

Title: **Response to Ofgem's Rollout information request**

Synopsis: To document the AMO members response to the Ofgem's Rollout information request.

Date: 27th Sept 2010

Prepared by:



Contact: www.MeterOperators.org.uk
AMO@PowerDataAssociates.com

© Association of Meter Operators

Contents

1.	Introduction	3
1.1.	Purpose	3
1.2.	Background	3
1.3.	Member Involvement.....	3
1.4.	Key Issue - Workforce.....	3
2.	Meter Operator Questions	5
2.1.	Impact of accelerated rollout	5
2.1.1.	Considerations	5
2.1.2.	Interim Arrangements	6
2.2.	Pre-rollout preparation	7
2.3.	Rollout strategy.....	7

1. Introduction

1.1. Purpose

This document is the response to the information request from Ofgem dated 7th Sept 2010, seeking views on the “Smart Metering Implementation Programme Rollout information request”¹.

This response is not confidential.

1.2. Background

The Association of Meter Operators (AMO) is a trade association representing the interests of its members. There are twenty-one members on the AMO who include all of the active electricity Meter Operators and the largest gas Meter Asset Managers. Many of these companies also own significant quantities of metering assets, either directly or through associated companies.

1.3. Member Involvement

Many of the AMO members are undoubtedly providing their own response directly to Ofgem. This AMO response does not necessarily represent the agreed views of every member on each issue. This response has been prepared by the AMO Consultant on behalf of the AMO members based on views expressed through individual discussion, meetings and written comments provided by members. A draft response has been circulated to members and their comments incorporated into the final submission.

For the avoidance of any doubt the AMO view is that the proposed competitive roll-out of smart meters is the appropriate model and nothing in this document is seeking to alter the proposals reinforced in the recently issued Prospectus.

The AMO is grateful for being invited to participate in the DCG & SMDG and many of their sub-groups. Further detail on the points raised in this response will be provided in these meetings.

The AMO membership is grateful for the ongoing dialog with Ofgem (and DECC), including attendance at our meetings to discuss the smart meter programme. The AMO membership would welcome the opportunity to provide any further clarification or discussion of any of the issues raised by this response.

1.4. Key Issue - Workforce

With the help of the AMO, EU Skills and the National Skill Academy for Power (NSAP) have been working to quantify the resource requirements for a smart metering roll-out. The organisations hosted workshops on 18th May and 8th June (at which DECC were represented) that drew together stakeholders involved in provision of metering staff. One of the first objectives identified by the workshop is the population of a workforce model to determine the current number of meter operatives, their age profile, skill level, churn rates, recruitment process, etc. The intention is to create a model that can be used to forecast the numbers and skill levels of meter operatives over the next ten years. Once populated with some base information, the model will allow the stakeholders to ‘flex’ the model to quantify the different manpower requirements for different smart metering roll-out scenarios and also to estimate the recruitment and training requirements that the industry will face. The proposed timescale to collect all the necessary data to then be able to start ‘flexing’ the model estimates that the analysis can begin in October 2010.

The estimates made to date predict that a smart meter roll-out between 2012 and 2020 will require a 2-3 fold increase in the meter installer workforce. The workforce modelling activity now proposed is intended to refine the estimate and establish a profile (in six monthly periods) to determine staffing, training, recruitment and resource (training establishment) requirements.

There will be a number of challenges for stakeholders to recruit, train, retain, and motivate the workforce during the 2012-2020 period, and then to redeploy them at the end of the peak roll-out. The Ofgem open letter considers further accelerating the speed of the roll-out and the timescale over four years. While all stakeholders wish to see an effective roll-out, the greater challenge of increasing (and subsequently

¹ www.ofgem.gov.uk/Pages/MoreInformation.aspx?docid=55&refer=e-serve/sm/Documentation

decreasing) the workforce by 3-4 times for a four year roll-out would introduce a further and as yet unquantified risk to the programme. Whilst any risk can be mitigated, the cost to accommodate such an advancement of the roll-out should be determined through your work. It could result in an increase in the costs of meter operative staff, and/or the use of inappropriately trained meter operatives each of which could adversely impact benefits of the smart meter programme.

The AMO members are all competitive companies who will seek to meet their customers' requirements which may result in the bulk of meters being fitted by 2017, however we would be more confident once the analysis is available from EU Skills. While we appreciate Ofgem/DECC are currently reviewing all the smart metering plans we would ask that you consider the workforce deployment risks that the modelling being undertaken by EU Skills and NSAP will be able to quantify.

We are pleased that the Prospectus supports the commencing the roll-out earlier as many members have plans already in place to commence fitting meters and the earlier we start the smoother the 'ramp up' can be.

2. Meter Operator Questions

2.1. Impact of accelerated rollout

Question 1: *In terms of installation costs (including any logistical aspects), we welcome feedback on the impact of accelerating the rollout on:*

- a) the magnitude, timing and probability of any increased costs and risks; and*
- b) the likelihood of any supply chain, or other, constraints arising.*

2.1.1. Considerations

The target for roll-out should take full account of the workforce modelling currently being constructed by EU Skills and the National Skills Academy for Power (NSAP). The AMO members are participating in providing data to populate the model.

Determining the appropriate deployment profile is a complex balancing process between speed to gain the benefit of smart meters as soon as possible against the challenge of increasing the meter change rate by 3/4 times today's levels. To increase the workforce requires considerable recruitment and training which will increase labour costs and if approached incorrectly could lead to poor quality operatives.

The current normal meter change activity is broadly 6% of the total meter population each year. 5% to account for the average 20 year meter life, plus 1% for new installs credit/prepayment changes, meter moves, etc. Although indications are that the workload has declined in the last year to the absolute minimum to maintain accurate and legal metering. This is currently causing a noticeable reduction in workforce – loss of skilled staff.

The letter proposes three options over four years of:

- a) 70% => 17.5%/year
- b) 80% => 20.0%/year
- c) 90% => 22.5%/year

Each of the three proposals for meter changes (existing to smart) show a considerable increase in activity to three/four times the current level of activity. In addition is the normal work associated new connections, meter moves and a declining (as smart meters population remove the requirement) for credit to prepayment activity.

This significant ramp up of activity brings risks, all of which can be overcome, but the higher the peak the greater the risk of increased cost, or delays, or failure from any or all of the following issues.

- Recruitment – to increasing the workforce fourfold for four years with capable staff will bring increased cost.
- Training – ramping up the training facilities for two/three years and investing training effort (estimated at three months per person per fuel) for four years productive employment. The related assessments for gas & electricity authorisations will increase.
- Staff costs – the above issues will increase meter operative staffing direct and indirect costs by employing staff on a short term basis.
- Logistics & back office support – behind each meter operative is a support infrastructure ranging from HR, procurement of tools and equipment, quality assurance checks, meter storage, meter returns/disposal, etc. All of these will need to be ramped up for the peak of activity, and will need to be subsequently redeployed as the activity declines.

- Safety, revenue protection & data issues – for each meter change there are a percentage that are a problem. Increasing the meter change rate by fourfold will consequently increase the problems identified. The supporting roles will also need to have increased resources to address:
 - safety issues (problems with cut-out or ECV at customers' installation)
 - potential illegal extraction (interference with the metering equipment), and
 - erroneous data from previously incorrect metering arrangements (e.g. crossed meters).

If any of these issues are not addressed fully then unsafe situations may remain, illegal actions may not be investigated or customer dissatisfaction continue due to erroneous information/billing resolution.

- Electricity/gas distribution network remedial issues - will be identified that require network operators to resolve. Electricity & gas network operators will need to ensure they have the resources in place to meet such demands and consumers' expectations.
- Residual staffing – after the roll out there will be a low level of meter installation work. The remaining work will be fault fixing and new connections (about 1% year, but very dependent on new house building). Fault fixing will depend on the actual life/reliability of all the components within the smart metering system. Existing credit/prepayment meter changes will cease.
- Equipment failures - Most electronic equipment follows a 'bath tub' reliability curve, so the equipment may suffer early failures, which will require revisits to replace. If problems occur at a peak of activity the ability of the supply chain to identify the problem, resolve it, and replenish stock may result in many meter installations being delayed, and trained staff being underutilised.

Although Meter Operators will resolve each of these issues, the overall effect will be a higher cost for the faster the roll-out to support the peak of activity. In a commercial environment all parties will seek to minimise the impact of these issues although they cannot be removed completely.

We recognise that DECC and suppliers may see benefits to a faster roll-out but the risks and increased costs need to be considered within the overall risk analysis. From the Meter Operator perspective the *optimum* roll-out has a much smoother and longer timescale, ideally a smooth ramp up and ramp down, but with an even profile over at least five years.

2.1.2. Interim Arrangements

Whilst we welcome the early deployment of smart meters rather than continuing to deploy assets that will be removed well short of their design life – a waste of resource. In the wider context a faster deployment will lead to more smart meters being installed prior to the enduring DCC being established. This will lead to:

- More meters on a variety of HAN and WAN communications solutions/providers that will need to migrate to the DCC ongoing for the life of that metering system
- The Interim arrangements will have to cope with a greater number of metering systems
- If any significant technical or process problems are found early in the mandated deployment that requires a period of rework – e.g. technical issue with meters or comms – then this risks Ofgem and the industry meeting a mandate that has a shorter completion roadmap (i.e. no contingency). If the 2020 remains as the completion date this could allow for unforeseen events early in the programme, without the industry being seen to fail on delivery against this important environmental legislation.

Ofgem could instead consider options to incentivise suppliers to compete in the deployment to their portfolio earlier than the 2020 formal end date - a 'carrot' rather than a 'stick'. In this way suppliers would speed up deployment where they believe it is appropriate to do so in the full knowledge of the risks (reputation, rework, costs, etc.) and the benefits to their deployment programme.

2.2. Pre-rollout preparation

Question 2: Please outline the processes and projected timescales required to recruit, develop and train installers so that they have the appropriate certifications to install gas and electricity smart meters and associated WAN and IHD equipment. Please include details on the following points:

- Existing and projected installer capacities
- Recruitment strategy (e.g. any plans to recruit qualified installers or train unqualified applicants)
- Sourcing strategy (e.g. direct employees or contracted staff)
- Cost of training each installer
- Length of time to train each installer

This information is commercially confidential and therefore not available to the AMO Consultant. Members may provide indicative information directly. This information is also being collated as part of the workforce modelling currently being constructed by EU Skills and the National Skills Academy for Power (NSAP). The AMO members are participating in providing data to populate the model. Due to commercial issues the EU Skills modelling will confidentially collate this information against which various scenarios can be considered on a national basis.

The NSAP, together with AMO member companies, is also reviewing the current training/assessment requirements of meter operatives (gas and electricity) to determine in which way they need to be enhanced/refined. Addition of IHD, HAN & WAN installation are considerations for additional training/assessment modules. The hope is that the communications equipment will have evolved to a 'plug & play' approach by the time the volume roll-out occurs.

The 'catch 22' effect of this programme is again evident through the parallel development of revised training/assessment together with the development/specification of the equipment to be installed and importantly the development of a Installation Code of Practice. To ensure a 'good customer experience' the Installation CoP must exist, but ideally this should be available to allow for recruitment (may influence the required personal attributes) and then training/assessment.

2.3. Rollout strategy

Question 3: Please explain how you believe that smart meter installers will be deployed during rollout. For example, will a single installer fit all smart metering equipment within the premises or will various different skilled installers work together in a team? Please include details of any geographical differences.

Question 4: Please provide an estimate of how many smart meters will be installed on a daily basis by an individual installer or an installation team (if as a team, please include number of installers in a team).

Question 5: Please provide a breakdown of the projected time spent on each task during an installation (e.g. travel time, time spent on unsuccessful visits, smart meter install, IHD install, customer education). Please include details of any geographical differences.

At this stage there is little information available, certainly little which is not regarded by members as commercially confidential. Members may share their views with you directly. Many stakeholders will be able to express 'their view', but that will include many assumptions which will be progressively challenged/reinforced as smaller scale smart meter roll-outs occur.

In the commercial environment different working models will develop which may be influenced by different commercial drivers. Over time and practical experience the variations tend to converge to a few models. At this point in the development cycle there is probably a broad range of assumptions for the various aspects of the programme, only volume deployment will reveal whether these assumptions are correct, which may then lead to different models becoming prevalent as the differing assumptions are proven, or disproven.