

**eMeter response to Ofgem  
Smart Metering Implementation Programme:  
Communications Business Model**

On the 27<sup>th</sup> of July, Ofgem launched the 'Smart Metering Implementation Prospectus' and opened a consultation on issues regarding the Roll Out of Smart Meters in the UK.

Key points of the Smart Metering Implementation Prospectus are

- Defining smart meter functional specifications such as memory (a year), switching, prepayment diagnosis, and interoperability
- Providing remote on/off switching of natural gas supply via a gas valve.
- How suppliers can provide in-home displays to residential customers.
- Specifying wide-area network signal frequencies.
- Creating a central communications model for the delivery of smart metering,DCC

Aiming to provide the DCC with a pivotal role in the energy industry, this function and entity will be set via a competitive application process. It will handle all residential smart meters data. Once set up the DCC might also prove to be helpful for other customer types as well, together to other industries (such as water) and other adding services (such as health care)

eMeter responded to the first slot of questions due on the 28<sup>th</sup> of September and highlighting that the smart meter rollout should be consumer focused. The benefits of smart meters are

- increased utility operating efficiency through automation of manual functions,
- greater energy efficiency through consumer information feedback,
- peak reduction through dynamic pricing and automated control,
- better renewable integration through sensing and automated control,
- support for electric vehicles through dynamic pricing and automated sensing and controls, and
- greater support of intermittent renewable

eMeter recommends that the smart meter system should be designed and built to achieve these goals.

Taking into account the above-mentioned benefits and drivers of smart metering eMeter welcomes the idea of centralizing the data and communications services, as it will bring and enhance both interoperability and scalability. It will enable smart grid together with supporting other applications to come, such as Electric Vehicle.

## **eMeter Response**

eMeter is a smart meter software company that provides a smart network application platform (SNAP) to integrate smart meters and smart grid communications networks and devices with utility IT systems. Being vendor-neutral toward all meter, hardware, and legacy utility software systems (e.g. CIS and Billing), eMeter has a unique, unbiased and global perspective on smart meter IT issues. In addition, eMeter's principals have participated in the definition and development of the smart grid for nearly three decades, including leading advanced metering working groups in regulatory proceedings, participating in a wide variety of industry standards groups, founding the Demand Response and Smart Grid Coalition (DRSG), managing consumer-oriented Smart Grid pilots (e.g. PowerCentsDC and the Ontario Smart Price Pilot) that have been recognized for demonstrating best practices, and testifying before the U.S. Congress and various state legislatures on these issues. eMeter has also been active in Europe, participating in EU and ERGEG activities and consultations and having been an active participant in Ofgem's previous smart metering consultations. Finally, eMeter's software is in use in Smart Grid projects around the world, including several in Europe.

Question 1: Do you agree that access control to secure centrally-coordinated communications, translation services and scheduled data retrieval are essential as part of the initial scope of DCC?

Yes. Centralizing the communications and translations services will bring along a unique protocol and interoperability easing switching suppliers and facilitating the development of smart grids.

As eMeter mentioned already on its response to the first part of Ofgem's Prospectus Consultation, starting with a DCC Intermediate solution should facilitate non only the two ways communication to both gas and electricity, but to conglomerate the data and provide scheduled data retrieval.

Cost wise, eMeter believes centralization of translation will be cheaper than each supplier providing and supporting multiple translation services.

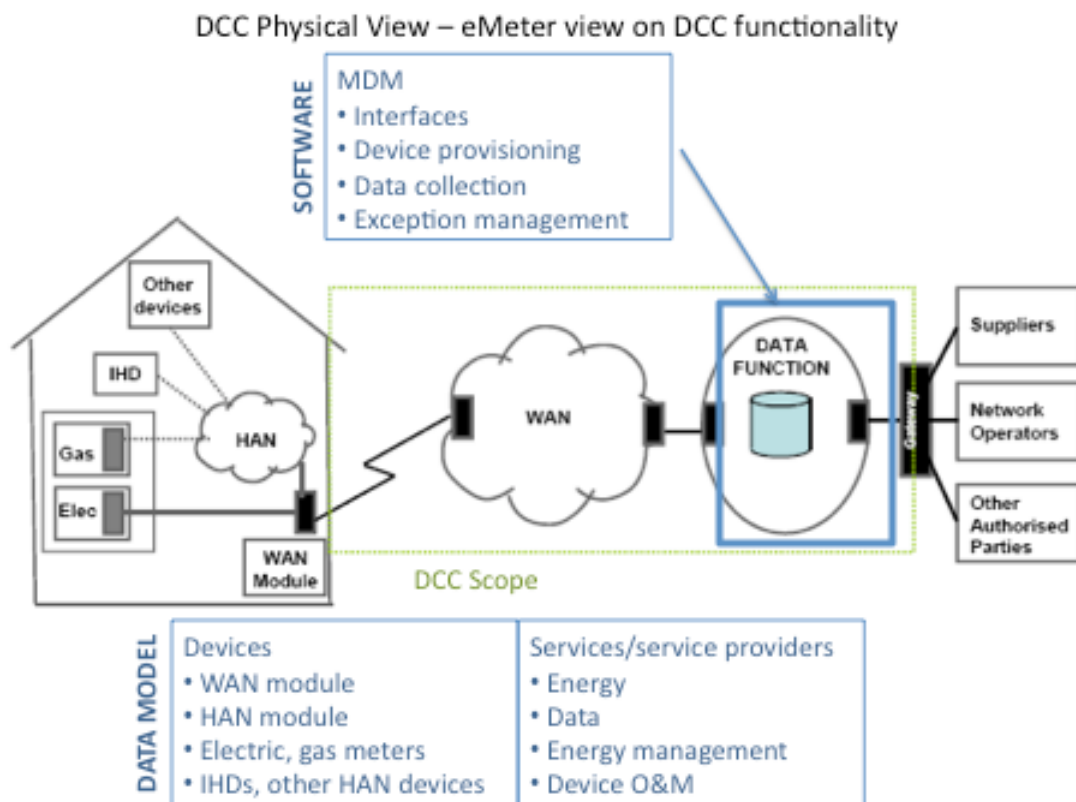
Other industries, services and future developments if not included at the DCC from when it starts operating, should at least take into account at the DCC design stage. The DCC should be open and flexible to hold adding additional industries (water, heating and health care), services (active network management and network planning) and development (electric vehicles)

It is important that the DCC is open and flexible to support a wider services provision to cope with changes that the industry will experience. Otherwise the DCC might face situations where changes and expensive upgrades could have been avoided. In Sweden

DNOs complied with mandatory specifications to install smart meters but some of the times systems are not prepared for hourly reading, which might be required in the near future. If changes to hourly reading become mandatory they will have to go through a more costly solution, that if they had considered this option in their previous solutions.

Question 2: Do you agree that meter registration should be included within DCC's scope and, if so, when?

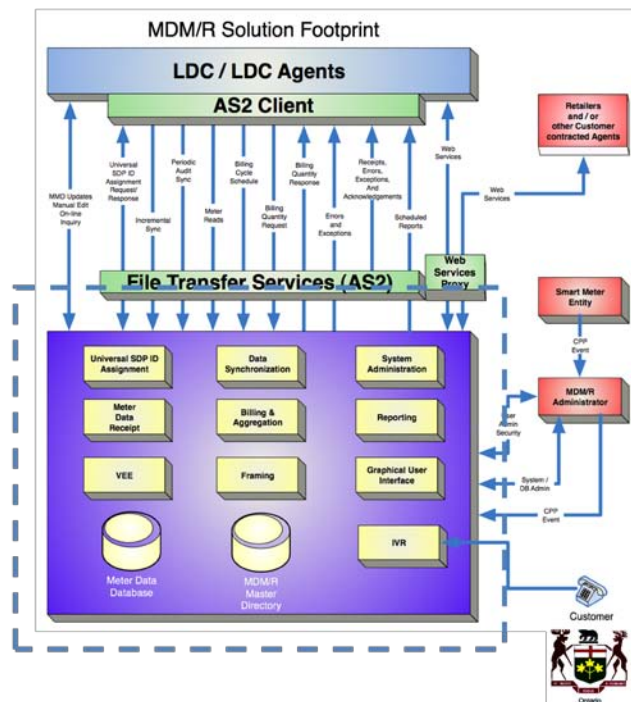
eMeter recommends registration of the meters to take place at the DCC. It makes sense technically and cost wise in the long term. However eMeter recognizes that registering the meters at the DCC might delay the DCC set up process and the consumer access to information about their consumption. As eMeter mentioned in its response to 28<sup>th</sup> of September Ofgem Prospectus consultation, the earlier the benefits are seen by a major number of consumers, the more eager the rest of consumers will be to have a smart meter installed. eMeter envisages the following DCC scope



Question 3: Should data processing, aggregation and storage be included in DCC's scope and, if so, when?

eMeter considers the DCC should hold processing, aggregating and data storing as having the same system will bring consistency. In Ontario the IESO decided to tender a contract for the supply, implementation and operation of a Meter Data Management and Repository (MDM/R). The MDM/R is an independent central meter data repository that receives and process the hourly consumer consumption data transmitted daily by each of Ontario 's 93 local distribution companies (LDC). The Smart Metering Initiative (SMI) in Ontario is designed to create a conservation culture and a toolset for demand management based upon the province-wide deployment of smart meters. The IESO provides a delivery framework to facilitate these objectives.

- **Centralized service for entire Province**
  - Captures scale economies
  - 6 Euros per customer capital & five year operations
- **Data consistency**
  - Hourly data for all consumers
  - Common validation, editing, and estimation (VEE)
  - Standard interfaces to billing systems



Question 4: Do any measures need to be put in place to facilitate rollout in the period before DCC service availability and the transition to provision of services by DCC, for example requiring DCC to take on communications contracts meeting certain pre-defined criteria?

An intermediate body or institution should be set up to bring confidence to the system and to handle all communications contracts. It should advise suppliers on how to design their roll out according to development in both the DCC and the industry. It should

always highlight the importance of solutions that provide flexibility, interoperability and scalability.

Question 5: Do you agree that the licensable activity for DCC should cover both procurement and management of contracts for the provision of central services for the communication and management of smart metering data?

Yes, eMeter believes that DCC should decide design and decide on who will be providing central services for communication and management of smart metering data. If the procurement and management of contracts is lead by the DCC more up to date and flexible solutions should be chosen. The other strong option considered by Ofgem of selecting in one single step the DCC that will provide full service, seems under eMeter's opinion less open to changes and to future developments.

Question 6: Do you consider that DCC should be an independent company from energy suppliers and/or other users of its services and, if so, how should this be defined?

Yes, eMeter consider DCC should be an independent company that should treat equal all the different stakeholders involved in smart metering. However energy suppliers, and other users of services should have an important role deciding its scope and capabilities, according to a cost-benefits analysis.

Question 7: Do you have any comments on the steps DCC would need to take to be in a position to provide its services and the likely timescales involved?

eMeter believes DCC should pay special attention to the preparation for procurement and identification of what is to be achieved including basis services or some more extras ones, such as Demand Response, (see Texas Rollout example). eMeter agrees with Ofgem on the fact that periodic retendering of contract would be a key driver of the cost-effectiveness of service provision.

# Texas Rollout

6 million smart meters by end 2012

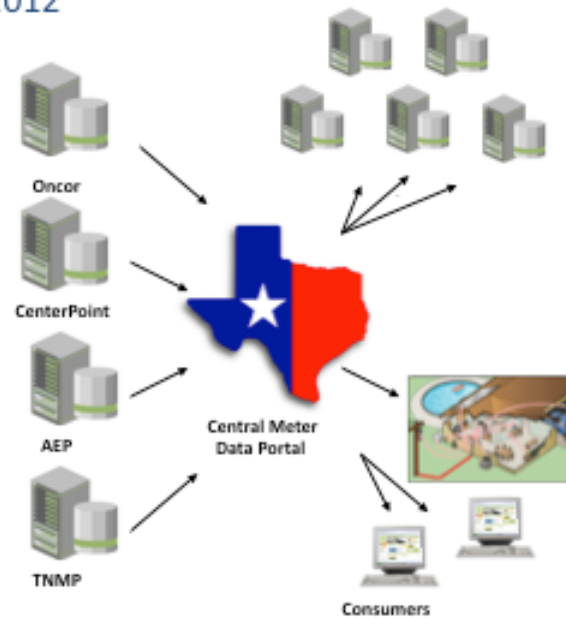
- Rollout began this year

## Demand response

- Meter to premise interface
  - Same as California
- Offered by retailers
  - Optional TOU
  - Smart thermostats

## Market model

- Retail competition
- Meter competition reversed
  - Market failed
  - TDUs now own meter



eMeter welcomes the opportunity to comment.