

IFA Interconnector within the NWE Price Coupling solution

1 Introduction

1.1 Background

One of the main priorities of the European Commission is to achieve a single European single Price market Coupling (EPC) in order to create a well-functioning Internal Energy Market (IEM). This requires the implementation of coordinated mechanisms between the Power Exchanges (PXs) and the Transmission System Operators (TSOs) for the daily capacity allocation of the European interconnectors in order to set an economical optimum of generation units increasing both social welfare and security of supply.



After the successful simultaneous launch during November 2010 of the price coupling of Central-West Europe (CWE) and the volume coupling (ITVC) between the Nordic and CWE regions, the TSOs of the North-West Europe (NWE) region (shown in blue), including NGIC and RTE, have committed to implement a price coupling market which includes the GB, Nordic and CWE regions. The cooperation between the 13 TSOs and the 4 PXs of the NWE region for the design, implementation and definition of the operating principles of the price coupling solution has led to the "NWE Price Coupling Project". With an operational go-live scheduled for November 2013, this project represents the first step of the EPC and is consistent with a parallel/sequential process of further integration leading to the achievement of the EPC by 2014. This new mechanism will replace the price coupling solution of the CWE region and the volume coupling (ITVC) between the Nordic and CWE regions.

Other regions and countries may be coupled to the NWE region at the start of the NWE Price Coupling provided that this does not delay the start date. Although the Baltic States and Poland are not involved, they are currently coupled and this coupling should not be jeopardized by new developments. The same applies for the Austrian market which is linked to the German market.

1.2 Purposes of this document

The NWE Price Coupling solution means in particular for the IFA interconnector to move from the current IFA Explicit Daily Auctions to Implicit Daily Auctions. This introduction of the new mechanism (and its associated fallback) is a major change for the IFA commercial processes. Various information around the NWE Price Coupling solution is provided in chapter 2 by RTE and NGIC (hereafter referred to as the "Operators"), to facilitate the understanding of the overall new IFA processes within the NWE Price Coupling operational solution.

The Operators also provide in this document an overview of the changes on the IFA commercial processes. Detailed in Chapter 3:

- The different features of the new daily implicit allocation process for the IFA Interconnector and its associated fallback solution as well as the main amendments to the current IFA Access Rules.
- The proposal for activation of IFA Losses in the NWE Price Coupling solution and the possible introduction of a Ramping Limit following Go-Live

Alongside the new IFA Daily Implicit Auctions on IFA, the Operators are also considering additional options for firmness mechanisms of explicit capacity, in order to achieve further harmonisation of the IFA Access Rules and processes with other interconnectors in the region. Chapter 4 introduces these various options.

The Operators wish to invite feedback from Market Participants on questions raised either in the associated consultation documents [R1], [R2] (please refer to chapter §1.3) or directly in this overview document. Chapter 5 itemises the various questions raised. Responses from Market Participants will be taken into account when preparing the IFA Rules V9.0 for submission to NRAs for approval.

1.3 Reference documents

The different chapters of this document refer to various reference documents as listed in the following table. Those [Ref] documents either further detail the matter addressed in the specific chapter or provide additional information.

[Ref 1]	<i>Proposal for activation of IFA cable losses in the Euphemia Algorithm within the NWE Price Coupling operational solution</i>
[Ref 2]	<i>IFA Firmness and Curtailment process development</i>
[Ref 3]	<i>Introduction of loss factors on interconnector capacities in NWE Market Coupling, documentation from the NWE Price Coupling Project</i>
[Ref 4]	<p><i>Package of documentations published by the NWE Price Coupling Project since June 2012 towards Market Participants:</i></p> <ul style="list-style-type: none"> - [Ref 4.1] NWE Day-Ahead Market Coupling Project, 1st Progress Report - [Ref 4.2] NWE Day-Ahead Market Coupling Project, 2nd Progress Report - [Ref 4.3] NWE Day-Ahead Market Coupling Project, 3rd Progress Report - [Ref 4.4] NWE Explanation processes and timings - Information available on CASC's website www.casc.eu (under Resource center > NWE > Information section) on behalf of the NWE's TSOs, such as PCR Algorithm Description, FAQ and answers to questions from Market Participants Platforms.
[Ref 5]	Consultation Draft of the IFA Access Rules V9.0

All documents can be downloaded from either the respective Operators websites or the FUI Portal.

- http://clients.rte-france.com/index_en.jsp (Traders Suppliers/To Contract Interconnection Access/France-England)
- <http://www.nationalgrid.com/uk/Interconnectors/France/consultations/>
- <http://www.fui-portal.eu/>

2 NWE Price Coupling Solution

2.1 Scope of the NWE Price coupling solution

The scope of the NWE Price Coupling solution concerns only the day-ahead market coupling in the NWE region in terms of single price coupling. It relates to the design and implementation of a mechanism in the NWE Region where the market clearing prices and the PXs net positions are determined in a single step utilising hourly Cross Zonal Capacities (CZC) and Allocations Constraints (such as losses, ramping and operational security constraints). This mechanism will be an enduring price coupling solution easily extendable to facilitate a wider price coupling in the context of the integration of the European electricity markets.

2.2 PCR and NWE Price coupling Project

The Price Coupling of the Regions project (PCR) is a project comprising six PXs: APX-ENDEX, Belpex, EPEX Spot, GME, Nordpool Spot, OMIE and supported by EuroPEX. The selection of the starting point for the PCR algorithm (known as Euphemia) was performed from the beginning of 2011 with the design and prototyping phase for the PCR Algorithm continuing through spring 2012. Euphemia is intended to be the algorithm used for European Price Coupling (EPC). In parallel the PCR parties started the design and development of the so called PCR Matcher and Broker (PMB) system during February 2012, which are the systems taking care of market coupling (the PCR algorithm is embedded in the PCR Matcher) and the communications and data flows between the PXs respectively.

The common assets like the PCR algorithm and the PMB will be implemented in the different regional initiatives of which NWE region is one. The market coupling systems used in CWE, Nordic-Baltic and ITVC will be replaced by the PMB systems (and its embedded PCR Algorithm) which will be implemented in each NWE PX IT system and operated by each NWE PX.

The NWE project therefore closely cooperates with the PCR project and aligns planning and deliverables. The delivery of the PCR common assets is a PCR responsibility and is input to the NWE project, the regional implementation of the PCR common assets is however a regional responsibility.

2.3 PCR Algorithm (Euphemia) description

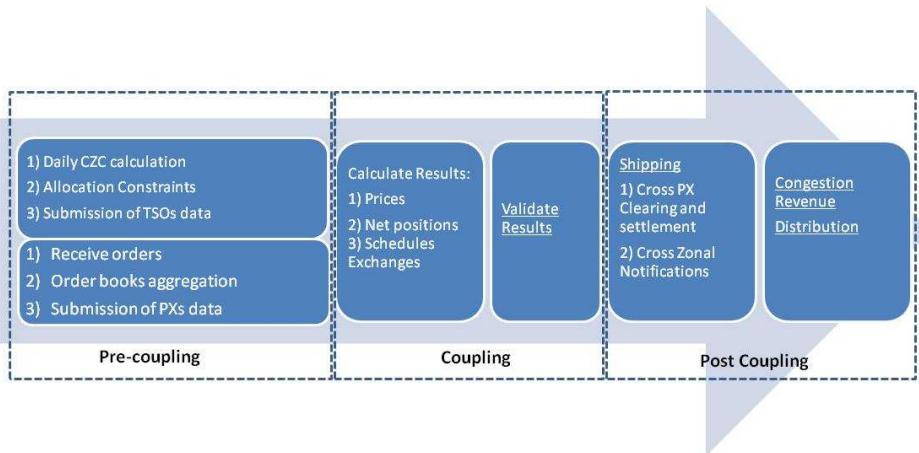
The PCR algorithm is based on the Cosmos algorithm currently used within the CWE price coupling solution. Information and descriptions already provided by the PCR project are included [Ref 4]. In June 2011 ACER invited ENTSO-E to assess the extent to which the starting point of the PCR algorithm proposed by the PCR PXs met the TSO requirements regarding efficient allocation of capacity. This assessment report was delivered to ACER in January 2012 and concluded that the vast majority of the requirements are either already in operation in CWE market coupling or have already been developed and extensively tested.

Within the NWE Price Coupling solution, Euphemia will determine all interconnector scheduled exchanges (daily flows) and hourly volumes and prices in all relevant bidding zones. It will therefore implicitly allocate the day ahead capacity of all NWE interconnectors, and ensure the maximisation of NWE welfare (consumer surplus, producer surplus and congestion rent).

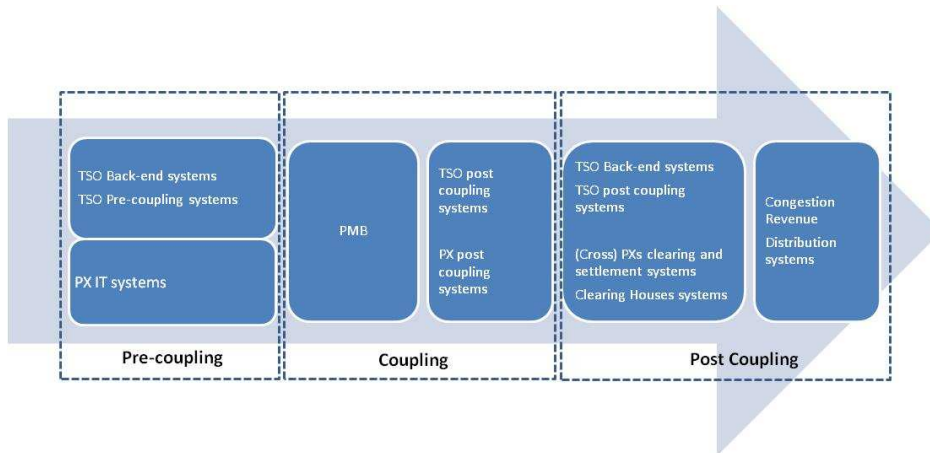
2.4 Architecture of the NWE Price Coupling Solution

NWE High Level functional architecture

This chapter contains the high level functional architecture and business processes of the NWE Price Coupling solution. The purpose of this chapter is to provide an overview of all the functions that are relevant for the operations of the NWE Price Coupling including the interrelationship between them. On a very high level the NWE price coupling process can be illustrated as follows:



The price coupling process can be mapped with the generic systems as shown in the figure below:



Further information can be found in [Ref4.1]

NWE High Level Architecture

The NWE high-level architecture (HLA) overview is provided in [Ref 4.2], it describes:

- The system components,
- The agents (non-automated entity interacting with one or more systems),
- The information produced and exchanged,
- The indicative sequence in which the information is produced and exchanged,

Regional High Level Architecture

Based on the NWE HLA blueprint, the different sub regions of the NWE Region (CWE, Nordic & Baltic and GB regions) have set their regional HLA taking into account their own requirements. The different regional HLAs can be found in [Ref 4.2] (CWE and Nordic & Baltic HLAs) and [Ref 4.3] (GB HLA). Please note the overall IFA daily implicit allocation mechanism involves systems of both CWE and GB regions.

2.5 IFA Cross PXs Clearing and Settlement

The following sections provide an overview of the Cross PXs Clearing and Settlement solution for the exchange of energy resulting from the daily implicit allocation mechanism on the IFA Interconnector.

For further details please refer to [Ref 4.3]

2.5.1. The GB Virtual Hub and the Special Purpose Vehicle

To integrate the GB market into the NWE Price Coupling solution, new systems and/or interfaces need to be developed and/or adapted on the GB-FR and GB-NL borders (including intra-GB, between the two GB PXs). In order to enable the GB market's participation in the NWE market coupling arrangements and to form a GB common reference price, NGIC tendered for a service provider to facilitate the design, development and implementation of a "GB Virtual Hub" (GB VH) which will be operated by the successful bidder under the terms of an operational agreement with NGIC.

The terms of NGIC's tender require the creation of a standard set of operating agreements. Those agreements shall be for both incumbent and new entrant interconnector operators seeking access to the GB market and Price Coupling solution and will preserve the roles of the individual GB market operators. As the successful bidder, Nordpool Spot (NPS) is responsible for designing, delivering and operating the Virtual Hub, and will also work with Nasdaq OMX (its Clearing House) and with EPEX and its Clearing House ECC to facilitate the cross clearing and settlement arrangements for the France/England border through the IFA interconnector.

In order to form a GB common reference price for electricity across the two participating GB PXs (N2EX and APX Power UK), it is necessary to facilitate intra-GB shipping. NPS, as the GB Virtual Hub operator, will be responsible for maintaining and operating a virtual connection with infinite capacity between the GB PXs. This connection will enable the PCR algorithm to affect the pooling of GB liquidity between GB PXs under market coupling.

Intra-GB shipping will be implemented by means of a special purpose vehicle (SPV) carrying out trades with volumes equaling the flows between the two GB markets as calculated by the market coupling algorithm on both markets.

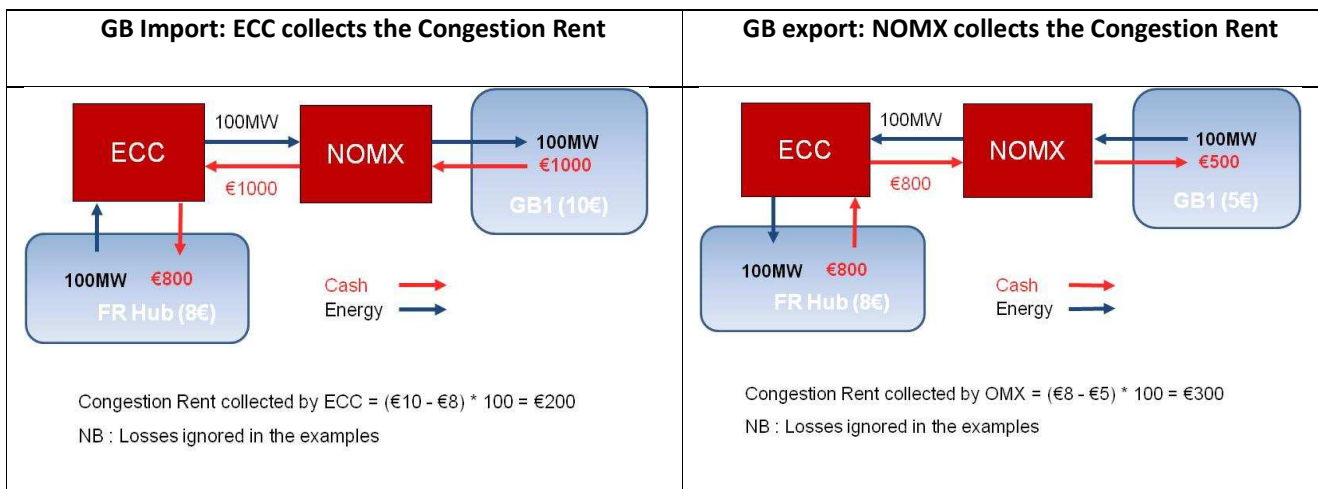
Within the PCR algorithm, GB1 (N2EX/NPS) and GB2 hubs (APX Power UK) are linked with an infinite capacity link which forms a common reference price for GB (Price GB1 hub=Price GB2 hub). GB1 and FR

Hub are linked by the IFA Interconnector. GB market parties will continue to enjoy their usual contractual relationship with their PX.

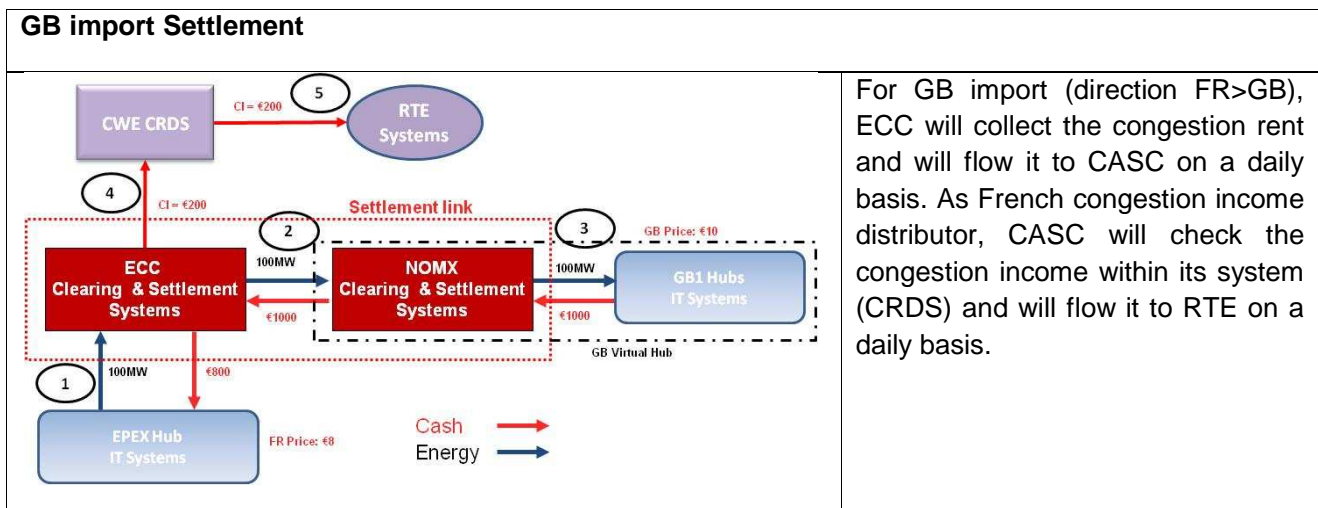
The tasks of the GB Virtual Hub and the SPV ones are described in [Ref 4.3].

2.5.2. PXs Clearing and Settlement

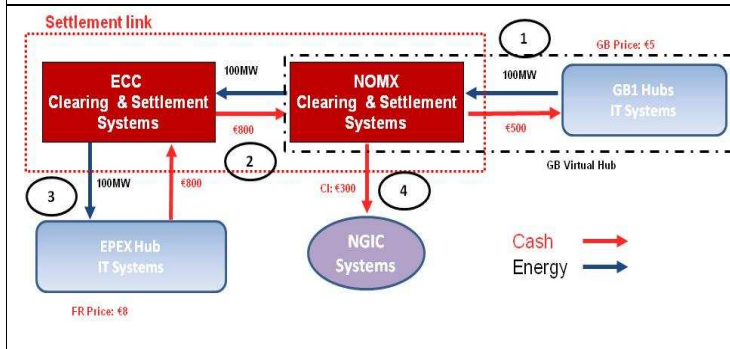
The Operators and the GB1 and FR Hub PX operators (NPS/N2EX and EPEX Spot in conjunction with their Clearing Houses Nasdaq OMX and ECC) will be responsible for operating the PXs clearing and settlement solution for the IFA interconnector. In accordance with the IFA daily Scheduled Exchanges (IFA Daily Flow) set by the PCR algorithm Euphemia, it has been agreed among the different parties that the exporting country's Clearing House is responsible for transferring the energy between GB and France. The IFA congestion rent accrues therefore to the exporting country's Clearing House (ECC for GB import and NOMX for FR import).



The IFA congestion rent collected by the relevant Clearing House is further distributed to the operators as shown in the following tables.



GB export Settlement



For GB export (direction GB>FR), NOMX will collect the congestion income and, as the GB congestion income distributor, will flow it on a daily basis to the NGIC.

RTE/NGIC will perform between themselves a final reconciliation of the congestion income within the existing contractual arrangements.

Please note all the settlements will take place in €.

2.6 Additional Information on the NWE Price Coupling solution

In order to keep the NRAs of the NWE Price Coupling project informed regarding the progress and solutions being developed, three regulatory progress reports have been distributed by the NWE Price Coupling Project. Public versions of those reports are available to Market Participants and are included by the Operators as reference documents within the [Ref4] documentation. In particular information on the following matters can be found:

- NWE Process scenarios and timings (overview of the possible and feasible NWE Price Coupling scenarios)
- NWE Procedures
- NWE Fallback HLA's and Procedures
- NWE Rollback arrangements

Please note that additional information is available on CASC's website (under Resource center > NWE > Information section) on behalf of the NWE's TSOs, such as PCR Algorithm Description, FAQ and answers to questions from Market Participants Platforms.

Q01: Feedback from Market Participants on the NWE Price Coupling solution can be provided to the Operators. Comments received will be passed on to the NWE Price Coupling Project.

3 Daily Implicit Allocation of IFA capacity, business processes

3.2 IFA Access Rules (v9.0)

Except for situations where the IFA fallback mechanism is invoked by the Operators, the daily IFA offered capacity (or Cross Zonal Capacity, CZC) will no longer be allocated via Explicit Daily Auctions but through the PCR Matcher and Broker (PMB) systems and its embedded PCR Algorithm "Euphemia".

Within the NWE Price Coupling solution, Euphemia will determine the IFA scheduled exchanges (daily flows) and hourly volumes and prices in all relevant bidding zones in France and GB.

The draft IFA Access Rules for consultation have been prepared to reflect this new daily implicit allocation mechanism. The main amendments are identified in the following rules:

- Rules D2 (Types of Auctions):
 - Current "Daily Auctions" have been renamed as "Explicit Daily Auctions" and a new definition of "Implicit Daily Auctions" has been introduced. Current arrangements for daily auctions will, in most cases, remain the same for the Explicit Daily Auctions.
 - Explicit Daily Auctions as a fallback when Daily Implicit Auctions are unavailable.
 - Principles for the publication and checking of preliminary Daily Explicit results depending on when the fallback is invoked by the Operators.
 - Principles for the publication of the final Daily Explicit results depending on when the fallback is invoked by the Operators
 - Should the fallback process fail, the Daily Offered Capacity will be offered in the Intraday Auctions.
- Rules D4 (Daily Auctions):
 - The Operators will conduct Explicit Daily Auctions only as a fallback should Implicit Daily Auctions not be available. An Explicit Daily Auction may commence during the Implicit Daily Auction Window (i.e. during the period of time during which an Implicit Daily Auction is to be conducted) or prior to the Implicit Daily Auction Window, should it be known in advance that the Implicit Daily Auction will be unavailable;
 - Should any issue be detected during the Implicit Daily Auction Window, the Operators will inform all Users of the risk and may run an Explicit Daily Auctions in parallel. Explicit Daily Auctions results will only be published if the Implicit Daily Auction is declared unavailable. In the event that Implicit Daily Auction is successfully completed after an Explicit Daily Auction has been invoked, then such Explicit Daily Auction ceases to have effect, and therefore results will not be published.
 - When Explicit Daily Auctions are invoked in advance, current daily auctions arrangements (processes and timings) as specified in V8.0 of the IFA Access Rules will apply.
- Rule E4 (Secondary Market): Capacity Transfer of Daily Unit is suspended when an Explicit Daily Auction is invoked during the Implicit Daily Auction
- Rule E5 (Use-It-or-Sell-It and Use-It-or-Lose-It):
 - When Daily Implicit Auctions have been successfully completed, UloSI rights are paid by the Operators with a price compensation based on the positive Day Ahead Market Spread between France and England minus the proportion of DC Losses of the interconnector. For further explanations please refer to [Ref1].
 - When Daily Explicit Auctions have been invoked and final results published, the UloSI price compensation remains as per current arrangements (based on the marginal price of the Explicit Daily Auction).

- If following the cancellation of an Implicit Daily Auction and the associated fallback Explicit Daily Auction is also cancelled, the UIoSI price compensation will be based for each UIoSI Holder on the weighted average price of the LT Units comprising its Long-Term ICE.
- Schedule 4 - article 4: “Day-Ahead Business Process” becomes “Day-Ahead Business Process when Explicit Daily Auctions are invoked prior to the Implicit Daily Auction Window”. When Daily Explicit Auctions are invoked in advance, current daily auctions arrangements (processes and timings) apply, as specified in V8.0 of the IFA Access Rules.
- Schedule 4 – article 5: new article included to describe the day ahead business processes and timings when Explicit Daily Auctions are invoked during the Implicit Daily Auction Window.

For avoidance of any doubt, please note that IFA Users do not participate in the Implicit Daily Auctions via any particular IFA systems (e.g. CMS). Participation is solely via PXs and their associated Clearing Houses.

The Day-Ahead Market Spread is defined as the difference “Day-Ahead Market Spread” is 100% of the difference of PX prices (in €) on the British and French day ahead markets after the Implicit Daily Auction (such PX to be chosen by the Operators in their absolute discretion from time to time) for the relevant hour(s) and as published by the Operators on CMS. The PX chosen in France is EPEX Spot SE and N2EX/Nord Pool Spot in GB

In addition, some improvements have also been reflected in Rule D6 (Submission of Bids) to reflect the new max/min bid parameters feature within the CMS IFA. CMS IFA is now designed to accept any Bid for which the values of price and/or volume fall within the bid parameters and to reject any bid for which the values of price and/or volume fall outside the Bid parameters. Bid parameters for price and volume will be set by the Operator to default values (minimum value of zero and a maximum value of one million). IFA Users may replace the default bids parameter with their own preferred values. The IFA Access Rules provisions for manifest error have consequently been removed by the Operators, and not using the bid parameters safeguard would be therefore at the User’s own risk.

3.3 IFA Fallback mechanism

The IFA fallback mechanism could be triggered by the Operators for several reasons in accordance with the NWE Fallback procedures, for instance when the NWE Price Coupling results for the IFA Interconnector cannot be published before the critical deadline (decoupling deadline). Depending on when the NWE Fallback procedures are triggered, two situations have been considered in the draft IFA Access Rules:

- Situation where the NWE Fallback procedures are triggered during the NWE Price Coupling operational day. In the draft IFA Access Rules, the Implicit Daily Auction Window means the NWE Price coupling operational day.
- Situation where the NWE Fallback procedures are triggered prior to the NWE Price Coupling operational day, for instance the day before.

The fallback of the IFA daily implicit allocation mechanism consists of Daily Explicit Auctions. The current arrangements for daily auctions will, as far as possible, be the same for the Explicit Daily Auctions.

When Daily Explicit Auctions are invoked during the Implicit Daily Auction Window:

- Due to time constraints the step for checking the Daily Explicit preliminary results is removed. Any query on such Explicit Daily Auction results could be made under the Dispute provisions.
- Due to time constraints, Capacity Transfer of Daily Units is suspended.

- Final Results are published only if it has been confirmed by the NWE Operators that IFA Daily Implicit Auctions cannot be completed before the NWE decoupling deadline.

When Daily Explicit Auctions are invoked prior to the Implicit Daily Auction Window, the current daily auction arrangements remain the same.

The following table summaries the different timings depending on the particular situations

Process (CET Timings)	Explicit Daily Auction invoked prior to the Implicit Daily Auction Window	Explicit Daily Auction invoked during the Implicit Daily Auction Window
Daily Explicit Auction Specifications publication	No later than 09:35 (Rule 4.1 Schedule IV) And no later than five (5) minutes before opening of the Bidding Period (Rule D4.5)	No later than 14:00 (Rule 5.1 Schedule IV) and no later than five (5) minutes before opening of the Bidding Period (Rule D4.6)
Daily Explicit Auction Bidding Period	Opening at 09:40 and closure at 10:00 (Rule 4.2 Schedule IV)	No later than five (5) minutes after the Auction Specification is published and closes no later than twenty (20) minutes after the opening (Rule 5.2 Schedule IV)
Daily Explicit Auction Preliminary results publication	At 10:05 (Rule 4.3 Schedule IV) And no later than thirty (30) minutes after the end of the Bidding Period (Rule D2.5.1 b)	Not applicable. Due to time constraints, there is no time for checking Auction results (Rule D2.6.5)
Checking of the Daily Explicit Auction preliminary Results	Between 10:05-10:15 (resulting from Rules 4.3 and 4.4 Schedule IV) And no later than ten (10) minutes after the Preliminary Results have been published on the CMS (Rule D2.6.1)	Not applicable. Due to time constraints, there is no time for checking Auction results (Rule D2.6.5)
Daily Explicit Auction Final Results publication	10:15 , i.e ten (10) minutes after the publication of the preliminary Results (Rule 4.4 Schedule IV) And within thirty (30) minutes after the end of the period dedicated to checking of preliminary Auction results (Rule D2.7.1.b)	As soon as practicable when the unavailability of the Implicit Daily Auction is confirmed (D2.7.1.c and D4.2.4); In the event that an Implicit Daily Auction is successfully completed after an Explicit Daily Auction has been invoked in parallel, then such Explicit Daily Auction shall cease to have effect (Rule 5.3 Schedule IV)
Daily Capacity Transfer Notice	Between 10:20 -11:45 (Rules 4.4&4.5 Schedule IV)	Not Applicable. Any Daily Unit resulting from a Explicit Daily Auction invoked during the Implicit Daily Auction Window cannot be subject to a Capacity Transfer

Process (CET Timings)	Explicit Daily Auction invoked prior to the Implicit Daily Auction Window	Explicit Daily Auction invoked during the Implicit Daily Auction Window
		Notice (Rule 5.4 Schedule IV and Rule E4.4.4)
Notification of Daily ICE	12:00 (Rule 4.6 Schedule 4)	No later than fifteen (15) minutes after the publishing of the Final Results of the Explicit Daily Auction. (Rule 5.5 Schedule IV)
Daily MCN gate	Between 12:05-14:00 (Rule 4.7 Schedule IV)	No later than twenty (20) minutes after the publishing of the Final Results of the Explicit Daily Auction up to a latest Daily MCNs gate-closure of 15:30 (Rule 5.6 Schedule IV)

Please note

In case of any contradiction between the times specified in this table and in the relevant Auction Specification, as provided by CMS IFA, the Auction Specification shall prevail.

Timings given are nominal timings, which may be subject to change from time to time and under exceptional circumstances. In this case, Users would be informed of new timings to follow in due course.

Along with the new Bid Parameter functionality, default bids and default nominations can be selected by the Users for the Daily Explicit auction.

3.4 Feedback from Market Participants

Q02: Operators are inviting Market Participants to provide feedback on any aspects of the above sections 3.1 and 3.2 and as proposed in the consultation draft IFA Access Rules V9 [Ref 5]. Please make reference to the article you are providing comment on.

3.5 IFA Allocation Constraints

Different requirements from NWE TSOs have been included in the Euphemia algorithm, one of which is the inclusion of the Allocation Constraints (as foreseen in the current draft Capacity Allocation and Congestion Management Network Code, CACM). Allocation Constraints are the constraints specified by the TSOs that are to be respected during the capacity allocation process handled by the PCR algorithm Euphemia. Allocation Constraints may include: operational security constraints, ramping constraints and/or transmission interconnector losses.

The resulting IFA Daily Flow will be set by Euphemia taking into account the IFA Cross Zonal Capacities and Allocation Constraints as submitted by the Operators during the pre-coupling stage.

Two independent Allocation Constraints are being considered by the IFA Operators for the IFA Daily Implicit Mechanism and are further developed in the following Chapter, they are:

- IFA transmission losses constraint and
- IFA ramping constraint.

Activation of all Allocation Constraints on a specific border is subject to approval from the relevant National Regulators (i.e. Cre and Ofgem in the case of IFA).

Proposal for activation of IFA Losses in the Euphemia Price Coupling Algorithm

The physical flow on the IFA interconnector is subject to losses. The Operators currently apply a Loss Factor (LF) at mid channel to calculate each User's share of the losses. The LF is symmetrical between mid-channel and either end of the interconnector (Sellindge and Les Mandarins. The LF value at mid-channel applied is published on the respective Operators' websites and is currently equal to 1.17% (0.0117).

Within the NWE Price Coupling operational solution, Euphemia will determine all interconnector scheduled exchanges, hourly volumes and prices in all relevant bidding zones. It will therefore implicitly allocate the day ahead capacity of all NWE interconnectors, and ensure the maximisation of NWE welfare (consumer surplus, producer surplus and congestion rent). When losses are activated in a specific interconnector it will affect all the results of the algorithm compared to the situation where losses are not included. To better understand the magnitude of such effects in the NWE Price Coupling mechanism, the NWE project has carried out some analysis to review the different consequences on relevant indicators (social welfare, scheduled exchanges and market clearing prices) based on a variety of scenarios (differentiated by the specific interconnectors where losses are applied and value of the losses for the respective interconnectors). This analysis (please refer to [Ref3]), also seeks to answer the questions raised on this matter by the NWE Regulators.

To keep the harmonisation of inclusion of losses among the different timescales as already covered by the current IFA Access Rules, and based on both quantitative and qualitative results of the [Ref3], the Operators propose to apply losses on the IFA Cable in the Euphemia Algorithm with a Combined Loss Factor value of 2.313% as detailed in the document [Ref2].

To further address this specific matter, the Operators provide Market Participants with a detailed description in the document [Ref2].

Q03: Operators are inviting Market Participants to provide feedback on any aspects of this proposal for activation of IFA Losses in the Euphemia Price Coupling Algorithm.

IFA Ramping Limits in the Euphemia Price Coupling Algorithm

In normal operation, IFA flow is not permitted by the GB Network TSO to change at more than 100MW/minute for frequency management purposes. This limitation also has benefits on the Continental Network. Daily Implicit Auctions are expected to utilise IFA capability more fully (function of the daily price difference), thereby causing large hour-hour variations of power transfer more frequently (e.g. from -2GW to 2GW and vice versa). With the combination of ½ hour Settlement Periods and the GB 100MW/min operational limit, the PCR algorithm may create physical transfer programmes that cannot be delivered operationally, causing significant imbalance and costs to the Operators.

The PCR algorithm has the facility to take account of hour-hour step change limitations (termed Ramping Limits).

Based on some historic data, the Operators have conducted an initial economic study on the impact of the activation of an IFA Ramping Limit based on several indicators (social welfare, daily flows, market clearing prices). However due to the limited data available (which coincided with the unusual level of availability during the Valve Replacement Project), the Operators consider that the study does not provide sufficiently clear outcomes and further simulations are necessary. Based on operational data provided by the Price Coupling Algorithm following the NWE Price Coupling Go-Live, the Operators will continue to monitor the case for activating an IFA Ramping Limit.

If under this operational monitoring there is clear evidence that activation of IFA Ramping Limit is economically justified, the Operators would propose activation of this IFA Ramping Limit in the Euphemia Algorithm in a subsequent Rules Consultation.

3.6 IFA UIOSI Price compensation (Effect of activation of IFA Losses)

As a general approach, the hourly UIOSI price compensation for a specific direction reflects the auction price for this direction (independently of the daily allocation mechanism). The resulting gross hourly congestion rent for this direction is therefore used by the Operators to refund UIOSI holders based on their UIOSI volume rights for this direction. Within a Daily Implicit Auction mechanism, and when losses are not considered in the capacity allocation, the resulting gross hourly congestion is based on the level of the daily flow and the positive Day-Ahead Market Spread.

Considering activation of Losses in the PCR Algorithm Euphemia for an interconnector that links two countries, the UIOSI price compensations for such interconnector would take into account the effect of losses on both market clearing prices of the two countries and scheduled exchanges (i.e. daily flow) with the following consequences:

- In the case when the interconnector is uncongested in a specific direction (i.e. daily flow lower than the CZC), a price difference between the two countries will exist but no congestion rent for this specific direction exists due to the effect of losses on the daily flows. Similarly UIOSI price compensation for this specific direction is set to zero.
- In the case when the interconnector is congested for a specific direction (i.e. daily flow equal to the CZC), the price difference between the two countries will be a higher value (compared to the previous uncongested situation), a congestion rent for this specific direction exists and a UIOSI price compensation (greater than zero) taking into account the effect of losses is calculated for this specific direction.

To further address this specific matter for the IFA Interconnector, the Operators have provided the Market Participant with a detailed description in the document [Ref2].

Q04: Operators are inviting Market Participants to provide feedback on any aspects of the IFA UIOSI Price compensation methodology.

4 IFA firmness and curtailment processes

Alongside the introduction of Implicit Daily Auctions on IFA, the Operators are considering additional options for the firmness mechanisms of Long Term (LT) explicit capacity, in order to achieve further harmonisation of the IFA Access Rules and processes with other interconnectors or regions.

To mitigate the increased financial risks that will arise through IFA Implicit Daily Auctions and potential new firmness mechanisms of LT explicit capacity, the Operators are also considering some risk mitigation measures. In addition, some general changes to the current IFA curtailment process are being considered. The different proposals are detailed in the document [Ref 2].

The Consultation draft Rules [Ref 5] does not contain these proposals, being limited to the necessary changes for Implicit Daily Auctions. Any options to be taken forward, subject to the outcome of the consultation and Operators' review, will be included in v9.0 of the IFA Access Rules for submission for Regulatory approval.

The Operators wish to invite feedback from Market Participants on the proposals detailed in the document [Ref 2] and on any potential alternatives. It is quite possible that there will be a wide range of views, and our usual approach in such cases is to ensure there is reasonable opportunity for all stakeholders.

Subject to the Operators' post-consultation review, some of the proposals (in a range of combinations) could be implemented on Go-Live of the NWE Price Coupling project. Other proposals may be introduced at a later date if required. Feedback on these potential future developments will be useful at this stage to inform the Operators of potential future development opportunities.

5 Questions raised by the Operators

Ref	Doc	Question
Feedback on NWE Price Coupling Solution		
Q01	[Ref 4]	Feedback from Market Participants on the NWE Price Coupling solution can be provided to the Operators. Comments received will be passed on to the NWE Price Coupling Project.
Feedback on Daily Implicit Allocation of IFA capacity, business processes		
Q02	[Ref 5]	Operators are inviting Market Participants to provide feedback on any aspects of the sections 3.1 and 3.2 of this document and as proposed in the consultation draft IFA Access Rules V9 [Ref 5]. Please make reference to the article you are providing comment on.
Q03	[Ref 3]	Operators are inviting Market Participants to provide feedback on any aspects of this proposal for activation of IFA Losses in the Euphemia Price Coupling Algorithm.
Q04	[Ref 3]	Operators are inviting Market Participants to provide feedback on any aspects of the IFA UIOSI Price compensation methodology
Feedback on the new firmness option		
[Ref 2]_Q01	[Ref 2]	What are Users' preferences between LT and UIOSI Curtailment compensation at the positive Day Ahead Market Spread (taking into account the IFA losses) and price-paid principle as currently in place?
[Ref 2]_Q02	[Ref 2]	Any additional comments in relation to this new firmness option.
Feedback on the positive Day Ahead Market Spread cap		
[Ref 2]_Q03	[Ref 2]	What is your preferred approach for the Reference Period: option <i>RP_1</i> or option <i>RP_2</i> ?
[Ref 2]_Q03_a_1	[Ref 2]	If Option <i>RP_1</i> is preferred, what should be the duration of the Reference Period: month(s), quarter(s), annual(s)?
[Ref 2]_Q03_a_2	[Ref 2]	If Option <i>RP_1</i> is preferred, what is the preferred approach between the options <i>RP_1.1</i> and <i>RP_1.2</i> ?

Ref	Doc	Question
[Ref 2]_Q03_b	[Ref 2]	If Option <i>RP_2</i> is preferred, what should be the duration of the Reference Period: one year, two years or more?
[Ref 2]_Q04	[Ref 2]	Any additional comments or alternative methodologies in relation to this proposal.
Feedback on reserving volume to Explicit Intraday auctions		
[Ref 2]_Q05	[Ref 2]	Whether this would be an attractive option?
[Ref 2]_Q06	[Ref 2]	If yes then, what would be an appropriate volume to be reserved to Intraday?
[Ref 2]_Q07	[Ref 2]	If yes then, what would be the preferred option between ID_1 and ID_2?
Feedback on introducing a new LT interruptible product		
[Ref 2]_Q08	[Ref 2]	Whether this would be an attractive option?
[Ref 2]_Q09	[Ref 2]	If yes then what would be an appropriate volume of capacity to be allocated through new Interruptible LT products?
[Ref 2]_Q10	[Ref 2]	If yes then what new interruptible LT product(s): (from one or more of Annual, Quarterly, Seasonal, Monthly and Weekly) would be of market interest?
[Ref 2]_Q11	[Ref 2]	If yes then what time prior to the Intraday auctions would be suitable for LT Interruptible Nomination Gate Closure?
[Ref 2]_Q12	[Ref 2]	If yes then whether an unused LT interruptible Unit should be subject to UloSI or UloLI into the Intraday Auction?
[Ref 2]_Q13	[Ref 2]	If yes then whether this would be attractive in addition to or instead of reserving capacity to the intraday timescale?
Feedback on LT ICE becoming a 7-days notification		
[Ref 2]_Q14	[Ref 2]	Do you support the sending of the LT ICE on a daily basis?
Any further potential alternative firmness options and/or mitigations		
[Ref 2]_Q15:	[Ref 2]	The Operators wish to invite from Market Participants any further potential alternative firmness options and/or mitigations measures. Please detail your proposal(s).
Feedback on new options for Curtailment of Capacity and/or Nomination		
[Ref 2]_Q16	[Ref 2]	Feedback on the pro rating of Pre LT ICE issue and Nomination Curtailment is sought from Market Participants.
[Ref 2]_Q17	[Ref 2]	Feedback on the option to curtail a User's nominations ne position is sought from Market Participants.