

Smart Metering Implementation Programme
Regulation Team
Department of Energy and Climate Change
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Future Transmission Networks

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Dear Sir/Madam

National Grid Electricity Transmission response to the DECC Smart Metering Implementation Programme consultations.

Introduction

National Grid Electricity Transmission (NGET) welcomes the opportunity to comment on the DECC Smart Meter Implementation Programme consultations. In summary we believe that the National Electricity Transmission System Operator (NETSO) should accede to the Smart Energy Code and have access to demand and generation data for system balancing and network planning purposes. This will allow the role of the NETSO to be performed in a more economic and secure way for the benefit of consumers.

Background to National Grid and its role in delivering energy to consumers

National Grid owns and operates the high voltage electricity transmission system in England and Wales and, as National Electricity Transmission System Operator (NETSO); we operate the Scottish high voltage transmission system. National Grid also owns and operates the gas transmission system throughout Great Britain and through our low pressure gas distribution business we distribute gas in the heart of England to approximately eleven million businesses, schools and homes. In the UK, our primary duties under the Electricity and Gas Acts are to develop and maintain efficient networks and also facilitate competition in the generation and supply of electricity and the supply of gas. Our activities include the residual balancing in close to real time of the electricity and gas markets on behalf of consumers. For the year 2011/2012 balancing costs were £724m¹.

National Grid's Accession to the "Smart Energy Code"

National Grid Electricity Transmission (NGET) welcomes the opportunity to comment on the DECC Smart Meter Implementation Programme consultation: "Smart Energy Code" (SEC). This response is on behalf of National Grid Electricity Transmission plc, in its capacity as the National Electricity Transmission System Operator (NETSO) for the National Electricity Transmission System (NETS).

¹ <https://www.nationalgrid.com/NR/rdonlyres/1D64E983-A20D-49EA-8B8C-86E64AFB47F1/53399/ProcurementGuidelinesReport20112012.pdf>

National Grid is a trading name for:
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Registered in England and Wales, No 2366977

Please note that we have assumed National Grid Gas (NGG) is considered a signatory to the SEC under the 'gas transporter' party category as listed in the consultation.

It is in the consumer interest that the role of the NETSO is included as an explicit party category within the SEC classification. As outlined in previous consultation responses by ourselves and the Energy Networks Association (ENA), the role of the NETSO will need to interact with smart meters in order to facilitate the efficient future operation of the NETS as we transition to a de-carbonised industry. This ability for the NETSO to interact with the smart meters, in accordance with the SEC, will facilitate the economic operation of the NETS leading to benefits to the end consumer.

The key principles around NGET acceding to the SEC are:

- Aggregation of demand and generation data for demand forecasting
- Aggregation of data for network planning purposes
- The requirement for half hourly metering information, in line with that proposed for Distribution Network Operators (DNO), for operational purposes

Consultation on "Data Access and Privacy"

National Grid Electricity Transmission (NGET) welcomes the opportunity to comment on the DECC Smart Meter Implementation Programme consultation: "Data Access and Privacy". This response is on behalf of National Grid Electricity Transmission plc, in its capacity as the National Electricity Transmission System Operator (NETSO) for the National Electricity Transmission System (NETS).

Through our response above to the SEC we have outlined that we would only require data at an aggregated level such that individual consumer data is protected. We also welcome the continuous dialogue and ongoing work between the Government and the ENA to develop evidence based upon network benefits of the smart meter roll-out.

Again, half hourly data flows will support the SEC meeting its 4th Relevant Objective through aiding the NETSO in fulfilling its regulatory obligations, in the same way as it would for DNOs.

Consultation on "Consumer Engagement Strategy"

National Grid Electricity Transmission (NGET) welcomes the opportunity to comment on the DECC Smart Meter Implementation Programme consultation: "Consumer Engagement Strategy". This response is on behalf of National Grid Electricity Transmission plc, in its capacity as the National Electricity Transmission System Operator (NETSO) for the National Electricity Transmission System (NETS).

We welcome consideration of central engagement for consumers through a central/neutral body. Digital UK rollout was a great example of what can be achieved through this approach. One delivery mechanism and umbrella brand for suppliers and networks as part of a national programme would be the sensible option. It should be a not for profit organisation working in partnership with suppliers, networks, consumer bodies etc. With regards a new brand for this central body, consideration should be given to building upon existing brand of Digital UK through leveraging the trust this body has already gained.

While NGET does not anticipate having a direct role in the consumer engagement strategy, we would expect to have input into the key messaging affecting networks. The introduction of smart meters and their benefits will empower consumers by providing them more choice and control in how they use and procure demand. It is important that consumer engagement focuses is on this benefit. However, the engagement should also encompass network benefits and outline how these benefits transfer to the consumer.

We agree that the focus of engagement should be on the near term benefits with clear linkages to those that will develop in the future e.g. development of smart grids.

We are also of a view that the benefits of smart meters should be consumer led. A good example here is the supermarket loyalty card. In this example, consumers are empowered with how they benefit from these cards and the benefits are designed around their behaviour and needs. Smart meters should have similar targeted consumer benefit.

If you would like additional information on our response to this consultation response I would be pleased to discuss further. I would welcome a discussion on our response in particular around our key reasons for NGET becoming a defined party under the SEC.

Yours faithfully

by e-mail

Future Transmission Networks,- National Grid Electricity Transmission

Appendix: Response to the specific questions laid out in the Smart Meter Consultations**Smart Energy Code****1. Please provide any comments that you have on the classification of party categories under the SEC.**

It is in the consumer interest that the role of the NETSO is included as an explicit party category within the SEC classification. As outlined in previous consultation responses by ourselves and the Energy Networks Association (ENA), the role of the NETSO will need to interact with smart meters in order to facilitate the efficient future operation of the NETS as we transition to a de-carbonised industry. This ability for the NETSO to interact with the smart meters, in accordance with the SEC, will facilitate the economic operation of the NETS leading to benefits to the end consumer.

The key principles around NGET acceding to the SEC are:

- Aggregation of demand and generation data for demand forecasting
- Aggregation of data for network planning purposes
- The requirement for half hourly metering information, in line with that proposed for Distribution Network Operators (DNO), for operational purposes

Aggregation of demand and generation data for demand forecasting

Accurate and reliable demand forecasting enables the NETSO to reduce the volume of reserve services that it procures, reducing costs for the consumer. Historically, demand has been relatively passive and we have been able to use historic information to forecast trends and consumer behaviours. Over the next decade, with the transition to a low carbon society, the uptake of new technologies such as heat pumps and electric vehicles will have a major impact upon how and when demand is used. The introduction of smart meters will empower consumers to take more control of their energy use and choice of supplier through for example incentives such as time of use tariffs. This will further exacerbate the increasing complexity of demand forecasting. Further to this, demand side response will be a key enabler for suppliers in effectively managing their energy requirements, and for network operators, both distribution and transmission, in playing a major role in the evolution of the smart grid.

Data on the impact of embedded generation such as installation of photo-voltaic panels will also better inform our demand forecasting. As volumes of these technologies increase, they will not only impact upon local networks for distribution, but with the ambition of government of 10s of GW of installations, they will have an impact on the national energy balancing of GB. Having this data will further inform our service procurement process ensuring the markets have the appropriate volumes available.

The NETSO requirement for smart meter data, at an aggregated level, will better inform how demand forecasting is carried out and hence optimise our service procurement. The more accurately we can forecast demand, then the more we can optimise our procurement, which is to the benefit of the consumer.

Aggregation of data for network planning purposes

Receiving this data will also better inform our planning process which will drive more efficient investment in energy/electricity networks. While we may be unlikely to see a significant take up of low carbon technologies and more activity from consumers until the next decade, the data provided as trends start to take shape (e.g. time of use tariff uptake) will provide valuable information that can be extrapolated for future investment plans. This will be to the benefit of the consumer as investment is optimised around their need.

The 4th Relevant SEC Objective is around "facilitation of innovation in design and operation of Energy Networks...delivery of secure and sustainable supply of energy under Principal Energy Legislation". The NETSO access to aggregated smart meter data will help the SEC meet this objective and also facilitate NGET meeting its transmission licence objectives.

The requirement for half hourly metering information, in line with proposed for Distribution Network Operators (DNO), for operational purposes

It is proposed that DNOs may receive data to deliver benefits such as reduced electricity network costs and improved customer service efficiency. We propose that NGET should also receive aggregated half hourly data in order to fulfil our regulatory obligations in line with the DNOs. This granularity to the half hour will better inform of us of demand trends that will feed into our operational and planning demand forecasting processes bringing the efficiencies mentioned earlier.

The aggregated data could be used to identify the volume of flexible demand available, so identifying the potential to instruct economic services for the benefit of the consumer. The smart meters will be a useful tool for the use of demand side services, whether for the NETSO, DNO or a supplier. We note that there is still work to progress in the design of an enduring efficient and effective demand side market. Access to aggregated smart meter data will be fundamental for all parties involved.

The role of a smart meter will also facilitate demand having a role in key markets such as the energy and ancillary services markets. So, consumers with flexible demand available could financially benefit by being able to offer access to their demand through an agreed set of aggregator principles that protects the consumers' data. This benefits both the NETSO and the consumer.

We agree with the principle of having to agree detailed plans of how the data will be aggregated and privacy concerns will be addressed and would welcome discussion with DECC on how this could be achieved for NGET.

29. Do you agree that the proposed SEC Panel composition set out in Box 12C is appropriate? Please give reasons for your answer. Alternative proposals for the panel composition are welcome.

We do not agree that the proposed SEC panel composition gives a reasonable representation of networks. The SEC panel should contain representatives from both distribution and transmission, (as is the case for the Balancing and Settlements Code), for both electricity and gas, to facilitate the SEC meeting its 4th Relevant SEC Objective. With network operators having a key principle need to

aggregate demand and generation data for demand forecasting, network planning purposes and utilisation of demand side services, it is important that there is representation on the panel, in a voting capacity.

Data Access and Privacy

15. Do you agree with the proposal to allow network operators to access half-hourly energy consumption data, without customer consent, for the purposes of developing and maintaining efficient, co-ordinated and economical systems for the distribution of electricity and gas, if they have had plans for aggregation approved? To what extent would this approach address potential consumer concerns about privacy in relation to network operator access to data?

16. If network operators' plans for aggregation have not yet been submitted or approved, do you agree that the proposed framework for supplier access to data should also apply to network operators? Would any alternative approach be more effective?

We agree with the proposal for network operators to access half hourly consumption data through agreed plans for aggregation.

It is proposed that DNOs may receive data to deliver benefits such as reduced electricity network costs and improved customer service efficiency. We propose that NGET should also receive aggregated half hourly data in order to fulfil our regulatory obligations in line with the DNOs. This granularity to the half hour will better inform us of demand trends that will feed into our operational and planning demand forecasting processes bringing the efficiencies mentioned earlier.

The aggregated data could be used to identify the volume of flexible demand available, so identifying the potential to instruct economic services for the benefit of the consumer. The smart meters will be a useful tool for the use of demand side services, whether for the NETSO, DNO or a supplier. We note though that how there is still work to progress in the design of an enduring efficient and effective demand side market. Access to aggregated smart meter data will be fundamental for all parties involved.

The role of a smart meter will also facilitate demand having a role in key markets such as the energy and ancillary services markets. So, consumers with flexible demand available could financially benefit by being able to offer access to their demand through an agreed set of aggregator principles that protects the consumers' data. This benefits both the NETSO and the consumer.

We agree with the principle of having to agree detailed plans of how the data will be aggregated and privacy concerns will be addressed and would welcome discussion with DECC on how this could be achieved for NGET.

Consumer Engagement Strategy**18. What role, if any, should network companies and communications service providers have in central engagement?**

While NGET doesn't anticipate having a direct role in the consumer engagement strategy, we would expect to have input into the key messaging affecting networks. The introduction of smart meters and their benefits will empower consumers by providing them more choice and control in how they use and procure demand. It is important that the consumer engagement's main focus is on this benefit. However, the engagement should also encompass network benefits and outline how these benefits transfer to the consumer.

We agree that the focus of engagement should be on the near term benefits with clear linkages to those that will develop in the future e.g. development of smart grids.