



Commission for Energy Regulation

An Coimisiún um Rialáil Fuinnimh

**National Smart Metering Programme  
(NSMP)  
Information Paper on Data Protection**

<b>DOCUMENT TYPE:</b>	<b>Information Paper</b>
<b>REFERENCE:</b>	<b>CER/12/213E</b>
<b>DATE PUBLISHED:</b>	<b>17<sup>th</sup> December 2012</b>



Commission for Energy Regulation

An Coimisiún um Rialáil Fuinnimh

The Commission for Energy Regulation,  
The Exchange,  
Belgard Square North,  
Tallaght,  
Dublin 24.

[www.cer.ie](http://www.cer.ie)

## **1.0 NSMP Approach to Data Protection**

### **1.1 Introduction**

Increased data flows are at the heart of every smart metering programme and the introduction of smart metering will not only change the nature of the data generated, but will dramatically increase its volume, utility and commercial value. Data security and data privacy are thus recognised as key components to be addressed as part of any national smart metering rollout.

To this end the CER has been working with the Office of the Data Protection Commissioner (DPC) to identify the key data protection considerations that need to be taken into account when defining the requirements and design of the national smart metering solution during the High Level Design - Stage 2, scheduled for 2013. In order to inform this process the CER and the DPC have developed this high level Information Paper which outlines some of the relevant data protection legislation, recommendations, principles and lessons learned that will be taken into consideration in a smart metering rollout.

### **1.2 Smart Metering & Data Protection**

#### **1.2.1 What is Smart Metering?**

Smart meters are the next generation of meters, which can replace existing electro-mechanical and diaphragm meters and offer a range of benefits for both the individual electricity and gas consumer and for the electricity and gas systems in general. A smart meter is an electronic device that can measure the consumption of energy, adding more information than a conventional meter and giving up-to-date information on usage to the consumer. Smart meters can; (i) facilitate improving energy efficiency by empowering consumers with more detailed, accurate, and timely information regarding their energy consumption and costs (ii) reduce overall energy consumption; (iii) reduce overall energy bills by shifting any discretionary electricity usage away from peak consumption times. The benefits of smart metering are recognised internationally and there are a number of key EU legislative instruments promoting smart metering to ensure that consumers are properly informed of actual energy consumption and costs frequently enough to enable them to regulate their energy consumption.

#### **1.2.2. Smart Metering Data Protection Considerations**

Smart meters will lead to a step change in the amount of data that will be available about consumers' energy consumption and as such will present new challenges to ensure that customers' data is protected. Consumers will be given the information they need to fully understand and manage their energy

consumption effectively, save money and reduce carbon emissions. This information will also enable the energy industry to operate more efficiently and effectively and support the provision of new energy services. The potential for the collection of both an augmented quality and increased quantity of data naturally has data protection implications. Similarly, the complex end to end systems used to transmit, communicate, secure and manage the data may also present data protection challenges.

It is essential that the interests of consumers are protected in order to maintain their confidence in smart metering. Market arrangements are required which will provide appropriate protections for consumers while delivering the benefits of a smart metering rollout and promoting competition in the energy supply and services markets. Data security and data privacy are thus recognised as key components to be addressed as part of any national smart metering rollout.

### ***1.3 Key Data Protection Considerations for NSMP High Level Design Stage 2***

One of the strategic objectives of the National Smart Metering Programme is to ensure that data protection is central to the smart metering systems design. Full end to end security of smart metering systems is a paramount requirement and the design stage of a smart metering roll-out will necessarily explore privacy considerations, data security and protection issues fully. As noted in the Decision on the National Rollout of Electricity and Gas Smart Metering CER/12/008, data protection requirements have been considered by the CER and will be addressed as part of the programme with the involvement of the DPC and other stakeholders. The following sections outline some of the relevant data protection legislation, recommendations from European and lessons learned from other jurisdictions that will be considered in High Level Design Stage 2 which is scheduled to take c.1yr from Jan – Dec 2013.

#### **1.3.1 Legislation**

From a data protection perspective, it is the DPC's role to ensure that the processing of data complies with the provisions of the Data Protection Acts 1988 and 2003. The DPC has set out a number of key principles in relation to the handling of personal data by data controllers and processors. Data controllers and processors must;

1. Obtain and process information fairly
2. Keep it only for one or more specified, explicit, and lawful purposes
3. Use and disclose it only in ways compatible with these purposes

4. Keep it safe and secure
5. Keep it accurate, complete, and up-to-date
6. Ensure that it is adequate, relevant, and not excessive
7. Retain it for no longer than is necessary for the purpose or purposes
8. Give a copy of his/her personal data to an individual, on request

At European level, the Article 29 Data Protection Working Party was set up under Directive 95/46/EC of the European Parliament and of the Council of 24 October 1995 on the protection of individuals with regard to the processing of personal data and on the free movement of such data.<sup>1</sup> The Article 29 Working Party is made up of all the EU Data Protection Commissioners and a representative of the EU Commission. The Article 29 Working Party has an advisory status and acts independently.

On 4 April 2011 the Article 29 Working Party issued an Opinion 12/2011<sup>2</sup> on smart metering to clarify the legal framework applicable to smart metering technology. The Opinion acknowledges that with the advent of smart meters consumers' relationship with energy suppliers is more complex because Smart Meters provide suppliers with insights into personal routines in contrast to the historic payment post-consumption model. From a data protection point of view, the Article 29 Working Party emphasise that while the potential benefits of these programmes are far-reaching and significant, they also have the potential to process increasing amounts of personal data, unprecedented in this industry, and to make that personal data more readily available to a wider circle of recipients than at present.

The Article 29 Working Party Opinion highlights the importance of security and recommends the adoption of privacy by design principles. In this respect, smart metering implementation should take place with privacy built in at the start, not just in terms of security measures, but also in terms of minimising the amount of personal data processed. At its most basic level, Privacy By Design would ensure that meter readings are only transmitted as frequently as necessary for the operation of the system or the provision of a service the consumer has agreed to receive.

---

<sup>1</sup> <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:31995L0046:en:HTML>

<sup>2</sup> [http://ec.europa.eu/justice/policies/privacy/docs/wpdocs/2011/wp183\\_en.pdf](http://ec.europa.eu/justice/policies/privacy/docs/wpdocs/2011/wp183_en.pdf)

### **1.3.2.1 Data Privacy Impact Assessment**

Expert Group 2 is one of the four Expert Groups of the European Commission's Smart Grid Task Force (SGTF) and is responsible for regulatory recommendations for privacy, data protection and cyber-security in the Smart Grid Environment. Regarding privacy and data protection, the mandate of EG2 defined by the SGTF is to provide a Smart Grid Data Protection Impact Assessment (DPIA) template. This template will be submitted to the Article 29 Working Party for consultation according to the point 5 of the Recommendation adopted by the European Commission on the roll out of smart metering systems.<sup>3</sup>

*“In order to guarantee protection of personal data throughout the Union, Member States should adopt and apply the data protection impact assessment template to be developed by the Commission and submitted to the Working Party on the protection of individuals with regard to the processing of personal data for its opinion within 12 months of publication of this Recommendation in the Official Journal of the European Union.”*

The European Commission plans to issue a Data Privacy Impact Assessment template and a benchmarking report on the rollout of smart metering in the EU in March 2013.

### **1.3.3 Lessons from other Jurisdictions**

In developing its approach to data protection and the smart metering solution design the CER will seek to follow best practice and draw on expert advice in relation to data protection. The programme will continue to monitor developments in other countries in smart metering, in particular in the US and European rollouts. We will seek to learn from the experience of other programmes while recognising the specific needs of the Irish markets and the benefits of the smart metering rollout as outlined in the trial.

## **1.4 Next Steps**

The NSMP High Level Design Stage 2 will focus on developing the Options and Strategy papers delivered in the High Level Design Stage 1 into firm and detailed Decision Papers that will provide the basis for the procurement of the end-to-end smart metering solution to formally begin. One of the key work areas for this Stage will be the development of a set of regulatory policy Decision Papers, which will include a paper on Data Protection, following intensive key stakeholder workshop engagement and a full public consultation process.

---

<sup>3</sup> Commission Recommendation of 9 March 2012 on preparations for the roll out of smart metering systems (2012/148/EU). European Commission. 2012, Official Journal of the European Union.

The CER will work with the DPC's office to develop this paper and consider how existing legislation, including the Data Protection Acts 1988 and 2003, will apply to smart meters' data, and what if any additional protections might be needed to supplement the existing protections and access rights to a provide clear privacy policy framework.

Recognising the wide ranging implications of the National Smart Metering Programme, during Phase 2 the CER will continue to cooperate and consult with suppliers, network operators, stakeholders, the DPC and the European Commission and European Working Groups to fully explore and address data protection issues, legal requirements and best practice in relation to data privacy, processing, retention, maintenance, use and security.