

**CHARGING METHODOLOGY STATEMENT
FOR THE
ANGLO-FRENCH INTERCONNECTOR**

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1 INTRODUCTION

- 1.1 National Grid Interconnectors Limited (NGIC) and RTE Réseau Transport d'Électricité (RTE) are jointly responsible for the transmission of electricity across the Anglo-French Interconnector known as "Interconnexion France Angleterre" (IFA). This interconnector connects the national electricity transmission systems of France (owned and operated by RTE) and Great Britain (owned by three companies but operated by National Grid Electricity Transmission plc (NGET)). NGIC is a wholly owned subsidiary of National Grid Plc holding an Interconnector Licence (the Licence) to operate the IFA, and designated as a Transmission System Operator (TSO) under the European Third Package.
- 1.2 The interconnector circuits comprise two AC to DC converter stations connected by four pairs of cables between Sellindge in GB and Les Mandarins in France, some 70KM distance in total, of which 45KM is subsea. Power enters and leaves the interconnector circuits at the respective points of connection to the national transmission networks at these two converter stations.
- 1.3 NGIC (and RTE) facilitate commercial access to IFA, whereby third parties are able to gain rights to transfer electricity across IFA, between the power markets of GB and France. NGIC's Licence requires it to publish a Charging Methodology Statement which sets out the terms under which commercial access to IFA is made available.
- 1.4 This document sets out the charging methodology which will be applied by NGIC with effect from the date of implementation of the Harmonised Allocation Rules [expected 1st January 2018]. Harmonised Allocation Rules will come into force along with Border specific annex: IFA Interconnector and IFA Access Rules V12.
- 1.5 NGIC and RTE conducted the Access Rules V12 consultation following the ENTSO-E HARs and Border Specific Annex: IFA Interconnector submissions in April 2017. All the information pertaining to this consultation is available via the following link:
<http://www2.nationalgrid.com/About-us/European-business-development/Interconnectors/France/Consultations/>
- 1.6 An electronic version of this document can be obtained via the following link:
<http://www2.nationalgrid.com/About-us/European-business-development/Interconnectors/France/IFA-Charging-Methodology/>
- 1.7 Further information on NGIC's activities and the information contained within this document can be obtained by contacting us by email or in writing:

E-mail: ifa.customerenquiries@nationalgrid.com

Post: National Grid Interconnectors Limited, 35 Homer Road, Solihull,
West Midlands, B91 3QJ
- 1.8 All further references to NGIC in this document relate to its role and participation in the joint administration of the third party access arrangements for the interconnector and in relation to its obligations as an interconnector operator and licensee in Great Britain.

2 INTERCONNECTOR CHARGING METHODOLOGY

Introduction

- 2.1 Standard Licence Condition (SLC) 10 of the Licence requires NGIC to establish a methodology showing the methods and principles on which charges for the use of IFA are based. This charging methodology is required to be approved by the Gas and Electricity Markets Authority (Authority) before it takes effect. Subsequent to this it may be modified from time to time in accordance with SLC 10(11) – (14) of the Licence.
- 2.2 This publication sets out the use of interconnector charges which apply from the date of implementation of the Harmonised Allocation Rules (HARs) as required by SLC 10 of the Licence.

Objectives of the charging methodology

- 2.3 As a minimum the interconnector charging methodology has to comply with the objectives set out in SLC 10(4) of the Licence (“relevant objectives”) which require that the charges and their underlying methodology are:
 - (a) Objective;
 - (b) Transparent;
 - (c) Non-discriminatory; and
 - (d) Compliant with the Regulation¹ and any relevant and legally binding decision of the European Commission and/or the Agency².
- 2.4 In addition to this minimum set of relevant objectives NGIC has its own objectives for the charging regime. These are that the use of interconnector charges should:
 - (a) Be simple to understand and implement; and
 - (b) Promote efficient use of the interconnector within the context of the differing market structures which it connects.
- 2.5 Where changes are proposed to this charging methodology these will be consulted upon with the industry in accordance with SLC 10(11). The Authority has the right to amend any proposed changes to the methodology before the changes would otherwise take effect.
- 2.6 NGIC believes that the methodology it has prescribed for charges for using its interconnector facilitates all objectives as described above.

Explicit and Implicit auction principles

- 2.7 It is necessary to distinguish between implicit and explicit auctions of capacity. Implicit auction mechanism applies for Daily Auctions; however by exception, explicit auctions for Daily Capacity may be invoked as a fallback in the event that Implicit Daily Auctions are not available. Long term and Intraday capacity is allocated through an explicit allocation process.

¹ Regulation 2009/714/EC of the European Parliament and of the Council of 13 July 2009 on conditions for access to the network for cross-border exchanges in electricity and repealing Regulation 2003/1228/EC(12)

² The Agency for the Cooperation of Energy Regulators established by Regulation 2009/713/EC of the European Parliament and of the Council of 13 July 2009(10)

- 2.8 The explicit auction mechanism describes auctions where participants may gain rights to nominate transfers specifically on IFA, with such nomination to be made in a subsequent step. In the explicit auction process, participants declare how much they are willing to pay for capacity and place bids accordingly. These bids are then ordered by price and, starting from the highest one, allocated until all the available capacity is accounted for, whereupon the price for the capacity payable by all successful bidders is set to the bid price of the lowest allocated bid. This methodology both reflects and applies the widely-recognised principle typically characterised as “clearing” or “marginal” pricing.
- 2.9 In contrast, the implicit auction mechanism is designed to enable available capacity to be used in order to integrate the respective spot markets in France and Great Britain with the flow on the IFA set in accordance with the energy prices in the respective power exchanges (PXs). Thus the auctioning of capacity is included (implicitly) in the power exchange auctions of electrical energy. As the capacity is made available to the spot price mechanism, rather than to individual users, the price for capacity is derived from the price difference between the two energy markets. This implicit auction methodology is known as Multi-Regional Coupling (MRC) Day Ahead Market Coupling.

3 ACCESS RULES AND USE OF INTERCONNECTOR

Introduction

- 3.1 This document should be read in conjunction with the IFA Access Rules V12, Harmonised Allocation Rules and Border Specific Annex: IFA Interconnector, which set out the conditions of access for use of IFA including the process by which access (transmission) rights are secured.
- 3.2 NGIC has an obligation to ensure that the IFA Access Rules, HARs and BSA fulfil the requirements of this Charging Methodology Statement. To the extent that changes in the IFA Access Rules, HARs or BSA result in a requirement to modify this Charging Methodology Statement then this shall be carried out in accordance with SLC 10(11) – (14) of the Licence.

Eligibility to use the Interconnector

- 3.3 Details of the third party access regime applicable to IFA in accordance with SLC 11 can be found via the following link:
<http://www.nationalgrid.com/uk/Interconnectors/France/Participation/>.
- 3.4 Customers wishing to become an IFA Registered Participant, and thus be able to participate in all explicit auctions, can apply via a non-discriminatory eligibility process administered jointly by NGIC and RTE. The eligibility requirements are set out in:
- (a) Harmonised Allocation Rules - Chapter 2, and
 - (b) Border specific annex: IFA Interconnector - Section 3(1) , and
 - (c) IFA Access Rules V12 - Chapter 2.

These documents include the requirements for parties to be signatories to the HARs, BSA and IFA Access Rules via an IFA Participation Agreement. In order to Nominate IFA Capacity participants are required to become signatories to the relevant market codes in GB and France. These codes include, but are not restricted to, the Balancing & Settlement Code and Connection & Use of System Code in GB and Accord de Participation in France.

Interconnector access rights

- 3.5 IFA has a maximum physical capability of 2000MW in each direction (France to GB and GB to France) measured at mid-Channel.
- 3.6 NGIC in conjunction with the French transmission system operator, RTE, conducts explicit interconnector capacity Auctions on a non-discriminatory basis for the right to flow electricity in a specific direction (“the transmission right”).
- 3.7 Registered Participants may acquire explicit interconnector capacity in accordance with the IFA Access Rules, HARs and BSA. Obtaining explicit capacity permits the Registered Participant the right to nominate a transfer of electricity from one end of IFA to the other.

Transmission rights

- 3.8 All access rights (explicit capacity) relate to a particular period and direction and to each hour within that period. Advance purchase of such transmission rights is available in a series of capacity product Auctions on a directional basis ranging currently from up to one year ahead to intraday. As such, capacity is offered in units (multiples of 1MW/period, where the period is per hour for Daily/Intraday Auctions, and per weekend, month, quarter, season, year (as the case may be) in LT Auctions). Note the implicit format for the day ahead auction and further criteria as described below in sections 4 and 5.
- 3.9 The range of products available is reviewed periodically and changes may be made by providing notice to Registered Participants accordingly.
- 3.10 The capacity offered will be 100% (subject to CACM Capacity Calculation Arrangements) of the physical IFA capability in all hours for any given day after taking into account any outage requirements, comprising both planned and unplanned outages. Details of planned outages are published and can be found by clicking on:
<http://www2.nationalgrid.com/About-us/European-business-development/Interconnectors/France/Notices-and-General-Information/>.

In the event of an unplanned outage, curtailment will be applied where necessary in accordance with the HARs, BSA and IFA Access Rules.

- 3.11 A timetable for LT Auctions is published in advance and can also be found via the link in paragraph 3.10.
- 3.12 Transmission rights unsold in longer term auctions may be offered for sale again into auctions closer to the day/hours to which the transmission right applies as per the principles defined within the HARs, BSA and IFA Access Rules, including, for the avoidance of doubt, the Daily and Intraday Auctions. This ensures that all possible capacity remains available to the market up to and on the day of use.

4 EXPLICIT AUCTIONS

Access (capacity) charges

- 4.1 The Long term explicit auction rules are set out in the HARs and BSA, which describe the basis on which Long term transmission rights are offered, allocated to and may be utilised by eligible Registered Participants. Bids will be accepted by NGIC (and RTE) in strict accordance with the criteria set out in the HARs and BSA.
- 4.2 The Intraday and Daily (where applicable) explicit auction rules are set out in the IFA Access Rules V12.
- 4.3 The price which all successful Registered Participants will pay for each transmission right in a given Auction is the price bid for the last accepted unit in descending order of price.
- 4.4 The charge payable to NGIC (and RTE) will be a unit price of capacity (expressed in €/MW/hour) multiplied by the number of units of capacity (MW) multiplied by hours within the product.
- 4.5 Registered Participants who acquire explicit capacity will receive invoices which are derived from the capacity charges levied in accordance with the HARs, BSA, IFA Access Rules V12 and this statement. Under current practice NGIC invoices for capacity sold in the direction of GB to France and RTE in the direction of France to GB, and should this change Registered Participants will be notified accordingly. Payment for capacity will be in Euros only.

Secondary trading

- 4.6 A Registered Participant which holds explicit transmission rights may relinquish this transmission rights for use by other eligible Registered Participants. There are two mechanisms for achieving this, namely Transfer of Transmission Rights and Return of Transmission Rights, both of which are described in the HARs and IFA Access Rules.
- 4.7 Transfer of Transmission Rights involves the bilateral transfer to another eligible Registered Participant of explicitly sold transmission rights. This transfer is conducted outside of NGIC's (and RTE's) systems and the original Registered Participant retains the obligation to pay NGIC for the transferred capacity.
- 4.8 Explicitly sold capacity may be offered for Return via a subsequent Auction, and where that capacity is resold, NGIC (and RTE) pass through the proceeds to the Registered Participant who made the Return. The original Registered Participant retains the obligation to pay NGIC (and RTE) for the original capacity purchase. There is no charge for the Return service provided via the Auction tool (CMS – the IT system used for conducting Auctions and other associated Interconnector Capacity activities).

Use of Transmission Rights

- 4.9 A Registered Participant which holds explicit transmission rights is entitled to use such transmission rights subject to the conditions imposed by the application of the curtailment process described in the HARs, BSA and IFA Access Rules. In order to

exercise its entitlement to use transmission rights, a Registered Participant may nominate (subject to providing the relevant nomination information when signing up to IFA) a cross-border transfer between France and GB of one or more unit(s) up to the maximum amount which is available to it, i.e. those units which it has secured by successfully participating in Auctions and/or via the process of Transfer of Transmission Rights referred to above in 4.6.

- 4.10 In accordance with its entitlement as noted above, a Registered Participant may nominate transmission rights in one or both direction(s) (as required). Nominations are divided into hourly blocks and the process is conducted on the Auction Tool separately for each of the following timescales: Long Term, Daily and Intraday.

Non-nominated transmission rights

- 4.11 If the Registered Participant does not exercise its transmission rights, they may subsequently be purchased by another (or the same) Registered Participant in accordance with the principles and criteria of Use It or Sell It ("UIOSI")/Use It or Lose It ("UIOLI") as described in the HARs and IFA Access Rules.
- 4.12 The UIOSI provisions are designed in such a way that any portion of LT transmission rights which is not nominated for an hour ceases to be reflected in a Registered Participant's Rights Documents and is made available to the implicit auction mechanism (or to the Explicit Daily Auctions in the event that Implicit Daily Auctions are unavailable) with the proceeds (if any) being returned to the original Registered Participant.
- 4.13 The UIOLI provisions are designed in such a way that any capacity sold as part of the Explicit Daily Auction which is unused in any hour ceases to be reflected in a Registered Participant's Rights Documents and is made available to the Intraday auction process, with the proceeds (if any) not being returned to the original Registered Participant.

Curtailment

- 4.14 In situations where NGIC has sold more capacity rights than it can deliver, typically in the event of an unplanned outage, a process will be applied whereby the explicit capacity rights and/or nominations are reduced pre-DAFD to limit the surplus of Capacity/Nominations over IFA capability. This process known as "Curtailment" is set out in the HARs, BSA and IFA Access Rules V12.
- 4.15 Registered Participants will be compensated for purchased capacity which NGIC (and RTE) have not been able to deliver in accordance with Chapter 10 in IFA Access Rules V12 and Chapter 9 in the Border Specific Annex. The compensation mechanism operates on the basis of the following principles:
- (a) Physical Transmission Rights Holders will be compensated at the Mid-Channel Day Ahead Market Spread for Curtailed Physical Transmission Rights. The compensation paid to a PTR Holder will be capped at IFA's Monthly Revenue. The calculation of the cap is set out in Article 59(3) of the HARs. .
 - (b) Under the IFA Access Rules, BSA and HARs, NGIC (and RTE) will only curtail Long – Term Transmission in order to ensure that operation remains within Operation Security Limits before the Day Ahead Firmness Deadline

(DAFD) (11am CET, 1 hour before the Day Ahead Market Gate Closure Time (DAMGCT). NGIC (and RTE) will ensure that a mathematical calculation is applied to the level of Curtailment and therefore this is defined as Capacity Shortage in Chapter 10 of the IFA Access Rules and Chapter 9 of the BSA.

- (i) If there is a need to curtail to ensure operation remains within Operational Security Limits pre-DAFD then the Physical Transmission Rights Holder will be compensated by the Auction Platform on the basis of the following valuation principles: The maximum of (a) 0€/MWh and (b) the Mid Channel Day Ahead Market Spread (subject to the caps set out in Section 17 of the IFA Border Specific Annex) in the direction of the Long Term Transmission Rights of the day-ahead Implicit Allocation or fallback explicit daily allocation in which that Cross Zonal Capacity was reallocated.
 - (ii) When the daily Offered Capacity for the Implicit Allocation or fallback explicit daily allocation is not fully allocated for a specific hour in the direction of the Long Term Transmission Rights in which Cross Zonal Capacity was reallocated then there will be no payment from the Allocation Platform to the Registered Participants for this specific hour.
- (c) Where Daily Explicit Auctions are invoked and there is an emergency situation giving rise to a Curtailment of Daily Nominated Physical Transmission Rights Registered Participants will be compensated at the Day Ahead Market Spread if IFA curtails the rights holder for reasons of emergency situation post-DAFD. Holders of curtailed Long Term nominated and non-nominated Physical Transmission Rights under Section 18 of the IFA Border Specific Annex shall be entitled to receive reimbursement for the corresponding curtailed units on the basis of the following principles:
- (i) The maximum of (a) 0€/MWh and (b) the Mid Channel Day Ahead Market Spread in the direction of the Long Term Transmission Rights of the day-ahead Implicit Allocation or fallback explicit daily allocation in which that Cross Zonal Capacity was reallocated.
 - (ii) When the daily Offered Capacity for the Implicit Allocation or fallback explicit daily allocation is not fully allocated for a specific hour in the direction of the Long Term Transmission Rights in which Cross Zonal Capacity was reallocated then there will be no payment from the Allocation Platform to the Registered Participants for this specific hour.

5 IMPLICIT DAILY AUCTION

Introduction

- 5.1 NGIC's implicit auction mechanism is facilitated as part of the MRC Day Ahead market coupling arrangements which encompass interconnector capacity and PXs' order books from GB, France, Germany, Benelux, Scandinavia, Poland, Slovenia, Italy, Spain and Baltic countries.
- 5.2 Where Implicit Daily Auctions are in operation, no price is payable by Registered Participants to NGIC for capacity allocated via this mechanism. Where capacity is

so allocated, the value attached to it is based on the loss adjusted price differential between GB and France and the scheduled flow determined by the Implicit Allocation Algorithm, and this is passed through to NGIC (and RTE) by the power exchange clearing houses.

Non-nominated transmission rights

- 5.3 The remuneration (if any) from the implicit auction mechanism for non-nominated Long Term transmission rights is based on the implicit auction loss-adjusted price differential between France and Great Britain and is returned to the original Registered Participant in accordance with HARs and IFA Access Rules.

Curtailment

- 5.4 Implicit Nominations on behalf of the PXs and/or clearing houses are physically firm, and hence are not subject to curtailment.

6 ANCILLARY SERVICES

- 6.1 The interconnector circuits support ancillary services that can be exchanged between the national network TSOs RTE and NGET, and which include Emergency assistance, Constraint management, Intertripping. The facility to exchange other ancillary services may be agreed from time to time between NGIC, NGET and RTE.
- 6.2 Should any TSO-TSO ancillary service be exchanged operationally then currently a charge is applied to NGET. This charge is applied on a contractual basis between NGIC and NGET, reflecting the Licence separation between the interconnector and transmission companies and pricing for equivalent services available elsewhere on the market.

7 SCHEDULE 1: ACRONYMS AND DEFINITIONS

| EXPRESSION | ACRONYM | DEFINITION |
|--------------|---------|---|
| Auction Tool | | <p>The information technology system used by the Allocation Platform to perform Auctions and to facilitate other procedures described in these Allocation Rules such as transfer or return of Long Term Transmission Rights</p> <p>As defined in the Harmonised Allocation Rules, Article 2 – Definition and interpretation</p> |

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| Implicit Allocation Algorithm | | <p>The price coupling algorithm referred to in the Framework Guidelines on Capacity Allocation and Congestion Management for Electricity published by the Agency for the Cooperation of Energy Regulators (FG-2011-E-002, 29 July 2011);</p> <p>As defined in IFA Access Rules, Rule 3: Definitions and interpretation</p> |
| Implicit Daily Auction | | <p>The process whereby the Interconnector Operators at day-ahead stage allocate the Daily Offered Capacity via the Implicit Allocation Algorithm</p> <p>As defined in IFA Access Rules, Rule 3: Definitions and interpretation</p> |
| Long Term | LT | <p>Processes relating to Auctions with Product Periods greater than 1 Contract Day and associated Interconnector Capacity activities</p> <p>As defined in IFA Access Rules, Rule 3: Definitions and interpretation</p> |
| National Grid Electricity Transmission plc | NGET | National Grid Electricity Transmission plc, a company incorporated in England and Wales |
| Pre – Day Ahead Firmness Deadline | Pre-DAFD | As defined in Article 58 of the Allocation Rules for Forward Capacity Allocation and the methodology in accordance with Article 69 of the Commission Regulation (EU) 2015/1222. |
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|---|-------|---|
| RTE Réseau Transport d'Électricité | RTE | RTE Réseau Transport d'Électricité, trading as "RTE" or "Réseau de Transport d'Electricité" |
| Use It or Lose It | UIOLI | As defined in IFA Access Rules, Rule 3: Definitions and interpretation |
| Unit | | As defined in the IFA Access Rules, Rule 3: Definitions and Interpretation |
| Allocation Platform | | As defined in the IFA Access Rules, Rule 3: Definitions and Interpretation |
| Physical Transmission Rights | PTR | As defined in Harmonised Allocation Rules, Article 2: Definitions and Interpretation |
| Harmonised Allocation Rules | HAR | Rules governing Long term transmission rights |
| Border Specific Annex: IFA Interconnector | BSA | Deviations from the HARs specific to IFA. |