

# WPD - NIC Bid Challenges

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## *Third Party NIC Bid Information*

### Introduction

For Ofgem's 2018 Network Innovation Competition (NIC), Western Power Distribution (WPD) intends to enable a third party or parties to submit a maximum of two NIC applications. This document outlines the two network challenges, which WPD now or in the future will face, relating to developing and maintaining an efficient, co-ordinated and economical system of electricity distribution.

This document also outlines the process WPD intend to follow and the timeline through to full submission proforma (FSP) submission. The first process is to complete the attached **NIC Initial Proposal Form** and the **Pre-Qualification Questionnaire** by the 27<sup>th</sup> October 2017 (12pm). No additional information, above that included, will be provided at this stage. Please submit to: [wpdinnovation@westernpower.co.uk](mailto:wpdinnovation@westernpower.co.uk).

This call has been published on Achilles UVDB, ENA Collaboration Portal and WPD's Innovation Website. Shortlisting to the information day will be based on how readable the submitted information is, evidence that the proposal is truly innovative, novel, scalable and that there isn't an undue level of risk.

A future call will be made in January 2018 which will be targeted at developing smaller Network Innovation Allowance (NIA) projects with third parties to commence in 2018 and beyond.

### Requirements

The NIC is an annual opportunity for electricity network companies to compete for funding for the development and demonstration of new technologies, operating and commercial arrangements. Up to £81m per year is available through the Electricity NIC. The NIC is expected to focus on funding larger scale innovative projects at higher TRLs. Projects that have significant overlap with existing or previous NIC and NIA projects are not eligible for funding.

As set out in Ofgem's Electricity NIC Governance Document an NIC project must involve the development or demonstration of at least one of the following:

- A specific piece of new (i.e. unproven in GB) equipment (including control and/or communications systems and/or software);
- A specific novel arrangement or application of existing electricity transmission and/or distribution equipment (including control and communications systems software);
- A specific novel operational practice directly related to the operation of the electricity Transmission System/Distribution System; or
- A specific novel commercial arrangement.

Also, it must be demonstrated that a project meets all the following criteria:

- Accelerates the development of a low carbon energy sector and/or delivers environmental benefits while having the potential to deliver net financial benefits to existing and/or future network customers;
- Delivers value for money for electricity customers;
- Creates knowledge that can be shared across energy networks in Great Britain (GB) or create opportunities for roll-out across a significant proportion of GB networks; and
- Is innovative (i.e. not business as usual) and has an unproven business case where the innovation risk warrants a limited Development or Demonstration Project to demonstrate its effectiveness.

## Bid Funding

In line with Ofgem's update of the NIC Governance Document and to reflect the project bid process within the wider industry there is, from 2018, no mechanism to reclaim any costs associated with the preparation of an NIC bid. Therefore, when submitting the Initial Proposal Submission it is to be considered that if selected for Initial Submission Proforma (ISP) and then Full Submission Proforma (FSP) submission, including the Ofgem question and answer period, bi-lateral meetings and Bid re-submission through to Ofgem notification this is carried out at no cost to the DNO or customers.

It is expected that the required commitment to submit an NIC bid, through to Ofgem notification of award, is in the region of 100 and 150 person days.

## Challenges

Discussed below are two network challenges that require technical solutions. For both these challenges, a permanent technical or commercial solution is to be considered for installation or implementation at any point on the distribution network.

An Initial Proposal Submission is to be made for each challenge considered. No information other than the Initial Proposal Form is to be submitted, therefore please only submit the Initial Proposal Submission form.

## A – Building Networks

As well as smart alternatives to network reinforcement in order to support projected increases in electricity use, specifically to enable significant levels of Low Carbon Technologies (LCTs) such as Electric Vehicles (EVs) and Heat Pumps (HPs), a substantial amount of network reinforcement will inevitably be required. As the cost of construction increases and regulations regarding construction increase, such as planned hourly charges for roadworks causing disruptions in major cities, it will increasingly be prevalent that enhanced construction techniques and solutions are developed and trialled.

Solutions to this challenge should focus on one or more of the following:

- Reducing time on-site to construct and commission assets;
- Minimising roadworks or wayleave / easement requirements for cable and overhead line deployment; and / or
- Compacting of key substation equipment to increase deployment opportunities.

## B – Electric Vehicle Infrastructure Deployment

In the short to medium term the take up of EVs is projected to dramatically increase; therefore, the appropriate charging infrastructure is required, both in terms of capacity and scale. Significant clustering of EVs is expected at residential and commercial level, requiring a robust solution as well as overcoming the challenge of on-street charging both for residential and communal purposes. It is critical that charging availability is not a barrier to EV uptake, which means that suitable charging technology is required but moreover the appropriate infrastructure to facilitate a variety of charging requirements is sought.

Solutions to this challenge should focus on one or more of the following:

- Creating capacity for significant EV clustering;
- Enabling 300kW+ charging to be achieved; and
- Rapidly deploying EV charging infrastructure.

## Timeline

The first process for consideration is to submit the Initial Proposal documentation by the **27<sup>th</sup> October 2017, noon (12pm)** and be available for a face to face meeting on the 28<sup>th</sup> or 29<sup>th</sup> November 2017 in Birmingham.

WPD will invite the top eight (maximum) applicants through to a face to face meeting and subsequently proceed with a single bid, for each challenge, through to full submission.

Requirement	Date
Submission of Initial Proposal	27/10/2017 (12pm)
Notification of Progress to Information Day	17/11/2017
Attend Information Day (F2F) Meeting	28 and / or 29/11/2017
Announcement of Bid to Proceed	08/12/2017
Submit ISP	Early April 2018 (Exact date to be confirmed)
Announcement of Bid to Proceed to FSP	Late April 2018 (Exact date to be confirmed)
Submit FSP	Late July 2018 (Exact date to be confirmed)

## Notes for Submission

- Within each proposal, WPD expects the applicant to have considered and planned for the full resourcing of all aspects of project bid, mobilisation and delivery, including any activities it may wish WPD to undertake;
- Applicants are advised to review current and previous NIA and NIC projects and ensure synergies are highlighted and potential duplication is commented upon and differentiated;
- Projects (including cross-vector) must be able to clearly demonstrate the benefits attributed back to electricity bill payers;
- Information must be submitted to WPD within the published pro-forma, which is limited to 5 pages; information submitted within additional datasheets or appendices will not count towards the scoring; and
- Proposals will be scored against the following criteria:

Criteria	Sub-criteria	Weight or score of sub-criteria
Technical Fit 40%	Number of problems project solves	15%
	Number of methods project demonstrates	15%
	Quality of innovation	10%
Service Levels and Delivery 35%	Compliance with NIC Governance	20%
	Quality of bid delivery programme	10%
	Knowledge Transfer	5%
Financial and Commercial 25%	Benefits accruing to customers	10%
	Benefits accruing to wider system	10%
	Cost analysis	5%

Sub-criteria will be scored using the table below and applied to the marks / percentage available for each question. If any of the responses to the sub-criteria are scored below satisfactory, WPD will exclude the bid.

100%	Excellent, fully meets and goes beyond expectations
75%	Good, fully meets expectations
50%	Satisfactory, meets minimum requirements
25%	Poor, falls below minimum requirements
0%	Did not answer the question