Payback Obligation

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Introduction

1. The Chapter describes the different processes that are followed by ELIA to calculate the Payback Obligation and communicate it to the Contractual Counterparty for the settlement and invoicing.

2. The Payback Obligation process is an essential and mandatory part of the CRM as the Electricity Act has put forward the Reliability Option principle for the Belgium CRM, implying a Payback Obligation for all Capacity Providers having a CMU Transaction on a Delivery Period to the Contractual Counterparty when the Reference Price exceeds the Strike Price.

3. It is to be noted that the rules in chapter are complementary to the stipulations set out in Chapter 7 of the Royal Decree to set the auction parameters as meant by Art. 7undecies §2 of the Electricity Act which specifies the methodology for determination of the reference and strike price and several related modalities. Furthermore, following the Art. 7undecies §2 the Minister determines yearly the strike and reference prices applicable for the auctions following that decision. Therefore, the rules in this chapter should be read as a further application of the above mentioned methodology and the yearly Ministerial decisions.

4. Section 1 provides the general principles which form the basis for more elaborated rules in the subsequent sections.

5. Section 2 describes the details on the modalities, including the constituting elements and specific rules of the Payback Obligation.

6. Finally, Section 3 describes the process followed by ELIA to determine the Payback Obligation of a Capacity Provider CMU's Transaction and its notification to the Contractual Counterparty.

1 General Principles

7. This section describes the general principles of the Payback Obligation process applicable to all CMUs' Transactions at any moment of their Transaction Period when the Reference Price exceeds the Strike Price.

8. The Payback Obligation of a Transaction is calculated per hour of the Delivery Period covered by the Transaction Period and is expressed in €/h.

9. The Payback Obligation consists in a formula based on the positive difference between:

    - The Reference Price, in €/MWh; and
    - The Strike Price, in accordance with the definition, in €/MWh which determines the threshold above which the Capacity Provider has to pay-back the difference with the Reference Price.

10. All formulas described in the Sections 2 and 3 of this chapter are related to parameters evolving in time and which incorporate all the CMU Capacity Contract parameters and modifications to Transactions so that at any time after all required data have become available, the Payback Obligation of a CMU Transaction formula can be performed.

11. The Payback Obligation calculations are processed by ELIA with the contractual and operational data related to (a) Transaction(s) and parameters of the CMU which are communicated to ELIA.

12. A granularity of 0,01 MW is applicable for MW data.

13. A granularity of 0,01 is applicable for € and €/MWh data.

14. If the values of an element of the formulas is expressed in MW or €/MWh and has a lower granularity than an hour, an hourly average of those values applies to reach the hourly granularity.

15. The rounding rule is a mathematical rounding so that the result up or down to the nearest number (with a rounding-up if there is no nearest number) and applies to each formula.

2 Modalities of the Payback Obligation

2.1 Introduction

16. Pursuant to Chapter 7 of the proposed Royal Decree on the methodology to set the auction parameters as meant by Art. 7undecies §2 of the Electricity Act, this section describes, for a CMU's Transaction, all the Payback Obligation details necessary for the application of the Payback Obligation modalities.

17. This section details the following elements and their modalities:

- The Reference Price of the CMU
- The Strike Price of the Transaction
- The Availability Ratio
- The Payback Obligation of the Transaction
- Stop Loss Amount on the Payback Obligation of the Transaction for a Delivery Period

18. The Payback Obligation modalities and elements take into account the following CMU and Transaction features:

- Energy Constrained or Non-Energy Constrained CMU
- CMU with Daily Schedule or without Daily Schedule
- Ex-ante Transaction or ex-post Transaction
- Transaction from the Primary Market or the Secondary Market

2.2 Reference Price

19. The Reference Price is defined as a parameter of a CMU, is observed for each hour t in the related Day-Ahead Market hourly prices and is expressed in €/MWh as $Reference\ Price\ (CMU_{id}, t)$.

Where:

- CMU_{id} is the CMU unique identifier available in the Capacity Contract and in the CRM IT Interface
- t is the hour on which the Payback Obligation calculation applies

20. The same Reference Price is applicable to the Payback Obligation of all Transactions of the CMU at the moment t.

2.2.1 CMU's initial choice of NEMO

21. Pursuant to Art. 23 of the proposed Royal Decree on the methodology to set the auction parameters as meant by Art. 7undecies §2 of the Electricity Act, the Prequalified CRM Candidate (or Capacity Provider) determines in the Prequalification Process (cf. Section 4.1.2) of its CMU a NEMO active in the Belgian Day-Ahead Market for setting his Reference Price, prior the start of the Transaction Period.

22. The CMU's chosen NEMO Belgian Day-Ahead Market hourly prices are used as $Reference\ Price\ (CMU_{id}, t)$ in the Payback Obligation calculation.

23. In case of absence of the NEMO determination in the Prequalification Process, in case of missing or conflicting data related to a specific CMU' NEMO choice, the Day-Ahead Market Price is used as fall-back value.

2.2.2 Modification of CMU's NEMO

24. The Capacity Provider has the possibility for each CMU to notify to ELIA and to the Contractual Counterparty a modification of its earlier NEMO choice for the Reference Price of a CMU as set out in the Prequalification Process, cf. sections 4.1.2 and 8.

25. Once a change is notified to ELIA and the Contractual Counterparty, it becomes applicable in the Payback Obligation calculation 10 Working Days after the notification reception date without retroactive effect.

2.3 Strike Price

26. This section describes, for a CMU's Transaction, the details of the modalities to determine the Strike Price which is defined as a parameter of the Transaction for the Payback Obligation determination.

27. The section refers to the Calibrated Strike Price which is a value associated to a Transaction for the entire Delivery Period, that is indexed according to Section 2.3.1 of this chapter and is required for the determination of the Strike Price of a Transaction.

28. The Strike Price of a Transaction is represented by $Strike\ Price\ (CMU_{id}, Transaction_{id}, t)$ and expressed in €/MWh.

    Where:

    - CMU_{id} is the CMU unique identifier available in the Capacity Contract and in the CRM IT Interface
    - $Transaction_{id}$ is the Transaction unique identifer as displayed on CRM IT Interface
    - t is the hour on which the Payback Obligation calculation applies within the Delivery Period

2.3.1 Calibrated Strike Price of a Transaction and indexation in time

29. This section describes, for a Capacity Provider CMU's Transaction, the details on the Calibrated Strike Price.

30. The Calibrated Strike Price of an Auction is the price set by the Minister for the year in which the Auction takes place in accordance with Art. 7undecies §2 of the Electricity Act. It is represented by the $Calibrated\ Strike\ Price\ (Auction\ year)$ where $Auction\ year$ is the year on which the Auction takes place.

31. Pursuant to the Art 24 of the proposed Royal Decree on the methodology to set the auction parameters as meant by Art. 7undecies §2 of the Electricity Act, the Calibrated Strike Price is a fixed value applicable in the Payback Obligation to all Transactions of the Primary Market resulting from the Y-4 or Y-1 Auctions at the Primary Auction results publication date.

This is represented by the following formula:

$$Calibrated\ Strike\ Price\ (CMU_{id},\ Transaction_{id},\ t) = Calibrated\ Strike\ Price\ (Auction\ year)$$

Where:

- CMU_{id} is the CMU unique identifier available in the Capacity Contract and in the CRM IT Interface
- $Transaction_{id}$ is the Transaction unique identifer as displayed on CRM IT Interface
- t is the hour in the Transaction Period
- $Auction\ year$ is the year on which the Auction is organized

32. Pursuant to the Art. 24 of the proposed Royal Decree on the methodology to set the auction parameters as meant by Art. 7undecies §2 of the Electricity Act, the Calibrated Strike Price of a Primary Market Transaction is indexed in time as of the second Delivery Period of the Transaction. The Calibrated Strike Price of a Primary Market Transaction is indexed by application of a relative index update on the initial Calibrated Strike Price for the entire duration of a Capacity Contract with a Capacity Contract Duration of more than 1 year as of the second Delivery Period.

33. The index is a factor determined with a rolling formula based on the comparison between the Day-Ahead Market simple average prices over the 3 last years preceding the Delivery Period and the DAM simple average prices of the last 3 years prior to November 1st of the Auction year. The DAM simple average prices prior to the November 1st of the Auction year are remaining a fixed part in the rolling formula, where the 3 years DAM simple average prices prior to the Delivery Period is evolving in time.

34. This is represented by the following formula:

$$Indexed\ Calibrated\ Strike\ Price\ (CMU_{id},\ \ Transaction_{id},\ \ t)$$
$$= Factor\ (DPe, Auction\ year, Auction\ type) * Calibrated\ Strike\ Price\ (CMU_{id}, Transaction_{id}, t)$$

Where:

- CMU_{id} is the CMU unique identifier available in the Capacity Contract and in the CRM IT Interface
- $Transaction_{id}$ is the Transaction unique identifier as displayed on CRM IT Interface
- t is the hour in the Transaction Period
- DPe is the Delivery Period on which the indexation factor applies
- $Auction\ year$ is the year on which the Auction is organized;
- $Auction\ type$ is either the Y-4 or Y-1 Auction

And for which:

$$Factor\ (DPe, Auction\ year, Auction\ type)$$
$$= 1 + \frac{Average\ DAM\ (DPe - 3\ to\ DPe - 1) - \ Average\ DAM\ (Auction\ year - 3\ to\ Auction\ year)}{Calibrated\ Strike\ Price\ (Auction\ year)}$$

Where:

- $Average\ DAM\ (DPe - 3\ to\ DPe - 1)$ is the simple average of all hourly DAM prices from November 1st of the year which 3 years prior the Delivery Period start date until October 31st of the year of the Delivery Period start date
- $Average\ DAM\ (Auction\ year - 3\ to\ Auction\ year)$ is the simple average of all hourly DAM prices from November 1st of the year which 3 years prior the Auction date until October 31st of the year of the Auction year
- $Calibrated\ Strike\ Price\ (Auction\ year)$ is the Calibrated Strike Price of an Auction Y-4 or Y-1 determined in the Section 2.3.1.
- DAM prices are the prices of the Day-Ahead Market Prices.

35. The same $Factor\ (DPe,\ Auction\ year, Auction\ type)$ applies for all multi-year Primary Market Transactions following the same Auction whatever the Capacity Contract Duration.

36. Each factor $Factor\ (DPe,\ Auction\ year, Auction\ type)$ of a Delivery Period DPe is calculated by ELIA and available on the CRM IT Interface, prior to the Payback Obligation determination process (Section 3) of the months of DPe.

37. For a Secondary Market Transaction, the Calibrated Strike Price is the Calibrated Strike Price of the Transaction of the CMU of the Seller of an Obligation and is part of the approved notification of the Secondary Market transaction (according to Chapter Secondary Market Section 3.3.12). The Calibrated Strike Price is registered by the Contractual Counterparty in the Secondary Market Transaction as contractual parameter available in Capacity Contract Annex A (according to the Chapter Secondary Market Section 5) and is represented by $Calibrated\ Strike\ Price\ (CMU_{id}, Transaction_{id}, t)$.

38. If the Transaction of the Seller of an Obligation in the Secondary Market transaction notification according to Section 3 of the Secondary Market Chapter of the Functioning Rules is submitted to indexation, the Auction type and Auction year parameters are also transferred and are registered on the Secondary Market Transaction in the Capacity Contract Annex A of the Capacity Provider (according to the Chapter Secondary Market Section 5), so that the Calibrated Strike Price is indexed in time with the factor of indexation $Factor\ (DPe,\ Auction\ year, Auction\ type)$ and an Indexed Calibrated Strike Price is calculated.

This is represented by the following formula:

$$Indexed\ Calibrated\ Strike\ Price\ (CMU_{id},\ \ Transaction_{id},\ \ t)$$
$$=\ Factor\ (DPe,\ Auction\ year, Auction\ type) * Calibrated\ Strike\ Price\ (CMU_{id}, Transaction_{id}, t)$$

2.3.2 Strike Price for the Transaction of a CMU with Daily Schedule

39. This section describes, for Transaction of a CMU with Daily Schedule, the details on the modalities to determine the Strike Price.

40. If no Indexed Calibrated Strike Price is applicable on the hours t of the Delivery Period (cf. section 2.3.1) on which the Payback Obligation is determined, the Transaction Strike Price of the CMU with Daily Schedule is the Calibrated Strike Price of the Transaction.

    This is represented by the following formula:

$$Strike\ Price\ (CMU_{id}, Transaction_{id}, t) = \ Calibrated\ Strike\ Price\ (CMU_{id}, Transaction_{id}, t)$$

41. If an Indexed Calibrated Strike Price is applicable on the hours t of the Delivery Period (cf. section 2.3.1) on which the Payback Obligation is determined, the Transaction Strike Price of the CMU with Daily Schedule is the Calibrated Strike Price of the Transaction multiplied by the indexation factor if applicable on the hours of the Transaction Period.

42. This is represented by the following formula:

$$Strike\ Price\ (CMU_{id}, Transaction_{id}, t) = \ Indexed\ Calibrated\ Strike\ Price\ (CMU_{id}, Transaction_{id}, t)$$

    Where:

- CMU_{id} is the CMU's unique identifier available in the Capacity Contract and in the CRM IT Interface
- $Transaction_{id}$ is the Transaction's unique identifier as displayed on CRM IT Interface
- t is the hour in the Transaction Period
- $Indexed\ Calibrated\ Strike\ Price\ (CMU_{id},\ Transaction_{id},\ t)$ is determined in Section 2.3.1

2.3.3 Strike Price for the Transaction of a CMU without Daily Schedule

43. This section describes, for the Transaction of a CMU without Daily Schedule, the details on the modalities to determine the Strike Price.

44. Pursuant to art. 24 of the Royal Decree on the methodology to set the auction parameters as meant by Art. 7undecies §2 of the Electricity Acts, the Transaction Strike Price of the CMU without Daily Schedule is the maximum between the Declared Market Price and the Calibrated Strike Price of the Transaction multiplied by its indexation factor if any.

45. If no Indexed Calibrated Strike Price is applicable on the hours t of the Delivery Period (cf. section 2.3.1) on which the Payback Obligation is determined, this is represented by the following formula:

$$Strike\ Price\ (CMU_{id}, Transaction_{id}, t)$$
$$= max(DMP(CMU_{id}, t);\ Calibrated\ Strike\ Price\ (CMU_{id}, Transaction_{id}, t))$$

46. If an Indexed Calibrated Strike Price is applicable on the hours t of the Delivery Period (cf. section 2.3.1) on which the Payback Obligation is determined, this is represented by the following formula:

$$Strike\ Price\ (CMU_{id}, Transaction_{id}, t)$$
$$= max(DMP(CMU_{id}, t)\ ;\ Indexed\ Calibrated\ Strike\ Price\ (CMU_{id}, Transaction_{id}, t)$$

Where:

- CMU_{id} is the CMU's unique identifier available in the Capacity Contract and in the CRM IT Interface
- $Transaction_{id}$ is the Transaction's unique identifier as displayed on CRM IT Interface
- t is the hour in the Transaction Period
- $DMP(CMU_{id}, t)$ is the Declared Market Price of the CMU according to the Chapter Availability Obligations and Penalties Section 3.2 on the hour t;
- $Indexed\ Calibrated\ Strike\ Price\ (CMU_{id},\ Transaction_{id},\ t)$ is determined in Section 2.3.1

2.4 Availability Ratio

47. This section describes the detailed modalities the Availability Ratio of the CMU to integrate the exemption of Payback Obligation for the planned or unplanned unavailability duly communicated by ELIA as defined in art. 21 of the Royal Decree on the methodology to set the auction parameters as meant by Art. 7undecies §2 of the Electricity Act. The exemption is considered in the Availability Ratio by the Announced Missing Capacity of Availability Obligations & Penalties Section 5.

48. The Availability Ratio of a CMU is a value obtained by the division of the difference between the Obligated Capacity of the CMU and the Announced Missing Capacity, by the Obligated Capacity of the CMU.

49. This is represented by the following formula:

$$Availability\ Ratio\ (CMU_{id}, t) = \frac{(Obligated\ Capacity\ (CMU_{id}, t) - Announced\ Missing\ Capacity\ (CMU_{id}, t))}{Obligated\ Capacity\ (CMU_{id}, t)}$$

Where:

- CMU_{id} is the CMU's unique identifier available in the Capacity Contract and in the CRM IT Interface
- $Transaction_{id}$ is the Transaction's unique identifier as displayed on CRM IT Interface
- t is the hour on which the Payback Obligation calculation applies within the Transaction Period, when the Strike Price exceeds the Reference Price
- $Obligated\ Capacity\ (CMU_{id}, t)$ is the CMU Obligated Capacity referred to in Section 3.3 of the Chapter Availability Obligations and Penalties on the hour t
- $Announced\ Missing\ Capacity\ (CMU_{id}, t)$ is the CMU Announced Missing Capacity of Section 5 of the Chapter Availability Obligations and Penalties on the hour t

2.5 Payback Obligation formula

50. This section describes the detailed modalities of the Payback Obligation formula which determines the amount due by the Capacity Provider of the CMU's Transaction to the Contractual Counterparty for an hour t of the Transaction Period.

2.5.1 Payback Obligation for a Non-Energy Constrained CMU's Transaction

51. The Payback Obligation for a Non-Energy Constrained CMU's Transaction on an hour is equal to the positive difference between the Reference Price and the Strike Price of the Transaction for an hour, multiplied with the Contracted Capacity of the CMU Transaction and the Availability Ratio for the same hour t.

52. This is represented by the following formula:

$$\begin{aligned}&Payback\ Obligation\ (CMU_{id}, Transaction_{id}, t)\\&= Max\big(0; Reference\ Price\ (CMU_{id}, t) - Strike\ Price(CMU_{id}, Transaction_{id}, t)\big)\\&* Contracted\ Capacity\ (CMU_{id}, Transaction_{id}, t) * Availability\ Ratio\ (CMU_{id}, t)\end{aligned}$$

Where:

- CMU_{id} is the CMU's unique identifier available in the Capacity Contract and in the CRM IT Interface
- $Transaction_{id}$ is the Transaction's unique identifier as displayed on CRM IT Interface
- t is the hour on which the Payback Obligation calculation applies within the Transaction Period, when the Strike Price exceeds the Reference Price
- $Reference\ Price\ (CMU_{id}, t)$ is determined in Section 2.2 of this chapter
- $Strike\ Price\ (Transaction_i, t)$ is determined in Section 2.3 of this chapter
- $Contracted\ Capacity\ (CMU_{id}, Transaction_{id}, t)$ is the Contracted Capacity of the CMU's Transaction on the hour t available in the Capacity Contract and the CRM IT Interface;
- $Availability\ Ratio\ (CMU_{id}, t)$ is the CMU Availability Ratio of Section 2.4 on the hour t

2.5.2 Payback Obligation for an Energy Constrained CMU's ex-ante Transaction

53. The Payback Obligation for the *ex-ante* Transaction of an Energy Constrained CMU on the SLA Hours (according to Section 3.3 of the Chapter Availability Obligations & Penalties) is equal to the positive difference between the Reference Price and the Strike Price of the Transaction for an hour, multiplied with the Contracted Capacity of the CMU's Transaction and the Availability Ratio, and divided by the Transaction's Derating Factor of the CMU for the same hour t.

54. This is represented by the following formula:

$$\begin{aligned}&Payback\ Obligation\ (CMU_{id}, Transaction_{id}, t)\\&= Max\big(0; Reference\ Price\ (CMU_{id}, t) - Strike\ Price(CMU_{id}, Transaction_{id}, t)\big)\\&* \frac{Contracted\ Capacity\ (CMU_{id},\ Transaction_{id}, t)}{Derating\ Factor\ (CMU_{id},\ Transaction_{id}, t)} * Availability\ Ratio\ (CMU_{id}, t)\end{aligned}$$

Where:

- CMU_{id} is the CMU's unique identifier available in the Capacity Contract and in the CRM IT Interface
- $Transaction_{id}$ is the Transaction's unique identifier as displayed on CRM IT Interface
- t is the SLA Hour on which the Payback Obligation calculation applies within the Transaction Period, when the Strike Price exceeds the Reference Price
- $Reference\ Price\ (CMU_{id}, t)$ is described in Section 2.2
- $Strike\ Price\ (CMU_{id}, Transaction_{id}, t)$ is described in Section 2.3
- $Contracted\ Capacity\ (CMU_{id},\ Transaction_{id}, t)$ is the Contracted Capacity of the CMU Transaction on the hour t available in the Capacity Contract and the CRM IT Interface;
- $Availability\ Ratio\ (CMU_{id}, t)$ is the CMU's Availability Ratio of Section 2.4 on the SLA Hour t
- $Derating\ Factor\ (CMU_{id}, Transaction_{id})$ is the Derating Factor contractually associated to the Transaction in the Capacity Contract.

55. The ex-ante Transaction Payback Obligation equals 0 on the Non-SLA Hours.

56. This is represented by the following formula:

$$Payback\ Obligation\ (CMU_{id}, Transaction_{id}, t) = 0$$

Where:

- CMU_{id} is the CMU's unique identifier available in the Capacity Contract and in the CRM IT Interface
- $Transaction_{id}$ is the Transaction's unique identifier as displayed on the CRM IT Interface
- t is the hour, which is a Non-SLA Hour, on which the Payback Obligation calculation applies within the Transaction Period

2.5.3 Payback Obligation for an Energy Constrained CMU's ex-post Transaction

57. The Payback Obligation for the ex post Transaction of an Energy Constrained CMU on an hour is equal to the positive difference between the Reference Price and the Strike Price of the Transaction for an hour t, multiplied with the Contracted Capacity of the CMU Transaction and the Availability Ratio for the same hour t.

58. This is represented by the following formula:

$$\begin{aligned} &Payback\ Obligation\ (CMU_{id}, Transaction_{id}, t) \\ &= Max\big(0; Reference\ Price\ (CMU_{id}, t) - Strike\ Price(CMU_{id}, Transaction_{id}, t)\big) \\ &* Contracted\ Capacity\ (CMU_{id}, Transaction_{id}, t) * Availability\ Ratio\ (CMU_{id}, t) \end{aligned}$$

Where:

- CMU_{id} is the CMU's unique identifier available in the Capacity Contract and in the CRM IT Interface
- $Transaction_{id}$ is the Transaction's unique identifier as displayed on CRM IT Interface
- t is the hour on which the Payback Obligation calculation applies within the Transaction Period, when the Strike Price exceeds the Reference Price
- $Reference\ Price\ (CMU_{id}, t)$ is described in Section 2.2
- $Strike\ Price\ (Transaction_i, t)$ is described in Section 2.3
- $Contracted\ Capacity\ (CMU_{id},\ Transaction_{id}, t)$ is the Contracted Capacity of the CMU Transaction on the hour t available in the Capacity Contract and the CRM IT Interface;
- $Availability\ Ratio\ (CMU_{id}, t)$ is the CMU's Availability Ratio of Section 2.4 on the hour t

2.6 Stop-Loss Amount of a Transaction

59. Following art. 21 of the Royal Decree on the methodology to set the auction parameters as meant by Art. 7undecies §2 of the Electricity Act, the sum of all Payback Obligations on the Delivery Period related to a Primary Market Transaction or a Secondary Market ex-ante Transaction for which the Transaction Period is a full Delivery Period or several full Delivery Periods reimbursed by the Capacity Provider to the Contractual Counterparty cannot exceed the Transaction Stop-Loss Amount for that Delivery Period.

60. The Stop-Loss Amount of a Transaction is calculated solely for the Primary Market Transactions and the ex-ante Secondary Market Transactions for which the Transaction Periods are a Delivery Period or several Delivery Periods.

61. The Stop-Loss Amount of a Transaction for a Delivery Period is calculated and fixed by ELIA prior to the start of the Delivery Period (according to Section 3.1).

62. The Stop-Loss Amount of a Transaction satisfying the above criteria for a Delivery Period is equal to the sum on all hours of the Delivery Period of the hourly Contracted Capacity multiplied with the Transaction's Capacity Remuneration and divided by the number of hours on the Delivery Period.

63. This is represented by the following formula:

$$StopLoss\ Amount\ (CMU_{id}, Transaction_{id}, Delivery\ Period)$$
$$= \sum_{t=1}^{w} \left(Contracted\ Capacity\ (CMU_{id}, Transaction_{id}, t) * \frac{Capacity\ Remuneration(CMU_{id}, Transaction_{id})}{w} \right)$$

Where:

- CMU_{id} is the CMU's unique identifier available in the Capacity Contract and in the CRM IT Interface
- $Transaction_{id}$ is the Transaction's unique identifier as displayed on CRM IT Interface
- t *and* w respectively, represent the hours of a Delivery Period and the number of hours on the Delivery Period.
- $Contracted\ Capacity\ (CMU_{id},\ Transaction_{id}, t)$ is the Contracted Capacity of a CMU Transaction on the hour t available in the Capacity Contract and the CRM IT Interface;
- $Capacity\ Remuneration\ (CMU_{id}, Transaction_{id})$ is the CMU's Transaction Capacity Remuneration according to the Capacity Contract

3 Payback Obligation process

64. This section describes the process applicable to the Payback Obligation of the Transaction of the Capacity Provider's CMUs performed in ex-post by ELIA and the process for the communication of the amount and its update towards the Contractual Counterparty for the settlement and invoicing.

65. It also describes the application of the Stop-Loss principle to the Payback Obligations if applicable.

66. t_{calc} is the moment on which ELIA performs the calculation of the formula for the Payback Obligation for a CMU Transaction (cf. Section ☐).

67. The Payback Obligation process contains the rules for the Payback Obligation calculation performed by ELIA in month M+2 for the month M of the Delivery Period.

68. In case of inconsistency or non-compliance of at least one of the below elements and modalities, ELIA can request extra information to the Capacity Provider or the Contractual Counterparty in order to perform the Payback Obligation calculation.

3.1 Stop-Loss amount initial calculation

69. Once a year as of October 30th of the considered Delivery Period, ELIA calculates the Stop Loss Amount of the considered Delivery Period for each CMU's Transaction of the Primary Market and each ex-ante Secondary Market Transaction which has a Transaction Period of a Delivery Period or several Delivery Periods.

70. The calculation of the Stop-Loss Amount for the Delivery Period of a Transaction is performed according to the formula of Section 2.6.

71. The result of the calculation is sent by ELIA to the Contractual Counterparty and made available on the CRM IT Interface of the CMU's Transaction Capacity Provider at the time of communication of the first Payback Obligation report to the Contractual Counterparty at the latest (see section ☐). It contains the following content:

- Capacity Provider of the CMU and its *Capacity Provider ID* available in the Capacity Contract
- CMU of the Transaction and its CMU_{id} available in the Capacity Contract
- *Transactions' IDs* of the CMU
- Stop-Loss Amounts of the CMU's Transactions

3.2 Payback Obligation application and calculation

72. As first step of the Payback Obligation monthly process, after the final results of the Secondary Market transactions are known, the amount of Payback Obligation of the Transaction is calculated for each hour of the Transaction Period related to the month M.

73. For each hour t of the Transaction Period included in the month M, ELIA calculates the:

- $Strike\ Price\ (CMU_{id},\ Transaction_{id}, t)$ according to Section 2.3

74. For each hour t of the Transaction Period included in the month M for which the Strike Price exceeds the Reference Price, ELIA calculates the:

- $Availability\ Ratio\ (CMU_{id}, t)$ of the CMU according to Section 2.4
- $Payback\ Obligation\ (CMU_{id},\ Transaction_{id}, t)$ of the Transaction according to 2.5

3.3 Stop Loss Amount of the Transaction follow-up

75. As a third step of the process, if the Transaction is a Primary Market Transaction or an ex-ante Secondary Market Transaction for which the Transaction Period is a Delivery Period or several Delivery Periods (cf. Section 2.6), ELIA calculates the cumulative Payback Obligation which is the sum of the hourly Payback Obligations of all the previous months and of the month M of the Delivery Period on which the month M relies for the Transaction, if any.

76. This is represented by the following formula:

$$cumulative\ Payback\ Obligation\ (CMU_{id},\quad Transaction_{id}, M) = \sum_{t=1}^{p} Payback\ Obligation\ (CMU_{id},\quad Transaction_{id}, t)$$

Where:

- CMU_{id} is the CMU's unique identifier available in the Capacity Contract and in the CRM IT Interface
- $Transaction_{id}$ is the Transaction's unique identifier as displayed on CRM IT Interface
- $t\ and\ p$ respectively, represent the hours and the number of hours of the past months of the Delivery Period and the month M of the Delivery Period.

If the cumulative Payback Obligation exceeds the Stop-Loss Amount of the CMU's Transaction on the Delivery Period, the Effective Payback Obligation for the CMU's Transaction of the month M equals the positive delta between the Stop Loss Amount and the previous months cumulative Payback Obligation of the Delivery Period on which the month M relies.

77. This is represented by the following formula:

$$Effective\ Payback\ Obligation\ (CMU_{id}, Transaction_{id}, t) = Max\left(0; StopLoss\ (CMU_{id}, Transaction_{id}, Delivery\ Period) - \sum_{t=1}^{n} Payback\ Obligation\ (CMU_{id}, Transaction_{id}, t)\right)$$

Where:

- CMU_{id} is the CMU's unique identifier available in the Capacity Contract and in the CRM IT Interface
- $Transaction_{id}$ is the Transaction's unique identifier as displayed on CRM IT Interface
- $t\ and\ n$ respectively, represent the hours and the number of hours of the past months of the Delivery Period prior the month M of the Delivery Period.

78. Otherwise, if the cumulative Payback Obligation calculated does not exceed the Stop-Loss Amount of the CMU's Transaction on the Delivery Period or if the Stop-Loss Amount is not applicable to the Transaction of the CMU (cf. Section 2.6), the Effective Payback Obligation for the CMU's Transaction of the month M equals the Payback Obligations of the CMU's Transaction for all hours of the month M.

79. This is represented by the following formula:

$$Effective\ Payback\ Obligation\ (CMU_{id}, Transaction_{id}, t) = \sum_{t=1}^{m} Payback\ Obligation\ (CMU_{id}, Transaction_{id}, t)$$

Where:

- CMU_{id} is the CMU's unique identifier available in the Capacity Contract and in the CRM IT Interface
- $Transaction_{id}$ is the Transaction's unique identifier as displayed on CRM IT Interface
- $t\ and\ m$ respectively, represent the hours and the number of hours of the month M of the Delivery Period.

3.4 Communication of the Payback Obligation

80. As a fourth step, after determining for the month M, all the hourly and monthly cumulative elements of Sections 3.1, 3.2 and 3.3 for the CMU and the CMU's Transactions, on the 15th Day of M+2 at the latest, ELIA provides the Contractual Counterparty with a monthly Payback Obligation report. This report covers an entire month, from the first day of the month M at 00:00 until the last hour of the last day of the month M. The report contains the following information for all hours of the Transaction Period of the CMU's Transaction:

- The calculation date of the report's data, t_{calc}
- The Capacity Provider identified with a unique ID as displayed on CRM IT Interface, the $Capacity\ Provider_{id}$;
- The CMU_{id} which is the CMU's unique identifier available in the Capacity Contract and in the CRM IT Interface
- The $Transaction_{id}$ of the CMU having hours of their Transaction Period in the month M identified with a unique ID as displayed on CRM IT Interface, the $Transaction_{id}$
- For each CMU's $Transaction_{id}$ above, date and time for each hour of the Transaction Period of the month M for which the Reference Price exceeds the Strike Price and a Payback Obligation applies; and
    - The related value in [€/MWh] of the Reference Price
    - The related value in [€/MWh] of the Strike Price
    - The related value in [floating value] of the Availability Ratio
    - The related value in [€] of the Payback Obligation
- For each CMU's $Transaction_{id}$ above, the total value in EURO [€] of the Payback Obligations on all hours of the Transaction Period in the month M.
- For each CMU's $Transaction_{id}$ above, the total value in EURO [€] of the Effective Payback Obligations on all hours of the Transaction Period in the month M.

3.5 Settlement and Invoicing

81. The Contractual Counterparty settles and invoices the Effective Payback Obligation of the Capacity Providers CMU's Transactions by the end of month M+2 at the latest. The modalities and details of the Settlement and Invoicing for the Effective Payback Obligations amounts for a Transaction are arranged in the Capacity Contract of the Capacity Provider.

82. The report per CMU of Section ☐ is part of the invoice by the Contractual Counterparty.

3.6 Contestation

83. If the Capacity Provider contests any parameters or calculation leading to an incorrect Stop-Loss Amount, Payback Obligation or Effective Payback Obligation, he has 20 Working Days from the invoice date (according to the Capacity Contract) to contest it with the Contractual Counterparty. In such a case, the Capacity Provider and the Contractual Counterparty must enter into negotiations in order to reach an amicable agreement within 30 Working Days as of the date of notification of contestation by the Capacity Provider. The Contractual Counterparty and Capacity Provider may request additional information from ELIA on the parameters in the monthly report if needed.

84. If within 30 Working Days no such agreement is found, the Capacity Provider pays the Payback Obligation amounts and both parties continue to find an amicable solution within 60 Working Days. The agreement can be settled in a future invoice to the Capacity Provider.

85. If within 60 Working Days still no such agreement has been reached, the parties commence the litigation procedure in accordance with section 'Dispute' of the Functioning Rules.