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for energy consumers

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Date: 16 December 2016

Dear Company Secretary,

Project Direction ref: NGET / TDI 2.0 / 16 December 2016

National Grid Electricity Transmission plc (NGET) submitted the project Transmission & Distribution Interface 2.0 (TDI 2.0) (the Project) in August 2016 to be considered for funding through the Electricity Network Innovation Competition (NIC). In this year's decision¹, we selected the Project² for funding.

This Project Direction contains the terms to be followed by NGET as a condition of the Project receiving funding through the Electricity NIC. It must comply with these terms, which can be found in the Schedule to this Project Direction.

Project direction

Chapter 5 of the Electricity NIC Governance Document³ states that a Project Direction will:

- set out the Project-specific conditions that the Network Licensee (which for this project is NGET) is committing to in accepting funding;
- require the Network Licensee to undertake the Project in accordance with the commitments it has made in the Full Submission. Where appropriate, the Project Direction may therefore include extracts from the Full Submission or refer to specific sections of the Full Submission;
- set out the Approved Amount for the Project, that will form part of the calculation contained in the Funding Direction issued by the Authority under Chapter 7 of the Governance Document;
- set out the Project budget that the Network Licensee must report against and how variances against the Project budget will be reported and approved; and
- set out the mechanism for the Network Licensee receiving the Approved Amount as set out in section 4 of the Funding Direction.

¹ <https://www.ofgem.gov.uk/publications-and-updates/electricity-network-innovation-competition-2016-funding-decision>

² Unless otherwise specified, defined terms in this Project Direction have the meaning given to them in Appendix 1 of the Electricity NIC Governance Document.

³ <https://www.ofgem.gov.uk/publications-and-updates/version-2-1-network-innovation-competition-governance-documents>

These are described for the Project in the Schedule to this Project Direction.

Decision

Provided NGET complies with the Electricity NIC Governance Document and with the Schedule to this Project Direction, the Project is deemed to be an Eligible NIC Project.⁴

This Project Direction constitutes notice pursuant to section 49A (Reasons for decisions) of the Electricity Act 1989.



Geoffrey Randall
Head of RIIO Electricity Transmission
For and on behalf of the Authority

⁴ Eligible NIC Project has the meaning given in definitions of the Electricity Transmission licence.

Schedule to Project Direction

1. TITLE

Project Direction ref: NGET / TDI 2.0 / 16 December 2016.

2. PREAMBLE

This Project Direction is issued by the Gas and Electricity Markets Authority (the "Authority") to National Grid Electricity Transmission plc (the "Funding Licensee") pursuant to the Electricity NIC Governance Document issued pursuant to Part E of Special Condition 3I (Network Innovation Competition) of the Electricity Transmission Licence (the "Licence"). It sets out the terms to be followed in relation to Transmission & Distribution Interface 2.0 (the "Project") as a condition of it being funded under the NIC and the Funding Return Mechanisms.⁵

Unless otherwise specified, defined terms in this Project Direction have the meaning given to them in Appendix 1 of the Electricity NIC Governance Document.

References to specific sections of the Funding Licensee's Full Submission in this Project Direction are, for ease of reference, made by referring to the section number in the Funding Licensee's Full Submission pro-forma.

3. CONDITION PRECEDENT

The Funding Licensee will not access any funds from the Project Bank Account until it has signed contracts with the Project Partner named in Table 1.

Table 1. Project Partner

UK Power Networks (UKPN)

4. COMPLIANCE

The Funding Licensee must comply with Special Condition 3I of the Licence and with the NIC Governance Document (as may be modified from time to time in accordance with Special Condition 3I and as modified and/or augmented in respect of the Project by this Project Direction) and with this Project Direction.

Any part of the Approved Amount that the Authority determines not to have been spent in accordance with this Project Direction (or with the Electricity NIC Governance Document) is deemed to be Disallowed Expenditure.

Pursuant to Special Condition 3I.12 of the Licence, Disallowed Expenditure is revenue received (whether by the Funding Licensee or by another Licensee) under the NIC and Funding Return Mechanisms that the Authority determines not to have been spent in accordance with the provisions of the Electricity NIC Governance Document or with those of the relevant Project Direction.

Pursuant to Chapter 8 of the Electricity NIC Governance Document, Disallowed Expenditure includes any funds that must be returned if the Project is halted without Ofgem's permission, any funds that have not been spent in accordance with the approved Project Budget contained within the Project Direction, and any unspent funds on the completion of the Project.

⁵ The Funding Return Mechanism is defined in part C of Special Condition 3I.

5. APPROVED AMOUNT FOR THE PROJECT

The Approved Amount is **£7,970,435.26**.

6. PROJECT BUDGET

The Project Budget is set out in Annex 1 of this Project Direction.

The Funding Licensee will report on expenditure against each line under the category total in the Project Budget, and explain any projected variance against each line total in excess of 5% as part of its detailed report which will be provided, in accordance with Chapter 8 of the Electricity NIC Governance Document. Ofgem will use the reported expenditure and explanation to assess whether the funding has been spent in accordance with the Electricity NIC Governance Document and with this Project Direction.

For the avoidance of doubt this reporting requirement does not change or remove any obligations on the Funding Licensee with respect to reporting that are set out in the Electricity NIC Governance Document.

7. PROJECT IMPLEMENTATION

The Funding Licensee must undertake the Project in accordance with the commitments it has made in the Full Submission approved by the Authority pursuant to the Electricity NIC Governance Document and with the terms of this Project Direction. These include (but are not limited to) the following:

1. undertake the Project in accordance with the description set out in Section 2 (Project Description);
2. provide a Network Licensee Compulsory Contribution of £896,399.51 (50% from NGET, 50% from UKPN);
3. complete the Project on or before the Project completion date of 30 December 2019; and
4. disseminate the learning from the Project at least to the level described in Section 5 (Knowledge Dissemination).

8. REPORTING

Ofgem may issue guidance (as amended from time to time) about the structure and content of the Project Progress Report required by Chapter 8 of the Electricity NIC Governance Document. The Funding Licensee must follow this guidance in preparing the reports.

As required by Chapter 8 of the Electricity NIC Governance Document, the Funding Licensee must inform the Authority promptly in writing of any event or circumstance likely to affect its ability to deliver the Project as set out in its Full Submission.

9. COST OVERRUNS

The maximum amount of Contingency Funding that the Funding Licensee can request as additional funding for cost overruns on the Project is 5% of the approved amount.⁶

10. INTELLECTUAL PROPERTY RIGHTS ("IPR")

In Section 5 of its Full Submission (Knowledge Dissemination) the Funding Licensee has stated that the Project conforms to the default IPR arrangements set out in Chapter 9 of

⁶ This is the amount requested by the Funding Licensee in its Full Submission.

the Electricity NIC Governance Document. The Funding Licensee must therefore undertake the Project in accordance with the default IPR arrangements.

11. SUCCESSFUL DELIVERY REWARD CRITERIA

The Project will be assessed by the Authority for the purposes of the NIC Successful Delivery Reward against the SDRCs set out in Table 2 below (which comply with Chapter 5 of the Electricity NIC Governance Document).

Table 2. Successful Delivery Reward Criteria

Successful Delivery Reward criterion	Evidence
9.1 Technical High Level Design	
The high level design of the technical solution and high level business processes which will operate the solution.	<ul style="list-style-type: none"> • Alternative design options considered and selection criteria • High level design specification • Functional design document • High level business processes • Review of anticipated synergies and conflicts (3 July 2017)
9.2 Commercial and Detailed Technical Design	
Stage Gate 1 – The agreed detailed technical design (Partner/s, National Grid, UKPN and Customers) and Commercial Framework for the trial.	<ul style="list-style-type: none"> • Stakeholder consultation findings • Functional Specification Documents • Finalised Commercial Framework • Detailed Business Processes (1 January 2018)
9.3 Commercial Tendering Process Report and Finalised Trials Approach	
Stage Gate 2 – Outline the learnings from the tendering rounds for the reactive power services and the engagement on the active power services. Based on this process and the trials approach advise which customers will be utilised during each trial phase and the forecasted effectiveness.	<ul style="list-style-type: none"> • Report on tendering approach, including technical and contractual requirements for participation, barriers to entry and measures to alleviate these • Proposed commercial framework and interaction with SO and DNO incentives • Review of technologies and volumes under contract • Initial forecasts of availability and utilisation volumes • Signed commercial contracts • Trials Approach and Methodology (2 July 2018)
9.4 Customer Readiness Report and Performance of the Technical Solution in Controlled Environment	
Stage Gate 3 – Update on the effort required to ready customers to take part in the trial (technical, business processes, etc.) and the performance of the technical solution in a controlled environment and expected performances in the live environment.	<ul style="list-style-type: none"> • Test Report – End to End testing • Business Change Implementation Report • Customer Readiness Assessment • Technical Solution – GO / NO-GO Criteria Results • Customer and Business – GO / NO-GO Criteria Results (31 December 2018)
9.5 Cost Benefit Analysis	
Analysis assessing the financial case for the trial to date and for extending the approach into the future	<ul style="list-style-type: none"> • Detailed assessment of the costs and benefits of TDI 2.0, to include: <ul style="list-style-type: none"> ○ analysis of the net benefit of extending the trial into the future (using Ofgem’s CBA framework), replication study assessing the viability of, and case for, extending TDI 2.0 to other DNOs and

Successful Delivery Reward criterion	Evidence
	for providing a wider set of services (31 December 2018)
9.6 Trial Phase Reports	
Stage Gate 6 – Trials Report The completion of the trials in line with customer agreements and review of the performance of the trial; the closure of the project (potentially moving into BAU) in line with customer agreements	<ul style="list-style-type: none"> • Trials Phase Report including adequacy of contracted volumes to meet requirement, availability/reliability of DERs and control system, accuracy of sensitivity and accuracy forecasting, evidence of competitive bidding, evidence of conflicts • Report summarising the financials of each party (subject to DER commercial confidentiality), an in particular the costs incurred by the DNO, the uplift applied to DER bids, and hence the net revenue that the DNO receives • Assessment of scheme design and operation to cover how well it worked, where conflicts arose, and how the governance arrangements performed • Plan for transitioning trial participants into enduring solution (30 December 2019)
9.7 DSO risk-reward framework for providing wider system services	
A paper describing the incentive framework used for the project and recommendations for an enduring incentive framework for an active DSO	<ul style="list-style-type: none"> • Analysis of the costs, risks and revenues for the services included in the trial • Assessment of mechanism used within the trial and comparison against alternative incentive mechanisms • Assessment of the applicability of these incentive schemes to a DSO providing a broader set of system services and interaction with the wider SO incentives (31 December 2019)

The maximum amount of the Electricity NIC Successful Delivery Reward (which will not exceed the Network Licensee Compulsory Contribution) that the Project will be eligible for is £896,399.51 (50% to NGET, 50% to UKPN).

12. USE OF LOGO

The Funding Licensee and Project Partners, External Funders and Project Supporters may use the NIC logo for purposes associated with the Project but not use the Ofgem or Ofgem E-Serve logos in any circumstances.⁷

13. AMENDMENT OR REVOCATION

As set out in Chapter 8 of the Electricity NIC Governance Document and this Project Direction, this Project Direction may be amended or revoked under the following circumstances:

- (i) if the Funding Licensee considers that there has been a material change in circumstance that requires a change to the Project Direction, and the Authority agrees; or
- (ii) if Ofgem agrees to provide Contingency Funding, which requires the re-issue of the Project Direction; or
- (iii) if the Funding Licensee applies for Contingency Funding to cover a decrease in Direct Benefits and the Authority decides it would be in the best interest of

⁷ As listed in Box 1.6 in Section 1 of the Full Submission pro-forma.

customers to make changes to the Project Direction before the Contingency Funding would be awarded; or

- (iv) To reflect amendments made to the Licence.

14. HALTING OF PROJECTS

This Project Direction is subject to the provisions contained in paragraphs chapter 8 of the Electricity NIC Governance Document relating to the halting of projects. By extension, this Project Direction is subject to any decision by the Authority to halt the Project to which this Project Direction relates and to any subsequent relevant Funding Direction issued by the Authority pursuant to Special Condition 3I.

In the event of the Authority deciding to halt the Project to which this Project Direction relates, the Authority may issue a statement to the Funding Licensee clarifying the effect of that halting decision as regards the status and legal force of the conditions contained in this Direction.

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NOW THEREFORE:

In accordance with the powers contained in the Electricity NIC Governance Document issued pursuant to Part E of Special Condition 3I of the Licence the Authority hereby issues this Project Direction to the Funding Licensee in relation to the Project.

This constitutes notice of reasons for the Authority's decision pursuant to section 49A (Reasons for decisions) of the Electricity Act 1989.

ANNEX 1: PROJECT BUDGET

Cost Category	Cost (£)
Labour	
	3,827,275.00
Equipment	
	1,487,000.00
Contractors	
	1,456,000.00
IT	
	915,000.00
IPR Costs	
	0
Travel & Expenses	
	147,086.88
Payments to users	
	693,000.00
Contingency	
	705,376.25
Decommissioning	
	0
Other	
	329,375.00
Total	9,560,113.13