, in accordance with the 'Activated Energy Calculation Methodology'.

9. The weighted clearing price for upward aFRR shall be calculated for each minute *i* of the Balance Settlement Period *t* as follows:

$$SP_{WAE,i}^{aFRR,up} = \frac{\sum_{c \in i}(RE_c^{aFRR,up} \times MP_c^{aFRR,up})}{\sum_{c \in i}(RE_c^{aFRR,up})}$$

Where:

c The AGC cycle.

$MP_c^{aFRR,up}$ The weighted clearing price of upward aFRR in €/ MWh for AGC cycle *c*, in accordance with paragraph 11 of this Article.

$RE_c^{aFRR,up}$ The required activation of upward aFRR Balancing Energy served locally in MWh for each AGC cycle *c* during minute *i*, with a positive value.

10. The weighted settlement price for downward aFRR shall be calculated for each minute *i* of the Balance Settlement Period *t* as follows:

$$SP_{WAE,i}^{aFRR,dn} = \frac{\sum_{c \in i}(RE_c^{aFRR,dn} \times MP_c^{aFRR,dn})}{\sum_{c \in i}(RE_c^{aFRR,dn})}$$

Where:

c The AGC cycle.

$MP_c^{aFRR,dn}$ The weighted clearing price for downward aFRR in an AGC cycle (in €/MWh) for AGC cycle *c*, in accordance with paragraph 11 of this Article.

$RE_c^{aFRR,dn}$ The required activation of downward aFRR Balancing Energy served locally in MWh for each AGC cycle *c* during minute *i*, with a positive value.

11. For the periods of time that the HETS Operator remains connected to the European aFRR Platform, the upward and downward aFRR clearance price in an AGC cycle shall be the same as and equal to the Cross-Border aFRR Clearance Price sent by the European aFRR Platform. For periods of time when the HETS Operator remains disconnected from the European aFRR Platform, the upward aFRR clearing price of the AGC cycle corresponds to the highest price of all upward aFRR Balancing Energy Offers that were activated from the local aFRR merit order list, while the downward aFRR clearing price of the AGC cycle corresponds to the lowest price of all downward aFRR Balancing Energy Offers that were activated from the local aFRR merit order list.

12. If the calculation of the mFRR and aFRR clearing prices is impossible, in particular due to an Emergency Situation, or failure of the Balancing Market System or of the other

electronic systems of the HETS Operator, the HETS Operator shall apply the procedure provided for in the 'Rules for settlement in case of suspension of market activities'.

~~Article 86.~~Article19.3 Calculation of Balancing Energy debits and credits

1. The debits or credits to the Balancing Service Providers for each Balancing Service Entity they represent, per Imbalance Settlement Period, for activated Balancing Energy for ~~manual FRR or for energy activated for purposes other than balancing~~mFRR following a relevant Dispatch Instruction shall be determined for each direction according to the following table:

	Positive Balancing Energy Price	**Negative Balancing Energy Price**
Upward Balancing Energy	Payment from Clearing House to Balancing Service Provider	Payment from Balancing Service Provider to Clearing House
Downward Balancing Energy	Payment from Balancing Service Provider to Clearing House	Payment from Clearing House to Balancing Service Provider

2. The ~~debits~~charge or ~~credits to~~credit of the Balancing ~~Service~~Services Providers for each Balancing Service Entity~~, e,~~ that they represent~~,~~ per each Imbalance Settlement Period, ~~t,~~ for the activated ~~manual FRR~~mFRR Balancing Energy, including the activated Balancing Energy for ~~manual FRR~~mFRR Test Dispatch Instructions, is calculated as follows:

a) For the activated upward mFRR Balancing Energy:

$$ABEC_{e,t}^{mFRR,up} = ABE_{e,t}^{mFRR,up} \times BEP_{z,t}^{up}$$

Where:

~~a)~~ $ABEC_{e,t}^{mFRR,up}$ ~~for manual FRR, as the product of the quantity of the activated upward Balancing Energy for manual FRR and the Price for upward Balancing Energy for manual FRR for the Bidding Zone, z, where a Balancing Service Entity, e, belongs~~:

$$ABEC_{e,t}^{mFRR,up} = ABE_{e,t}^{mFRR,up} \times BEP_{z,t}^{up}$$

~~Where:~~

$ABEC_{e,t}^{mFRR,up}$ The debit or credit in € for the activated upward Balancing Energy for ~~manual FRR~~mFRR for a Balancing Service Entity *e* and an Imbalance Settlement Period *t*.

$ABE_{e,t}^{mFRR,up}$ The activated upward Balancing Energy for ~~manual FRR in MWh~~aFRR for a Balancing Service Entity *e* and an Imbalance Settlement Period *t*.

$BEP_{z,t}^{up}$ The ~~Price for the~~clearing price of an upward ~~Balancing Energy for manual FRR, in €/MWh, for~~mFRR, of the Bidding Zone, *z*, ~~where a~~in €/MWh to which the Balancing ~~Service~~Services Entity~~,~~ *e*~~,~~ belongs.

b) For the activated downward mFRR Balancing Energy:

$$ABEC_{e,t}^{mFRR,dn} = ABE_{e,t}^{mFRR,dn} \times BEP_{z,t}^{dn}$$

Where:

~~b)a)~~ $ABEC_{e,t}^{mFRR,dn}$ ~~for manual FRR, as the product of the quantity of downward Balancing Energy activated for manual FRR and the Price for downward Balancing Energy for manual FRR for a Bidding Zone, z, where a Balancing Service Entity, e, belongs:~~

$$ABEC_{e,t}^{mFRR,dn} = ABE_{e,t}^{mFRR,dn} \times BEP_{z,t}^{dn}$$

~~Where:~~

$ABEC_{e,t}^{mFRR,dn}$ The debit or credit in € for the activated ~~downward~~upward Balancing Energy for ~~manual FRR~~mFRR for a Balancing Service Entity *e* and an Imbalance Settlement Period *t*.

$ABE_{e,t}^{mFRR,dn}$ The activated downward Balancing Energy for ~~manual FRR~~mFRR in MWh for a Balancing Service Entity *e* and an Imbalance Settlement Period *t*.

$BEP_{z,t}^{dn}$ The ~~Price for the~~ clearing price of a downward ~~Balancing Energy for manual FRR, in €/MWh, for~~mFRR, of the Bidding Zone, *z*, ~~where a~~in €/MWh to which the Balancing ~~Service~~Services Entity~~,~~ *e*~~,~~ belongs.

~~3.~~ The ~~debits~~charge or ~~credits to~~credit of the Balancing Service Providers for the activated upward aFRR Balancing Energy, and for each Balancing Service Entity~~,~~ *e*~~,~~ that they represent, is calculated per Imbalance Settlement Period~~, for upward Balancing Energy activated for automatic FRR shall be calculated as~~ *t* as the ~~product of:~~

~~a)~~3. ~~the quantity~~sum of ~~upward Balancing Energy for automatic FRR activated by~~ the ~~Balancing Service Entity during~~respective charges or credits for each minute *i* within the Imbalance Settlement Period~~, and~~ *t*. The above charges or credits shall be calculated as follows:

~~b) the largest value between the price for the upward Balancing Energy for manual FRR and the price of the Balancing Energy Offer for automatic FRR of the Balancing Service Entity corresponding to the quantity of upward Balancing Energy activated for automatic FRR by the Balancing Service Entity during the Imbalance Settlement Period. If the Price for the upward Balancing Energy for manual FRR has not been calculated, the relative price of the Balancing Energy Offer for automatic FRR of the Balancing Service Entity shall be used.~~

$$ABEC_{e,t}^{aFRR,up} = \cancel{ABE_{e,t}^{aFRR,up}} \cancel{\times max(BEP_{z,t}^{up}, OPBE_{e,s,t}^{aFRR,up})} \sum_{i=1}^{15} (ABE_{e,i}^{aFRR,up} \times SP_{e,i}^{aFRR,up})$$

Where:

~~Where:~~

$ABEC_{e,t}^{aFRR,up}$ $ABEC_{e,t}^{aFRR,up}$ the debit or credit for the activated upward aFRR Balancing Energy for ~~automatic FRR for~~ a Balancing Service Entity e and an Imbalance Settlement Period *t*.

$ABE_{e,i}^{aFRR,up}$ The upward activated aFRR Balancing Energy in MWh for the Balancing Services Entity *e* during one minute *i* within the Imbalance Settlement Period *t*.

$\cancel{ABE_{e,t}^{aFRR,up}}$ $SP_{e,i}^{aFRR,up}$ ~~the activated~~The upward aFRR clearing price for the Balancing ~~Energy for automatic FRR for a Balancing Service~~Services Entity *e* ~~and an~~during one minute *i* within the Imbalance Settlement Period *t*.

$\cancel{BEP_{z,t}^{up}}$ ~~the Price for the upward Balancing Energy for manual FRR for a Bidding Zone *z* and an Imbalance Settlement Period *t*. A Bidding Zone z is the zone where a Balancing Service Entity e is located.~~

$\cancel{OPBE_{e,s,t}^{aFRR,up}}$ ~~the price in €/MWh~~The charge or credit of ~~step *s* of the upward Balancing Energy offer of a Balancing Service Entity, *e*, for automatic FRR for an Imbalance Settlement Period *t*. The step *s* is the equivalent of quantity~~ $\cancel{ABE_{e,t}^{aFRR,up}}$~~.~~

4. ~~The debits or credits to~~ the Balancing Service Providers for the activated downward aFRR Balancing Energy, and for each Balancing Service Entity~~, *e*~~, that they represent, is calculated per Imbalance Settlement Period~~, for Balancing Energy activated for downward automatic FRR~~ *t* up to the sum of the corresponding charges or credits for each minute *i* within the Imbalance Settlement Period *t*. The above charges or credits shall be calculated as ~~the product of~~follows:

   ~~a) the quantity of downward Balancing Energy activated for automatic FRR by the Balancing Service Entity during the Imbalance Settlement Period, and~~

   ~~b) the lowest value between the price for the downward Balancing Energy for manual FRR and the price of the Balancing Energy Offer for automatic FRR of the Balancing Service Entity corresponding to the quantity of the activated downward Balancing Energy for automatic FRR by the Balancing Service Entity during the Imbalance Settlement Period. If the Price for the downward Balancing Energy for manual FRR has not been calculated, the relative price of the Balancing Energy Offer for automatic FRR of the Balancing Service Entity shall be used.~~

$$ABEC_{e,t}^{aFRR,dn} = \cancel{ABE_{e,t}^{aFRR,dn}}$$
$$\cancel{\times min\left(BEP_{z,t}^{dn}, OPBE_{e,s,t}^{aFRR,dn}\right)} \sum_{i=1}^{15} \left(ABE_{e,i}^{aFRR,dn} \times SP_{e,i}^{aFRR,dn}\right)$$

Where:

~~Where:~~

$ABEC_{e,t}^{aFRR,dn}$ ~~The~~the debit or credit for the activated ~~downward~~upward aFRR Balancing Energy ~~for automatic FRR~~ for a Balancing Service Entity *e* and an Imbalance Settlement Period *t*.

$\cancel{ABE_{e,t}^{aFRR,dn}}$ $ABE_{e,i}^{aFRR,dn}$ ~~the~~The downward activated ~~downward~~aFRR Balancing Energy in MWh for ~~automatic FRR for a~~ the Balancing ~~Service~~Services Entity *e* ~~and an~~ during one minute *i* within the Imbalance Settlement Period *t*.

$\cancel{BEP_{z,t}^{dn}}$ $SP_{e,i}^{aFRR,dn}$ ~~the Price for the~~ The downward aFRR clearing price for the Balancing ~~Energy for manual FRR for a Bidding Zone z and an~~ Services Entity *e* during one minute *i* within the Imbalance Settlement Period *t*. ~~A Bidding Zone z is the zone where a~~

5. Details regarding the calculation of prices are described in the 'Balancing ~~Service Entity e is located~~Market Price Calculation Methodology' and details regarding calculation of Balancing Energy debits and credits are described in the Technical Decision 'Balancing Market Settlement'.

~~$OPBE_{e,s,t}^{aFRR,dn}$ the price in €/MWh of step s of the downward Balancing Energy offer of a Balancing Service Entity e for automatic FRR for an Imbalance Settlement Period t. The step s is the equivalent of quantity $ABE_{e,t}^{aFRR,dn}$.~~

~~5. The Contracted Units offering Supplementary System Energy shall be paid in accordance with the terms and conditions of the relevant Supplementary System Energy Contract, as stipulated in the HETS Grid Code.~~

~~Article 87.~~Article19.4 Calculation of debits and credits for energy activated for purposes other than balancing

1. The debits or credits to the Balancing Service Providers for each Balancing Service Entity, *e*, they represent, per Imbalance Settlement Period, *t*, for energy activated for purposes other than balancing shall be calculated as follows:

a) as the sum of the products of all steps, which result from the multiplication of the quantity of upward balancing energy in each step by the Price of the Offer for upward Balancing Energy for ~~manual FRR~~mFRR for that step and for the corresponding Entity.

$$AOEC_{e,t}^{mFRR,up} = \sum_{s} \left(mFRRQ_{e,as,t}^{up} \times OPBE_{e,s,t}^{mFRR,up} \right)$$

Where:

$AOEC_{e,t}^{mFRR,up}$ The debit or credit for upward Balancing Energy activated for purposes other than balancing for a Balancing Service Entity *e* and an Imbalance Settlement Period *t*.

$mFRRQ_{e,as,t}^{up}$ the segment, *as*, of step, *s*, in ~~The debit or credit for the upward Balancing Energy activated for purposes other than balancing for a Balancing Service Entity e and an Imbalance Settlement Period t.~~

$mFRRQ_{e,as,t}^{up}$ ~~the segment, as, of step, s, in~~ ~~€/~~MWh of the upward Balancing Energy Offer for mFRR that has been validated for a Balancing Service Entity, *e*, for an Imbalance Settlement Period, *t*.

$OPBE_{e,s,t}^{mFRR,up}$ ~~manual FRR that has been validated for a Balancing Service Entity, e, for an Imbalance Settlement Period, t.~~

$OPBE_{e,s,t}^{mFRR,up}$ the price in €/MWh of step *s* of the upward Balancing Energy Offer of a Balancing Service Entity~~,~~ *e*~~,~~ for ~~manual FRR~~mFRR for an Imbalance Settlement Period *t*.

b) as the sum of the products of all steps, which result from the multiplication of the quantity of downward balancing energy in each step by the Price of the Offer for downward Balancing Energy for ~~manual FRR~~mFRR for that step and for the corresponding Entity.

$$AOEC_{e,t}^{mFRR,dn} = \sum_{s}^{} \left(mFRRQ_{e,as,t}^{dn} \times OPBE_{e,s,t}^{mFRR,dn}\right)$$

Where:

$AOEC_{e,t}^{mFRR,dn}$ ~~Where:~~

$AOEC_{e,t}^{mFRR,dn}$ The debit or credit for ~~the~~ downward Balancing Energy activated for purposes other than balancing for a Balancing Service Entity *e* and an Imbalance Settlement Period *t*.

$mFRRQ_{e,as,t}^{dn}$ the segment, *as*, of step, *s*, in ~~€/~~MWh of the downward Balancing Energy Offer for ~~manual FRR~~mFRR that has been validated for a Balancing Service Entity, *e*, for an Imbalance Settlement Period~~,~~ *t*.

$OPBE_{e,s,t}^{mFRR,dn}$ the price in €/MWh of step *s* of the downward Balancing Energy Offer of a Balancing Service Entity~~,~~ *e*~~,~~ for ~~manual FRR~~mFRR for an Imbalance Settlement Period *t*.

~~Article 88.~~~~Article17.1~~Where the ~~Calculation of the Imbalance Price~~

~~1. The price (in EUR/MWh) at which the imbalances are cleared per Imbalance Settlement Period shall be calculated as follows:~~

~~a) The Imbalance Price, $IP_t^{\square}$, for an Imbalance Settlement Period t shall be calculated as the weighted average price of the activated Balancing Energy in the predominant direction (upward or downward) for manual and automatic FRR for that Imbalance Settlement Period t. The above weighted average price shall be calculated as the quotient of the total amount in € corresponding to the activation of balancing energy in the predominant direction (upward manual and automatic FRR or downward manual and automatic FRR) and the algebraic sum of the activated balancing energy quantities in the predominant direction. The Imbalance Price, $IP_t^{\square}$ shall be calculated as follows:~~

$$IP_t^{\square} = \frac{\sum_e ABEC_{e,t}^{mFRR,main_dir} + \sum_e ABEC_{e,t}^{aFRR,main_dir}}{\sum_e ABE_{e,t}^{mFRR,main_dir} + \sum_e ABE_{e,t}^{aFRR,main_dir}}$$

~~Where:~~

$ABEC_{e,t}^{mFRR,main_dir}$ ~~The debit or credit in € for the activated Balancing Energy for manual FRR in the predominant direction for a Balancing Service Entity e and an Imbalance Settlement Period t.~~

$ABEC_{e,t}^{aFRR,main_dir}$ ~~The debit or credit in € for the activated Balancing Energy for automatic FRR in the predominant direction for a Balancing Service Entity e and an Imbalance Settlement Period t.~~

2. $ABE_{e,t}^{mFRR,main_dir}$ ~~The activated Balancing Energy for manual FRR in the predominant direction in MWh for a Balancing Service Entity e and an~~ calculated amounts $AOEC_{e,t}^{mFRR,up}$ of $AOEC_{e,t}^{mFRR,dn}$ activated energy for non-balancing purposes are negative, the Balancing Entity shall be required to pay the calculated amount, whereas when the amounts calculated are positive, the Balancing Entity shall be entitled to collect the calculated amount.

Article19.5 Calculation of System Imbalance

1. The System Imbalance, SI_t shall be calculated for each Imbalance Clearance Period *t* as follows:

$$SI_t = \Delta P_t + k\Delta f_t - AE_t$$

Where:

ΔP_t The imbalance between intended exchanges of active capacity through the interconnection points and metered values, in MW. The intended exchanges of active capacity at the HETS interconnection points do not include voluntary exchanges of active capacity pursuant to Article 50 of Regulation (EU) 2017/2195.

$k\Delta f_t$ The HETS frequency control error, in MW, for the Imbalance Clearance Period *t*, that is, the product of the frequency deviation from the nominal value by the factor *k* (in mW/Hz) as defined in Article 156 (2) of Regulation (EU) 2017/1485.

AE_t The total activated energy in MW, corresponding to aFRR Dispatch Instructions for the Imbalance Settlement Period *t*, mFRR Dispatch Instructions, Test mFRR Dispatch Instructions, Dispatch Instructions for commitment, de-commitment or transition, and the Instructions for activation of mFRR Energy Offers for purposes other than balancing for a Balancing Settlement Period *t*.

2. In the above formula, export-related active capacity exchanges and upward activated energy are taken into account with a positive sign. By contrast, import-related active capacity exchanges and downward activated energy are taken into account with a negative sign.

Article19.6 Calculation of the Imbalance Price

1. If the System Imbalance SI_t, is less than -25MW or greater than +25MW, the Imbalance Price IP_t shall be calculated as follows:

$$IP_t = \begin{cases} max\{MP^{aFRR}_{WAE,t}, BEP^{up}_{mFRR,t}, VOAA^{up}_t, VOAA^{dn}_t\}, \text{ότων } SI_t < -25MW \\ \\ min\{MP^{aFRR}_{WAE,t}, BEP^{dn}_{mFRR,t}, VOAA^{up}_t, VOAA^{dn}_t\}, \text{ότων } SI_t > 25MW \end{cases}$$

Where:

$MP^{aFRR}_{WAE,t}$ The weighted average price of the AGC cycle aFRR clearing prices in €/MWh for the Imbalance Settlement Period *t* in accordance with paragraphs 2, 3 and 4 of this Article.

~~$ABE^{aFRR,main_dir}_{e,t}$ The activated Balancing Energy for automatic FRR in the predominant direction in MWh for the Balancing Service Entity e and~~ $BEP^{up}_{z,t}$ The upward mFRR clearing price in €/MWh for the Imbalance Settlement Period *t*.

~~The predominant direction is upward when the activated upward Balancing Energy for manual and automatic FRR for a specific Imbalance Settlement Period t is greater than the activated downward Balancing Energy for manual and automatic FRR. Similarly, the predominant direction is downward when the activated downward Balancing Energy for manual and automatic FRR for a specific Imbalance~~

~~Settlement Period t is greater than the activated upward Balancing Energy for manual and automatic FRR.~~

~~If neither upward nor downward Balancing Energy was activated for an Imbalance Settlement Period t, the Imbalance Price OP_t shall be equal to the~~ $BEP_{z,t}^{dn}$ The downward mFRR clearing price in €/MWh for the Imbalance Settlement Period *t*.

~~b)~~ $VOAA_t^{up}$ The value of ~~the~~ avoided ~~Balancing Energy~~ activation ~~and shall be calculated by finding the mean~~ of ~~the following values:~~

~~i.~~ ~~the~~ Balancing Energy in the upward direction, which is equal to the lower value of the upward Balancing Energy Offer ~~price~~ for either ~~manual~~mFRR or ~~automatic FRR~~aFRR for ~~that~~the specific Imbalance ~~Settlement~~Clearance Period ~~and~~ *t*.

~~ii.~~ $VOAA_t^{dn}$ The value of avoided activation of Balancing Energy in the downward direction, which is equal to the higher value of the downward Balancing Energy Offer ~~price~~ for either ~~manual~~mFRR or ~~automatic FRR~~aFRR for ~~that~~the specific Imbalance ~~Settlement~~Clearance Period *t*.

~~2. Any deficit resulting from the Imbalance Settlement shall be settled through Uplift Account 3 and shall be apportioned and allocated to the Balance Responsible Parties, as set forth in Article 95 of this Rulebook.~~

2. For the Imbalance Settlement Periods during which the HETS Operator remains connected to the European Platform for Balancing Energy (aFRR), the weighted average price of the clearing prices for aFRR in the AGC cycle $MP_{WAE,t}^{aFRR}$, for a Balancing Settlement Period *t* shall be calculated in accordance with the following:

$$MP_{WAE,t}^{aFRR} = \frac{\sum_{c\in t}(abs(SD_c^{aFRR}) \times MP_c^{aFRR})}{\sum_{c\in t}(abs(SD_c^{aFRR}))}$$

Where:

c The AGC cycle.

MP_c^{aFRR} The Cross-Border aFRR Settlement Price in €/MWh dispatched by the European aFRR Platform for each execution cycle of the aFRR Process preceding the AGC cycle *c* within the Imbalance Settlement Period *t*.

SD_c^{aFRR} The demand for aFRR in MWh that has been met for each execution cycle of the aFRR Process preceding the AGC cycle *c* within the Imbalance Settlement Period *t*.

3. For the Imbalance Settlement Periods during which the HETS Operator remains disconnected from the European Platform for Balancing Energy (aFRR), the weighted average price of the clearing prices for aFRR in the AGC cycle $MP_{WAE,t}^{aFRR}$, for a Balancing Settlement Period *t* shall be calculated in accordance with the following:

a) If the System Imbalance, SI_t is less than -25MW:

$$MP_{WAE,t}^{aFRR} = \frac{\sum_{c\in t}(SD_c^{aFRR,up} \times MP_c^{aFRR,up})}{\sum_{c\in t} SD_c^{aFRR,up}}$$

Where:

c The AGC cycle.

$MP_c^{aFRR,up}$ The upward aFRR clearing price of the AGC cycle in €/MWh, which corresponds to the maximum price of all upward aFRR Balancing Energy Offers activated from the local aFRR merit order list, for each AGC cycle *c*.

$SD_c^{aFRR,up}$ The upward demand for aFRR in MWh met for each AGC cycle *c*, with a positive value.

b) If the System Imbalance SI_t is greater than 25MW:

$$MP_{WAE,t}^{aFRR} = \frac{\sum_{c \in t}(SD_c^{aFRR,dn} \times MP_c^{aFRR,dn})}{\sum_{c \in t} SD_c^{aFRR,dn}}$$

Where:

c The AGC cycle.

$MP_c^{aFRR,dn}$ The downward aFRR clearing price of the AGC cycle in €/MWh, which corresponds to the minimum price of all downward aFRR Balancing Energy Offers activated from the local aFRR merit order list, for each AGC cycle *c*.

$SD_c^{aFRR,dn}$ The downward demand for aFRR in MWh met for each AGC cycle *c*, with a positive value.

4. For cases where, during an Imbalance Settlement Period *t*, the HETS Operator remains connected to the European aFRR platform for part of the time and disconnected for the remainder of the period, then the weighted average of the aFRR settlement prices in the AGC cycle is used, derived from: a) paragraphs 2 and 3(a) for System Imbalances less than -25 MW, and b) paragraphs 2 and 3(b) for System Imbalances greater than 25 MW. The above values shall be weighted in relation to the respective time intervals.

5. In the case that the calculated System Imbalance SI_t, falls within the range [-25 MW, +25 MW], the Imbalance Price is taken to be equal to the value of the avoided activation of Balancing Energy, and is calculated as the average price of the following:

   a) the lowest price of the upward Balancing Energy Offer for either mFRR or aFRR, which is available for local activation, for the specific Imbalance Settlement Period; and

   b) the highest price of the downward Balancing Energy Offer for either mFRR or aFRR, which is available for local activation, for the specific Imbalance Settlement Period.

6. Details regarding calculation of System Imbalance and Imbalance Pricing are described in the 'Balancing Market Price Calculation Methodology'.

~~3.~~7. If the calculation of the Imbalance Prices is impossible, in particular due to an Emergency Situation, or failure of the Balancing Market System or of the other electronic systems of the HETS Operator, the HETS Operator shall apply the procedure provided for in the "Rules for settlement in case of suspension of market activities".

~~Article 89.~~Article19.7 Calculation of Debits and Credits from the Imbalance Settlement

1. Imbalance Settlement is the procedure whereby the Balance Responsible Parties are debited or credited for the imbalances they cause. The Imbalance Settlement shall be initially performed per Balance Responsible Entity and then per Balance Responsible Party.

2. ~~The~~If the System Imbalance is non-zero, the Imbalance amount in € for an Imbalance Settlement Period *t* and a Balancing Service Entity or a Balance Responsible Entity *e* shall

be calculated as the Final Imbalance~~,~~ $FIMB_{e,t}$, ~~-~~in MWh, ~~as~~ calculated ~~according to~~in accordance with Article19.1, multiplied by the relative price in €/MWh as follows:

~~a) If the System Imbalance is non-zero:~~

$$IMBC_{e,t} = FIMB_{e,t} \times \cancel{IP_t}\, IP_t$$

~~b) If neither upward nor downward Balancing Energy was activated for an Imbalance Settlement Period t:~~

$$\cancel{IMBC_{e,t} = FIMB_{e,t} \times OP_t}$$

~~Where:~~

~~$IMBC_{e,t}$ the Imbalance debit or credit in € for a Balancing Service Entity or a Balance Responsible Entity e and an Imbalance Settlement Period t.~~

~~$FIMB_{e,t}$ the Final Imbalance quantity, $FIMB_{e,t}$, in MWh for a Balancing Service Entity or a Balance Responsible Entity e and an Imbalance Settlement Period t.~~

~~IP_t the Imbalance Price in €/MWh for an Imbalance Settlement Period t.~~

~~OP_t the mean, in €/MWh, of the lowest upward Balancing Energy Offer price and the highest downward Balancing Energy Offer price either for automatic or for manual FRR for a specific Imbalance Settlement Period t.~~

3. When the amount calculated for an Imbalance is found to be negative, the Balance Responsible Entity is required to pay that amount. When the amount calculated for an Imbalance is found to positive, the Balance Responsible Entity is entitled to collect that amount.

4. The Imbalance amount calculated for RES Units Portfolio without Market Participation Obligation shall be debited/ credited to DAPEEP.

5. By way of derogation from paragraph 2 of this Article ~~and subject to article 121 paragraph 4~~, the amount of Imbalance ~~amount~~ in € for each Imbalance Settlement Period *t* ~~is~~shall be calculated as the product of the Imbalance, $FIMB_{e,t}$~~;~~ in MWh, with the Day-Ahead Market ~~Clearing~~clearing price in €/MWh for the ~~relevant~~respective Market Time Unit, in the following cases:

   a) For ~~the~~ pre-registered entities subject to ~~Operation Tests as well as for the entities which are under~~ Prequalification Acceptance Tests in accordance with Chapter 3 of this Rulebook,

   b) For RES Units performing Operation Tests in the context of their connection to Transmission or Distribution System.

   The above derogation is valid for a maximum period of six (6) months from the date of placement of each entity under Operation Tests regime.

~~CHAPTER 19~~

CHAPTER20. BALANCING CAPACITY SETTLEMENT

~~Article 90.~~Article20.1 Calculation of the supplied quantity of Balancing Capacity

1. The Balancing Capacity Settlement Period is set to be equal to the Imbalance Settlement Period. In order to ensure that the ISP Dispatch Period corresponds with the Imbalance Settlement Periods, the half-hourly results for ISP Balancing Capacity shall be divided into two (2) equivalent 15-minute results.

2. For each Balancing Service Entity and for each Imbalance Settlement Period, the upward and downward Balancing Capacity supplied for FCR, ~~automatic FRR~~aFRR and ~~manual FRR~~mFRR shall be calculated taking into account:

   ~~a)~~1) The segments of the individual steps of the Balancing Capacity Offer that have been validated on the basis of the last ISP execution, whose solution timeframe shall include that specific Imbalance Settlement Period.

   ~~b)~~2) the availability in MW of the Balancing Service Entity for the provision of the service in real time.

   ~~c)~~3) the percentage of a time period within an Imbalance Settlement Period when the Balancing Service Entity was available for the provision of FCR in real time.

3. The upward and downward Balancing Capacity provided for FCR by a Balancing Service Entity e for an Imbalance Settlement Period t shall be calculated as follows:

$$FCRQ_{e,t}^{up} = \sum_{s}^{\square}\sum_{as}^{\square}\left(FCRQ_{e,as,t}^{up}\right) \times T_{e,t}^{FCR,up}$$

$$FCRQ_{e,t}^{dn} = \sum_{s}^{\square}\sum_{as}^{\square}\left(FCRQ_{e,as,t}^{dn}\right) \times T_{e,t}^{FCR,dn}$$

where:

$FCRQ_{e,t}^{up}$ — the upward FCR Balancing Capacity, in MW, supplied ~~for FCR~~ by ~~a~~the Balancing ~~Service~~Services Entity~~,~~ *e*~~,~~ for ~~an~~the Imbalance Settlement Period *t*.

$FCRQ_{e,as,t}^{up}$ — the segment, *as*, of step, *s*, in MW of the upward FCR Balancing Capacity Offer ~~for FCR~~ validated ~~for a~~by the Balancing ~~Service~~Services Entity, *e*, for ~~a~~the Dispatch Period which includes ~~an~~the Imbalance Settlement Period, *t*, based on the ~~basis~~latest execution of the ~~last~~ ISP ~~execution, whose solution timeframe shall include that~~, the resolution time horizon of which includes the specific Imbalance Settlement Period~~,~~ *t*.

$T_{e,t}^{FCR,up}$ — the percentage of a time period within an Imbalance Settlement Period *t* when the Balancing Service Entity *e* was available for the provision of upward FCR in real time.

$FCRQ_{e,t}^{dn}$ — the ~~downward~~upward Balancing Capacity for FCR, in MW, supplied ~~for FCR~~ by ~~a~~the Balancing ~~Service~~Services Entity~~,~~ *e*~~,~~ for ~~an~~the Imbalance Settlement Period~~,~~ *t*~~.~~,

$FCRQ^{dn}_{e,as,t}$ the segment, *as*, of step, *s*, in MW of the ~~downward~~upward FCR Balancing Capacity Offer ~~for FCR~~ validated ~~for a~~by the Balancing ~~Service~~Services Entity, *e*, for ~~a~~the Dispatch Period which includes ~~an~~the Imbalance Settlement Period, *t*, based on the ~~basis~~latest execution of the ~~last~~ ISP ~~execution, whose solution timeframe shall include that~~, the resolution time horizon of which includes the specific Imbalance Settlement Period~~,~~ *t*.

$T^{FCR,dn}_{e,t}$ the percentage of ~~a~~ time ~~period within~~in an Imbalance Settlement Period ~~*t* when~~during which the Balancing Service Entity *e* was available for the provision of downward FCR in real time.

4. The upward and downward Balancing ~~Capacity provided~~Capacities for ~~manual FRR~~mFRR supplied by a Balancing Service Entity *e* for an Imbalance Settlement Period *t* shall be calculated as follows:

$$mFRRQ^{up}_{e,t} = \sum_{s}\sum_{as}\left(mFRRQ^{up}_{e,as,t}\right) \times T^{mFRR,up}_{e,t}$$

$$mFRRQ^{dn}_{e,t} = \sum_{s}\sum_{as}\left(mFRRQ^{dn}_{e,as,t}\right) \times T^{mFRR,dn}_{e,t}$$

where:

$mFRRQ^{up}_{e,t}$ the upward Balancing Capacity for mFRR, in MW, supplied ~~for manual FRR~~ by ~~a~~the Balancing ~~Service~~Services Entity~~,~~ *e* in real time, for ~~an~~the Imbalance Settlement Period~~,~~ *t*~~, in real time~~.

$mFRRQ^{up}_{e,as,t}$ the segment, *as*, of step, *s*, in MW of the upward mFRR Balancing Capacity Offer ~~for manual FRR~~ validated ~~for a~~by the Balancing ~~Service~~Services Entity, *e*, for ~~a~~the Dispatch Period which includes ~~an~~the Imbalance Settlement Period, *t*, based on the ~~basis of the last ISP~~latest execution~~, whose solution timeframe shall include that~~ of the ISP, the resolution time horizon of which includes the specific Imbalance Settlement Period~~,~~ *t*.

$T^{mFRR,up}_{e,t}$ the percentage of ~~a~~ time ~~period~~ within an Imbalance Settlement Period~~,~~ *t*~~,~~ when ~~a~~the Balancing Service Entity~~,~~ *e*~~,~~ was available for the provision of upward ~~manual FRR~~mFRR in real time.

$mFRRQ^{dn}_{e,t}$ the downward Balancing Capacity~~,~~ for mFRR in MW, supplied ~~for manual FRR~~ by ~~a~~the Balancing ~~Service~~Services Entity, *e*, ~~for an Imbalance Settlement Period, *t*,~~ in real time, for the Imbalance Settlement Period *t*.

$mFRRQ^{dn}_{e,as,t}$ the segment, *as*, of step, *s*, in MW of the downward mFRR Balancing Capacity Offer ~~for manual FRR~~ validated ~~for a~~by the Balancing ~~Service~~Services Entity~~,~~ *e*, for ~~a~~the Dispatch Period which includes ~~an~~the Imbalance Settlement Period~~,~~ *t*, based on the ~~basis of the last ISP~~latest execution~~, whose solution timeframe shall include that~~ of the ISP, the resolution time horizon of which includes the specific Imbalance Settlement Period~~,~~ *t*.

$T^{mFRR,dn}_{e,t}$ the percentage of ~~a~~ time ~~period within~~in an Imbalance Settlement Period~~,~~ *t*~~, when a~~during which the Balancing ~~Service~~Services Entity~~,~~ *e*~~,~~

was available for the provision of downward ~~manual FRR~~mFRR in real ~~-~~time.

5. The upward and downward Balancing Capacity for aFRR, in ~~MWh~~MW, supplied ~~for automatic FRR~~ by a Balancing Service Entity~~,~~ *e*, for an Imbalance Settlement Period~~,~~ *t*, shall be calculated as follows:

$$aFRRQ_{e,t}^{up} = \sum_{s}^{\square}\sum_{as}^{\square}\left(aFRRQ_{e,as,t}^{up}\right) \times T_{e,t}^{aFRR,up}$$

$$aFRRQ_{e,t}^{dn} = \sum_{s}^{\square}\sum_{as}^{\square}\left(aFRRQ_{e,as,t}^{dn}\right) \times T_{e,t}^{aFRR,dn}$$

where:

$aFRRQ_{e,t}^{up}$ the upward Balancing Capacity for aFRR, in MW, supplied ~~for automatic FRR~~ by ~~a~~the Balancing ~~Service~~Services Entity~~,~~ *e* in real time, for ~~an~~the Imbalance Settlement Period~~,~~ *t*~~, in real time~~.

$aFRRQ_{e,as,t}^{up}$ the segment, *as*, of step, *s*, in MW of the upward aFRR Balancing Capacity Offer ~~for automatic FRR~~ validated ~~for a~~by the Balancing ~~Service~~Services Entity, *e*, for ~~a~~the Dispatch Period which includes ~~an~~the Imbalance Settlement Period~~,~~ *t*, based on the ~~basis~~latest execution of the ~~last~~ ISP ~~execution, whose solution timeframe shall include that~~, the resolution time horizon of which includes the specific Imbalance Settlement Period~~,~~ *t*.

~~$T_{e,t}^{mFRR,up}$~~$T_{e,t}^{aFRR,up}$ the percentage of ~~a~~ time ~~period~~ within an Imbalance Settlement Period~~,~~ *t*~~,~~ when ~~a~~the Balancing Service Entity~~,~~ *e*~~,~~ was available for the provision of upward ~~automatic FRR~~aFRR in real time.

$aFRRQ_{e,t}^{dn}$ the downward Balancing Capacity~~,~~ for aFRR in MW, supplied ~~for automatic FRR~~ by ~~a~~the Balancing ~~Service~~Services Entity~~,~~ *e*, in real time, for ~~an~~the Imbalance Settlement Period~~,~~ *t*~~, in real time~~.

$aFRRQ_{e,as,t}^{dn}$ the segment, *as*, of step, *s*, in MW of the downward aFRR Balancing Capacity Offer ~~for automatic FRR~~ validated ~~for a~~by the Balancing ~~Service~~Services Entity~~,~~ *e*, for ~~a~~the Dispatch Period which includes ~~an~~the Imbalance Settlement Period~~,~~ *t*, based on the ~~basis of the last ISP~~latest execution~~, whose solution timeframe shall include that~~ of the ISP, the resolution time horizon of which includes the specific Imbalance Settlement Period~~,~~ *t*.

$T_{e,t}^{aFRR,dn}$ ~~$T_{e,t}^{aFRR,dn}$~~the percentage of ~~a~~ time ~~period within~~in an Imbalance Settlement Period~~,~~ *t*~~, when a~~during which the Balancing ~~Service~~Services Entity~~,~~ *e*, was available for the provision of downward ~~automatic FRR~~mFRR in real ~~-~~time.

Article20.2 Calculation of Balancing Capacity Remuneration

~~Article 91.Article17.1Calculation of Balancing Capacity Remuneration~~

1. For each Balancing Service Entity and for each Imbalance Settlement Period, ~~the~~ remuneration for the upward and downward Balancing Capacity supplied for FCR,

~~automatic FRR~~aFRR and ~~manual FRR,~~mFRR shall be calculated taking into account ~~the~~ upward or downward Balancing Capacity supplied ~~and~~together with the price of the respective Balancing Capacity Offer ~~step~~steps that ~~have been~~were validated on the basis of the last execution of the ISP, ~~whose solution timeframe shall include that~~the resolution time horizon of which includes the specific Imbalance Settlement Period.

2. ~~Similarly, the~~The remuneration of a Balancing Service Entity~~,~~ *e*, for ~~the~~ Balancing Capacity supplied for upward and downward FCR, ~~automatic FRR~~aFRR, and ~~manual FRR~~mFRR in an Imbalance Settlement Period *t*, ~~is~~shall be similarly calculated as follows:

$$FCRC_{e,t}^{up} = \frac{1}{4} \times \sum_{s} \sum_{as} \left(FCRQ_{e,as,t}^{up} \times OP_{e,s,t}^{FCR,up} \right) \times T_{e,t}^{FCR,up}$$

$$FCRC_{e,t}^{dn} = \frac{1}{4} \times \sum_{s} \sum_{as} \left(FCRQ_{e,as,t}^{dn} \times OP_{e,s,t}^{FCR,dn} \right) \times T_{e,t}^{FCR,dn}$$

$$mFRRC_{e,t}^{up} = \frac{1}{4} \times \sum_{s} \sum_{as} \left(mFRRQ_{e,as,t}^{up} \times OP_{e,s,t}^{mFRR,up} \right) \times T_{e,t}^{mFRR,up}$$

$$mFRRC_{e,t}^{dn} = \frac{1}{4} \times \sum_{s} \sum_{as} \left(mFRRQ_{e,as,t}^{dn} \times OP_{e,s,t}^{mFRR,dn} \right) \times T_{e,t}^{mFRR,up}$$

$$aFRRC_{e,t}^{up} = \frac{1}{4} \times \sum_{s} \sum_{as} \left(aFRRQ_{e,as,t}^{up} \times OP_{e,s,t}^{aFRR,up} \right) \times T_{e,t}^{aFRR,up}$$

$$aFRRC_{e,t}^{dn} = \frac{1}{4} \times \sum_{s} \sum_{as} \left(aFRRQ_{e,as,t}^{dn} \times OP_{e,s,t}^{aFRR,dn} \right) \times T_{e,t}^{aFRR,dn}$$

where:

$FCRC_{e,t}^{up}$ the remuneration in € of a Balancing ~~Service~~Services Entity *e* for ~~the~~upward FCR Balancing Capacity supplied ~~for upward FCR~~ in ~~an~~the Imbalance Settlement Period *t*.

$FCRC_{e,t}^{dn}$ the remuneration in € of a Balancing ~~Service~~Services Entity *e* for ~~the~~downward FCR Balancing Capacity supplied ~~for downward FCR in an~~during the Imbalance Settlement Period *t*.

$T_{e,t}^{FCR,up}$ the percentage of a time period within an Imbalance Settlement Period *t* when the Balancing Service Entity *e* was available for the provision of upward FCR in real time.

$T_{e,t}^{FCR,dn}$ the percentage of ~~a~~ time ~~period within~~in an Imbalance Settlement Period ~~*t* when~~during which the Balancing Service Entity *e* was available for the provision of downward FCR in real time.

$mFRRC_{e,t}^{up}$ the remuneration in € of a Balancing ~~Service~~Services Entity *e* for ~~the~~upward mFRR Balancing Capacity supplied ~~for upward manual FRR~~ in ~~an~~the Imbalance Settlement Period *t*.

$mFRRC_{e,t}^{dn}$ the remuneration in € of a Balancing ~~Service~~Services Entity *e* for ~~the~~downward mFRR Balancing Capacity supplied ~~for downward manual FRR in an~~during the Imbalance Settlement Period *t*.

$T_{e,t}^{mFRR,up}$ the percentage of ~~a~~ time ~~period~~ within an Imbalance Settlement Period~~,~~ *t*~~,~~ when ~~a~~the Balancing Service Entity~~,~~ *e*~~,~~ was available for the provision of upward ~~manual FRR~~mFRR in real time.

$T_{e,t}^{mFRR,dn}$ the percentage of ~~a~~ time ~~period within~~in an Imbalance Settlement Period~~,~~ *t*~~, when a~~ during which the Balancing ~~Service~~Services Entity~~,~~ *e*~~,~~ was available for the provision of downward ~~manual FRR~~mFRR in real~~-~~-time.

$aFRRC_{e,t}^{up}$ the remuneration in € of ~~a~~the Balancing ~~Service~~Services Entity *e* for ~~the~~upward aFRR Balancing Capacity supplied ~~for upward automatic FRR~~ in ~~an~~the Imbalance Settlement Period *t*.

$aFRRC_{e,t}^{dn}$ the remuneration in € of ~~a~~the Balancing ~~Service~~Services Entity *e* for ~~the~~downward aFRR Balancing Capacity supplied ~~for downward automatic FRR~~ in ~~an~~the Imbalance Settlement Period *t*.

~~$T_{e,t}^{mFRR,up}$~~$T_{e,t}^{aFRR,up}$ the percentage of ~~a~~ time ~~period~~ within an Imbalance Settlement Period~~,~~ *t*~~,~~ when ~~a~~the Balancing Service Entity~~,~~ *e*~~,~~ was available for the provision of upward ~~automatic FRR~~aFRR in real time.

$T_{e,t}^{aFRR,dn}$ $T_{e,t}^{aFRR,dn}$the percentage of ~~a~~ time ~~period within~~in an Imbalance Settlement Period *t*~~, when a~~during which the Balancing ~~Service~~Services Entity~~,~~ *e*, was available for the provision of downward ~~automatic FRR~~mFRR in real~~-~~-time.

$OP_{e,s,t}^{FCR,up}$ the price in €/MW-hour of step *s* of the upward Balancing Capacity Offer for FCR of a Balancing Service Entity *e* that has been validated on the basis of the last execution of the ISP, whose solution timeframe shall include that specific Imbalance Settlement Period *t*,

$OP_{e,s,t}^{FCR,dn}$ the price in €/MW-hour of step *s* of the downward Balancing Capacity Offer for FCR of a Balancing Service Entity e that has been validated on the basis of the last execution of the ISP, whose solution timeframe shall include that specific Imbalance Settlement Period *t*.

$OP_{e,s,t}^{aFRR,up}$ the price in €/MW-hour of step *s* of ~~the~~an upward Balancing Capacity Offer for ~~automatic FRR of~~aFRR from a Balancing Service Entity *e* ~~that has been~~ validated on the basis of the last execution of the ISP, ~~whose solution timeframe shall include that~~the resolution time horizon of which includes the specific Imbalance Settlement Period *t*.

$OP_{e,s,t}^{aFRR,dn}$ the price in €/MW-hour of step *s* of ~~the~~a downward Balancing Capacity Offer for ~~automatic FRR of~~aFRR from a Balancing Service Entity *e* ~~that has been~~ validated on the basis of the last execution of the ISP, ~~whose solution timeframe shall include that~~the resolution time horizon of which includes the specific Imbalance Settlement Period *t*.

$OP_{e,s,t}^{mFRR,up}$ the price in €/MW-hour of the step *s* of ~~the~~an upward Balancing Capacity Offer for ~~manual FRR of~~mFRR from a Balancing Service Entity *e* ~~that has been~~ validated on the basis of the last execution of the ISP, ~~whose solution timeframe shall include that~~the resolution time horizon of which includes the specific Imbalance Settlement Period *t*.

$OP_{e,s,t}^{mFRR,dn}$ the price in €/MW-hour of step *s* of ~~the~~a downward Balancing Capacity

Offer for ~~manual FRR of~~mFRR from a Balancing Service Entity *e* ~~that has been~~ validated on the basis of the last execution of the ISP, ~~whose solution timeframe shall include that~~the resolution time horizon of which includes the specific Imbalance Settlement Period *t*.

3. The total remuneration of all Balancing Service Entities *e* for the Balancing Capacity supplied for upward and downward FCR, ~~automatic FRR~~aFRR, and ~~manual FRR~~mFRR during an Imbalance Settlement Period *t*, ~~is~~shall be calculated as follows:

$$BALCAP_t = \sum_e FCRC_{e,t}^{up} + \sum_e FCRC_{e,t}^{dn} + \sum_e mFRRC_{e,t}^{up} + \sum_e mFRRC_{e,t}^{dn} + \sum_e aFRRC_{e,t}^{up} + \sum_e aFRRC_{e,t}^{dn}$$

where:

$BALCAP_t$ ~~the~~The total remuneration of all Balancing Service Entities *e* for the Balancing Capacity supplied for upward and downward FCR, ~~automatic FRR~~aFRR, and ~~manual FRR~~mFRR in an Imbalance Settlement Period *t*.

4. If ~~the~~ calculation of the Balancing ~~Capacity Offer prices is~~Energy Prices proves impossible, in particular due to an Emergency Situation, or the failure of the Balancing Market System or ~~of the~~ other electronic systems of the HETS Operator, the HETS Operator shall apply the ~~"~~procedure provided for in the 'Rules for settlement in case of suspension of market ~~activities",~~activities', duly approved by ~~RAE, following a proposal by~~ the RAEWW on the recommendation of the HETS Operator ~~according to~~in accordance with the provisions ~~of par.~~laid down in paragraph 4 of Article 18 of Law 4425/2016.

~~CHAPTER 20~~

CHAPTER21. UPLIFT ACCOUNTS

~~Article 92.~~Article21.1 HETS Operator Uplift Account

The Uplift Account shall include the following individual accounts:

~~a)~~1) UA-1: HETS Losses Uplift Account

~~b)~~2) UA-2: Balancing Capacity Uplift Account

~~c)~~3) UA-3: Financial Neutrality Uplift Account

~~Article 93.~~Article21.2 UA-1 HETS Losses Uplift Account

1. The UA-1 System Losses Uplift Account shall be used to allocate the cost of HETS Losses, which is calculated as the sum of the amounts resulting from the Day-Ahead Market settlement, the Intra-Day Market settlement and the Imbalance Settlement for these Losses.

2. The cost of HETS ~~Losses shall be apportioned~~ Operator losses is charged to and allocated ~~to~~among the Balance Responsible Parties ~~according~~in proportion to the metered ~~offtake~~absorption of their ~~customers from~~Offtake Facilities in the Interconnected System ~~in~~during each Imbalance Settlement Period *t*, as follows:

$$UPLIFT1_{p,t} = LOSSES_t \times \frac{MQ_{p,t}}{\sum_p MQ_{p,t}}$$

where:

$LOSSES_t$ the total cost of ~~the~~ HETS Operator Losses, in €, as ~~it results from the~~this arises after settlement of the Day-Ahead Market, the ~~settlement of the~~ Intra-Day Market, and the Imbalance Settlement for these ~~Losses for an~~losses in the Imbalance Settlement Period *t*,

$MQ_{p,t}$ the offtake (calculated at the Transmission System - Distribution Network Limit) in MWh that corresponds to the Offtake Facilities of the Interconnected System, per Balance Responsible Party *p* for an Imbalance Settlement Period *t*. The aforementioned ~~offtake~~absorption does not include the Electricity Supply Volume via Direct Line supplied to Demand Facilities with a Parallel Connection via Direct Lines, ~~as~~since this volume is calculated pursuant to ~~Article 77~~Article18.4 of this Rulebook.

~~Article 94.~~Article21.3 UA-2 Balancing Capacity Uplift Account

1. The UA-2 Balancing Capacity Uplift Account shall be used to allocate the cost of the Balancing Capacity supplied by the Balancing Service Providers.

2. The cost of ~~the~~ Balancing Capacity supply ~~for~~in each Imbalance Settlement Period *t*, $BALCAP_t$, shall be ~~apportioned~~charged to and allocated ~~to~~among the Balance Responsible Parties ~~according~~in proportion to the metered ~~offtake~~consumption of their ~~customers~~Offtake Facilities in the Interconnected System in each Imbalance Settlement Period *t*, as follows:

$$UPLIFT2_{p,t} = BALCAP_t \times \frac{MQ_{p,t}}{\sum_p MQ_{p,t}}$$

where:

$BALCAP_t$ ~~the~~The total remuneration of all Balancing Service Entities *e* for the Balancing Capacity supplied for upward and downward FCR, ~~automatic FRR~~aFRR, and ~~manual FRR in~~mFRR during an Imbalance Settlement Period *t*.

$MQ_{p,t}$ the offtake (calculated at the Transmission System - Distribution Network Limit) in MWh that corresponds to the ~~consumers of~~Offtake Facilitiesof the Interconnected System per Balance Responsible Party *p* for an Imbalance Settlement Period *t*.

~~Article 95.~~Article21.4 UA-3 Financial Neutrality Uplift Account

1. The UA-3 Financial Neutrality Uplift Account shall be used to allocate any remaining balance to Balance Responsible Parties ~~any remaining balance~~ after ~~the~~ calculation of ~~the~~ debits and credits ~~calculated~~ by the HETS Operator for the ~~activated~~ Balancing Energy activated for ~~manual FRR, the activated Balancing Energy for automatic FRR, the~~mFRR and aFRR, as well as energy activated for purposes other than balancing and Imbalance Settlement purposes. The above account shall include income or costs resulting from the intended exchanges of energy pursuant to Article 50 of Regulation (EU) 2017/2195 and the unintended exchanges of energy pursuant to Article 51 of Regulation (EU) 2017/2195.

2. The UA-3 Financial Neutrality Uplift Account shall include the amount corresponding to any deficit or surplus in the coupled markets in relation to ~~the settlement of any imbalances declared by the Shipping Agent as regards the~~ Cross-Border Physical Deliveries that correspond to ~~the~~ imports and exports per coupled interconnection ~~under~~ in the context of the Single Day-Ahead Market Coupling ~~and the Supplementary Intra-Day Regional~~, Intraday Auctions, and Continuous Intraday Trading, as calculated in the respective market results ~~of the Single Day-Ahead Coupling, the Supplementary Intra-Day Regional Auctions, and the Continuous Intra-Day Trading~~.

3. The amount ensuring the financial neutrality of the HETS Operator in each Imbalance Settlement Period t, NEUTRt, shall be calculated as follows:

$$NEUTR_t = \sum_e ABEC_{e,t}^{mFRR,up} + \sum_e ABEC_{e,t}^{aFRR,up} + \sum_e AOEC_{e,t}^{mFRR,up}$$

$$+ \sum_e ABEC_{e,t}^{mFRR,dn} + \sum_e ABEC_{e,t}^{aFRR,dn} + \sum_e AOEC_{e,t}^{mFRR,dn} + \sum_p IMBC_{p,t}$$

$$+\sum IDEV_t + UDEV_t + \cancel{SagC}SAgC_t$$

~~where:~~

where:

$NEUTR_t$ the amount ensuring the financial neutrality of the HETS Operator ~~in an~~for the Imbalance Settlement Period *t*,

$ABEC_{e,t}^{mFRR,up}$ the ~~debit~~charging or ~~credit to a~~ crediting of the Balancing ~~Service~~Services Entity *e*, for ~~an~~the Imbalance Settlement Period *t*, for ~~the~~activated upward mFRR Balancing Energy ~~activated for manual FRR.~~

.

$ABEC_{e,t}^{aFRR,up}$ the ~~debit~~charging or ~~credit to a~~ crediting of the Balancing ~~Service~~Services Entity *e*, for ~~an Imbalance~~the Imbalances Settlement Period *t*, for ~~the~~activated upward aFRR Balancing Energy ~~activated for automatic FRR~~.

$AOEC_{e,t}^{mFRR,up}$ the ~~debit~~charging or ~~credit to a~~ crediting of the Balancing ~~Service~~Services Entity *e*, for ~~an~~the Imbalance Settlement Period *t*, for ~~the~~ activated upward ~~Energy~~energy supplied for purposes other than balancing.

$ABEC_{e,t}^{mFRR,dn}$ the ~~debit~~charging or ~~credit to a~~ crediting of the Balancing ~~Service~~Services Entity *e*, for ~~an~~the Imbalance Settlement Period *t*, for ~~the downward Balancing Energy~~ activated ~~for manual FRR~~downward mFRR Balancing Energy.

$ABEC_{e,t}^{aFRR,dn}$ the ~~debit~~charging or ~~credit to a~~crediting of the Balancing ~~Service~~Services Entity *e*, for ~~an~~the Imbalance Settlement Period *t*, for ~~the downward Balancing Energy~~ activated ~~for automatic FRR~~downward aFRR Balancing Energy.

$AOEC_{e,t}^{mFRR,dn}$ the ~~debit~~charging or ~~credit to a~~crediting of the Balancing ~~Service~~Services Entity *e*, for ~~an~~the Imbalance Settlement Period *t*, for ~~the~~ activated downward ~~Energy~~energy supplied for purposes other than balancing.

$IMBC_{p,t}$ the debit or credit to a Balance Responsible Entity, *p*, for its Imbalances in an Imbalance Settlement Period, *t*. The Imbalances for the HETS Losses are included.

$IDEV_t$ the debit or credit for intended exchanges of energy pursuant to Article 50 of Regulation (EU) 2017/2195 for an Imbalance Settlement Period~~,~~ *t*.

$UDEV_t$ the debit or credit for unintended exchanges of energy pursuant to Article 51 of Regulation (EU) 2017/2195 for an Imbalance Settlement Period~~,~~ *t*.

~~$SAgC_{tt}$~~$SAgC_t$ the credit or charge for any deficit or surplus arising in relation to the Cross-Border Physical Deliveries that correspond to ~~the~~ imports and exports per coupled interconnection ~~under~~in the context of Single Day-Ahead Market Coupling~~ and the Supplementary~~, Intra-Day ~~Regional~~ Auctions, and Continuous Intra-Day Trading, ~~and being processed~~conducted after ~~the~~ execution ~~by the HETS Operator~~ of the provisions regarding ~~the~~ deficit or surplus management by the HETS Operator, in accordance ~~to~~with the ~~specifications~~provisions of ~~Article 34A of~~$SAgC_t$ this Rulebook, for the Imbalance Settlement Period *t*.

4. The cost for ensuring the financial neutrality of the HETS Operator, $NEUTR_t$, for each Imbalance Settlement Period *t*, shall be ~~apportioned and~~ allocated to and borne by the Balance Responsible Parties~~,~~ *p*, ~~according to~~in accordance with the metered ~~offtake~~consumption of their ~~customers~~Offtake Facilities in the Interconnected System in each Imbalance Settlement Period *t*, as follows:

$$UPLIFT3_{p,t} = NEUTR_t \times \frac{MQ_{p,t}}{\sum_p MQ_{p,t}}$$

where:

$NEUTR_t$ the amount ensuring the financial neutrality of the HETS Operator in each Imbalance Settlement Period *t*.

$MQ_{p,t}$ the offtake (calculated at the Transmission System - Distribution Network Limit) in MWh that corresponds to the Offtake Facilitiesof the Interconnected System per Balance Responsible Party *p* for an Imbalance Settlement Period *t*. The aforementioned offtake does not include the Electricity Supply Volume via Direct Line supplied to Demand Facilities with a Parallel Connection via Direct Lines, as this volume is calculated pursuant to ~~Article 77~~Article18.4 of this Rulebook.

~~CHAPTER 21~~

CHAPTER22. NON-COMPLIANCE CHARGES

~~Article 96.~~Article22.1 Consequences of non-timely commitment

1. In the event that a delay of more than 30 minutes is detected by the HETS Operator during the commitment of a Balancing Service Entity, e, after receiving a relevant Dispatch Instruction, the HETS Operator shall impose a charge, $NCDS_{e,m}$ on the respective Balancing Service Provider. For purposes of calculating the above charge, a Balancing Service Entity shall be deemed to be committed when its generation is at least equal to the Entity's Technically Minimum Generation for at least two consecutive Balancing Service Periods, taking into account a tolerance limit, TOL_{commit}. The delay in commitment is calculated based on the synchronization time, the soak time declared in the Registered Characteristics and the thermal state of the Entity.

2. In case the commitment delay is longer than 30 minutes, the monthly $NCDS_{e,m}$ charge to the Balancing Service Entity, e, for month m is calculated as follows:

$$NCDS_{e,m} = \sum_{n=1}^{N} [UNCDS \times NCAP_e \times (NP_e)^{k_{NP}} \times k_{BC}]$$

where:

$UNCDS$	the unitary Non-Compliance Charge for non-timely commitment in €/MW,
$NCAP_e$	value~~,~~ in MW, corresponding to (a) the Maximum Net Capacity of Dispatchable Generation Units and (b) the dispatchable capacity of ~~Non-Intermittent~~ Dispatchable Controlled Generation RES Units Portfolios,
NP_e	the integer number of Imbalance Settlement Periods, rounded upwards, corresponding to the entity's commitment delay time per Dispatch Instruction. The coefficient NP_e can be assigned a maximum value of 16,
k_{NP}	exponential coefficient,
k_{BC}	an increment factor greater than one, which depends on whether the Balancing Service Entity provides Balancing Capacity within the Dispatch Day, according to the results of the ISP, for the operation cycle after the synchronization being tested; and
N	the number of violations for the Entity during month m.

~~3.~~ The numerical values of the unitary charge ~~$UNCDS$~~$UNCDSC$, the coefficients k_{NP} and k_{BC} the ~~TOL_{commit}~~ tolerance limit TOL_{commit} are determined by decision of ~~RAE, following a proposal by~~ the ~~HETS Operator. This decision shall be published at least two months prior~~RAEWW, subsequent to the ~~implementation~~recommendations of the ~~new values of the above parameters.~~

~~Άρθρο 98. Consequences of significant deviation from the Registered Characteristics~~

~~1. In the event that the HETS Operator ascertains a significant unfavorable deviation of the actual values of a Balancing Service Entity e, as they derive from the operation of the said Entity, from the respective values in its Registered Characteristics, the HETS Operator shall impose a charge on the respective Balancing Service Provider for each day d of month m, which shall be equal to $NCDC_{e,d}$:~~

$$NCDC_{e,d} = UNCDC_{e,char} \times NCAP \times (1 + A_{DC}) \times max\{(DC_{e,d} - DC_{TOL}), 0\}$$

~~where:~~

$UNCDC_{e,char}$	~~the unitary non-Compliance Charge for a significant unfavorable deviation from the Registered Characteristics in €/MW, which may vary by Registered Characteristic and by Balancing Service Entity category.~~
$NCAP$	~~value corresponding to (a) the Maximum Net Capacity of Dispatchable Generation Units and (b) the dispatchable capacity of Dispatchable RES Unit Portfolios and Dispatchable Load Portfolios.~~
A_{DC}	~~a premium coefficient for the Charge which depends on the number of days within a month, when a significant unfavorable deviation from the Registered Characteristics is observed.~~

~~DC_{TOL} a coefficient representing the margin of tolerance, expressed as a percentage (%), for each of the Registered Characteristics, whose numerical value may vary by Registered Characteristic and by Balancing Service Entity.~~

~~$DC_{e,d}$ the daily average of DC figures on the Dispatch Day d in question for each Registered Characteristic of a Balancing Service Entity e, where DC represents the ratio between the absolute value of the difference in the numerical value of the Registered Characteristic of the Balancing Service Entity for which a significant unfavorable deviation from the value estimated for the said Registered Characteristic by the HETS Operator was ascertained and the numerical value of the relevant Registered Characteristic of the Balancing Service Entity, and it shall be calculated for each Imbalance Settlement Period.~~

~~The above daily charge shall not be imposed on the Balancing Service Provider for the first Dispatch Days, which shall be equal to a maximum number of days NDC, for which a significant unfavorable deviation of the Registered Characteristics of the Balancing Service Entity e from the respective estimated values for the said Entity was ascertained.~~

~~2. Significant unfavorable deviation means any instance where the numerical value of one of the below-mentioned Registered Characteristics of a Balancing Service Entity, as estimated by the HETS Operator, deviates at least by DC_{TOL}% from the declared numerical value:~~

~~a) Maximum Available Capacity of a Balancing Service Entity, as it derives from the Registered Characteristics, the non-Availability Declarations and the Major Outage Declarations by the Balancing Service Entity.~~

~~b) Technically Minimum Generation of the Balancing Service Entity in accordance with its Registered Characteristics.~~

3. ~~The numerical values of the unitary charge $UNCDC_{e,char}$, the premium coefficient A_{DC}, the maximum number of days NDC and the tolerance margin DC_{TOL} shall be determined by decision of RAE, following a proposal by the HETS Operator.~~HETS Operator. This decision shall be published at least two months prior to the implementation of the new values of the above parameters.

Article22.2 Consequences of a significant deviation from the activation profile

1. In the event of deviations from the permitted activation profile, the HETS Operator shall impose a charge, on the respective Balancing Services Provider for the Imbalance Settlement Period *t*, which shall be equal to $NCNPAP_{e,t}$ and calculated as follows:

$$NCNAP_{e,t} = UNCNPAP \times |DEVAP_{e,t}|$$

where:

$UNCNPAP$ the unitary Non-Compliance Charge for significant deviation from the permitted activation profile in €/MWh,

$DEVAP_{e,t}$ the energy in MWh corresponding to the deviation from the permitted activation profile throughout the Imbalance Settlement Period *t*,

2. The numerical value the unitary charge $UNCNPAP$, shall be determined by decision of the RAEWW, on the recommendations of HETS Operator. This decision shall be published at least two months prior to the implementation of the new values of the above parameters.

~~Article 98.~~Article22.3 Consequences of non-compliance with manual FRR Test Instructions

1. In the event of a significant deviation during performance of a ~~manual FRR~~mFRR Test Instruction by a Balancing Service Entity e, ~~i.e.~~that is, if the energy supplied by the Balancing Service Entity e ~~is~~diverges significantly ~~different~~ from the ~~manual FRR~~mFRR Test Instruction, the HETS Operator ~~imposes a monthly charge~~shall impose on the Balancing Service Entity e for the Imbalance Settlement Period, a t, monthly charge, which shall ~~be~~ equal ~~to~~ $NCTDINST_{e,m}$.

2. A significant deviation is considered to be ~~the imbalance~~a deviation from the ~~manual FRR~~ Test Dispatch Instruction for mFRR, taking into account the tolerance limits $TOLUD_{TDINST}$ and $TOLOD_{TDINST}$. The deviation $TDIDEV_{e,t}$ is calculated as follows:

   ~~a)~~1) For Dispatchable Generation Units and Non-Intermittent Dispatchable RES Units Portfolios:

   - If the Test Instruction involves activation of the Maximum Available Capacity or the ~~allocated~~awarded Balancing Capacity for upward ~~manual FRR~~mFRR, then:

$$TDIDEV_{e,t} = TDINST_{e,t} - MQ_{e,t}$$

   - If the Test Instruction involves activation of the Minimum Available Capacity or the ~~allocated~~awarded Balancing Capacity for downward ~~manual FRR~~mFRR, then:

$$TDIDEV_{e,t} = MQ_{e,t} - TDINST_{e,t}$$

   ~~b)~~2) For Dispatchable Load Portfolios:

   - If the Test Instruction involves activation of the allocated Balancing Capacity for upward ~~manual FRR~~mFRR:

$$TDIDEV_{e,t} = |TDINST_{e,t}| - (bl_{e,t} - MQ_{e,t})$$

   - If the Test Instruction involves activation of the allocated Balancing Capacity for downward ~~manual FRR~~mFRR:

$$TDIDEV_{e,t} = |TDINST_{e,t}| - (MQ_{e,t} - bl_{e,t})$$

   ~~c)~~3) For Dispatchable Intermittent RES Units Portfolios:

   - If the Test Instruction involves activation of the allocated Balancing Capacity for upward ~~manual FRR~~mFRR:

$$TDIDEV_{e,t} = |TDINST_{e,t}| - (MQ_{e,t} - bl_{e,t})$$

   - If the Test Instruction involves activation of the allocated Balancing Capacity for downward ~~manual FRR~~mFRR:

$$TDIDEV_{e,t} = |TDINST_{e,t}| - (bl_{e,t} - MQ_{e,t})$$

3. The monthly charge to the Balancing Service Entity, e, for month m shall be calculated as follows:

   If $TDIDEV_{e,t} > 0$ $\kappa\alpha\iota$ $|TDIDEV_{e,t}| > TOLUD_{TDINST} \times TDINST_{e,t}$, or

   If $TDIDEV_{e,t} < 0$ $\kappa\alpha\iota$ $|TDIDEV_{e,t}| > TOLOD_{TDINST} \times TDINST_{e,t}$ then:

$$NCTDINST_{e,m} = \sum_{t \in m} A_{TDI} \times B_{TDI} \times [|TDIDEV_{e,t}| \times UNCTDINST]$$

where,

$TDINST_{e,t}$	the ~~manual FRR~~mFRR Test Dispatch Instruction ~~awarded to~~received by the Balancing Service Entity *e* for an Imbalance Settlement Period *t*,
$bl_{e,t}$	the Baseline Load for each Imbalance Settlement Period~~,~~ *t*, for ~~the Dispatch~~Dispatchable Load Portfolios and Dispatchable ~~Portfolios of Non-~~Intermittent RES Units Portfolios,
$MQ_{e,t}$	the ~~measured~~metered energy of the Balancing Service Entity *e* reported at the Transmission System/ Distribution Network Boundary for ~~the~~an Imbalance Settlement Period *t*,
$TDIDEV_{e,t}$	the ~~imbalance~~deviation from the ~~manual FRR~~mFRR Test Dispatch Instruction received by the Balancing Service Entity *e* for an Imbalance Settlement Period *t*,
$TOLUD_{TDINST}$	the tolerance limit for imposing Non-Compliance Charges on Balancing Service Providers for non-compliance with a ~~manual FRR~~mFRR Test Dispatch Instruction, in the event of a positive ~~imbalance~~deviation $TDIDEV_{e,t}$, ~~at~~as a percentage (%). The above limit may vary per Balancing Service Entity technology,
$TOLOD_{TDINST}$	the tolerance limit for imposing Non-Compliance Charges on Balancing Service Providers for non-compliance with a ~~manual FRR~~mFRR Test Dispatch Instruction, in the event of a negative ~~imbalance~~deviation $TDIDEV_{e,t}$, ~~at~~as a percentage (%). The above limit may vary per Balancing Service Entity technology,
$UNCTDINST$	the unitary Non-Compliance Charge for non-compliance with ~~manual FRR~~mFRR Test ~~Instruction~~Dispatch Instructions, in €/MWh,
A_{TDI}	an increment factor, the value of which depends on the number of Test Instructions in which a significant imbalance was found within the last six months,
B_{TDI}	coefficient, the value of which depends on whether the Balancing Service Entity *e* has awarded Balancing Capacity for the Imbalance Settlement Period, *t*,

4. The numerical values of the unitary charge $UNCTDINST$, the coefficients A_{TDI} and B_{TDI} and the tolerance limits $TOLUD_{TDINST}$ and $TOLOD_{TDINST}$ are determined by decision of ~~RAE, following~~the RAEWW, subsequent to a ~~proposal by~~recommendation from the HETS Operator. This decision shall be published at least two months prior to the implementation of the new values of the above parameters.

~~Article 99.~~Article22.4 Consequences of significant deviation from the Dispatch Instructions

1. In the event of a significant deviation from a Dispatch Instruction for upward or downward Balancing Energy or Energy for purposes other than balancing when this is executed by a Balancing Service Entity *e*, ~~i.e.~~that is, if the energy supplied by the Balancing Service Entity *e* ~~is~~diverges significantly ~~different~~ from the Dispatch Instruction, the HETS Operator shall impose a charge on the respective Balancing Service Provider for the Imbalance Settlement Period ~~*t*~~ *t*, which shall be equal to $NCNPBE_{e,t}$ and shall be calculated as follows:

If $\left|DINST_{e,t} - MQ_{e,t}\right| > \frac{1}{4} \times TOL_{BE,e} \times NCAP_{e,t}$ then:

$$NCNPBE_{e,t} = UNCNPBE \times A_{NPBE} \times \left|DINST_{e,t} - MQ_{e,t}\right|$$

where:

$UNCNPBE$	the unitary Non-Compliance Charge for ~~a~~ significant ~~deviation during~~imbalance in the supply of ~~upward~~Upward or ~~downward~~Downward Balancing Energy or Energy for Non-Balancing purposes ~~other than balancing~~ by ~~the~~a Balancing ~~Service Entities~~Services Entity they represent in €/MWh,
A_{NPBE}	a coefficient, the value of which depends on the number of Imbalance Settlement Periods~~,~~ *t*, in which the significant deviation was observed, within the calendar month,
$MQ_{e,t}$	the metered energy of the Balancing ~~Service~~Services Entity *e* for ~~the~~an Imbalance Settlement Period *t* ~~adjusted for~~, reported at the ~~HETS Losses and the~~Transmission System/ Distribution Network ~~Losses~~Boundary, in MWh,
TOL_{BE}	the margin of tolerance for imposing Non-Compliance Charges on Balancing Service Providers for a significant deviation during the supply of upward or downward Balancing Energy or Energy for purposes other than balancing, expressed as a percentage (%). The above tolerance margin may vary by Balancing Service Entity,
$NCAP_{e,t}$	~~-~~value, in MW, corresponding to (a) the Maximum Net Capacity of Dispatchable Generation Units and (b) the dispatchable capacity in respect of Dispatchable RES Unit Portfolios and Dispatchable Load Portfolios. If the Balancing Service Entity is a Multi-Shaft Combined Cycle Generating Unit, the Maximum Net Capacity corresponding to the ~~operation~~operating configuration ~~that was~~ running during the Imbalance Settlement Period *t* ~~is~~shall be taken into account,
$DINST_{e,t}$	the Dispatch Instruction received by the Balancing ~~Service~~Services Entity *e* for an Imbalance Settlement Period *t*.

2. A significant deviation is considered to be a deviation exceeding the applicable tolerance margin TOL_{BE}.

3. The numerical values of the ~~unitary~~unit charge $UNCNPBE$, the coefficient A_{NPBE} and the tolerance margin TOL_{BE}, shall be determined by decision of ~~RAE, following~~the RAEWW, subsequent to a ~~proposal by~~recommendation from the HETS Operator. This decision shall be published at least two months prior to the implementation of the new values of the above parameters.

~~Article 100.~~Article22.5 Consequences of significant systematic demand imbalances

1. If during a month *m*, significant imbalances between the amount of energy measured at the energy meters represented by a Supplier *p* as a whole within a Market Time Unit and the corresponding Market Schedules of the same Supplier occur systematically, the HETS Operator shall impose a charge on the Supplier, which shall be equal to $NBAL_{p,m}$ and shall be calculated on the basis of the total absolute deviation within month *m* ~~$NBAL_{p,m}$~~ and the RMS value of deviations within month *m*.

2. A significant imbalance is considered to be the normalized absolute deviation in month *m*, which exceeds the tolerance margin $TOL_{ld,ADEV}$ or the normalized RMS value of deviations in month ~~*m*~~*m*, which exceeds the tolerance margin $TOL_{ld,RMSDEV}$.

3. The deviation $DEV_{p,t}$ in each Market Time Unit *t*, the monthly absolute deviation $ADEV_{p,m}$ in month *m*, the normalized absolute deviation $NADEV_{p,m}$ in month *m*, the monthly RMS value of deviations $RMSDEV_{p,m}$ and the normalized RMS value in month *m* $NRMSDEV_{p,m}$, for Supplier *p* shall be determined as follows:

$$DEV_{p,t} = MS_{p,t} - MQ_{p,t}$$

$$ADEV_{p,m} = \sum_{t \in m} |DEV_{p,t}|$$

$$NADEV_{p,m} = \frac{ADEV_{p,m}}{\sum_{t \in m} MQ_{p,t}}$$

$$RMSDEV_{p,m} = \sqrt{\sum_{t \in m} {DEV_{p,t}}^2}$$

$$NRMSDEV_{p,m} = \frac{RMSDEV_{p,m}}{\sqrt{\sum_{t \in m} \left[\left(MQ_{p,t} \right)^2 \right]}}$$

where:

$DEV_{p,t}$ the deviation of the metered offtake from the Market Schedule, for the Supplier *p* for the Market Time Unit *t*,

$MS_{p,t}$ the Market Schedule of Supplier *p* for the Market Time Unit *t*,

$MQ_{p,t}$ the offtake (calculated at the Transmission System~~-~~/ Distribution Network ~~Limit~~Boundary) in MWh ~~that~~which corresponds to the ~~consumers~~Offtake Facilities of the Interconnected System per Supplier *p* for the Market Time Unit *t*.

4. The monthly charge to the Supplier *p* for the month *m* shall be calculated as the maximum amount of sanctions resulting from the monthly absolute deviation and the RMS values of deviations:

$$\cancel{NCBAL_{p,m} = \max \begin{pmatrix} \left(UNCBAL_{ADEV} \cdot ADEV_{p,m}\right) \cdot \left(NADEV_{p,m} - TOL_{ld,ADEV}\right), \\ \left(UNCBAL_{RMSDEV} \cdot RMSDEV_{p,m}\right) \left(NRMSDEV_{p,m} - TOL_{ld,RMSDEV}\right), \\ 0 \end{pmatrix}}$$

$$\cancel{NCBAL_{p,m} = \max \begin{pmatrix} \left(UNCBAL_{ADEV} \cdot ADEV_{p,m}\right) \cdot \left(NADEV_{p,m} - TOL_{ld,ADEV}\right), \\ \left(UNCBAL_{RMSDEV} \cdot RMSDEV_{p,m}\right) \left(NRMSDEV_{p,m} - TOL_{ld,RMSDEV}\right), \\ 0 \end{pmatrix}}$$

$$NCBAL_{p,m} = \max \begin{Bmatrix} \left(UNCBALR_{ADEV} * ADEV_{p,m}\right) * \left(NADEV_{p,m} - TOL_{ld,ADEV}\right), \\ \left(UNCBALR_{RMSDEV} * RMSDEV_{p,m}\right) * \left(NRMSDEV_{p,m} - TOL_{ld,RMSDEV}\right) \\ 0 \end{Bmatrix}$$

where:

$UNCBAL_{ADEV}$ – the unitary charge corresponding to non-Compliance Charges to Suppliers for the normalized monthly absolute deviation,

$UNCBAL_{RMSDEV}$ – the unitary charge corresponding to non-Compliance Charges to Suppliers for the normalized monthly RMS value of deviations,

$TOL_{ld,ADEV}$ – the tolerance margin for imposing non-Compliance Charges on Suppliers for the normalized monthly absolute deviation, and

$TOL_{ld,RMSDEV}$ – the tolerance margin for imposing non-Compliance Charges on Suppliers for the normalized monthly RMS value of deviations.

5. The numerical values of the unitary charges $UNCBAL_{ADEV}$ and ~~$UNCBAL_{RMSDEV}$~~$UNCBAL_{RMDEV}$, and the tolerance ~~margins~~limits $TOL_{ld,ADEV}$ and $TOL_{ld,RMSDEV}$, shall be determined by decision of ~~RAE, following~~ the RAEWW, subject to a ~~proposal by~~recommendation from the HETS Operator. The above tolerance ~~margins~~limits may be expressed on the basis of the offtake $MQ_{p,t}$ (calculated at the Transmission System ~~-~~/Distribution Network ~~Limit~~Boundary) in MWh ~~that corresponds~~corresponding to the ~~consumers~~Offtake Facilities of the Interconnected System per Supplier *p* for the Market Time Unit *t*. This decision shall be published at least two months prior to the implementation of the new values of the above parameters.

6. Non-Compliance Charges shall not be imposed on the Last Resort Provider and the Default Provider for significant systematic imbalances in demand and only for the demand they represent in this capacity.

7. The Market Time Units corresponding to Imbalance Settlement Periods during which a Dispatch Instruction was issued for Balancing Energy supply from a Dispatchable Load Portfolio shall be excluded from the above calculation~~.~~, with the exception of Dispatchable Load Portfolios with pumped storage capability.

~~Article 101.~~Article22.6 Consequences of significant systematic imbalances in the production of RES Units Portfolios

1. If significant imbalances occur in a Market Time Unit of month *m* between the amount of energy generated by Non-Dispatchable RES Units Portfolios and $NCBALR_{p.m}$ Dispatchable Intermittent RES Units Portfolios and the corresponding Market Schedule of the Balance Responsible Party p, the HETS Operator shall impose a charge, which shall be equal to ~~$NCBALR_{p.m}$.~~.

2. A significant imbalance is considered to have occurred in month *m* when the normalized absolute deviation of RES Units Portfolios in normal operation exceeds the tolerance margin $TOL_{r,ADEV}$ or the normalized RMS value of deviations of RES Units Portfolios in normal operation exceeds the tolerance margin $TOL_{r,RMSDEV}$ or the absolute normalized deviation of RES Units Portfolios in normal operation exceeds the tolerance margin TOL_{r,DEV_NORM}.

3. The calculation of the monthly charge presupposes the definition of the following quantities:

$$DEV_{p,t}^{NORM} = MQ_{p,t}^{NORM} - MS_{p,t}^{NORM}$$

$$ADEV_{p,m}^{NORM} = \sum_{t \in m} \left| DEV_{p,t}^{NORM} \right|$$

$$NADEV_{p,m}^{NORM} = \frac{ADEV_{p,m}^{NORM}}{\sum_{t \in m} MQ_{p,t}^{NORM}}$$

$$RMSDEV_{p,m}^{NORM} = \sqrt{\sum_{t \in m} [(DEV_{p,t}^{NORM})^2]}$$

$$NRMSDEV_{p,m}^{NORM} = \frac{RMSDEV_{p,m}^{NORM}}{\sqrt{\sum_{t \in m} \left[\left(MQ_{p,t}^{NORM} \right)^2 \right]}}$$

$$DEV_{p,m}^{NORM} = \left| \sum_{t \in m} DEV_{p,t}^{NORM} \right|$$

$$ANDEV_{p,m}^{NORM} = \frac{DEV_{p,m}^{NORM}}{\sum_{t \in m} MQ_{p,t}^{NORM}}$$

where:

$DEV_{p,t}^{NORM}$ the deviation from the Market Schedule of ~~RES Units~~ Portfolios of RES Units in normal operation represented by the Balance Responsible Party *p* for Market Time Unit *t*,

$MS_{p,t}^{NORM}$ the Market Schedule of ~~RES Units~~ Portfolios of RES Units in normal operation represented by the Balance Responsible Party *p* for Market Time Unit *t*,

$MQ_{p,t}^{NORM}$ the metered energy produced for Portfolios of RES Units ~~Portfolios~~ in normal operation represented by the Balance Responsible Party *p* for ~~Market Time Unit~~Imbalance Settlement Period t,

$ADEV_{p,m}^{NORM}$ the monthly absolute deviation of ~~RES Units~~ Portfolios of RES Units in normal operation represented by the Balance Responsible Party *p*, for month *m*,

$DEV_{p,m}^{NORM}$ the absolute monthly deviation of ~~RES Units~~ Portfolios of RES Units in normal operation represented by the Balance Responsible Party *p* for month *m*,

$NADEV_{p,m}^{NORM}$ the normalized monthly absolute deviation of RES Units Portfolios in normal operation represented by the Balance Responsible Party *p* for month *m*,

$RMSDEV_{p,m}^{NORM}$ the monthly RMS value of deviations of RES Units Portfolios in normal operation represented by the Balance Responsible Party *p* for month *m*,

$NRMSDEV_{p,m}^{NORM}$ the normalized monthly RMS value of deviations of RES Units Portfolios in normal operation represented by the Balance Responsible Party *p* for month *m* and

$ANDEV_{p,m}^{NORM}$ the ~~normalized~~normalised absolute monthly deviation of ~~RES Units~~ Portfolios of RES Units in normal operation represented by the Balance Responsible Party *p* for month *m*.

4. The monthly charge $NCBALR_{p,m}$ corresponding to the Balance Responsible Party p for

month ~~m is~~mis calculated as follows:

$$NCBALR_{p,m} = NCBALR_C1_{p,m}^{NORM} + NCBALR_C2_{p,m}^{NORM}$$

$$NCBALR_C1_{p,m}^{NORM} = \max\left\{\begin{matrix} (UNCBALR_{ADEV} * ADEV_{p,m}^{NORM}) * (NADEV_{p,m}^{NORM} - TOL_{r,ADEV}), \\ (UNCBALR_{RMSDEV} * RMSDEV_{p,m}^{NORM}) * (NRMSDEV_{p,m}^{NORM} - TOL_{r,RMSDEV}), \\ 0 \end{matrix}\right\}$$

$$NCBALR_C2_{p,m}^{NORM} = \left\{\begin{matrix} (UNCBALR_{DEV} * DEV_{p,m}^{NORM}) \times (1 - TOL_{r,DEV_NORM})\ \varepsilon\acute{\alpha}\nu\ ANDEV_{p,m}^{NORM} > TOL_{r,DEV_NORM} \\ 0\ \varepsilon\acute{\alpha}\nu\ ANDEV_{p,m}^{NORM} \leq TOL_{r,DEV_NORM} \end{matrix}\right\}$$

where:

$UNCBALR_{ADEV}$ ~~–~~the unitary charge corresponding to non-Compliance Charges to the RES Units Portfolios in normal operation for the normalized monthly absolute deviation,

$UNCBALR_{RMSDEV}$ ~~–~~the unitary charge corresponding to non-Compliance Charges to the RES Units Portfolios in normal operation for the normalized monthly RMS value of deviations,

$UNCBALR_{DEV}$ ~~–~~ the unitary charge corresponding to non-Compliance Charges to the RES Units Portfolios for the normalized absolute monthly deviation,

$TOL_{r,ADEV}$ ~~–~~ the tolerance margin for imposing non-Compliance Charges to the RES Units Portfolios in normal operation for the normalized monthly absolute deviation,

$TOL_{r,RMSDEV}$ ~~–~~ the tolerance margin for imposing non-Compliance Charges to the RES Units Portfolios in normal operation for the normalized monthly RMS value of deviations, and

~~$TOL_{r,ADEV}$~~ ~~–~~TOL_{r,DEV_NORM} the tolerance ~~margin~~limit for imposing ~~non~~Non-Compliance Charges ~~to~~on the ~~RES Units~~ Portfolios of RES Units in normal operation for the ~~normalized~~normalised absolute monthly deviation~~.~~.

5. The numerical values of the unitary charges $UNCBALR_{ADEV}$, $UNCBALR_{RMSDEV}$ and $UNCBALR_{DEV}$, as well as the numerical values of the tolerance ~~margins~~limits $TOL_{r,ADEV}$~~,~~, $TOL_{r,RMSDEV}$~~,~~ and ~~-~~TOL_{r,DEV_NORM}~~-~~ shall be determined by decision of ~~RAE~~the RAEWW, following a proposal by the HETS Operator and ~~a~~ public consultation. The ~~implementation~~application of these values ~~effectively begins~~becomes effective two (2) months after the publication of the relevant ~~RAE~~RAEWW decision, unless otherwise ~~thereby defined.~~stated therein.

6. For the Market Time Units that include Imbalance Settlement Periods during which a Dispatch Instruction was issued for Balancing Energy supply from Dispatchable Intermittent RES Units Portfolios, those Dispatchable Intermittent RES Units Portfolios shall be excluded from the calculation of Non-Compliance Charges for the corresponding Balance Responsible Party *p*.

7. No Non-Compliance Charges shall be imposed under this Article for ~~the generation~~

~~deviations between the~~ production imbalances of RES Units ~~Portfolio~~Portfolios in Test Commissioning Operation or Test ~~Operation status and the~~Operating Status or RES Units ~~Portfolio~~Portfolios without Market Participation Obligation represented ~~by~~ in the Market by the Operator of Renewable Energy Sources & Guarantees of Origin (DAPEEP~~.~~).

8. Until the date specified in the first paragraph of Article 2 of Ministerial Decision Ref. No~~.~~ YPEN/DAPEEK/25512/883 (Government Gazette, Series ~~B~~II, No~~.~~ 1020/27.03.2019), ~~non~~Non-Compliance Charges under this Article shall not be imposed on the Last Resort ~~RES~~ Aggregator ~~solely~~exclusively for the RES Units it represents in this capacity.

~~Article 102.~~Article22.7 Consequences of systematic failure to attain a feasible Market Schedule

1. In the event of systematic failure to attain a feasible Market Schedule, the HETS Operator shall impose a charge on the respective Participant for each Balancing Service Entity it represents, which shall be equal to $NCNAMS_{e,m}$ and shall be calculated as follows:

$$NCNAMS_{e,m} = (1 + A_{NAMS}) \times \sum_{r} \sum_{d \in m} (UNCNAMS_r \times VQ_{e,r,d})$$

where:

$UNCNAMS_r$ the unitary non-Compliance Charge for infeasible Market Schedule in €/MWh, which may vary depending on the cause of the infringement, r.

A_{NAMS} a premium coefficient for the charge, which depends on the number of days within a month, when an infeasible Market Schedule is observed.

$VQ_{e,r,d}$ the quantity corresponding to the said infringement by the Balancing Service Entity, e, in MWh, the reason for the infringement, r, and the Dispatch Day d of the month m.

2. When calculating the quantity of the infringement, $VQ_{e,r,d}$, tolerance margins may be applied, $TOL_{r,e}$, which may vary depending on the cause of the infringement and the Balancing Service Entity category.

3. The numerical values of the unitary charges $UNCNAMS_r$, the ~~premium coefficients~~charge increase adjustment factor A_{NAMS} and the tolerance ~~margins~~limits, $TOL_{r,e}$, shall be determined by decision of ~~RAE, following~~the RAEWW, subject to a ~~proposal by~~recommendation from the HETS Operator. This decision shall be published at least two months prior to the implementation of the new values of the above parameters.

4. Details regarding the calculation of the infringement quantity $VQ_{e,r,d}$ for each Dispatch Day d are described in the "Infeasible Market Schedule Calculation Methodology".

~~Article 103.~~Article22.8 Management of the amount of non-Compliance Charges

1. The balance ~~in~~of the ~~non~~Non-Compliance Charges Account, the proceeds of which ~~consists of the payments made for non~~are derived from the imposition of Non-Compliance Charges~~,~~ in accordance with ~~CHAPTER 21 of~~ this CHAPTER22 Rulebook,is made available in accordance with the provisions of the HETS Grid Code~~, of~~ and this Article, ~~of CHAPTER 6~~Article18.7, ~~CHAPTER 20 and CHAPTER 23~~CHAPTER23,and CHAPTER24 of this Rulebook ~~and of~~ CHAPTER23 and the Rulebook on the Clearing ~~Rulebook for~~of Balancing Market Positions~~, and in the event that~~ or, where there is no

Clearing House ~~operates in~~operating on the Balancing Market, in accordance with this Article, Article18.7, CHAPTER21, and ~~CHAPTER 6, CHAPTER 20, and CHAPTER 24 of this Rulebook,~~CHAPTER27, shall be used in order to cover:

a) any arrears of Clearing ~~Member defaults~~Members in accordance ~~to~~with paragraph 2 of this ~~article~~Article,

b) any deficit in coupled markets in relation to Cross-Border Physical Deliveries that correspond to imports and exports per coupled interconnection under the Single Day-Ahead Market Coupling, ~~Supplementary~~ Intra-Day ~~Regional~~ Auctions and Continuous Intra-Day Trading, as such deficit has been calculated in the results of the Single Day-Ahead Market Coupling, ~~Supplementary~~ Intra-Day ~~Regional~~ Auctions and Continuous Intra-Day Trading respectively, pursuant to paragraph 6 of this ~~article~~Article, and

c) any defaults of entities registered with the HETS Operator Registry in accordance to subsection 11.6 of the HETS Grid Code.

2. The part of the non-Compliance Charges Account that is used to cover Clearing Member defaults shall be the Pre-Funded Financial Resources, as defined in Article 14(3) of Law 4425/2016 and the Clearing Rulebook for Balancing Market Positions. The initial amount of Pre-Funded Financial Resources is set as a percentage (a%) of the available balance of the non-Compliance Charges Account and recalculated on a quarterly basis or ad hoc in cases where the resources have been used due to a Clearing Member's default. At the time of recalculation, the Pre-Funded Financial Resources shall be increased by a% of the total non-Compliance Charges which have been collected during the period since the previous calculation, taking also into account any income or costs for their management as well as any debits or credits arising from the management of the Clearing Member's default. The Pre-Funded Financial Resources as calculated above cannot be less than a% of the available balance of the non-Compliance Charges Account as the latter stands on the second (2nd) business day prior to the day of calculation. If they are less, the Pre-Funded Financial Resources shall be set at α% of the funds available on the non-Compliance Charges Account. The HETS Operator shall notify the Clearing House of the available balance of the non-Compliance Charges Account one (1) day prior to the day of recalculation. The Prefunded Financial Resources, as recalculated each time, shall be at the disposal of the Clearing House and shall be kept in an account ~~of~~held by the Clearing House with the Bank of Greece, with the HETS Operator named as beneficiary.

~~3. At the time of the entry into force of this Rulebook, the balance of the Reserve Account of the HETS Operator pursuant to Decision No. 57/2012 of RAE shall be transferred to the non-Compliance Charges Account, after deduction of any amounts needed to cover defaults that existed before the entry into force of this Rulebook.~~

~~4.~~3. The percentage ~~α~~a% shall be initially set at 50~~% and it~~%, which may be updated annually by decision of ~~RAE~~the RAEWW following a ~~proposal by~~recommendation from the Clearing House and the HETS Operator.

~~5.~~4. The above shall apply accordingly even when no Clearing House operates in the Balancing Market.

~~6.~~5. Part of the non-Compliance Charges Account, which is defined as a percentage (b%) of the available balance of the non-Compliance Charges Account, is used to cover any deficit in coupled markets in relation to the Cross-Border Physical Deliveries that correspond to the imports and exports per coupled interconnection in the context of the Single Day-Ahead Market Coupling, the ~~Supplementary~~ Intra-Day ~~Regional~~ Auctions, and the Continuous Intra-Day Trading, as such deficit has been calculated in the results of the Single Day-Ahead Market Coupling, ~~Supplementary~~ Intra-Day ~~Regional~~ Auctions and

Continuous Intra-Day Trading respectively, provided that any deficit cannot be sufficiently covered by the credit arising by any remuneration due to a failure of obligation fulfilment, as ~~it is~~ set out in the contract between the Shipping Agent and the HETS Operator, and the credit arising from the remaining balance in the ~~non~~Non-Compliance Charges Account held by the Energy Exchange, in accordance with the Day-Ahead & Intra-Day Markets Trading Rulebook. This percentage is re-calculated on a quarterly basis, or on an ad hoc basis, if it is used to cover any deficit. During re-calculation, the part of the non-Compliance Charges Account used to cover the aforementioned deficit may be increased by b% of the total non-Compliance Charges collected during the time period following the previous calculation, and possible income or management costs, as well as possible charges or credits arising from any imbalance management, are also taken into account.

~~7.~~6. Any surplus ~~pursuant to Article 34A(~~arising in accordance with the provisions of Article18.7, paragraph 2~~)~~ of this Rulebook is also considered Revenue ~~of~~attributable to the ~~non~~Non-Compliance Charges Account.

~~8.~~7. The ~~b%~~ percentage b% is initially set ~~to~~at 20%, and ~~can~~may be updated by decision of ~~RAE following~~ the RAEWW, subject to a ~~proposal by~~recommendation from the HETS Operator and the Shipping Agent.

~~9.~~8. The remaining amount after the deduction of the a% and b% mentioned above is used to cover any defaults of entities registered with the HETS Operator Registry in accordance with subsection 11.6 of the HETS Grid Code.

~~CHAPTER 22~~

CHAPTER23. BALANCING MARKET SETTLEMENT PROCEDURE

~~Article 104.~~Article23.1 Balancing Market Settlement Procedure

1. The Balancing Market Settlement Procedure shall be implemented on a weekly basis. The Settlement Week W shall be defined as the time period between Monday, at 00:00 CET and the following Monday at 00:00 CET.

2. The Initial Settlement for Settlement Week W shall be carried out according to the following timeline:

   a) ~~Until~~By Thursday of week W+1, at 12:00 EET, the HETS Operator shall ~~inform~~notify the Participants and Participants ~~subject~~Subject to Deletion, ~~including~~as well as the Clearing House ~~about the execution~~, regarding performance of their responsibilities pursuant to ~~Article 78~~Article18.5 of this Rulebook and Part 10 of Chapter 2 of the Rulebook on the Clearing ~~Rulebook for~~of Balancing Market Positions, ~~of~~regarding the detailed results of the Initial ~~Clearing~~Settlement.

   b) In cases where the Thursday referred to in point (a) of this paragraph is not the fourth business day of week W+1, the Participants and Participants subject to Deletion and the Clearing House shall be informed on the fourth business day.

3. The Corrective Settlement for Settlement Week W shall be carried out according to the following timeline:

   a) ~~Until~~By Monday of week W+~~7~~,8, at 12:00 CET, the HETS Operator shall inform the Participants and Participants ~~subject~~Subject to Deletion of the results of the

Corrective Settlement.

b) The Participants and the Participants ~~subject~~Subject to Deletion shall send~~ to the HETS Operator~~ any reasoned objections to the results of the Corrective Settlement to the HETS Operator within two working days ~~from~~of the date of their notification under point ~~(~~a).

c) ~~Until~~By Thursday of week W+~~7~~8, at 12:00 EET, the HETS Operator shall inform the Participants~~ and~~, Participants ~~subject~~Subject to Deletion and the Clearing House ~~about~~regarding the ~~execution~~performance of their responsibilities pursuant to ~~Article 78~~Article18.5 of this Rulebook and Part 10 of Chapter 2 of the Rulebook on the Clearing ~~Rulebook for~~of Balancing Market Positions, of the results of the Corrective Settlement~~ results~~, having taken into account the objections raised by the Participants and the Participants ~~subject~~Subject to Deletion, and having made the necessary corrections.

d) In cases where the Thursday referred to in point (c) of this paragraph is not the fourth business day of week W+~~7~~8, the Participants and Participants subject to Deletion and the Clearing House shall be informed, every time, on the fourth business day.

4. For the purposes of the Final Settlement, each year Y shall be divided into two "Half-Year Settlement Periods" as follows: The first Settlement Semester shall consist of twenty-six (26) Settlement Weeks starting from the first Monday, 00:00 CET, of year Y. The second Settlement Semester shall consist of the Settlement Weeks starting from the twenty-seventh (27th) Monday, 00:00 CET of year Y until the last Sunday of year Y, in the event that December 31 of year Y is a Sunday or the first Sunday of year Y+1, in the remaining cases 24:00 CET of year Y.

5. The Final Settlement for the twenty-six (26) Settlement Weeks of the first Settlement Semester of Year Y~~-1~~ shall be conducted in accordance with the following schedule:

a) ~~Until~~By the twenty-sixth (~~26~~26th) Tuesday of year Y~~+~~3, the Network Operators shall submit ~~to the HETS Operator~~ the final ~~measurements~~metered readings for Low Voltage ~~customers~~Offtake Facilities and any corrections in ~~measurements~~metered readings for Medium Voltage ~~customers~~Offtake Facilities they may have for the first Settlement Semester of year Y~~-1~~ to the HETS Operator.

b) ~~From~~Between the twenty-seventh (27th) Thursday ~~to~~and the thirty-ninth (39th) Thursday of year Y~~+~~3, the HETS Operator shall ~~inform~~notify the Participants and Participants ~~subject~~Subject to Deletion of the Final Settlement results for the two Settlement Weeks of the first Settlement Semester of year Y~~-1, each time~~, as appropriate.

c) Within five (5) working days ~~from~~of the ~~dates~~date of dispatch of the Final Settlement results specified in point (b) of this paragraph, the Participants and Participants ~~subject~~Subject to Deletion shall send ~~to the HETS Operator~~ any reasoned objections to the Final Settlement for the Settlement Weeks of the first Settlement Semester of year Y~~-1~~ for which it has been notified~~-~~, to the HETS Operator in accordance with point (b) of this paragraph.

d) From the twenty-ninth (29th) Thursday until the forty-second (42nd) Thursday of year Y~~+~~3, at 12:00 ~~CET~~EET, the HETS Operator shall inform the Participants~~ and~~, the Participants ~~subject~~Subject to Deletion, and the Clearing House ~~about~~regarding the ~~execution~~performance of their responsibilities pursuant to ~~Article 78~~Article18.5 of this Rulebook and Part 10 of Chapter 2 of the Rulebook on the Clearing ~~Rulebook for~~of Balancing Market Positions, of the results of the Final Settlement for the two Settlement Weeks of the first Settlement Semester of year Y~~-1 each time~~ as

appropriate, after taking into account the objections of the Participants and the Participants ~~subject~~Subject to Deletion and ~~has~~having made the necessary corrections.

e) In cases where the Thursday referred to in point (d) of this paragraph is not the fourth business day of the week, the Participants and Participants subject to Deletion and the Clearing House shall be informed on the fourth business day.

6. The Final Settlement for the twenty-six (26) or, if applicable, twenty-seven (27) Settlement Weeks of the second Settlement Semester of year Y~~-1~~, shall be conducted in accordance with the following schedule:

a) ~~Until~~By the fifty-second (52nd) Tuesday of year Y+3, the Network Operators shall submit ~~to the HETS Operator~~ the final ~~measurements~~metered readings for Low~~-~~Voltage ~~customers~~Offtake Facilities and any corrections in ~~measurements~~metered readings for Medium~~-~~ Voltage ~~customers~~Offtake Facilities they may have for the second ~~Half-Year~~ Settlement ~~Period~~Semester of year Y~~-1~~ to the HETS Operator.

b) From the second (2nd) Thursday to the fourteenth (14th) Thursday of year Y+~~1~~4, the HETS Operator shall inform the Participants and Participants ~~subject~~Subject to Deletion of the Final Settlement results for the two Settlement Weeks of the second Settlement Semester of year Y~~-1, each time.~~ as appropriate. In cases where the second Settlement Semester of year Y~~-1~~ consists of twenty-seven (27) Settlement Weeks, on the fifteenth (15th) Thursday of year Y+~~1~~4, the HETS Operator shall ~~inform~~notify the Participants and the Participants ~~subject~~Subject to Deletion of the results of the Final Settlement of the twenty-seventh (27th) Settlement Week of the second Settlement Semester of year Y~~-1~~.

c) Within five (5) working days from the ~~issuance~~dates of dispatch of the Final Settlement results specified in point (b) of this paragraph, the Participants and Participants subject to Deletion shall send to the HETS Operator any reasoned objections to the Final Settlement for the Settlement Weeks of the second Settlement Semester of year Y~~-1~~ for which it has been notified in accordance with point (b) of this paragraph.

d) From the fourth (4th) Thursday until the sixteenth (16th) Thursday of year Y+~~1~~4, at 12:00 ~~CET~~EET, the HETS Operator shall inform the Participants and Participants subject to Deletion and the Clearing House about the execution of their responsibilities pursuant to ~~Article 78~~Article18.5 of this Rulebook and Part 10 of Chapter 2 of the Rulebook on the Clearing ~~Rulebook for~~of Balancing Market Positions, of the results of the Final Settlement for two Settlement Weeks of the second Settlement Semester of year Y~~-1 each time~~ as appropriate, after taking into account the objections of the Participants and the Participants ~~subject~~Subject to Deletion and ~~has~~having made the necessary corrections.

In cases where the second Settlement Semester of year Y~~-1~~ consists of twenty seven (27) Settlement Weeks, on the seventeenth (17th) Thursday of year Y+~~1~~4, the HETS Operator ~~informs~~shall inform the Participants~~ and~~, the Participants ~~subject~~Subject to Deletion and the Clearing House ~~about~~regarding the ~~execution~~performance of their responsibilities pursuant to ~~Article 78~~Article18.5 of this Rulebook and Part 10 of Chapter 2 of the Rulebook on the Clearing ~~Rulebook for~~of Balancing Market Positions, of the results of the Final Settlement of the twenty-seventh (27th) Settlement Week of the second Settlement Semester of year Y~~-1~~, after taking into account the objections of the Participants and the Participants ~~subject~~Subject to Deletion, and ~~has~~having made the necessary corrections.

e) In cases where the Thursday referred to in point (d) of this paragraph is not the fourth business day of the week, the Participants and Participants subject to Deletion and the Clearing House shall be informed on the fourth business day.

7. As part of the performance of Supplementary Settlements, the HETS Operator shall:

a) make any necessary adjustment to or revision of the measurement data,

b) make any necessary adjustment to or revision of the data resulting from any Dispute settlement,

c) use updated or revised data submitted by the Energy Exchange or the Distribution Network Operators,

d) use revised Balancing Service data.

8. After the Final Settlement has been performed pursuant to the timetable of paragraphs 5 and 6 of this Article, corrections to ~~Settlement~~settlement data or ~~Settlement~~ results ~~can~~may only be made if this is ~~required~~demanded for the ~~enforcement~~purpose of enforcing a judicial decision or an ~~arbitral~~arbitration award.

9. Execution of a Corrective Settlement for a period and on a date not provided for in the time schedule of this Article, ~~and~~or in any case before the execution of the Final Settlement, or execution of another Settlement after the Final Settlement has been ~~carried out~~conducted, may only be carried out following a decision of ~~RAE upon a reasoned request of~~ the RAEWW subject to a duly justified application from a Participant or Participant ~~subject~~Subject to Deletion ~~or of the Participants~~, or Participants ~~subject~~or Participants Subject to Deletion ~~having~~with a legitimate interest, if it is demonstrated that non-execution of the additional Corrective Settlement threatens the viability of the applicant. The request shall be submitted to ~~RAE~~the RAEWW and ~~the~~ settlement shall be ~~performed again~~reiterated only after ~~its~~a decision is reached, and it shall be subject to the terms of ~~that decision~~thereof.

10. In the cases ~~of~~referred to in paragraph 9 of this Article and if any amounts for debits or credits to persons who are no longer registered ~~with~~in the HETS Operator Registry arise, either as Participants or as Participants ~~subject~~Subject to Deletion, then these amounts shall be allocated to the Balance Responsible Parties and ~~to the~~ Participants ~~subject~~Subject to Deletion ~~in~~according to their former status ~~prior to becoming a Participant subject to Deletion~~ as Balance Responsible Parties, ~~p depending~~pdepending on the metered ~~offtake~~absorption of their ~~customers from~~Offtake Facilities in the Interconnected System for Settlement Weeks W-11 to W-8 ~~starting from~~as of the Settlement Week when ~~the Settlement~~this settlement takes place:

$$CHARGE_p = AMOUNT \times \frac{MQ_{p,WS}}{\sum_p (MQ_{p,WS})}$$

where:

WS	The period between W-11 and W-8 starting from the Settlement Week when the settlement of these amounts takes place
$AMOUNT$	the amount of debits or credits to persons who are no longer registered in the HETS Operator Registry, either as Participants or as Participants subject to Deletion
$MQ_{p,WS}$	the ~~offtake~~absorption (calculated at the Transmission System ~~-~~/Distribution ~~Network Limit~~System Boundary) in MWh ~~that corresponds~~corresponding to the ~~consumers~~Offtake Facilities of the Interconnected System per Balance Responsible Party or ~~a~~ Participant

~~subject~~Subject to Deletion in ~~its~~their former capacity ~~prior to becoming a Participant subject to Deletion~~ as a Balance Responsible Party, *p*, for period WS

No corrections shall be made to the ~~cash amounts apportioned~~monetary sums allocated to the Balancing Responsible Parties and ~~the~~ Participants ~~subject~~Subject to Deletion in their former capacity ~~prior to becoming Participants subject to Deletion~~ as Balance Responsible Parties by reason of any revised data regarding the metered ~~offtake~~consumption $MQ_{p,WS}$ of their ~~customers~~Offtake Facilities which ~~were~~was calculated in the execution of Final Settlements.

11. Where amounts of debits or credits arise due to corrective settlements for voluntary energy exchanges under Article 50 of Regulation (EU) 2017/2195 and/or for involuntary energy exchanges under Article 51 of Regulation (EU) 2017/2195 for a period and on a date not provided for in the timeline of this Article, then the amounts of debits or credits shall be taken into account in the determination of the Required Balancing Market Revenue of the following calendar years.

12. ~~By~~The time schedules referred to in this Article may be amended by way of exception ~~to~~in the event of a technical problem in the Balancing Market System or in the event of the unavailability of the necessary data as described in Article18.4. The HETS Operator shall inform the Participants of the updated timeline ~~of paragraphs 1 to 6 of this Article, the~~ in a timely and appropriate manner.

Article23.2 Procedure for Settlement of ~~non~~Non-Compliance Charges

~~12.~~1. Settlement of Non-Compliance Charges shall be ~~performed on a~~carried out monthly ~~basis~~. The Settlement months correspond to calendar months M, starting from the first day of the calendar month at 00:00 CET until the first day of the following calendar month at 00:00 CET.

2. The initial Settlement of month M shall be carried out according to the following timeline:

a) Within one week from the issuance of the Corrective Settlement for all weeks of month M, the HETS Operator shall inform the Participants and the Participants subject to Deletion of the non-Compliance Charges.

b) Within the deadline of two (2) working days from the publication of the results of the non-Compliance Charges by the HETS Operator, the Participants and the Participants subject to Deletion shall submit to the HETS Operator any reasoned objections.

c) Within five (5) working days following the submission of objections as of item (b), ~~,~~ the HETS Operator shall inform the Participants and the Participants ~~subject~~Subject to Deletion of the Settlement results for ~~non~~Non-Compliance Charges, having taken into account the objections raised by the Participants or Participants ~~subject~~Subject to Deletion and having made the necessary corrections.

3. ~~By way of exception to the timeline of paragraphs 1 to 6 of this Article, the Settlement of the Balancing Market Fee shall be performed on a monthly basis.~~The final Settlement of month M is realized in accordance with the following timeline:

~~13.1. Settlement months correspond to calendar months from the first day of the calendar month at 00:00 CET until the first day of the following calendar month at 00:00 CET.~~

~~1. The initial Settlement of month M shall be carried out according to the following timeline:~~

a) Within one week from the end of the corrective clearing of all weeks of month M, the HETS Operator shall inform the participants registered in the HETS Operator's Registry and the Participants subject to Deletion of the Balancing Market Fee,

b) The Participants and the Participants subject to Deletion shall send to the HETS Operator any justified objections within a period of two (2) working days from the notification of the Balancing Market Fee results by the HETS Operator.

c) Within five (5) working days following the submission of objections as of item (b), the HETS Operator shall inform the Participants and the Participants Subject to Deletion of the Settlement results for Non-Compliance Charges, having taken into account the objections raised by the Participants or Participants subject to Deletion and having made the necessary corrections.

4. The time schedules referred to in this Article may be amended by way of exception in the event of a technical problem in the Balancing Market System or in the event of the unavailability of the necessary data as described in Article18.4. The HETS Operator shall inform the Participants of the updated timeline in a timely and appropriate manner.

Article23.3 Balancing Market Fee Settlement Procedure

1. Settlement of the Balancing Market Fee is carried out on a monthly basis. Settlement months correspond to calendar months from the first day of the calendar month at 00:00 CET until the first day of the following calendar month at 00:00 CET.

2. The initial Settlement of month M shall be carried out according to the following timeline:

a) Within one week following the final Settlement of all weeks of month M, the HETS of Operator shall inform the registered Participants in the HETS registry as well as the participants under Deletion with regards to the Balancing Market Fee.

b) Within the deadline of two (2) working days following the publication of the results with regards to the Balancing Market Fee from the HETS Operator the Participants and the Participants subject to Deletion shall submit to the HETS Operator any reasoned objections.

c) Until the Thursday following the second item, the HETS shall inform the Participants, the Participants subject to Deletion and the Clearing House of the results of the Settlement of the Balancing Market Fee after having taken into account the objections of the Participants or the Participants subject to Deletion and has made the necessary corrections.

d) The above results of the Settlement for each Participant and Participant subject to Deletion shall include the following:

i. Amount corresponding to the Balancing Market Fee transactions relating to month M+2, which is equal to the settlement amount resulting for month M.

ii. The difference of the following:

- The amount settled for the Balancing Market Fee relating to month M, as calculated on the Thursday of month M+2 in point (c) of this paragraph; and
- The amount corresponding to the transactions of the Balancing Market Fee for month M, which was included in the Settlement Results issued

in month M for the transactions of month M-2 in accordance to the timeline in items (a) to (c) of this paragraph.

In cases where the Thursday referred to in point (~~d~~c) of this paragraph is not the fourth business day of the week, the Participants and Participants subject to Deletion and the Clearing House shall be informed on the fourth business day, pursuant to the Clearing Rulebook for Balancing Market Positions.

3. The final Settlement of month M is realized in accordance with the following timeline:

a) Within one week of the end of the Final Settlement of all weeks of month M, the HETS Operator shall notify the Participants registered in the HETS Operator's Registry and the Participants subject to Deletion regarding the Balancing Market Fee,

b) Within a deadline of two (2) working days following the publication of the results regarding the Balancing Market Fee by the HETS Operator, the Participants and the Participants Subject to Deletion shall submit any duly justified objections to the HETS Operator.

~~1. The final Settlement of month M is realized in accordance with the following timeline:~~

~~a) Within one week following the final Settlement of all weeks of month M, the HETS of Operator shall inform the registered Participants in the HETS registry as well as the participants under Deletion with regards to the Balancing Market Fee.~~

~~b)a) Within the deadline of two (2) working days following the publication of the results with regards to the Balancing Market Fee from the HETS Operator the Participants and the Participants subject to Deletion shall submit to the HETS Operator any reasoned objections.~~

c) Until the Thursday following item (b), the HETS Operator shall inform the Participants, the Participants subject to Deletion as well as the Clearing House of the Settlement results for the Balancing Market Fee, taking into account the objections raised by the Participants or Participants subject to Deletion and having made the necessary corrections.

~~14.~~4. The ~~timelines of~~ time schedules referred to in this Article may ~~exceptionally~~ be ~~modified in case~~amended by way of exception in the event of a technical problem in the Balancing Market System~~.~~ or in the event of the unavailability of the necessary data as described in Article18.4. The HETS Operator shall inform the Participants of the updated timeline in a timely and appropriate manner.

~~Article 105.~~Article23.4 Content of Settlement results notified to the Participants

1. Settlement results notified to the Balancing Service Providers and the Participants subject to Deletion shall include, where applicable, the following information:

a) The ID of the Balancing Service Provider,

b) The Market Schedules of each Balancing Service Entity,

c) The Baseline for each Dispatchable Load Portfolio in case a Dispatch Instruction is issued for the provision of Balancing Energy,

d) The Baseline for each Dispatchable Intermittent RES Units Portfolio in case a Dispatch Instruction is issued for the provision of Balancing Energy,

e) The Dispatch Instruction ~~of~~for each Balancing Service Entity per ~~manual FRR~~

~~Time~~mFRR Unit of Time,

f) The metered amount of energy of the Balancing Service Entity per Imbalance Settlement Period,

g) The activated Balancing Energy for ~~automatic~~aFRR and ~~manual FRR~~mFRR of the Balancing Service Entity per Imbalance Settlement Period,

h) The Balancing Capacity supplied by the Balancing Service Entity per Imbalance Settlement Period and per Balancing Capacity Type,

i) The Imbalance and Imbalance Adjustment Quantities for the Balancing Service Entity per Imbalance Settlement Period,

j) The debit or credit for Balancing Energy and Balancing Capacity to the Balancing Service Provider for the Balancing Service Entity per Imbalance Settlement Period,

k) The debit or credit to the Balancing Service Provider for Imbalances of the Balancing Service Entity per Imbalance Settlement Period,

l) Any non-compliance Charge imposed on the Balancing Service Provider per sanction type and Imbalance Settlement Period.

2. The Settlement results notified to the Balance Responsible Parties shall include the following details:

a) The ID of the Balance Responsible Party,

b) The Market Schedule of each Balance Responsible Entity represented by the Participant per Imbalance Settlement Period,

c) The total amount of metered energy for all Balance Responsible Entities represented by the Balance Responsible Party per Imbalance Settlement Period,

d) The Imbalance quantity of all Balance Responsible Entities represented by the Balance Responsible Party per Imbalance Settlement Period, and

e) The debit or credit to the Balance Responsible Party for each Imbalance Settlement Period.

~~Article 106.~~Article23.5 Pricing of non-Compliance Charges

1. The HETS Operator shall issue ~~to the~~ Participants and Participants ~~subject~~Subject to Deletion with the necessary supporting ~~documents for~~invoice statements based on the results of ~~the Settlement of non~~Non-Compliance ~~Charges~~Charge Settlements for each month M, in accordance with ~~Article 104,~~12 paragraph ~~1~~22(c) and paragraph 3(c) of this Rulebook. The documents shall become overdue five (5) calendar days after the expiry of the deadline for their issue.

2. In the event that a Participant or a Participant subject to Deletion defaults on its cash obligations for non-Compliance Charges, the HETS Operator shall take any action needed to collect the due payment with interest.

3. Unless it is part of its responsibilities under this Article, the HETS Operator shall not be liable to the Participants, the Clearing Members or the Clearing House for covering any deficit in the non-Compliance Charges Account that is created due to a defaulting Participant or Participant subject to Deletion.

~~CHAPTER 23~~

CHAPTER24. DEFAULT MANAGEMENT

~~Article 107.~~Article24.1 Actions of the HETS Operator and the Clearing House in case of default

1. In the event of default of Clearing Members on their cash obligations pursuant to this Rulebook, the provisions of this Chapter and the Clearing Rulebook for Balancing Market Positions shall apply.

2. If a Clearing Member defaults on the performance of its cash obligations pursuant to this Rulebook:

   a) the Clearing House shall be obliged to ~~immediately~~ notify the HETS Operator immediately.

   b) If the losses caused by the default are in excess of the collaterals provided for the relevant Clearing Account, of the share of the defaulting Clearing Member in the Clearing Capital and even of those of the other Clearing Members according to the Clearing Rulebook for Balancing Market Positions, the Clearing House shall notify the HETS Operator of the remaining portion of the loss and shall cover the said amount by using the balance in the Prefunded Financial Resources account, as specified in the Clearing Rulebook for Balancing Market Positions.

   c) If the balance of the Prefunded Financial Resources is insufficient to cover the loss, the Clearing House shall ~~immediately~~ notify the HETS Operator immediately. The remaining portion of the loss shall be ~~allocated to~~borne by the Balance Responsible Parties and to ~~the~~ Participants ~~subject~~Subject to Deletion in their former capacity as Balance Responsible Parties (*p*) prior to becoming ~~Participants~~ subject to Deletion ~~as Balance Responsible Parties, *p*, and shall be apportioned to~~and allocated among them according to the metered ~~offtake~~consumption of their ~~customers~~Offtake Facilities from the Interconnected System for Settlement Weeks W-11 to W-8 starting from the Settlement Week when the default was ascertained by the Clearing House:

$$CHARGE_DEFAULT_{p,WS} = DEFAULT_W \times \frac{MQ_{p,WS}}{\sum_p MQ_{p,WS}}$$

where:

WS	The period between W-11 and W-8 starting from Settlement Week W when the default was ascertained by the Clearing House
$DEFAULT_W$	the remaining portion of loss for Settlement Week W when the default was ascertained by the Clearing House
$MQ_{p,ws}$	the ~~offtake~~absorption (calculated at the Transmission System~~-~~/Distribution ~~Network Limit~~System Boundary) in MWh ~~that corresponds~~corresponding to the ~~consumers~~Offtake Facilities of the Interconnected System per Balance Responsible Party or ~~a~~ Participant ~~subject~~Subject to Deletion in ~~its~~their former capacity ~~prior to becoming a Participant subject to Deletion~~ as a Balance Responsible Party~~,~~ *p*, for period WS

No corrections shall be made to the cash amounts burdening and allocated ~~and apportioned to the~~to Balancing Responsible Parties and ~~the~~ Participants

~~subject~~Subject to Deletion in their former capacity ~~prior to becoming Participants subject to Deletion~~ as Balance Responsible Parties by reason of any revised data regarding ~~the~~ metered ~~offtake~~consumption$MQ_{p,ws}$ ~~of~~by their ~~customers~~Offtake Facilities which were calculated in the Final Settlements ~~performed~~ after ~~the~~ default, ~~unless it is a correction of the remaining portion of loss~~with the exception of any corrections made by the Clearing House regarding the remainder of the loss.

d) The HETS Operator shall notify the Clearing House of the amount apportioned to each Balancing Responsible Party and to each Participant subject to Deletion in their capacity prior to becoming Participants subject to Deletion as Balance Responsible Parties, so that the Clearing House can proceed with the Cash Settlement according to the provisions of the Clearing Rulebook for Balancing Market Positions.

e) If the amounts of money settled by the Clearing House pursuant to item (c) of this paragraph are insufficient due to non-payment by the Balance Responsible Parties so obliged on the basis of the aforementioned apportionment or Participants subject to Deletion in their capacity prior to their capacity prior to becoming Participants subject to Deletion as Balance Responsible Parties, a recalculation shall be made as many times as necessary until the loss is fully covered by the Balance Responsible Parties and the Participants subject to Deletion in their capacity prior to becoming Participants subject to Deletion as Balance Responsible Parties who are up-to-date with their obligations, the procedure under item (c) being followed in all other cases. The Clearing House shall notify the HETS Operator of the relevant default and the defaulting Balancing Responsible Parties, in each apportionment cycle processand the Participants subject to Deletion in their capacity prior to becoming Participants subject to Deletion as Balance Responsible Parties, so that the HETS Operator can activate the subsequent cycle of the apportionment process as set out in paragraph 2 of this Article.

f) The collection of the relevant cash obligations of the defaulting Clearing Member shall be carried out on the basis of the Vouchers/Invoices issued by the Clearing House, which serve as proof in favour of beneficiary Clearing Members and Participants and against the defaulting Clearing Member or Participant. The above Vouchers/Invoices, including the initial Invoice shall not serve as proof, neither in favour nor against the Clearing House or the HETS Operator. Details regarding the above Vouchers/Invoices are provided in the Clearing Rulebook for Balancing Market Positions.

g) The Balancing Responsible Parties or the Participants subject to Deletion in their capacity prior to becoming Participants subject to Deletion as Balance Responsible Parties that have paid the cash amounts apportioned to them in accordance with the procedures specified in items (e) and (f), paragraph 1, section 4.6 of the Clearing Rulebook for Balancing Market Positions may, by virtue of the Apportionment Procedure Non-Collection Voucher of item c), paragraph 2, section 4.6 of the Clearing Rulebook for Balancing Market Positions demand a return of the cash amounts paid in proportion to their percentage of participation in the relevant apportionment by instructing the HETS Operator to exercise their respective rights as their representative. Court costs of all kinds as well as other related expenses and expenses for the assignment of a third-party legal advisor shall be charged to the beneficiary Balancing Responsible Parties or Participants subject to Deletion in their capacity prior to becoming Participants subject to Deletion as Balance Responsible Parties in proportion to their percentage of participation in the relevant apportionment cycle process and covered by them according to their relevant apportionment by the HETS Operator during the cash settlement procedure of the

Clearing House. The HETS Operator shall assume no risk whatsoever with respect to either the assignment in accordance with the above or the positive outcome of the above demands.

h) The HETS Operator shall terminate the Balancing Service Contract and/or the Balance Responsible Party Contract of the Participants who are in default on their financial obligations in the framework of the Balancing Market.

3. In particular, as regards covering a Clearing Member defaulting on amounts owed for supplementary settlements from a previous period prior to the default of the Clearing Member, but calculated after the default:

a) If the balance of collateral or the share account balance of the defaulting Clearing Member that may have been withheld by the Clearing House in accordance with the provisions of the Clearing Rulebook for Balancing Market Positions is not sufficient to cover any Supplementary Settlements that may arise in respect of the Positions of the above defaulting party or if no such balance exists, the Clearing House shall notify the HETS Operator of the remaining portion of loss and shall cover it from the balance of the Pre-Funded Financial Resources as specified in the Clearing Rulebook for Balancing Market Positions.

b) If the balance of the Prefunded Financial Resources is insufficient to cover the above loss, the Clearing House shall ~~immediately~~ notify the HETS Operator immediately. In ~~that~~this case, the ~~apportionment~~process of allocations and ~~reapportionment processes of items~~reallocations for cases (c), (d~~)~~), and (e~~),~~) of paragraph 2 of this Article shall be activated~~,~~ until ~~the loss is~~these are fully ~~covered~~addressed.

4. The HETS Operator shall not be exposed to any credit risk for the cash transactions pertaining to this Rulebook and the HETS Grid Code, and shall not be liable to the Participants, the Participant subject to Deletion or the Clearing Members or the Clearing House for covering any remaining loss that is created against the Participants due to default of another Participant or Participant subject to Deletion registered with the HETS Operator Registry or another Clearing Member, over and above the performance of its duties, in accordance to this Chapter and the Clearing Rulebook for Balancing Market Positions. This also applies to the Clearing House.

5. The funds from the ~~non~~Non-Compliance Charges Account, including the Pre-Funded Financial Resources, ~~that~~which were used by the HETS Operator or the Clearing House to cover defaults, shall ~~only~~ be restored only if the amount due and covered by the Account is collected from the debtor in default. The HETS Operator and the Clearing House shall immediately notify ~~RAE~~the RAEWW of ~~the~~ instances of default, ~~but also~~as well as of the measures ~~taken~~ and the ~~timetable~~scheduled times for ~~the~~ enforcement of ~~such~~said measures taken in order to ensure the uninterrupted operation of the Balancing Market.

~~CHAPTER 24~~

CHAPTER25. SPECIAL PROVISIONS FOR THE BALANCING MARKET SETTLEMENT IF NO CLEARING HOUSE OPERATES

~~Article 108.~~Article25.1 Application of Special Provisions

In the event that no Clearing House operates, for any reason, in the Balancing Market, according to Article 12 of Law 4425/2016, special provisions shall apply in accordance with

CHAPTER24.

~~Article 109.~~Article25.2 HETS Operator Accounts

The HETS Operator shall keep accounts for accounting purposes in accordance with ~~Article 75~~Article18.3 of this Rulebook.

~~Article 110.~~Article25.3 Invoicing and Settlement

The HETS Operator and the Participants and Participants subject to Deletion shall issue the necessary documents on the basis of the Settlement Results for each month M until the 7th business day of month M+2. For each month M, the payments to the HETS Operator shall be made by the 9th business day of month M+2 and the payments to the Participants and Participants subject to Deletion by the 10th business day of month M+2.

~~Article 111.~~Article25.4 Actions of the Operator in case of Participant default

1. If a Participant or Participant subject to Deletion defaults on its cash obligations deriving from this Rulebook, the HETS Operator shall take the following action:

   a) Take all necessary steps to satisfy the amounts due by the defaulting Participant or Participant subject to Deletion through the guarantees it has provided in accordance with Article25.5 of this Rulebook. If the guarantees are insufficient to fully cover the amounts due by the defaulting Participant, the HETS Operator shall cover them by using the guarantees on a pro rata basis.

   b) If the guarantees are insufficient to fully cover the amounts due by the defaulting Participant or Participant subject to Deletion , the HETS Operator shall cover the deficit by using the non-Compliance Charges Account, up to a percentage (α%) of the balance on the non-Compliance Charges Account, in accordance with ~~Article 103~~Article22.8 of this Rulebook.

   c) If the guarantees and the ~~non~~Non-Compliance Charges Account balance are ~~not sufficient~~insufficient to fully cover the amounts due ~~by~~from the defaulting Participant in accordance with items (a) and (b) of this paragraph, the HETS Operator shall allocate the remaining portion of the loss to the Balance Responsible Parties and to the Participants ~~subject~~Subject to Deletion in their former capacity ~~prior to becoming Participants subject to Deletion~~ as Balance Responsible Parties, *p*, in proportion to the metered ~~offtake~~consumption of their ~~customers~~Offtake Facilities from the Interconnected System for Settlement Months M-3 to M-2 from the Settlement Month when the default was ascertained by the HETS Operator:

$$CHARGE_DEFAULT_{p,MS} = DEFAULT_M \times \frac{MQ_{p,MS}}{\sum_p MQ_{p,MS}}$$

where:

MS	The period between M-3 and M-2 starting from Settlement Month M when the default was ascertained by HETS Operator
$DEFAULT_M$	the remaining portion of loss for Settlement Month M when the default was ascertained by HETS Operator
$MQ_{p,MS}$	the ~~offtake~~absorption (calculated at the Transmission System~~-~~/Distribution ~~Network Limit~~System Boundary) in MWh ~~that~~

~~corresponds~~corresponding to the ~~consumers~~Offtake Facilities of the Interconnected System per Balance Responsible Party or ~~a~~ Participant ~~subject~~Subject to Deletion in ~~its~~their former capacity ~~prior to becoming a Participant subject to Deletion~~ as a Balance Responsible Party, *p*, for period ~~MS~~MS

No corrections shall be made to the cash amounts burdening and allocated ~~and apportioned to the~~to Balancing Responsible Parties or ~~the~~ Participants ~~subject~~Subject to Deletion in their former capacity ~~prior to becoming Participants subject to Deletion~~ as Balance Responsible Parties by reason of any revised data regarding ~~the~~ metered ~~offtake~~consumption$MQ_{p,MS}$ of their ~~customers~~Offtake Facilities which were calculated in the Final Settlements ~~performed~~ after ~~the~~ default, ~~unless it is a correction~~with the exception of ~~the remaining portion of loss~~any corrections made by the HETS Operator regarding the remainder of the loss.

d) If the amounts of money settled pursuant to item (c) of this paragraph are insufficient due to non-payment by the Balance Responsible Parties so obliged on the basis of the aforementioned apportionment or Participants subject to Deletion in their capacity prior to their capacity prior to becoming Participants subject to Deletion as Balance Responsible Parties, a recalculation shall be made as many times as necessary until the loss is fully covered by the Balance Responsible Parties or the Participants subject to Deletion in their capacity prior to becoming Participants subject to Deletion as Balance Responsible Parties who are up-to-date with their obligations, the procedure under item (c).

e) The collection of the relevant financial obligations of the defaulting Participant or the Participant subject to Deletion and/or the defaulting Participants or the Participants subject to Deletion shall be carried out on the basis of the Vouchers/Invoices issued by the HETS Operator, which serve as proof in favor of beneficiary Participants or Participants subject to Deletion and against the defaulting Participant or Participant subject to Deletion. The above Vouchers/Invoices, including the initial Invoice shall not serve as proof, neither in favour nor against the HETS Operator.

f) The Balancing Responsible Parties or Participants subject to Deletion that have paid the cash amounts apportioned to them in accordance with the procedures specified in items (c) and (d) of this paragraph may, by virtue of the Apportionment Procedure Non-Collection Voucher of item (e) of this paragraph, demand a return of the cash amounts paid in proportion to their percentage of participation in the relevant apportionment by instructing the HETS Operator to exercise their respective rights as their representative. Court costs of all kinds as well as other related expenses and expenses for the assignment of a third-party legal advisor shall be charged to the beneficiary Balancing Responsible Parties or Participants subject to Deletion in proportion to their percentage of participation in the relevant apportionment cycle process and covered by them according to their relevant apportionment by the HETS Operator during the procedure for settlement of their claims and obligations in accordance with ~~Article 114~~Article25.3 of this Rulebook. The HETS Operator shall assume no risk whatsoever with respect to either the assignment in accordance with the above or the positive outcome of the above demands.

g) The HETS Operator shall terminate the Balancing Service Contract and/or the Balance Responsible Party Contract of the Participants who are in default on their financial obligations in the framework of the Balancing Market.

2. In particular, as regards covering a Participant or Participant subject to Deletion

defaulting on amounts owed for Supplementary Settlements from a previous period prior to the default of the Participant or Participant subject to Deletion, but calculated after the default:

a) If the balance of the guarantees ~~of~~in accordance with Article25.5 of this Rulebook that may have been withheld by the HETS Operator is ~~not sufficient~~insufficient to cover the amounts due as a result of Supplementary Settlements or if no such balance exists, the HETS Operator shall cover it from the balance of the ~~non~~Non-Compliance Charges Account, as specified in ~~item (b),~~ paragraph 1(b) of this Article.

b) If the balance of the non-Compliance Charges Account, as specified in item (a) of this paragraph is not sufficient to cover the above loss, the HETS Operator shall activate the apportionment and reapportionment processes of items (c) and (d) of par. 1 of this Article, until the loss is fully covered.

3. The HETS Operator shall not be exposed to any credit risk for the cash transactions pertaining to this Rulebook, and shall not be liable to the Participants or for covering any remaining loss that is created for the Participants or Participants subject to Deletion due to default of another Participant or Participant subject to Deletion, over and above the performance of its duties according to this Chapter.

4. The funds from the ~~non~~Non-Compliance Charges Account that were used by the HETS Operator to cover defaults shall only be restored if the amount due and covered by the Account is collected from the debtor in default.

5. The HETS Operator shall immediately notify ~~RAE~~the RAEWW of ~~the~~ instances of default, ~~but also~~as well as of the measures ~~taken~~ and the ~~timetable~~scheduled times for ~~the~~ enforcement of ~~such~~said measures taken in order to ensure the uninterrupted operation of the Balancing Market.

~~Article 112.~~Article25.5 Provision of Guarantees

1. Each Participant is required, during the term of the Balancing Service Contract and/or the Balance Responsible Party Contract, to offer full guarantees for compliance with all its obligations arising from its participation in the Balancing Market. Each Participant subject to Deletion shall be required to offer full guarantees for compliance with all its obligations arising from the settlements provided for in this Rulebook and relating to the period of its active participation.

2. The obligation to provide full guarantee shall be fulfilled by submitting a letter of guarantee or by depositing an amount into a special account held by the HETS Operator, or in any other lawful manner to which the HETS Operator has consented.

3. Especially for the Letters of Guarantee, the Participants and Participants subject to Deletion fulfill the above obligations only if they fully comply with the template published by the Operator on its website.

4. In case of late submission of the Participants' guarantees, a Non-Compliance Charge shall be imposed, the amount of which shall be determined taking into account, among other things, the days of late submission, in accordance with the specific provisions of the "Balancing Market Participation Guarantee Calculation Methodology".

5. In case of non-fulfilment of the guarantee obligation, the HETS Operator shall immediately and by all appropriate means inform the Balancing Service Provider or the Balance Responsible Party. In the event that the Balancing Service Provider or the Balance Responsible Party does not provide the required guarantees within five (5)

working days from the day on which it should have provided them, the HETS Operator shall terminate the Balancing Service Provider or Balance Responsible Party Service Contract, in accordance with the provisions of Article4.4, paragraph 4 of ~~Article 7 of~~ this Rulebook. The same applies in case of partial or total forfeiture of the letter of guarantee or its expiry and its non-renewal or non-replacement by the Balancing Service Provider or the Balance Responsible Party.

6. The methodology for determining the amount of guarantees and details on guarantees are ~~set forth~~provided for in the ~~"~~"Methodology for Calculation of Balancing Market Participation ~~Guarantee Calculation Methodology"~~,Guarantees' , which is approved by ~~RAE upon~~the RAEWW following a proposal ~~of~~by the HETS Operator pursuant to the provisions of ~~par.~~paragraph 4 of Article 18 of Law 4425/2016.

SECTION V

VII TRANSITIONAL PROVISIONS

CHAPTER 25

TRANSITIONAL PROVISIONS ON NON-COMPLIANCE CHARGES

Άρθρο 114. Entry into Force of non-Compliance Charges

1. The numerical values of the parameters of non-Compliance Charges as specified in Article 96 to Article 102 of this Rulebook shall be specified so as to enter into force for the first time by Decision of RAE following a proposal by the HETS Operator, which shall be submitted to RAE by15th July 2020.
2. The non-Compliance charges set out in Article 96, Article 97, Article 98, Article 99 and Article 100, without prejudice to the provisions of Article 114, shall apply as from the date of the effective start of the operation of the Balancing Market.
3. The non-Compliance Charges set out in Article 101 and Article 102, without prejudice to the provisions of Article 114, shall apply after the first quarter of operation of the Balancing Market. The Charges for the first quarter of operation of the Balancing Market shall only be calculated for the information of the Participants and shall not be allocated to them.
4. Within four (4) months from the effective start of the operation of the Balancing Market, the HETS Operator shall submit a proposal regarding the numerical values of the parameters of non-Compliance Charges, as defined in Article 96 to Article 102 of this Rulebook.

CHAPTER 26

CHAPTER26. TRANSITIONAL PROVISIONS FOR RES

Article 114.Article26.1 Commencement of balancing obligations for RES Units with Market Participation Obligation under a Contract for Differential State Aid Support

1. The RES Units with Market Participation Obligation under a Contract for Differential State Aid Support (DSAS Contract), as set forth in Law 4414/2016, shall start having balancing obligations after the end of the transitional period. The transitional period shall end upon commencement of the Continuous Intra-Day Trading in coupling operation, as defined in accordance with the provisions of the Day-Ahead & Intra-Day Markets Trading Rulebook.
2. Until the end of the transitional period:
   a) The Reversal of the Difference in Income shall be calculated as per Article26.3 and Article 117Article26.4 of this Rulebook.

b) For RES Units with Market Participation Obligation under a DSAS Contract Article22.6 of this Rulebook shall not apply.

~~Article 115.~~Article26.2 Explanation of symbols

For the purposes of Calculation of Production Imbalances for RES Units with Market Participation Obligation under a DSAS Contract, each non-Dispatchable RES Units Portfolio shall be generally symbolized as $e_{rep,oper,z}$, where:

rep the RES Units Portfolio representative. The non-Dispatchable RES Units Portfolios shall be represented by a RES Producer, a RES Aggregator or by the Last Resort RES Aggregator.

oper the operational status, which corresponds to normal operation under a DSAS contract or Testing Operation under a DSAS contract.

z the HETS Bidding Zones.

~~Article 116.~~Article26.3 Calculation of Production Imbalances for RES Units with Market Participation Obligation under a DSAS Contract

1. The Final Imbalance of a non-Dispatchable RES Units Portfolio under a DSAS Contract, $e_{rep,oper,z}$, for an Imbalance Settlement Period shall be equal to the difference between the quantity of energy that results on the basis of the Entity's certified measurement data and the Entity's Market Schedule as given below:

$$FIMB_{e_{rep,oper,z},t} = MQ_{e_{rep,oper,z},t} - MS_{e_{rep,oper,z},t}$$

Where:

$FIMB_{e_{rep,oper,z},t}$ the quantity of the Final Imbalance in MWh for a non-Dispatchable RES Units Portfolio under a DSAS Contract $e_{rep,oper,z}$ and the Imbalance Settlement Period *t*.

$MQ_{e_{rep,oper,z},t}$ ~~The~~the amount of energy ~~quantity~~ at the Connection Point with the HETS or the Distribution Network, in MWh, resulting from the certified ~~measurement~~metered data of the non-Dispatchable RES Units Portfolio under a DSAS Contract $e_{rep,oper,z}$ for the Imbalance Settlement Period *t*

$MS_{e_{rep,oper,z},t}$ The Market Schedule of the non-Dispatchable RES Units Portfolio under a DSAS Contract $e_{rep,oper,z}$ for the Imbalance Settlement Period t

~~Article 117.~~Article26.4 Calculation of Debits and Credits for RES Units with Market Participation Obligation under a DSAS Contract

1. For each Imbalance Settlement Period t the HETS Operator shall calculate the debit / credit $IMBC_A_{e_{rep,oper,z},t}$ in € and the debit / credit $IMBC_B_{e_{rep,oper,z},t}$ in € for each non-Dispatchable RES Units Portfolio under a DSAS Contract e, as follows:

$$IMBC_A_{e_{rep,oper,z},t} = FIMB_{e_{rep,oper,z},t} \times DAMP_{z,t}$$

and

$$IMBC_B_{e_{rep,oper,z},t} = FIMB_{e_{rep,oper,z},t} \times (IP_t - DAMP_{z,t})$$

Where:

$FIMB_{e_{rep,oper,z},t}$ the quantity of the Final Imbalance, in MWh, for the non-Dispatchable RES Units Portfolio $e_{rep,oper,z}$ for the Imbalance Settlement Period t.

$DAMP_{z,t}$ the price of the Day-Ahead Market in MWh for each Bidding Zone *z* for the Market Time Unit.

2. The above debits / credits shall be collected or allocated by the Clearing House as follows:

   ~~a)~~1) For a non-Dispatchable RES Units Portfolio $e_{rep,oper,z}$ which is represented by a RES Producer or RES Aggregator in normal operation or Testing Operation and belongs to the Bidding Zone *z*,

   i. when the amount $IMBC_A_{e_{rep,oper,z},t}$ is found to be negative, the RES Producer or RES Aggregator must pay the calculated amount, whereas when the amount $IMBC_A_{e_{rep,oper,z}t}$ is found to be positive, the RES Producer or RES Aggregator is entitled to collect the calculated amount,

   ii. when the amount $IMBC_B_{e_{rep,oper,z},t}$ is found to be negative, the calculated amount is charged to DAPEEP, whereas when the amount $IMBC_B_{e_{rep,oper,z},t}$ is found to be positive, the calculated amount is credited to DAPEEP.

   ~~b)~~2) For a non-Dispatchable RES Units Portfolio $e_{rep,oper,z}$ which is represented by the Last Resort RES Aggregator in normal operation or Testing Operation and belongs to the Bidding Zone *z*,

   i. when the amounts $IMBC_A_{e_{rep,oper,z},t}$ and $IMBC_B_{e_{rep,oper,z},t}$ are found to be negative, they are charged to the Last Resort RES Aggregator,

   ii. when the amounts $IMBC_A_{e_{rep,oper,z},t}$ and $IMBC_B_{e_{rep,oper,z},t}$ are found to be positive, they are credited to the Last Resort RES Aggregator.

~~3.~~ Details regarding the Settlement of Imbalances of RES Units Portfolios are provided in the Technical Decision "Balancing Market Settlement".

~~CHAPTER 27~~

CHAPTER27. TRANSITIONAL PROVISIONS ON THE BALANCING MARKET

~~Article 118.~~Article27.1 Submission of Balancing Energy Offers to the Balancing Energy Market

1. Article 67(1) of this Rulebook shall enter into force sixteen (16) months after the launch of the Day-Ahead, Intra-Day and Balancing Markets of Law 4425/2016, as in force.
2. As regards the submission of Balancing Energy Offers to the Balancing Market during the transitional period of sixteen (16) months from the launch of the Day-Ahead, Intra-Day and

Balancing Markets of Law 4425/2016, as in force, paragraphs 3 and 4 of this Article shall apply.

3. The Balancing Energy Offers for manual and automatic FRR for the manual FRR Time Units, which are included in a Dispatch Period, are identical, i.e. they are the same in terms of form, of quantities and of Balancing Energy Offer prices.

4. Balancing Energy Offers for manual and automatic FRR may be submitted for each Dispatch Period no later than the Expiration of the Deadline for the Submission of Balancing Energy Market Offers. The Expiration of the Deadline for the Submission of Balancing Energy Market Offers is fifteen (15) minutes prior to each Dispatch Period.

5. For the calculation of non-Compliance Charges set out in Article22.1, during the transitional period ~~of~~as per paragraph 1 of this Article, without prejudice to the provisions of Article 113, the coefficients and the parameters shall be applied per Dispatch Period and not per manual FRR Time Unit. Upon expiration of the transitional period, the coefficients and the parameters shall be applied per manual FRR Time Unit, as specified in ~~Article 96~~Article22.1.

~~Άρθρο 120.~~Article27.2 ~~Article 118A.~~ Submission of Balancing Energy Offers to the Balancing Market for the period until the constraint in the Peloponnese System is lifted

1. Apart from the above provisions, the submission of Balancing Energy Offers with negative prices by the Balancing Service Providers shall be suspended until the current constraint due to congestion in the Peloponnese System is lifted.

2. The constraint in question shall be deemed to have been lifted ~~upon~~with the issuance of an act by ~~RAE~~the RAEWW for the ~~start of~~ commissioning into operation of the Megalopolis System 400kV Transmission Line ~~400kV Megalopolis-System~~.

~~Article 118B. Participation of the Dispatchable Load Portfolios and the Dispatchable RES Units Portfolios in the Balancing Market~~

~~1. The 30th of June 2022 is set as the starting date for the participation of the Dispatchable Load Portfolios as a Balancing Services Entity in the ISP, for the mFRR and FCR processes.~~

~~2. The 26th of October 2022 is set as the starting date for the participation of the Dispatchable Load Portfolios as a Balancing Services Entity in the aFRR process.~~

~~3. The 26th of October 2022 is set as the starting date for the participation of the Dispatchable Portfolios of RES Units as a Balancing Services Entity in the ISP, mFRR and FCR processes.~~

~~4. The 23rd of January 2023 is set as the starting day for the participation of Dispatchable Portfolios of RES Units as a Balancing Services Entity in the aFRR process.~~

~~5. Any Dispatchable Hydropower Generating Unit with pumping capacity already registered in the Balancing Market Generating Unit Registry shall automatically be registered with the Dispatchable Load Portfolio Registry with the capacity of pumping.~~

~~Άρθρο 121. Execution of the Integrated Scheduling Process~~

~~1. Paragraphs 5, 8 and 9 of Article 36 this Rulebook shall enter into force upon commencement of the coupling operation of the Intra-Day Market of Law 4425/2016, as in force.~~

2. For the transitional period of non-coupled operation of the Intra-Day Market of Law 4425/2016, as in force, paragraphs 3, 4 and 5 of this Article shall apply.

3. The ISP shall be executed at three scheduled times:

   a) one (ISP1) which shall be executed at 16:15 EET on calendar day D-1 and covers all Dispatch Periods of Dispatch Day D,

   b) one (ISP2) which shall be executed at 00:00 EET on calendar day D and shall cover all Dispatch Periods of Dispatch Day D, and

   c) one (ISP3) which shall be executed at 12:00 EET on calendar day D and shall cover the last twenty-four (24) Dispatch Periods of Dispatch Day D,

4. The submission of the Balancing Capacity Offers and the ISP Balancing Energy Offers of the Balancing Service Providers to ISP, for Dispatch Day D shall start at 14:00 EET on calendar day D-1 and shall end at 16:15 EET on calendar day D-1. During this time period, the Balancing Service Providers may submit Offers for the Balancing Service Entities they represent, as many times as they wish. Only the last validated Offers shall be taken into consideration in the execution of the ISP.

5. The Deadline for the Submission of ISP Offers is set at 16:15 EET.

6. Paragraph 2 of Article 60 of this Rulebook shall expire on 1 July 2022.

Άρθρο 122. Registration with the HETS Operator Registry following the launch of the Balancing Market

1. Those registered in the Participants Register provided for by RAE decisions no. 56/2012 and 57/2012 (Greek Government Gazette No. 104/Series B/31.01.2012 and Greek Government Gazette No. 103/Series B/31.01.2012) shall be deemed as:

   a) be temporarily registered with the Balancing Service Providers Registry or/and the Balance Responsible Parties Registry,

   b) unreservedly accept the provisions of this Rulebook and the HETS Grid Code and the Methodologies, parameters and other special approvals, Technical Decisions and Manuals issued in accordance therewith, as amended each time and in force, and they are bound to comply with their content,

   c) conclude ipso jure a Balancing Service Contract or a Balance Responsible Party Contract, depending on their capacity,

   d) conclude ipso jure a HETS Operator Transactions Contract, in accordance with the provisions of the HETS Grid Code.

2. The Participants temporarily registered with the HETS Operator Registry in accordance with paragraph 1 of this Article, shall be ipso jure deleted from the HETS Operator Registry, if, two (2) business days before the launch of the Day-Ahead, Intra-Day and Balancing Markets of Law 4425/2016, as in force:

   a) the HETS Operator has not received through the Clearing House a certificate from the Clearing House confirming that a Clearing Account has been created for the Participant as a Direct Clearing Member, or that a Clearing Account has been created for the Participant by a General Clearing Member, and

   b) no guarantees have been submitted in accordance with the HETS Grid Code. Upon deletion, it shall be deemed that no Balancing Service Contract or Balance

Responsible Party Contract with the HETS Operator exists with all the consequences deriving from the lack thereof.

3. Dispatchable Generating Units registered in the Units Register under RAE decision no. 57/2012 shall be automatically registered in the Balancing Market Generating Units Registry. For these units, no pre-qualification tests shall be carried out for their already Registered Technical Characteristics. The technical characteristics that have not been tested shall be first declared by the Balancing Service Provider, no later than 1st August 2020, while the relevant tests must be carried out within a period of one (1) year from the entry into force of this Rulebook.

4. Until 30th November 2020, the participants temporarily registered with the HETS Operator Registry are obliged to apply for registration with the HETS Operator Registry, as set forth in Technical Decision "Procedures for Registration with the HETS Operator Registry". The HETS Operator shall proceed to permanently register with the HETS Operator Registry the temporarily registered participants that will have submitted a complete application for registration by 31st January 2021 and shall issue a certificate of registration. Where a registration application is not submitted within the above deadline, those temporarily registered shall be automatically deleted from the HETS Operator Registry and the Balancing Service Contract and/or the Balance Responsible Party Contract and the Transactions Contract of the HETS Operator shall be terminated from the day following the expiry of the deadline, with all the implications arising from such termination.

Άρθρο 123.Article27.3 Article 120A. Calculation of the Balancing Market Fee

1. By way of exception to Article 25 and Article 25A of this Rulebook, for the determination of the Unit Charges of the Balancing Market Fee for the year 2022, the HETS Operator shall submit to RAE a proposal no later than 25 November 2021, which shall include a recommendation for the prices $UNBMF^{EN}$ and $UNBMF^{IMB}$ as well as the detailed assumptions on which the calculation of these prices was based.

2. For the calculation of the Unit Charges of the Balancing Market Fee, the HETS Operator shall use the available energy data from the start of operation of the Balancing Market, i.e. from 1 November 2020, making the necessary adjustments where necessary.

1. Pending the approval by RAERAEWW of the Methodology for determining revenue required by the HETS Operator's Required Revenue for theOperator for operation of the Markets in accordance with the provisions of Article6.1, paragraph 1 of Article 25 of this Rulebook, as well as the HETS Operator's accounting separation rules to which the HETS Operator is subject, in accordance with the provisions of Article 141 of Law 4001/2011, the approval of the Balancing Market Fee is based on the estimates of the HETS Operator for the HETS Operator's own estimates of Revenue Required Revenue for the operation of the Markets with the possibility of corrective settlement after the adoption of the above mentionedaforementioned decisions of RAEthe RAEWW.

Άρθρο 124.Article27.4 Article 120B. Temporary Refund Mechanism of a portion of Revenue of Day-Ahead Market

1. By way of derogation from paragraph 5 of Article 89Article19.7, and for as long the Temporary Refund Mechanism of a portion of Revenue of Day Ahead Market remains effective, the Imbalance amount in € in each Imbalance Settlement Period *t* for the pre-registered entities subject to Commissioning Operation, as well as for the entities which are under Pre-Qualification Tests in accordance with Chapter 3 of this Rulebook, is calculated as the product of the Imbalance $FIMB_{e,t}$,$FIMBe,t$ in MWh, with the minimum of

the relevant applicable Regulated Producer Revenue Price and the Day-Ahead Market Clearing Price in €/MWh for the respective Market Time Unit.

2. By way of derogation from paragraph 2 of ~~Article 89, upon~~Article19.7, with the implementation of ~~the~~ Cross-Border Intraday Continuous Trading and for as long the Temporary Refund Mechanism ~~of~~for a portion of Revenue of Day Ahead Market remains effective, the Imbalance amount in € in each Imbalance Settlement Period *t*, is calculated for the RES Units under Commissioning Operation in the context of their connection to the Transmission System or the Distribution System, as the product of the Imbalance ~~$FIMB_{e,t}$,~~$FIMBe,t$ in MWh, with the minimum ~~of~~value being between the ~~relevant applicable~~corresponding Regulated Producer Revenue and the clearing price of the Day-Ahead Market ~~Clearing price~~ in €/MWh for the respective Market Time Unit.

~~**CHAPTER 29**~~

~~**ENTRY INTO FORCE OF THE BALANCING MARKET RULEBOOK**~~

~~Άρθρο 125. Entry into force~~Calculation of ~~the~~ Balancing ~~Market Rulebook~~

Article27.5 ~~Without prejudice to the provisions of Article 118, Article 118A, Article 119~~Energy and Imbalances in operation under AGC

1. The provisions of paragraph ~~2 of this Article, the provisions~~8 of Article19.1 of this Rulebook shall enter into force ~~upon the launch of the Day-Ahead, Intra-Day and Balancing Markets of Law 4425/2016~~on 16 September 2024.

~~2. The provisions set out in CHAPTER 2 and CHAPTER 3, as well as in Article 120 and Article 121 of this Rulebook shall enter into force upon publication of a RAE decision in the Government Gazette, whereby this Rulebook shall be approved.~~

~~3. The provisions of paragraph 6 of Article 54 regarding the mandatory submission of Balancing Energy Offers for pumping shall enter into force on 1 September 2022. However, the submission of Balancing Energy Offers for the hydropower plants specifically for the Dispatch Periods for which pumping load is scheduled in accordance with the Market Schedule is mandatory as of 1 March 2022.~~

~~4. Upon entering into force the provisions of the present decision and until Sunday, the 2nd of April 2023, paragraph 5 of Article 89 of this Rulebook shall not apply during the execution of the Initial and the Corrective Settlement provided for in Article 104. However, during the execution of the Final Settlement provided for in Article 104, and which (settlement) concerns the above period, the provisions of paragraph 5 of Article 89 apply.~~

~~5. The provisions of Article 93 and Article 95 of this Rulebook, to the extent where the Electricity Supply Volume via Direct Line is concerned, shall not apply during the Initial Settlement and the Corrective Settlement provided for in Article 104, until Sunday, the 3rd of December 2023. However, during the Final Settlement provided for in Article 104, which is conducted in relation to the time period mentioned above, the Electricity Supply Volume via Direct Line shall be taken into account in accordance with the calculations provided for in Articles 93 and 95 of this Rulebook.~~

~~CHAPTER 30~~

CHAPTER28. TRANSITIONAL PROVISIONS RELATING TO THE OPERATION OF THE ELECTRICITY MARKET OF CRETE FROM THE DATE OF THE FIRST PHASE OF THE INTERCONNECTION UNTIL THE DATE OF THE SECOND PHASE OF THE INTERCONNECTION OF CRETE WITH THE HETS

~~Article 122.~~Article28.1 Validity of provisions for the operation of the Electricity Market of Crete from the Date of Completion of Phase A until the Date of Completion of Phase B of the Interconnection of Crete with the HETS

The provisions of this Chapter shall apply as of the date of completion of Phase A of the electrical interconnection of the Small Interconnected System (SIS) of Crete with the HETS, pursuant to par. 2 of Article 108C of Law 4001/2011, until the date of completion of Phase B of the electrical interconnection of the SIS of Crete with the HETS, pursuant to par. 3 of Article 108C of Law 4001/2011.

~~Article 123.~~Article28.2 Operation of the SIS Market of Crete from the Date of Completion of Phase A until the Date of Completion of Phase B of the Interconnection of Crete with the HETS

1. The Crete-Peloponnese electricity interconnection is considered as a virtual Balance Responsible Entity which can absorb energy from the HETS and inject energy into the HETS. The virtual entity is connected to the HETS on the HV side of the substation of Chania (Chania I), which is the boundary of the HETS and the Small Interconnected System (SIS) of Crete. The above Balance Responsible Entity ~~"Crete"~~'Crete' shall be automatically registered in the Registries kept by the HETS Operator ~~since the entry into force of~~when this Article enters into force. The virtual Balance Responsible Entity "Crete" is assigned the meter of the Peloponnese-Crete interconnection installed at the HV substation in Chania.
2. The Load Representatives operating in Crete, if not already registered, shall be registered in the HETS Operator's Registry, in accordance with the specific provisions of this Rulebook.
3. The HETS Operator shall prepare, until 09:00 CET of calendar day D-1, the following forecasts for each Market Time Unit of the Physical Delivery Fulfillment Day D:
   a) the load forecast of the SIS of Crete,
   b) the forecast for the injection of RES Units of the SIS of Crete,
   c) the available capacity of the Peloponnese-Crete interconnection, and
   d) the upward and downward active power reserve requirements of the SIS of Crete.
4. The HETS Operator shall execute, by 10:00 EET of calendar day D-1, a Dispatch Schedule for the SIS of Crete for each Market Time Unit of the Physical Delivery Fulfillment Day D, taking into account the provisions of paragraph 3 of this Article, the availability of the Thermal Generating Units of the SIS of Crete, any available historical data, as well as the economic viability of the available alternative resources to cover all the load of the SIS of Crete.
5. The results of the Dispatch Schedule for the SIS of Crete shall include, for each Market Time Unit of the Physical Delivery Fulfillment Day D, the following:
   a) an indicative absorption/injection schedule of the virtual Balance Responsible Entity "Crete",

b) an indicative operating schedule of the thermal Generating Units of the SIS of Crete,

c) the upward and downward active power reserves allocated to the thermal Generating Units of the SIS of Crete.

6. Until 10:00 EET of calendar day D-1, the HETS Operator shall publish on its website the following information for each Market Time Unit of the Physical Delivery Fulfillment Day D:

a) the load forecast of the SIS of Crete,

b) the forecast for the injection of RES Units of the SIS of Crete,

c) the availability of the thermal Generating Units of the SIS of Crete,

d) an indicative absorption/injection schedule of the virtual Balance Responsible Entity "Crete",

e) the indicative operating schedule of the thermal Generating Units of the SIS of Crete, and

f) the upward and downward active power reserves allocated to the thermal Generating Units of the SIS of Crete.

7. Until 10:00 EET of calendar day D-1, the HETS Operator shall transmit to the Energy Exchange the following information for each Market Time Unit of the Physical Delivery Fulfillment Day D:

a) the load forecast of the SIS of Crete corresponding to each Load Representative operating in Crete on the basis of the monthly ex-ante estimated representation rates of the ~~consumers~~Offtake Facilities of Crete sent by HEDNO pursuant to paragraph 9 of ~~Article 124 of~~ Article28.3this Rulebook,

b) an indicative absorption/injection schedule of the virtual Balance Responsible Entity "Crete",

c) an indicative operating schedule of the thermal Generating Units of the SIS of Crete.

8. Until 10:00 EET of calendar day D-1, the HETS Operator shall transmit to DAPEEP for each Market Time Unit of the Physical Delivery Fulfillment Day D, the forecast of the injection of RES Units of the SIS of Crete.

9. ~~No later than 30 minutes after the last Bidding Deadline in the Intra-Day Market Auctions, the~~The Energy Exchange shall transmit ~~to the HETS Operator~~ the Market Schedule for the virtual Balance Responsible entity ~~"Crete".~~'Crete' to the HETS Operator no later than 30 minutes after the last Offer Submission Deadline in the Intra-Day Market Auctions.

10. The Energy Exchange shall transmit on the day following the Dispatch Day D to the HETS Operator, for each Balance Responsible Party p, and for each Market Time Unit t, of each Dispatch Day, the Market Schedule of the virtual Balance Responsible Entity "Crete", $\cancel{MS_{p,t}^{Crete}}$ $MS_{p,t}^{Κρήτη}$, as it has resulted from the resolution of the relevant markets as follows:

a) For the Market Time Units t, for which the Market Schedule for the virtual Balance Responsible Entity "Crete" corresponds to energy absorption from HETS, the Energy Exchange shall transmit to the HETS Operator the above Market Schedule divided per Load Representative p, for each Market Time Unit. The aforementioned Market Schedule, $\cancel{MS_{p,t}^{Crete}}$ $MS_{p,t}^{Κρήτη}$, for each Load Representative shall be transmitted by the Energy Exchange separately from the corresponding Market

Schedule of the same Load Representative corresponding to the ~~consumers~~Offtake Facilities it represents in the HETS.

b) For the Market Time Units, for which the Market Schedule for the virtual Balance Responsible Entity "Crete" corresponds to injection to the HETS, the Energy Exchange shall transmit to the HETS Operator the above Market Schedule for each Market Time Unit by assigning it to DAPEEP. The aforementioned Market Schedule corresponding to DAPEEP, $\cancel{MS_{p,t}^{Crete}}MS_{p,t}^{K\rho\acute{\eta}\tau\eta}$, is transmitted by the Energy Exchange separately from the corresponding Market Schedule of the DAPEEP for the RES units it represents in the HETS.

11. The TSO Operator may execute the Dispatch Plan for the SIS of Crete at any time, for all or for certain Market Time Units, within calendar day D-1 and/or calendar day D ("on-demand Dispatch Schedule"), in the event of an event that significantly affects the planned injection/absorption schedule of the virtual Balance Responsible Entity "Crete". The HETS Operator shall publish ~~on its website and transmit to the Energy Exchange and DAPEEP~~ the information provided for in paragraphs 6, 7 and 8 of this Article on its website and shall forward it to the Energy Exchange and the Operator of Renewable Energy Sources & Guarantees of Origin (DAPEEP) as soon as possible.

12. Details regarding the preparation of the Dispatch Schedule of the SIS of Crete are provided in the Technical Decision "Dispatch Schedule of the SIS of Crete".

~~Article 124.~~Article28.3 Settlement of the virtual Balance Responsible Entity "Crete" from the Date of Completion of Phase A until the Date of Completion of Phase B of the Interconnection of Crete with the HETS

1. For each ~~Imbalance~~Balancing Settlement Period *t*, the energy absorption from the HETS measured by the meter of the Peloponnese-Crete interconnection shall be allocated to the Load Representatives operating in Crete based on the representation percentages calculated and sent out by the Hellenic Electricity Distribution Network Operator (HEDNO) in accordance with paragraph 9 of this Article. The quantity corresponding to each Load Representative for energy absorption from the virtual Balance Responsible Entity ~~"Crete",~~'Crete', $\cancel{MQ_{p,t}^{Crete}}MQ_{p,t}^{K\rho\acute{\eta}\tau\eta}$, shall be assigned to a ~~distinct~~separate portfolio ~~in relation to~~from the energy ~~absorption of~~absorbed by the other Offtake Facilities in the HETS represented by the same Load Representative ~~for the consumers it represents in the HETS~~.

2. For each Imbalance Settlement Period t, the energy injection into the HETS measured by the meter of the Peloponnese-Crete interconnection shall be assigned to DAPEEP. The above energy injection assigned to DAPEEP, $\cancel{MQ_{p,t}^{Crete}}MQ_{p,t}^{K\rho\acute{\eta}\tau\eta}$, is part of a separate portfolio from the injection of the RES Units without Market Participation Obligation represented by DAPEEP in the HETS.

3. For each Imbalance Settlement Period *t*, the ~~Deviation~~ Imbalance is calculated for each Load Representative operating in Crete, *p*, and for the virtual Balance Responsible Entity ~~"Crete", is calculated~~ 'Crete', as the difference between the energy absorption, $\cancel{MQ_{p,t}^{Crete}}MQ_{p,t}^{K\rho\acute{\eta}\tau\eta}$, as determined in accordance with paragraph 1 of this Article, and the relevant Market Schedule, $\cancel{MS_{p,t}^{Crete}}MS_{p,t}^{K\rho\acute{\eta}\tau\eta}$, as follows:

$$\cancel{IMB_{p,t}^{Crete} = MS_{p,t}^{Crete} - MQ_{p,t}^{Crete}}$$

$$IMB_{p,t}^{K\rho\acute{\eta}\tau\eta} = MS_{p,t}^{K\rho\acute{\eta}\tau\eta} - MQ_{p,t}^{K\rho\acute{\eta}\tau\eta}$$

4. For each Imbalance Settlement Period t, the Imbalance of DAPEEP, p, for the virtual Balance Responsible Entity "Crete" is calculated as the difference between the energy injection, $\cancel{MQ_{p,t}^{Crete}}MQ_{p,t}^{Κρήτη}$, resulting from the measurement data obtained from the meter of the Peloponnese-Crete interconnection, and the relevant Market Schedule, $MS_{p,t}^{\cancel{Crete}Κρήτη}$, as follows:

$$\cancel{IMB_{p,t}^{Crete} = MQ_{p,t}^{Crete} - MS_{p,t}^{Crete}}$$

$$IMB_{p,t}^{Κρήτη} = MQ_{p,t}^{Κρήτη} - MS_{p,t}^{Κρήτη}$$

5. The HETS Operator shall calculate the Imbalance amount, in €, for each Discharge Settlement Period for the Load Representatives operating in Crete and for DAPEEP in accordance with the provisions of Article 89 of this Rulebook.

6. The calculation of the amounts corresponding to the Balance Responsible Parties for the Uplift Accounts in accordance with CHAPTER 20 of this Rulebook shall be made for the total ~~absorption~~offtake, i.e. the sum of ~~the absorption~~offtake corresponding to HETS ~~consumers~~Offtake Facilities and the absorption corresponding to the virtual Balance Responsible Entity ~~"Crete".~~'Crete'.

7. The quantities corresponding to the virtual Balance Responsible Entity ~~"Crete"~~'Crete' and calculated in accordance with paragraphs 1 and 2 of this Article and the corresponding Market Schedules shall not be taken into account ~~in~~for the ~~calculation~~purpose of ~~the non~~calculating Non-Compliance Charges in accordance with CHAPTER22 of this Rulebook.

8. When performing the Initial and Corrective Settlements provided for in ~~Article 104~~Article23.1 of this Rulebook, the monthly ex-ante estimated representation rates per Load Representative sent by HEDNO in accordance with paragraph 9 of this Article shall be taken into account. During the execution of the Final Settlements or additional Corrective Settlements executed following a ~~relevant~~respective decision of ~~RAE~~the RAEWW pursuant to ~~Article 104,~~Article23.1 paragraph 8 of this Rulebook, revised representation percentages per Load Representative operating in Crete shall be taken into account, ~~which~~and shall be sent by HEDNO in accordance with paragraph 9 of this Article.

9. Two days before the first day of each month M, at 12:00 ~~CET~~EET, HEDNO shall send the monthly ex-ante estimated representation rates of the ~~consumers of~~Offtake Facilities in Crete for each Load Representative operating in Crete for month M. The revised representation rates per Load Representative of Crete shall be sent by HEDNO ~~according to~~in accordance with the schedule set out in ~~Article 104~~Article23.1 of this Rulebook.

10. The Settlement results provided for in ~~Article 104 and Article 105 of this Rulebook~~CHAPTER23 shall be communicated to the Balance Responsible Parties separately for the virtual Balance Responsible Entity ~~"Crete".~~'Crete'.

11. Otherwise, the settlement procedure for the energy injected or absorbed through the Peloponnese-Crete interconnection from the day of completion of Phase A of the interconnection until the day of completion of Phase B of the interconnection of Crete with the HETS shall be carried out in accordance with the provisions of Article 108C of Law 4001/2011, as in force and in CHAPTER23 of this Rulebook.

ANNEX I

LIST OF TECHNICAL DECISIONS

No.	Name of Technical Decision	Content of Decision
1	Procedures for registration with the HETS Operator Registry	Detailed description of the application, submission, and registration procedures for the HETS Operator Registry.
2	Dispatch Instructions	Procedure for issuing and sending Dispatch Instructions
3	Manual FRR	Details on the execution of the manual FRR process
4	Automatic FRR	Details on the execution of the automatic FRR process
5	Balancing Market Settlement	Details and examples of calculations for the settlement of the Balancing Energy Market
6	Integrated Scheduling Process	Details on the Integrated Scheduling Process
7	Technical limits on bidding and clearing prices in the Balancing Market	Determination of Maximum and Minimum Price Limits in the Balancing Energy and Balancing Capacity Offers and in the clearing prices.
8	Dispatch Schedule for the SIS of Crete	Details on the preparation of the Dispatch Schedule for the SIS of Crete
9	Process and Pre-Qualification Tests	Description of the process and pre-qualification tests for Balancing Service Entities
10	Rules for the conversion of Balancing Energy Offers into Standardized Merit Order List Products	Details regarding conversion of Automatic FRR Balancing Energy Offers submitted by Balancing Service Providers into Standard Local Merit Order List Products

ANNEX II

LIST OF METHODOLOGIES AND SPECIAL APPROVALS

No.	Name of Methodology & Special Approval	Content of Methodology & Special Approval
1	Methodology of Determination of Zonal/Systemic Balancing Capacity Needs	The Methodology for the Determination of the zonal and systemic Balancing Capacity needs for (a) Frequency Containment Reserve, (b) automatic Frequency Restoration Reserve and (c) manual Frequency Restoration Reserve.
2	Baseline Calculation Methodology	Baseline Calculation Methodology for Dispatchable Load Portfolios and for Dispatchable Intermittent RES Units Portfolios for their settlement
3	Offsetting methodology	The offsetting methodology for the allocation of cost due to defaulting participants, in the event that no Clearing House operates in the market.
4	Balancing Market Participation Guarantee Calculation Methodology	The Methodology for the Calculation of guarantees in the event that no Clearing House operates in the market.
5	Activated ~~Balancing~~ Energy Calculation Methodology	~~The~~ Methodology for ~~the Calculation of the~~Calculating Activated mFRR and aFRR Balancing Energy and energy required for purposes other than balancing and Adjusted Dispatch ~~Instruction~~Instructions.
6	Variable Cost Parameters for Thermal Generating Units Calculation Methodology	The Methodology for the Calculation of Variable Cost Parameters for thermal Generating Units on the basis of Techno-Economic data
7	HETS Losses Calculation Methodology	The Methodology on the basis of which the HETS Losses are estimated.
8	Terms and Conditions for Balancing Service Providers	Terms and Conditions according to Article 18 of Commission Regulation (EU) 2017/2195. Detailed description of Balancing Service Provider Pre-qualification procedures.
9	Terms and Conditions for Balance Responsible Parties	The Terms and Conditions in accordance with Article 18 of Commission Regulation (EU) 2017/2195.
10	Rules for suspension and restoration of market activities	The Rules for the suspension and restoration of market activities in accordance with Article 36 of Commission Regulation (EU) 2017/2196
11	Settlement rules in the event of market activity suspension	The Settlement rules in the event of suspension of market activities in accordance with Article 39 of Commission Regulation (EU) 2017/2196
12	Infeasible Market Schedule Calculation Methodology	The Methodology for the Calculation of an Infeasible Market Schedule

13	Methodology for determining the HETS Operator's Required Revenue for the operation of the Markets	Details on the calculation and the procedure for the preparation of the HETS Operator's Required Revenue for the operation of the Electricity Markets under Law 4425/2016
14	Balancing Market Price Calculation Methodology	Details regarding the calculation of the clearing prices of mFRR and aFRR and the calculation of the Imbalance Price

ANNEX III

LIST OF ACRONYMS

RES	Renewable Energy Sources
aFRR	Automatic FRR
AGC	Automatic Generation Control
DAPEEP	RES and Guarantee of Origin Operator
HEDNO	Hellenic Electricity Distribution Network Operator
ISP	Integrated Scheduling Process
DESFA	National Natural Gas System Operator
FRR	Frequency Restoration Reserve
FCR	Frequency Containment Reserve
EIC	Energy Identification Code
HETSO	Hellenic Electricity Transmission System Operator
ESFA	National Natural Gas System
~~RAE~~RAEWW	Regulatory Authority for Energy, Waste and Water
CHP	High Performance Combined Heat and Power Generation
Aggregator	Aggregator
Last Resort Aggregator	Last Resort Aggregator
mFRR	Manual FRR
CET	Central European Time
EET	Eastern European Time
SCADA	Supervisory Control and Data Acquisition System
~~RMS~~	~~Root Mean Square~~