



Smart Grid Ireland Response

**TO THE N.I. AUTHORITY FOR UTILITY REGULATOR DRAFT
DETERMINATION ON THE 6TH PRICE CONTROL FOR NORTHERN
IRELAND ELECTRICITY NETWORKS (RP6) OF MARCH 2017**

19TH May 2017

RESPONSE TO NIAUR RP6 DRAFT DETERMINATION 24 March 2017

Smart Grid Ireland is pleased to have the opportunity to submit a response to this important consultation. As an industry stakeholder group we represent a range of organisations who are involved directly in the key sub sectors including transmission and distribution. We would like to make it clear from the outset that the views expressed herein reflect the general views of our members with the exception of NIE Networks. In the interests of integrity and the avoidance of potential conflict of interests we have not sought any inputs from them.

The Draft Determination obviously covers the full range of investment and operational parameters for NIE Networks for the RP6 period. This response will focus mainly on one sub sector, namely; **D602 Investing for the Future**

We believe that the reductions in the Draft Determination are arbitrary in nature and do not reflect the need for the urgent creation of a more wide reaching approach to enable innovative technologies to flourish. The table below (taken from tables 4.11 and 4.13 in the Draft Determination) highlights the details of the overall reduction of £3.22 million between the RP6 submission and the draft.

Table 1

Sub – programme	Draft Determination (£k)	RP6 Submission (£k)	Variance (£k)
Smart Asset Monitoring	740	1160	(420)
Demand Side Response	1190	1300	(110)
LV Active Network Mgt	1450	1600	(150)
Voltage Mgt	1930	2220	(290)
Facilitation of energy storage services	0	300	(300)
Forward Investment in communications Infrastructure	1950	3900	(1950)
Totals	7260	10480	(3220)

In commenting on what we contend is a flawed philosophy behind the reductions we would begin referencing the statements made by Ofgem in the opening two paragraphs of the Executive summary of their review of their network innovation programme (published 31 March 2017) ;

***“At a time when there is significant change in the energy system, the companies need to be innovative to adapt networks to meet future challenges. They also need to get the most out of their existing capacity. Innovation is critical for transitioning to a low carbon economy at lowest cost to consumers.*”**

We think there is reasonable evidence that the network innovation incentives are providing value for money and helping to create a more innovative culture in network companies. In 2016 we commissioned an independent evaluation of the Low Carbon Network Fund (LCNF). It estimates net benefits of between £800 million and £1.2 billion from the scheme when projects are rolled out by the trialling companies. It also estimates the potential benefits could be up to a six- fold increase when a GB-wide roll out is factored in”

In our submission to the consultative inputs for RP5 we pointed out that there was no NI equivalent for LCNF and no provision made for any incentivisation of innovative technology trial deployments during the RP5 period. It is very disappointing to see the acknowledged benefits gained by UK DNO’s from the LCNF while NI companies and NIE Networks have been deprived of an opportunity to develop solutions unique to the particular technologies and architectures representing the NI electricity network (at both transmission and distribution levels)

With regards to table 1 data we would note that there is very little substantive justification cited to support the cuts of £3.2 million in the RP6 case submitted by NIE Networks. Indeed the reasons stated by the UR at para 4.42 for making the largest cut of £1.95 million representing a 50% reduction in the planned investment in the RTU replacement programme seem somewhat contradictory. On the one hand acknowledging that this is an investment ***“to facilitate the use of innovative solutions over conventional only in addressing LCT investment requirements”*** the statement ignores the fact that a fully upgraded RTU fleet would enable NIE Networks to fully implement the outcomes of the innovation trials from the outset of RP7.

Each of the other areas has also been subject to cuts in the proposed investment level and again no justification has been offered for the reduction. It is the direct experience of Smart Grid Ireland based on working studies in collaboration with other countries that each of the areas of “smart” technology are ripe for the exploitation of innovative technologies to introduce new ways of working to benefit consumers.

This latter point is important; the ongoing rationale of cutting current investments in trialling which technologies deliver the greatest benefits undermines the ability to deliver a future network at least cost. A consideration to be taken into account at the same time is the explicit requirement, on the part of NIAUR, that all trials/pilots should be at almost zero

risk and that defined end results are calculated. This risk adverse approach is unrealistic and it goes against the concept of research & innovation. We fully accept that trials need a full appraisal of the likely benefits but we would contend that such is the intrinsic nature of such trials that they can only be akin to the level of reasonable certainty rather than 100% guaranteed outcomes.

The wider technology applications being adopted globally include such things as sub-station automation as electric utilities are under increasing pressure to ensure their grids remain reliable over a wide range of operating conditions and to extend the working life of key assets. It has been often quoted that investments should adopt proven technologies, the idea being that of the risk averse, non-innovative “fast follower.” This does not take into account that there are unique features to the NI electricity system that need solutions unique to these circumstances and this requires our own N.I. specific incentive programme.

We would draw attention to a further unexplained cut in the RP6 submission for an allowance of £300k to conduct research into energy storage services. We are very concerned that both the UR and NIE Networks are underestimating the critical contribution of energy storage services for optimising the integration of renewables on the grid. This view was very clearly articulated in the following extract from the House of Commons, Northern Ireland Affairs Committee report on the Electricity Sector in Northern Ireland (Third Report of Session 2016/17 published 1st May) paras 125 and part of 126

“Emerging electricity storage technologies have the potential to revolutionise the operation of electricity systems, significantly increasing energy efficiency and enhancing the security of supply without the need for extensive investment in additional generation and reinforcement of electricity grids. Electricity storage encompasses a range of technologies, from small-scale demand side systems designed for individual consumers to manage their electricity usage, to large scale grid-level technologies, intended for the management of electricity supply and demand at the national level

Electricity storage presents a particular opportunity for Northern Ireland, where these technologies could allow the market to take full advantage of the significant investment made in renewable generation in recent years..... RES explained that large-scale, subsidy free storage has the potential to save UK consumers £10 billion per year by 2050”

We believe this report makes a powerful case for research and investment in innovation in the area of storage and therefore the Draft Determination reduction should not only be fully re-instated but that there should be a substantial extra provision of at the least another £2 million to accelerate the deployment of storage technologies. This does not need any policy provision but rather a practical view of the likely benefits and the recognition that waiting on the RP7 cycle is simply not acceptable



We would also offer a comment on the Draft Determination **Section 5 Distribution Network Operational Expenditure**

We cannot understand the approach taken by NIAUR in the Draft Determination to this category of expenditure. The £25.6 million submission for the strengthening of the 11kv overhead line network is only nominally an optional investment. It was classified as optional after the extensive round of public and stakeholder consultations undertaken by NIE Networks under the direction of the Consumer Engagement Advisory Panel (CEAP) of which UR were a member. We would have expected the UR to review this item from a more critical consumer perspective. The risk of ice accretion has increased in recent years and to have no investment for a further 7 years seems to be an unwarranted risk. We would query why the UR has passed on making a positive intervention?

In offering the foregoing comments we recognise the limitations on the UR in the discharge of its duties namely;

- the absence of clear energy policy direction
- the need for an urgent update of the Strategic Energy Framework
- The fact that the interaction between energy policy and the economic growth agenda is not within the URs purview while nevertheless being a critical component of NI's economic health. A strong grid is essential to power the Northern Ireland economy.

Smart Grid Ireland would be happy to be available for any follow discussions or clarifications.

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