

Modification proposal:	<b>Balancing and Settlement Code (BSC) P294: 'Addition of Offshore Transmission System and OTSUA to the definition of the Total System'</b>		
Decision:	The Authority <sup>1</sup> directs that this proposal be made <sup>2</sup>		
Target audience:	National Grid Electricity Transmission Plc (NGET), Parties to the BSC and other interested parties		
Date of publication:	19 December 2013	Implementation Date:	5 working days following approval

## Background to the modification proposal

Since the transitional offshore transmission regime went live in 2009, offshore transmission systems have been constructed by generators and transferred to offshore transmission owners (OFTOs) selected through a competitive tender process (the 'generator build' model).

We expect the Department of Energy and Climate Change (DECC) to 'fully commence' the offshore transmission regulatory regime next year. Currently, before asset transfer, conveyance of electricity offshore at 132kV and below is legally classified as distribution of electricity. Developers may operate the offshore systems lawfully under an offshore distribution licence exemption up to the point of transfer to an OFTO – such systems constitute distribution systems during this period. As a result of full commencement, such offshore systems operating at 132kV will constitute offshore transmission systems at all times, including before transfer. The result is that conveyance of electricity over such systems for the purpose of supply (including commissioning) by developers would be in breach of the prohibition on transmission without a transmission licence. However, the 'Generator Commissioning' Clause in the current Energy Bill<sup>3</sup> will permit developers to transmit electricity over the offshore systems during a 'commissioning period' of up to 18 months if certain conditions are fulfilled.<sup>4</sup>

The BSC requires that settlement metering compliant with specific requirements (BSC Code of Practice 1 (CoP1)<sup>5</sup>) is installed at all interfaces (boundary points) with the transmission system as defined in the BSC. Under the current arrangements the generator build offshore assets are not defined as part of the transmission system until the time they are transferred to the OFTO. In practice, this means that a generator must install settlement metering at the onshore boundary point prior to asset transfer, and at the offshore boundary point after asset transfer. Under these arrangements, the metering at the onshore boundary point becomes redundant after a relatively short operational life, expected to be up to 18 months under the enduring regime.<sup>6</sup>

Transmitting electricity results in a small proportion of the electricity transmitted being lost as heat. Losses are caused in part by the energisation of equipment (fixed losses) and in part by the distance over which power is transmitted (variable losses). Under the

<sup>1</sup> The terms 'the Authority', 'Ofgem' and 'we' are used interchangeably in this document. Ofgem is the Office of the Gas and Electricity Markets Authority.

<sup>2</sup> This document is notice of the reasons for this decision as required by section 49A of the Electricity Act 1989.

<sup>3</sup> Energy Bill 2012-13: <http://services.parliament.uk/bills/2012-13/energy.html>

<sup>4</sup> Under this Generator Commissioning Clause generators can commission the offshore transmission assets, and therefore convey electricity for the purpose of supply, until the expiry of an 18 month period following the issue of a completion notice in respect of such assets. Ofgem is currently considering proposals for implementation of the Generator Commissioning Clause. See <https://www.ofgem.gov.uk/ofgem-publications/82949/consultationontheimplementationofthegeneratorcommissioningclause30082013.pdf>

<sup>5</sup> See [http://www.elexon.co.uk/wp-content/uploads/2011/10/bsc\\_cop1\\_issue2\\_v8.0.pdf](http://www.elexon.co.uk/wp-content/uploads/2011/10/bsc_cop1_issue2_v8.0.pdf)

<sup>6</sup> See <https://www.ofgem.gov.uk/ofgem-publications/82949/consultationontheimplementationofthegeneratorcommissioningclause30082013.pdf>

current BSC rules, the costs of all such losses on the transmission system are borne by generators and suppliers of electricity on a uniform basis. Losses along the generator build offshore transmission assets prior to asset transfer are netted off the export from the generator due to the location of the settlement meter, and therefore costs of those losses are borne by the generator. Following the change of settlement metering point after asset transfer to the OFTO, losses along the same equipment are counted as part of the total transmission losses and allocated according to the wider arrangements.

### **The modification proposal**

P294 is a proposal raised by E.ON UK (the proposer) on 3 June 2013. It proposes to:

- add a new definition of Offshore Transmission System User Assets (OTSUA) which refers to the definition in the Grid Code and effectively means generator build offshore transmission assets before the transfer to OFTO;
- amend the BSC definitions of Offshore Transmission System, Total System and System to include OTSUA; and
- amend the definition of System Connection Point to exclude a connection between an OTSUA and the transmission system.

The proposer believes that these changes would better facilitate the following applicable BSC objectives:

- applicable BSC objective (c) 'promoting effective competition in the generation and supply of electricity, and (so far as consistent therewith) promoting such competition in the sale and purchase of electricity': CoP 1 compliant settlement metering would no longer need to be installed at the onshore boundary point between the OTSUA and transmission system, thus removing, for generators building OTSUA, what the proposer considers is an unnecessary cost that, in the proposer's view, other generators do not face;
- applicable BSC objective (d) 'promoting efficiency in the implementation and administration of the balancing and settlement arrangements': BSC definitions would be clarified to remove potential confusion.

### **BSC Panel<sup>7</sup> recommendation**

On 14 November 2013 the BSC Panel submitted its Final Modification Report (FMR)<sup>8</sup> to the Authority with the recommendation that P294 should be approved. The BSC Panel agreed unanimously with the view of the P294 workgroup that this modification would better facilitate BSC objectives (c) and (d). The BSC Panel also unanimously agreed with the P294 workgroup on the case for change. In addition to those identified by the proposer, the BSC Panel and P294 workgroup identified another impact of P294 as greater consistency in the treatment of losses along OTSUA with those on the wider transmission system both onshore and offshore.

### **The Authority's decision**

The Authority has considered the issues raised by the modification proposal and the FMR dated 14 November 2013. The Authority has considered and taken into account the

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<sup>7</sup> The BSC Panel is established and constituted pursuant to and in accordance with Section B of the BSC.

<sup>8</sup> The FMR and related documents can be accessed from: <http://www.elexon.co.uk/mod-proposal/p294/>

responses to Elexon's<sup>9</sup> consultation which are attached to the FMR. The Authority has concluded that:

1. implementation of the modification proposal will better facilitate the achievement of the applicable objectives of the BSC; and
2. directing that the modification be made is, on balance, consistent with the Authority's principal objective and statutory duties, despite wider concerns about the treatment of transmission losses (which are not the subject of P294).

## **Reasons for the Authority's decision**

### Applicable BSC Objectives

The Authority's assessment of P294 against the Applicable BSC Objectives is set out below:

*(a) efficient discharge by the licensee of the obligations imposed on it by the Act and by its licence*

The workgroup and BSC Panel have expressed no view on the impact of the proposal on this objective. None of the respondents to the consultations conducted by the workgroup and BSC Panel provided any comments in relation to this objective. We consider, however, that the proposal does impact this objective.

As identified by the BSC Panel and workgroup, one of the benefits of P294 is that it ensures generators are treated consistently in respect of the metering requirement and transmission losses allocated to those connected by OTSUA in comparison to others connected to the transmission system. We consider this to be consistent with NGET's licence obligation that, in the provision of use of the National Electricity Transmission System (NETS), it shall not discriminate between any persons or class or classes of persons<sup>10</sup>.

However, we also note that by treating losses incurred on OTSUA in the same manner as those on the transmission system, such losses will be allocated to all generators and suppliers on a uniform basis. In our consideration of previous BSC modification proposals which sought to allocate the costs of transmission losses in a more cost reflective manner<sup>11</sup>, we noted that greater cost reflectivity would be more in line with NGET's non-discrimination obligation. Our decision to reject P229 was based on wider considerations of our principal objective and statutory duties despite our view that more cost-reflective allocation of transmission losses would better facilitate the achievement of applicable BSC objective (a).

Whilst those considerations remain valid, we note that the effect of P294 is to align the treatment of losses on OTSUA with those on the transmission system, without any impact on or consideration of the appropriateness of the allocation arrangement of transmission losses itself. We consider that consistent treatment of losses for all generators would better facilitate the achievement of objective (a). The arrangement for transmission losses allocation should be considered in a holistic manner and consistently across the whole system. This is beyond the scope of P294, and the assessment of the incremental

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<sup>9</sup>Elexon administers the BSC. The role and powers, functions and responsibilities of Elexon are set out in Section C of the BSC.

<sup>10</sup> As set out in the transmission licence standard condition C7 "Prohibition on discriminating between users".

<sup>11</sup> For example, P203 and P229: <https://www.ofgem.gov.uk/licences-codes-and-standards/codes/electricity-codes/balancing-and-settlement-code-bsc?page=1#block-views-publications-and-updates-block>

impact of P294 must not be taken as a favourable judgement of the current uniform allocation of losses.

*(b) the efficient, economic and co-ordinated operation of the GB transmission system*

The workgroup and BSC Panel have expressed no view on the impact of the proposal on this objective. None of the respondents to the consultations conducted by the workgroup and BSC Panel provided any comments in relation to this objective.

As noted in the assessment under applicable BSC objective (a) above, P294 would change the treatment of losses on OTSUA from being allocated to specific generators exporting electricity through to being allocated in the same manner as the wider transmission system, which currently is on a uniform basis to all generators and suppliers. We note in our decision on P229 that greater cost reflectivity is generally likely to lead to more efficient, economic and co-ordinated system operation.<sup>12</sup> Under P294, cost reflectivity of the allocation of losses on OTSUA is reduced, due to the current wider transmission losses allocation arrangement.

Notwithstanding our views regarding the benefit of cost reflectivity which still remain valid, we note that the potential reduction of cost reflectivity under P294 is totally subject to the wider transmission losses allocation arrangement which may be subject to future reviews and changes. We also note that the materiality of the impact under P294, whilst transmission losses are uniformly allocated under the current wider arrangement, is relatively small. Because P294 affects a small proportion of the total asset life of a small subset of the transmission system, it would have very limited impact on how the relevant generators would change their investment and/or operational behaviour. This in turn means that P294, even under the current wider transmission losses uniform allocation arrangement, would have very limited impact on applicable BSC objective (b).

*(c) promoting effective competition in the generation and supply of electricity, and (so far as consistent therewith) promoting such competition in the sale and purchase of electricity*

We note that the workgroup and BSC Panel unanimously agreed that P294 would better facilitate this objective as, in their view, it would promote competition by:

- removing the cost of installing metering at the onshore boundary point; and
- treating losses for generator build during the commissioning period under the enduring regime consistently with losses on extensions to onshore or offshore transmission networks.

All respondents to the consultations conducted by the workgroup and BSC Panel agreed with this position.

We note that P294 would make the settlement arrangements – the metering requirements and consequently the allocation of losses – for a generator build offshore transmission project consistent with that for similar assets both offshore and onshore, during and after the commissioning of the transmission assets, and regardless of the party who builds such assets. This is likely to lead to a more level playing field for generators regardless of how they are connected to the transmission system and therefore likely to better facilitate competition in generation of electricity. Again, we note, as we do in the sections above, that the effect of P294 relating to the treatment of losses on OTSUA is subject to the wider transmission losses allocation arrangement. Whilst we

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<sup>12</sup> <https://www.ofgem.gov.uk/ofgem-publications/61873/p229-d.pdf>

still believe that greater cost reflectivity in general better facilitates competition, the subject of transmission losses allocation is outside the scope of P294. Our positive assessment of P294's impact in better facilitating competition through greater consistency across all generators is not a favourable judgement of the uniform allocation of transmission losses itself.

We note that P294 would also remove the requirement to install metering at the onshore boundary point which is not required after asset transfer to the OFTO. We agree that this would marginally reduce initial development costs based on the analysis in the FMR which shows that installing operational metering instead of CoP1 settlement metering would be cheaper. We do not expect that future network development is likely to incur additional project costs as a result of P294.

Overall we consider that P294 would better facilitate the achievement of applicable BSC objective (c).

*(d) promoting efficiency in the implementation and administration of the balancing and settlement arrangements*

We note that the workgroup and BSC Panel unanimously agreed that P294 would better facilitate this objective by clarifying definitions in the BSC and further aligning the BSC settlement metering arrangement with that in the Distribution Connection and Use of System Agreement (DCUSA). All respondents to the consultations conducted by the workgroup and BSC Panel agreed with this position.

We agree that greater clarity of the definitions of relevant terms in the BSC and alignment with the arrangements in the DCUSA that oblige the National Electricity Transmission System Operator to install metering at the Systems Connection Point (the point where an Offshore Transmission System connects to an Onshore Distribution System), will help improve efficiency in the administration and implementation of the settlement metering arrangements.<sup>13</sup> We therefore consider that P294 would better facilitate the achievement of applicable BSC objective (d).

Authority's statutory duties and the principal objective

We have considered P294 in light of our statutory duties including best regulatory practice and EU law; in particular the requirement that regulatory activities should be consistent and the overarching EU principle of non-discrimination respectively. We have also considered our principal objective to protect the interests of existing and future consumers<sup>14</sup>.

We believe that aligning the settlement metering arrangements and consequently the allocation of the costs of losses on offshore transmission assets built by generators with those for transmission assets built by other parties is in line with the principle of non-discrimination and regulatory activities being consistent.

In terms of impact on consumers, we note that P294 would reduce the metering costs that would be borne by all transmission users through transmission charges, and ultimately by consumers. The FMR provides a range of the benefits from not installing CoP1 metering to be £148,000 to £338,000 per circuit, depending on the voltage level. This could result in material cost savings for consumers when all potential future generator-build projects are taken into account.

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<sup>13</sup> DCUSA section 42.2 refers – [www.dcusa.co.uk](http://www.dcusa.co.uk)

<sup>14</sup> Our statutory duties including principles of regulatory best practice are set out in Section 3A of the Electricity Act 1989

However, as discussed above, P294 would also change the allocation of the costs of losses along OTSUA during the commissioning period from being borne directly by the developer to being allocated in the same manner as the wider transmission system. Currently, the costs of transmission losses on the wider transmission system are allocated to all generators and suppliers uniformly, and therefore more likely to be passed onto consumers. The workgroup did not provide quantified analysis of the value this impact, only noting in the FMR that the losses factor is small, between 2-3%, along with details of a compensating metering adjustment that was used to account for losses on the London Array project prior to asset transfer.<sup>15</sup> The workgroup also noted a number of factors upon which losses along OTSUA would vary, including the capacity of the offshore generating station connected to OTSUA, load factors achieved during the commissioning period, the distance between the onshore and offshore substations and the design arrangements for each project.

Given the variables outlined above and their impact on the cost of losses, we recognise there is a risk that, under certain circumstances, P294 could result in a net cost for consumers if they were to bear more cost from transmission losses than they benefit from the saving on metering costs. However, the increase in losses costs to be borne by consumers is an allocative effect, subject to a wide range of factors, and arises due to the wider losses allocation arrangement, which is not the subject of this decision. We consider that it is appropriate to give more weight to the potential cost savings resulting from P294. This is because the metering cost saving is a direct impact of P294 and relates to a genuine removal of unnecessary costs.

As explained earlier in this decision letter, we have previously expressed, for example in our decision on P229, our concern around the lack of cost reflectivity in allocation of costs of transmission losses, and how this could lead to adverse consequences for consumers. While our conclusions reached previously remain valid, these concerns are wider than the impact of how the treatment of the costs of losses may change under P294, whose focus and intent is only to bring the metering arrangements for the generator build OTSUA into line with other offshore and onshore transmission assets.

Taking all the relevant factors into account, we consider that P294 is consistent with the principle of non-discrimination and of appropriate regulatory consistency.

### Overall

On balance we consider that consistency in settlement metering arrangements across transmission assets, regardless of their construction delivery route, is appropriate and consistent with both our statutory duties and EU law. We expect the industry to keep the treatment of the costs of losses under review and continue to seek enhancements to the efficient operation of the system and markets and to deliver positive outcomes for consumers.

As mentioned above, prior to full commencement of the offshore transmission regime, conveyance of electricity offshore at 132kV and below is legally classified as distribution of electricity until the assets transfer to the OFTO. We note that P294 concerns transmission losses over offshore transmission systems – not exempt distribution systems. We also note that the implementation of P294 will precede full commencement and expect the licensee to take reasonable and appropriate steps to clarify arrangements for any affected projects.

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<sup>15</sup> Settlement metering was never installed at the onshore boundary point for London Array, therefore Elexon applied a compensation adjustment to the metered output offshore to calculate the reduction in active power output (ie losses) required for settlement purposes.

**Decision notice**

In accordance with Standard Condition C3 of NGET's Transmission Licence, the Authority, hereby directs that modification proposal BSC P294: 'Addition of Offshore Transmission System and OTSUA to the definition of the Total System' be made.

**Min Zhu,  
Associate Director, Offshore Transmission**

**Signed on behalf of the Authority and authorised for that purpose.**