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Ofgem recently released an open letter to the public requesting input from specific Utilities sector market participants on their plans to accelerate the UK smart metering roll-out. Ernst & Young is recognised as an independent thought leader in the sector and we feel we can make a strong contribution to the debate by responding with our view on the opportunities and risks associated with the accelerated timeline.

Smart Metering is an exciting opportunity for the UK energy industry and will act as an enabler for many of the environmental policy goals of the UK Government and European Union. The delivery of smart metering to all homes and businesses will be one of the most significant change programmes to be undertaken by the energy industry in recent times and will be a catalyst for the transformation of the sector to meet the future energy needs of the country. It will put consumers in control of their energy future and will galvanise industry players around a sustainable environmental agenda.

The most recent Prospectus has paved the way for rapid progress:

With the release of the latest Prospectus in July, Ofgem has taken a big step towards creating and setting the market conditions that will enable the UK wide smart metering implementation. We see this as one of the most significant programme milestones to date and are encouraged by the new urgency among industry partners to progress with the roll-out as quickly as possible.

In exploring the feasibility of an accelerated roll-out it is crucial that Ofgem examine equally the associated risks and benefits. The benefits of accelerating the roll-out include meeting government environmental targets sooner, harnessing of innovation within the industry more effectively, and the possibility of stimulating the economy more aggressively. However there is the likelihood that the level of risk associated with accelerating the programme increases to the point where the costs or impacts associated with these risks (such as increased premia on capital investments, or the increased probability of health and safety incidents) outweigh those benefits.

Ofgem's estimation of the cost benefit ratio of the program is low but crucially positive for the consumer. Any investment with a low level of return should be matched by a low level of risk. There is no global precedent for a smart meter roll-out of this scale and complexity. Looking at parallels abroad or major capital investment in energy generation projects in the UK, we note that it is not typical practice to commit to such a large investment without large scale trial of the end-to-end model to minimise design risk. The current timeline does not allow for such a trial.

Consequently, our overall recommendation for Ofgem is to augment today's rigorous approach to programme costs and benefits with a risk centric approach to the programme and put in place robust methods to capture and manage the significant and evolving risk landscape for this important programme. Without this risk framework in place we would suggest that Ofgem has limited ability to see or manage the increased risk presented by acceleration.

A further consequence of a robust risk management approach would be to increase the attractiveness of the UK Smart Metering Programme as a destination for capital, as it is becoming clear that in the current economic environment the UK must compete both within the board rooms of European Energy conglomerates as well as the global capital market.

Recognising the risks and their impacts

The benefits of the smart metering implementation do not come without significant associated risks. The roll-out will be a major undertaking involving many different service providers delivering different yet integrating aspects of the overall smart metering infrastructure. The programme will span many years and will present a major challenge in commercial, technical and logistical terms. The risks associated with such activities reflect the nature of implementing new and unproven technology into an immature and highly complex market.

General programme uncertainties

We believe that there are a number of uncertainties that are affecting the overall UK roll-out, regardless of an accelerated timeline, which if not managed immediately will affect the overall feasibility of the programme.

- ▶ **Technology uncertainty** - The lack of definitive technological requirements may result in the installation of assets that may become obsolete increasing suppliers risk of stranded assets. If only one supplier moves ahead of the specifications, then the costs are at their own risk; however if the whole market moves to prevent a first mover advantage then there could be common costs that would probably be recovered through increased tariffs.
- ▶ **Supply chain uncertainties** - The potential for insufficient meter manufacturing capacity in the global competition for meters, non-availability of sufficiently skilled field forces and the lack of roll-out co-ordination between energy suppliers may lead to increased costs and timelines.
- ▶ **Financing uncertainty** - The combination of the uncertainties outlined above with the lack of clarity surrounding the meter rental transfer mechanism (market value, cost based or other), when a customer migrates, undermines suppliers access to cheap financing of their smart metering roll-out.

Each of these uncertainties could be reduced with a clearly defined, gated plan with acceptance criteria at each stage. Whilst the market could potentially find an acceptable risk level, Ofgem's unique position as an independent arbiter could be used to accelerate this process and so reduce overall risk, total cost and elapsed time.

Consequences of accelerated roll-out

Existing risks may be exaggerated and new ones created with the introduction of an accelerated timeline and despite the push for an earlier roll-out, if not mitigated, these could result in actually increasing the overall timelines and costs of the programme for each supplier.

- ▶ **Interim solution** - As a consequence of accelerating the roll-out each energy supplier will develop different interim solutions under different guidelines and with different stakeholders. Once the DCC becomes operational these systems will most likely be made redundant necessitating the migration of customers between systems. The effort required to carry out these tasks may distract suppliers from developing an enduring working solution, or improving the products and systems deployed to consumers.
- ▶ **Supplier readiness** - The number of activities that need to occur in parallel dramatically increases when timelines are accelerated and suppliers may not have the capacity to react quickly enough. Ensuring each supplier is ready for the roll-out is key to avoiding any potential health and safety risks as well as guaranteeing good public perception of the deployment.
- ▶ **Exaggerated risks** - Each of the individual programme uncertainties highlighted above are enough to dramatically affect the overall cost and timeline of the project but with an accelerated timeline they constitute a significant risk of a failure of the entire initiative.

One of the most important factors to the success of smart metering is the public perception of the new technology. A positive response from consumers cannot be guaranteed and there is evidence from other countries to suggest that without sufficient public awareness on the benefits of smart metering it may be rejected. With an accelerated roll-out exaggerating the risks previously outlined there is a significantly higher chance that this may occur.

Managing the risks

Large programmes implementing transformation on the scale of smart metering will always have intrinsic risks associated with them which have the potential to dramatically affect overall costs and timelines. Key to ensuring success is to have a risk centric approach to a programme with a risk management system that covers all risk areas, deeply embedded within decision making and is constantly monitored throughout the lifecycle of a project.

Risk management should not be a separate silo operating as a relatively isolated add-on to the day-to-day workings of a programme. On the contrary, risk identification and management should be intimately linked to benefits and costs tracking and a systematic approach should be used.

We recommend that more emphasis be placed on managing risks now

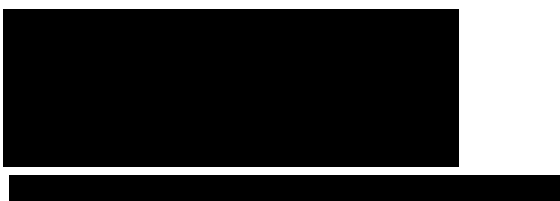
Until now the main focus of the smart metering programme had been on analysing the costs and benefits of the associated roll-out. However as the programme progresses from concept and approval through to delivery a much greater emphasis must be placed on managing risks.

We recommend that further steps be taken by Ofgem now to minimise the risks associated with this programme and to create a more transparent risk framework for all industry stakeholders. Alongside implementing better risk management in general, three specific examples of where proactively managing a risk could accelerate the eventual programme success are:

- ▶ Facilitating the creation of commercial arrangements that remove the risk associated with the meter rental transfer mechanism will bring confidence to the debt market to enable suppliers to get the required funding in place to support their roll-out activities.
- ▶ Accelerating the release of minimum meter technical specifications to improve supply chain planning. This will allow adequate meters to be manufactured in time for the roll-out and will reduce the risk associated with interoperability.
- ▶ We recommend that Ofgem explore acting as the DCC licensee during the interim period and in the initial stages of the full market opening in 2014. This would allow for the removal of the lengthy DCC procurement process from the programmes critical path and potentially allow for the appointment of service providers at an earlier stage. Once the market is stable the DCC licensee role could then be tendered for.

With investment from industry due to ramp up at the start of next year it is crucial that Ofgem put measures in place before the year-end to ensure the programme is mitigating all appropriate risks and is creating a platform on which the UK energy industry can confidently move forward over the next decade.

Yours Sincerely,

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