



**To:** Paul Jackson [paul.jackson@cc.gsi.gov.uk](mailto:paul.jackson@cc.gsi.gov.uk)

**Smart Grid Ireland Response to the Competition Commission on Referral of Northern Ireland Electricity Limited Price determination**

Dear Mr Jackson,

Smart Grid Ireland welcomes the opportunity to respond to the referral by NIAUR of the final price determination on NIE. We are of the view that final determination acts against the public interest and that the proposed reporter-function is also against the public interest.

The points we made to NIAUR in response to the draft determination still stand and we are extremely disappointed at the failure of NIAUR to take those views into account. A copy of that original response is therefore included as an appendix to this communications for your perusal.

In particular we are disappointed that the determination does not, in any real way, support the development of a low carbon energy system, facilitate grid modernisation, support the undertaking of smart grid pilots, or the economic benefits of smart grid investment, as outlined in our response to the draft determination.

Furthermore we are of the view that the regulator's approach:

- Is out of keeping with best practice regulation in relation to facilitation of much needed investment;
- takes a short term view of the value of smart grid investment to customers;
- condemns Northern Ireland to be a virtual backwater in terms of the development of smart grids;
- displays a level of inefficiency and lack of transparency which gives no confidence to its treatment of investment proposals and ;
- In its proposal to introduce a reporter function to NIE seeks to impose an outmoded, bureaucratic and discredited process which is, in effect, an attempt to micro-manage the utility and to thereby ensure that much-needed investment is further put on the long finger.

To deal with each of these points in turn:

1. Grid Investment

- a. It is our opinion that Smart Networks are fundamentally underpinned in the first instance by an existing reliable, robust electricity infrastructure. The transition to a future smart grid is therefore compromised by any under-investment in the Distribution or Transmission networks. In addition, the quality of supply to customers and the overall resilience of the networks to external events will also rapidly deteriorate in the absence of sufficient investment.
- b. There are significant cuts (49%) to the capex proposed by NIE. In fact if the impact of Fund 3 proposals is included, the cuts could be substantially more. These appear to be significantly greater than cuts imposed by OFGEM in its

recent prices determinations for DNOs in GB. E.g. the capex cut in DPCR5 from DNO forecasts was 15% on average (ranging from 0 to 21%). Indeed the opex cuts (21%) imposed by NIAUR are equally out of step with DPCR5 (1% on average, the max being 9%)  
[http://www.ofgem.gov.uk/Networks/ElecDist/PriceCtrls/DPCR5/Documents1/FP\\_1\\_Core%20document%20SS%20FINAL.pdf](http://www.ofgem.gov.uk/Networks/ElecDist/PriceCtrls/DPCR5/Documents1/FP_1_Core%20document%20SS%20FINAL.pdf)

- c. It is also noteworthy that, following the Determination, the ratings agency, Fitch, placed NIE on negative watch from a credit point of view. This potentially raises the costs at which NIE can fund investment and could lead to the shelving of investment due to rating constraints.
  - d. There is no rational basis to the proposal of the UR approving a portion of the requested investment, and then project by project approving individual investments. This is defeating the purpose of the 5 year Review period, and places the UR in a position where it is “micro-managing NIE” project by project. NIE needs to have clear line of sight of its investment requirement over a 5 year period and then use market funding mechanisms in the most appropriate manner to achieve the most competitive rates. The Sector does not require the UR to act as a Director overseeing each and every project undertaken by NIE which would undermine the confidence of the investor community.
  - e. In terms of the investments proposed for Plant/Line Upgrade and Asset Replacement we believe NIE is the organisation best placed to understand what constitutes a Safe and Efficient Network. There are numerous sources of data available to underpin the proposals set out by NIE. The task of understanding how and why NIE seeks to make such Plant/Line Upgrade and Asset Replacement investments should be relatively clear and easy to benchmark against the best in class networks around the world today – this assumes the UR also shares the objective that the NI Transmission and Distribution Grids should be best in class. The fact that UR failed to carry out site visits must cast doubt on ability to correctly gauge the need for upgrades and asset replacement.
2. Value of SG investment to Customers
- a. Consumer engagement lies at the heart of the roll out of smart technologies. It should become part of wider efforts to encourage customers to think more about reducing carbon and saving energy. Energy reducing technology and the ability to display information to consumers also represents a major new source of innovation and is a key enabler of greater competition. It allows suppliers to compete on their offerings or better understand how they can support particular areas of the supply segment such as vulnerable customers.
  - b. The proposed price determination makes much of the savings to customers. This amounts to £21 per annum for domestic customers, or a saving of less than 6p per day! This very small saving is hardly the basis on which to forego the

means to generate renewable energy in sufficient quantities to meet the renewables targets set by government, attract Foreign Direct Investment to NI or indeed to generate the much needed jobs in the constructions associated with the investment planned by NIE. In fact this saving to customers is very likely to be even smaller if proposed investments to facilitate renewables integration and smart technology were eventually approved in the “project by project” approach of the regulator.

- c. It is critically important that the domestic consumers in NI soon have the opportunity to reap the benefits of being part of a Smart Metering implementation. Families need to be in a position to take control of their consumption and therefore their spend on Electricity. To postpone this simply because of the current economic situation (assuming this is one of the principles behind UR’s decisions) is short sighted. Modernizing the network, investing in Smart ICT Solutions ultimately pay dividends in Jobs, Foreign Direct Investment and reduced cost through energy efficiencies
- d. The regulator’s approach ignores the worldwide consensus that failure to invest in smart grids now will lead to even higher costs in the long term as the following references show:
  - i. *Rough estimates place the investment need in "intelligent" network infrastructure at both transmission and distribution level at around EUR 40 billion up to 2020. Failure to invest will lead to insufficient integration of large-scale renewables capacities and deployment of electric vehicles as well as lack of regional cross-border demand-supply optimisation. As a result, peak demand in electricity could be up to 5% higher by 2020 and up to 8% by 2030 respectively, with corresponding needs for investment in expensive peak load and back-up generation assets.*  
 European Task Force for the implementation of smart grids in the European Internal market 2012  
[http://ec.europa.eu/energy/gas\\_electricity/smartgrids/taskforce\\_en.htm](http://ec.europa.eu/energy/gas_electricity/smartgrids/taskforce_en.htm)
  - ii. *There is broad consensus that substantial investments are needed to modernize the electricity system through new technology and other improvements. Between 2010 and 2030, estimated costs for modernization range from \$340 billion to \$480 billion (EPRI 2011); however, benefits are estimated at \$1.3 trillion to \$2 trillion over 20 years—roughly three to five times the investment.*  
 Workshop on technology, measurement and standards challenges for the smart grid (NIST March 2013)
  - iii. *A Smart Grid employs innovative products and services together with intelligent monitoring, control, communication, and self-healing technologies in order to:*

1. - *Better facilitate the connection and operation of generators of all sizes and technologies.*
2. - ***Allow consumers to play a part in optimising the operation of the system.***
3. - ***Provide consumers with greater information and options for how they use their supply.***
4. - *Significantly reduce the environmental impact of the whole electricity supply system.*
5. - *Maintain or even improve the existing high levels of system reliability, quality and security of supply.*
6. - ***Maintain and improve the existing services efficiently.***
7. - ***Foster market integration towards European integrated market.***

Definition, expected services, functionalities and benefits of smart grids: accompanying documents to communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions

### 3. Northern Ireland's position in Smart grid development

- a. Northern Ireland's failure to invest in smart grid technology places it at a severe disadvantage compared to other states / regions in Europe. This not only compromises the future effectiveness, sustainability and long term cost of the network but also jeopardises the strategically important development of renewables technology in NI. This is compounded by the reluctance on the part of the regulator to support the development of smart grid pilots or demonstration projects thereby failing to appreciate the fact that there is no "one size fits all" for smart grid implementations and the particular needs and starting points of individual electricity networks are important factors. It is also important to realise that smart grids will need new skill sets and techniques due to the convergence of power engineering, ICT and data analytics. The undertaking of pilot and demonstration projects gives a utility the opportunity to develop those skills and potentially to create much-needed employment in the economy.

It is worth noting that Smart Grid Ireland has had direct involvement with the regulator and DETNI in respect of a number of proposals on smart grid pilots and demonstration projects on smart metering. So we have first-hand experience of the regulatory attitude in this regard.

- b. European policy in relation to smart grid investment is set out in "Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions of 24 April 2011 - Smart Grids: from innovation to deployment [COM(2011) 202 final". In the act the Commission sets the following objectives i.a.:

### **3rd objective: incentivise Smart Grid deployment**

The deployment of Smart Grids is market-driven. This is the reason why households and companies should have simple access to consumption information so they can keep their energy costs down. Furthermore, investment in Smart Grids should be incentivised. The Electricity Directive and the Energy Services Directive should enable the emergence of a regulatory framework which provides incentives for such investment. The Commission plans to define a methodology using national smart meter implementation plans. In addition, it encourages Member States to design action plans for establishing Smart Grids. Specific coordinated action by all the actors involved will be made possible using national regulators and the European Network of Transmission System Operators for electricity (ENTSO-E).

#### **5th objective: support innovation**

Smart Grids require significant investment in terms of research and development. For example, the European Electricity Grids Initiative (EEGI) was established under the Strategic Energy Technology Plan (SET-Plan) to accelerate the deployment of smart grid technologies by 2020. Two other initiatives have the same objectives: the Covenant of Mayors and the Smart Cities and Communities initiatives.

The Commission intends to propose new initiatives similar to those mentioned above, with the aim of promoting the deployment of Smart Grids.

The following are some examples of what has been happening throughout Europe in this regard, but, pointedly, not in NI.

- i. *On 22 April, the European Commission's Joint Research Centre (JRC) published an update of its 2011 report 'Smart Grid projects in Europe: lessons learned and current developments', the most comprehensive inventory of smart grid and smart metering initiatives across the EU, Croatia, Switzerland and Norway. The new release includes 281 smart grid projects and around 90 smart metering pilots and roll-outs, accounting for a total investment of € 1.8 billion. Large-scale projects with budgets of over € 20 million have increased their share from 27% in 2006 to 61% in 2012. The study updates the inventory carried out in 2011 with data for 2012. The catalogue includes around 150 R&D projects with a total budget of around €500 million and around 130 demonstration projects with a total budget of around € 1.3 billion. The projects surveyed have an average budget of € 6.5 million and an average duration of 35 months. The majority (62%) are still on-going, with 17% due to end in 2013. The UK, Germany, France and Italy are the leading investors in demonstration projects, while Denmark is most actively involved in R&D. For some countries, there has been a major change in the number of projects surveyed. Italy and France, for example, each have 14 new smart grid projects (which started in 2010-12) this year in addition to four and six respectively last year. In this context, public sector support has played an important role, in particular through the smart grid programme*

of France's Agence de l'Environnement et de la Maîtrise de l'Energie and the regulatory incentives for smart grid projects set up by the Italian regulatory authority AEEG. The projects mainly targeted the following applications: systems to improve the observability (e.g. smart meters to collect and store, on demand and in real time, data for consumers) and the controllability (e.g. frequency and power flow control) of the networks; distributed ICT architectures for coordinating distributed energy resources (e.g. wind farms, photovoltaic plants and cogeneration units) and balancing demand and supply in a flexible way; charging and communication infrastructure works for electric vehicles; and use of storage as an additional source of grid flexibility.

Eurelectric News May 6<sup>th</sup> 2013

- ii. As part of the electricity distribution price control arrangements that run from 1 April 2010 to 31 March 2015, Ofgem established the Low Carbon Networks (LCN) Fund. The LCN Fund allows up to £500m support to projects sponsored by the distribution network operators (DNOs) to try out new technology, operating and commercial arrangements. The objective of the projects is to help all DNOs understand what they need to do to provide security of supply at value for money as Great Britain (GB) moves to a low carbon economy

<http://www.ofgem.gov.uk/Networks/ElecDist/lcnf/Pages/lcnf.aspx>

Rachel Fletcher, Ofgem's Acting Senior Partner for Smarter Grids, Governance and Distribution, said: "Britain's energy grids need to undergo a revolution in how they are run so they can connect more renewable generators and a range of low carbon technologies such as ground source heat pumps. There is a significant opportunity for companies to contain the cost of this transition by making better use of existing capacity and exploring the scope to use demand side response. "Lessons learnt from the projects will be shared with all network companies and other interested parties."

OFGEM press release 27<sup>th</sup> Nov 2011

- iii. The CER has allowed the DSO an €18.2m fund to carry out research and development and sustainability activities. This is the first time the CER has made such a provision. The provision will allow the DSO to explore technological advances in areas such as smart grids, generation integration and adaption of new network devices to support the integration of renewable generation into the network and to improve quality of supply.

CER price determination for ESB Networks 2011 to 2015

<http://www.cer.ie/GetAttachment.aspx?id=64d62ee8-2760-4356-8c9a-e494cf8209ab>



So the question must be asked why UR does not see this global trend to be of relevance to Northern Ireland and also question his steadfast refusal to countenance any smart grid demonstration project

#### 4. The Regulatory Process

- a. Regulatory incentives for the development of energy technologies will be critical to help the energy sector meet its energy challenges. Technology priorities should focus on the immediate needs of delivering clean, low carbon power and its integration into the grid. In this context the focus must be to move from solely achieving financial efficiency gains towards facilitating delivery of environmental targets. This will entail significant network renewal over timescales that are much longer than the periodic regulatory control period. Regulation should promote a move beyond 'one-off' projects to create scalable investment models. The results of previous projects should be used to reduce costs or create economies of scale in future projects. At the same time the results of R&D programmes should inform the development of regulatory standards and market mechanisms that will drive future investment. Use of smart grids to manage future energy demand will require strong integration and co-ordination between various actors. It will be important to foster a climate of innovation in which the pace of change can be significantly enhanced by new relationships and better customer engagement. Network Operators have to address a wider set of demands which balances their ability to earn the revenues needed to maintain and improve network reliability, achieving environmental issues to support Government low carbon initiatives and the need for service and reliability investments to the networks. Incentives from regulators to Network Operators will have to move from rewarding financial management to new sustainability criteria. Regulation will be needed to promote deployment of smart technologies by incentivising the full energy supply chain to implement and benefit from CO2 reductions.

This has been recognised by regulators at a European level. E.g.:

- i. Smart Grids:
  1. • Regulators must enable network companies to identify and prioritise specific Smart Grid solutions to meet network users' needs and incentivize them to be deployed.
  2. • Regulators must act as key facilitators of smart grids and find ways to encourage an adequate level and scope of more radical innovation..
- ii. Climate Change:
  1. • Regulators can drive energy efficiency – encouraging network companies to focus more on performance, and suppliers to sell less (not more) energy
  2. • Regulators can change basic market rules (e.g. to support renewables)

Una SHORTALL Deputy Secretary General, Council of European Energy Regulators (CEER) Conference presentation: [http://www.energy-regulators.eu/portal/page/portal/EER\\_HOME/EER\\_INTERNATIONAL/CO](http://www.energy-regulators.eu/portal/page/portal/EER_HOME/EER_INTERNATIONAL/CO)

P%2015%20(Copenhagen)/Presentations/SmartGridSideEvent\_UnaShor  
tall(CEER)x\_0.pdf

- b. Throughout the regulatory process the regulator has shown a lack of transparency (through its failure to publish the reports of its consultants for scrutiny); a failure to interact constructively with its regulated entity (by choosing not to have its consultants engage in site visits so that it could properly understand the position of NIE) and inefficiency through its failure to keep to a reasonable timetable in the review process.
    - i. In October 2011 the UR extended by six months the previous RP4 price control which was due to expire at the end of March 2012. In August 2012 the UR further extended the RP4 price control to 31 December 2012. NIE gave notice of its rejection on 20 November 2012. The UR's formal referral of NIE to the Competition Commission was not issued until 30 April 2013, more than five months later. The history for such referrals in the UK is more typically one month. Such delay and prevarication gives no confidence that the UR would be capable of delivering on the decisions necessary for the project by project approach it proposes in "fund 3" for the investments on renewable integration and smart grid technology.
    - ii. NIE has expressed the view that there was a lack of real two-way engagement on the part of the UR. In particular it pointed out that UR's consultants had not engaged in any site visits with a view to understanding the NIE position or validating its own analysis. UR countered with a view that site visits are unnecessary: "Our consultants do not consider it typical for a third party to undertake site visits as it is of limited value in validating data"; a view not shared by OFGEM or indeed CER.
5. Proposal for a Reporter function
- a. The UR proposes to introduce a Reporter *"to act as an auditor, certifier and commentator on aspects of the regulatory submissions that a company is required to make.."* This approach is not used by OFGEM. NIAUR made reference to the use of this process by OFWAT. However OFWAT had used this approach in the past but has now discontinued the use of Reporters,:
    - i. *We are committed to eliminating any unnecessary regulatory burdens on the companies; in line with this, we will only collect data that we need. ...companies should be responsible for their own assurance of processes and risks. So, we are adopting our consultation proposal that companies should take responsibility for their assurance, and will no longer require commentary from the reporter on the companies' annual submissions.*  
[http://www.ofwat.gov.uk/regulating/compliance/res\\_stk1203regcompsummary.pdf](http://www.ofwat.gov.uk/regulating/compliance/res_stk1203regcompsummary.pdf)



- ii. The Water Industry Commission for Scotland (WICS) also discontinued its use of a Reporter: *“Formerly, in order to assist the Water Industry Commission (WIC) to assess the quality of the Annual Return an “Independent Reporter” (the Reporter) audited the figures by assessing the methods used to produce the figures and the assumptions made by Scottish Water (SW). In 2010-11, WIC discontinued the formal role of Reporter.*  
[http://www.watercommission.co.uk/UserFiles/Documents/SW%20AR12%20-20OPA%20Reporter's%20Report%202012%20\(Final%20to%20WICS%20%20SW%20100512\).pdf](http://www.watercommission.co.uk/UserFiles/Documents/SW%20AR12%20-20OPA%20Reporter's%20Report%202012%20(Final%20to%20WICS%20%20SW%20100512).pdf)
- iii. It is our view that this particular proposal is potentially the most damaging to prospects for innovative and cost effective investment in smart grid technology in NI. It will simply heap layers of bureaucracy and inefficiency upon the regulatory process and further damage upon the economy of NI, given the previously mentioned inefficiency and lack of transparency shown by NIAUR.

As previously indicated, we are happy to have our response made public and would welcome the opportunity to present our case to you in person, should that be your wish.

Smart Grid Ireland is a not-for -profit collaborative network (NI and ROI) with a membership that incorporates a range of significant global companies including, General Electric, Siemens, Schneider, Vodafone, Silver Springs Networks, Oracle, IBM, Glen Dimplex etc. We are members of, and currently chair the Global Smart Grid Federation and form part of the National Technology Platform of the European Technology Platform for Smart Grids. It is our experience operating internationally that the costs and security of the energy infrastructure are vitally dependent on the innovative development of smart grid technology. Since our foundation in 2008 we have actively contributed to the formation of strategic policy in both jurisdictions. This includes the formation of the smart grid road map in ROI and, in Northern Ireland, strategic input to the SEF and have submitted reports and case studies to DETINI including specific proposals for pilot studies which would have demonstrated the value outlined above.

Signed on behalf of Smart Grid Ireland:      Tony Carroll, Chief Executive,  
Paddy Turnbull, Chairman



Note: The following members of Smart Grid Ireland are involved in their own submissions and are not included in this response: Eirgrid, SONI, NIE, and ESB. Another of our members, the Sustainable Energy Authority of Ireland (SEAI) is a policy advisory body to the Irish Government and is likewise not included.

Smart Grid Ireland Mission Statement: Smart Grid Ireland is a not for profit, all-island advocacy network, whose mission is to facilitate the delivery of a secure, affordable and sustainable energy infrastructure, positioning Ireland at the forefront of global smart grid development

## **Appendix**

### **Smart Grid Ireland Response to NIAUR Draft Determination**

By email to: [kevin.oneill@uregni.gov.uk](mailto:kevin.oneill@uregni.gov.uk)

#### **RESPONSE FROM SMART GRID IRELAND TO DRAFT DETERMINATION ON RP5**

Dear Mr O'Neill

Smart Grid Ireland welcomes the opportunity to provide our considered response to the draft RP5 Determination issued by the Electricity Regulator, 19 April 2012. Our response focusses on the impact of the proposed decision to disallow significant amounts of strategic investment in the Northern Ireland grid infrastructure.

In structuring our response we have identified key areas of concern with specific headline summaries against each, with an offer to engage in further supportive discussions with the Regulator to develop what we regard as a more positive and strategic investment outcome for Northern Ireland Electricity network. Our main concerns are highlighted as follows:

#### **1. Misalignment of Determination with the Strategic Energy Framework for NI**

The SEF stated that DETI viewed the challenge for Northern Ireland's energy future in the following terms;

##### **1.1**

##### ***Challenge (SEF page 23)***

***To provide Northern Ireland with a robust and flexible energy infrastructure that will support economic development, facilitate an increasing level of renewables and provide security of energy supply to 2050.***

Smart Grid Ireland cannot find any evidence that this strategic policy imperative has been given any consideration in the "minded to" proposals setting out the view of the Regulator towards this critical investment need. To disallow the entire

provision of £291 million in the NIE proposal is at odds with the policy intent of DETI and is also unique when compared to what is happening throughout Europe. As an example, both the Italian and Portuguese regulatory authorities recognize the impact of smart grids by offering a premium of 2% and 1.5% respectively on the agreed RAB rate of return for those investment plans directed to creating smart grid infrastructure.

## 1.2

### **Smart Grid (SEF page 21)**

***Building a smarter grid in Northern Ireland will facilitate the transition to a low carbon economy by changing the way energy is supplied and used. Integrating more information and communications technology coupled with the associated use of active, or smart, devices such as smart meters in homes will facilitate energy efficiency, improved services for consumers, reduced costs and carbon emissions and improvements in retail competition***

There is a body of empirical evidence which validates the case for national energy planning to include specific provision for development of a smart grid infrastructure yet the determination is silent on this point. The sole view expressed in the determination is that of a “follower” philosophy, presumably under the mistaken belief that a “no risk” approach will benefit the consumer despite the evidence to the contrary.

## **2. Absence of support or proposals for undertaking Smart Grid pilots**

At the request of the Minister, and supporting her statement in the SEF, Smart Grid members assisted DETI in the preparation of a detailed plan for a smart grid pilot. This took the form of sharing relevant domain expertise with NIE so they could initiate a (£3.1mio) pilot which would demonstrate a range of technology functions and the use of smart meters as an intelligent platform for managing the distribution network.

This proposal was rejected on the basis that Northern Ireland already had a pilot underway. This decision ignored the fact these were two technically different proposals and both essential in creating a base line for technological development longer term. In fact the current pilot project underway is extremely limited and is

low cost at £200K apart from the fact it should not be assumed that technology applications can be replicated from one grid to another but each has its own unique technological and operating requirements. This example highlights the difference between the progress being made in the UK under the Ofgem regulatory regime where it has been recognized that the transition to low carbon required regulatory intervention and stimulus (hence introduction of RIIO). Whereas this Determination has a single focus on cost control and continues a narrow RPI-X approach to a multi-faceted future energy challenge.

The European Commission Joint Research Centre document published earlier this year (JRC 65215) stating that the total budget of named projects already underway was over €5bn and that in their view this was only the beginning of the smart grid transition. The EU quotes conservative estimates to quantify smart grid demonstration investments by 2020 at a minimum of €56bn.

The NIAUR Determination covers the period up to 2017 yet no provision is being made for Northern Ireland to invest and develop its skills and play a part in the this new technology and renewable energy supply revolution.

### **3. Low Carbon Network Fund – lack of funding for innovation in Northern Ireland**

The Low Carbon Network Fund initiative by Ofgem is held out as an exemplar to utilities and regulatory authorities throughout Europe.

*Extract from Ofgem letter 27 Nov 2011*

*As part of the last electricity distribution price control, we established the £500m Low Carbon Networks (LCN) Fund. The aim of this fund is to provide Distribution Network Operators (DNOs) with the opportunity to obtain funding to trial innovative solutions to the challenges that they face. Such trials are required to enable DNOs to understand how they can meet the changing requirements of consumers and generators as Great Britain (GB) moves towards a low carbon economy. The learning gained from these trials will be disseminated to all DNOs and will be widely available to other interested parties to help them make the changes required in a timely and cost effective way. Learning from the trials will help to feed into the Smart Grid Forum which is jointly chaired by Ofgem and the Department of Energy and Climate Change (DECC). Results from the trials will also inform our development of the regulatory framework for networks and help DNOs to prepare well informed business plans for the next electricity distribution price control (RIIO-ED1).*

Northern Ireland should be able to utilize a similar initiative to encourage innovation in the development of the robust grid infrastructures that can cope with the transition to a low carbon economy with the capability to allow integration of the planned growth in renewables.

The view in the Determination is that there will be minimal load growth. This ignores the fact that there are already grid weak points where the localized grid cannot and will not be able to accommodate or facilitate the connection of the planned investment in wind farms and other low carbon electricity supply sources. Had NIAUR initiated a similar programme to the LCNF there is no doubt they would have received innovative working proposals to test the range of possible solutions to these critical problems.

#### **4. Grid modernization**

The Determination relies on a trend analysis of past investments as a predictor of what is required for the future. Yet it is an accepted fact that the grid network is ageing and that replacement is non-linear. Investments must be made ahead of the need otherwise the consequences will be catastrophic for Northern Ireland. The investment profiles in distribution networks across the developed world are remarkably similar as the priority focus will see the majority of funding allocated to the renewal and upgrade of distribution automation assets.

DNO's need the capability to deliver integrated operations capable of allowing the user the maximum flexibility. However NIAUR's determination, by absence of any allowable financial provision, leaves the Northern Ireland consumer vulnerable to the consequences of a lack of smart grid investment and thus unable to derive the benefits which will be enjoyed by consumers in other countries.

#### **5 Economic impact**

Charles Hendry MP, Minister of State for Energy launched a Smart Grid Great Britain report on 23 April 2012 (Smart Grid: A race worth winning?) in which the Ernst and Young analysis estimated the savings from the deployment of smart grid could amount to a positive NPV of £19bn (2012-50) starting now.





Smart Grid Ireland is concerned that in spite of the NIE proposal taking a forward view to begin this process, the Determination takes a view more aligned to “business as usual” as opposed to essential and strategic economic investment considerations. This will deprive Northern Ireland industry and the economy of the potential supply chain benefits and will also impact adversely on the development of a smart grid skills base as a key enabler of potential inward investment.

Smart Grid Ireland is a private sector collaborative network with a membership that incorporates a range of significant global companies including, General Electric, Vodafone, BT, Ericsson, Qualitrol, SSE, Silver Springs, Oracle, IBM, Gridline EU etc. It is our experience operating internationally that the costs and security of energy supply will become an ever more important factor in inward investment considerations.

Signed on behalf of Smart Grid Ireland: Paddy Turnbull, Chairman.

PP -

Sgi Secretariat,  
Centre for Competitiveness  
Tel: 02890 737950

