

Metering

Developing a skills strategy
for the Smart Metering rollout



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2015

About the Metering Network

The National Skills Academy for Power (the Skills Academy) Metering Network continues to introduce an employer-led strategic approach towards competence, training and assessment for the metering industry. Smart metering plays a pivotal role in helping the Government to achieve its climate change targets and the planned rollout of smart metering in the UK has been a primary focus for the network.

We work closely with the Department for Energy and Climate Change (DECC), producing productivity scenarios and installer projections based upon supplier rollout profiles towards the Government's Q4 2015 official rollout timetable. Productivity scenarios have also assisted Electricity and Gas Distribution Network Operators (DNOs) with their emergency response resourcing requirements as part of their recent well justified business plan submissions to OFGEM.



Introduction – Keith Stewart, Chair

“I’m delighted that the Skills Academy Metering Network continues to provide a quality, robust network of support to its members. After another year of sustained hard work and strategic development by employers and training providers, our membership continues to grow. Building upon previous achievements, the network implemented a number of new schemes and initiatives in 2014 to ensure the industry has sufficient provision of competent installers and supervisors, able to comply with new industry standards and the Smart Meter Installation Code of Practice (SMICoP).

With the introduction of new training facilities such as the Utilities Academy, we can see tangible progress in efforts across the UK to bring a national approach to installer competence. I’m also pleased to be writing about the development of a new Smart Metering Trailblazer Apprenticeship. The

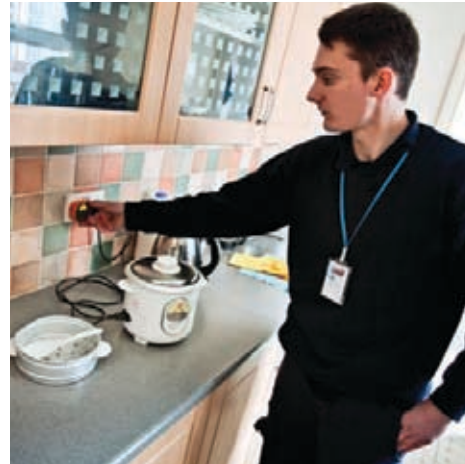
new award has already been given approval by Government and work is progressing at speed to ensure the Apprenticeship is ready for September 2015. Last year we also facilitated an eight day pilot of the Smart Manager course successfully completed at Gateshead College with 10 managers from the main network and private utility sector attending. The newly established Energy and Efficiency Independent Assessment Service (EEIAS) has also been a breath of fresh air for metering and the power industry as a whole.

The network has made significant progress over the past year by developing alternative qualification schemes for new industry entrants and the upskilling of existing gas and electricity operatives. The challenge in 2015/16 for all the major meter suppliers will be growing the numbers further to ensure we meet the peak demand in 2018 for approximately 10,000 operatives. To help us to achieve this target, all the major metering providers will either need additional training facilities located to meet the business rollout or engage with Skills Academy approved, quality-assured training providers who can deliver cost effective skilled and competent smart metering operatives who will meet the skills challenges ahead. I look forward to working with you again as we tackle these challenges together.”

Keith Stewart, Retail Quality Assurance Manager, SSE

Key Achievements 2014

- Full network workforce planning data refresh undertaken with sector employers
- Four new employer providers achieved Skills Academy Smart Meter Approved Provider Accreditation during 2014
- A number of additional employer providers are continuing to work towards Skills Academy Smart Meter Approved Provider Accreditation
- Developed Smart Manager accredited modules in collaboration with Gateshead college and member employers with regional pilot rollout completed
- Launched Smart Meter Database Referencing Scheme and introduced programme governance board



employer-led

Photography courtesy of: E.ON

Key Deliverables 2015

- Develop and deliver Smart Meter Trailblazer Apprenticeship programme
- Develop and deliver Smart Meter Traineeship
- Explore options to develop alternative recruitment methods eg. service leavers
- Implement Smart Meter Database Referencing scheme through EUSR
- Expand Metering Network group to include independent suppliers and meter operators

strategic

competence



Workforce Planning Model

The Workforce Planning Model is a medium to long-term forecasting tool (developed by Energy & Utility Skills and the Skills Academy) which helps employers to understand the impact of retirements, natural wastage, efficiency and anticipated growth or vacancies.

The assumptions used within the model have come from working with the energy companies and the majority of large contractors, all contributing details about their future company objectives and current employee status.

The Metering Network is using the model proactively to support the smart meter rollout by building in detailed data regarding installer qualifications for single or dual fuels and also for higher level skills such as meter installations involving current and voltage transformers.

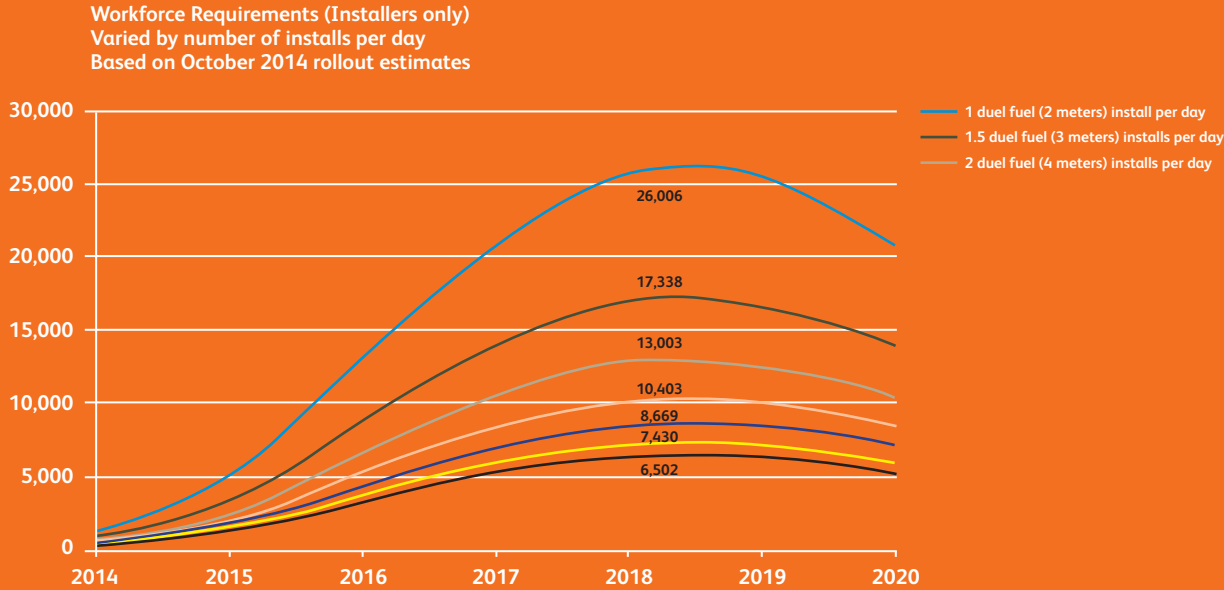
The latest figures (October 2014) supplied by the Government's DECC indicate that over 49 million meters will need to be changed: over 27 million electricity and over 22 million gas meters.

This equates to over 11.4 million meter installations during the height of the rollout. The study shows that, at its peak (2018), the rollout will require over 11,000 installers and further engineers to deal with network reportable incidents. Most of these are likely to be recruited through Apprenticeship schemes.

Workforce Planning Data Summary

- Our projections show that over 10,000 meter installers will be needed at the peak of the rollout in 2018
- A further 900 skilled workers could be needed to deal with the increase in network call outs

Workforce Planning Data



This chart shows requirements based on original estimates of four full dual fuel installations, eight meters per day.

Data Source: Raw data from DECC, October 2014

Energy and Utility Skills (EU Skills) has derived the installer profiles based on industry agreed assumptions.

Smart Metering Quality Procedure

National Accreditation process for smart metering approved providers.

As the existing meter installer workforce builds, the Skills Academy, its member employers and major industry stakeholder partners have continued to develop approved routes to the Smart Metering Approved Provider Database. Suitable third party providers and college facilities endorsed or nominated by the Skills Academy's member companies have gained national accreditation. All major energy suppliers are currently supporting the Skills Academy's accreditation process via the Smart Meter Installation Code of Practice (SMICoP) with the routes listed here eligible to be registered on the EUSR database under the Skills Academy's Smart Metering Scheme.

- **New Entrant:** QCF Level 2 Smart Metering Diploma qualifications for electricity, gas and dual fuel installers. These qualifications include a smart communications module and provide a gas route incorporating 3 new installation modules. These low pressure gas modules are recognised as a metering category on the Gas Safe register.
- **Up-skilling of Existing Staff:** For existing meter installers, approved smart metering providers will deliver an approved in-house smart metering up-skilling programme. This route to competence is suitable for member organisations wishing to demonstrate current staff smart metering competence by training and assessment procedures adhering to the relevant sections of the Skills Academy's national assessment specification (electricity/gas). Installers pursuing this route will currently possess a current, individually issued single phase installer certificate from a MOCOPA aligned meter operator and/or evidence of appropriate gas safe registration.

The following routes to competence are also being developed:

- In response to Government reform of the Apprenticeship programme, the Skills Academy, its member employers and major industry stakeholder partners, (supported by EU Skills and IGEM) are developing a Trailblazer Apprenticeship Standard for Dual Fuel Smart Meter Installer (Electricity & Gas). The first starters for this new Apprenticeship are targeted to commence in September 2015.

- New entrants into the gas industry for smart meter installation with no previous qualification or gas experience are able to complete a Managed Learning Programme (MLP) accredited under the 'Standards of Training in Gas Work' document (IGEM/IG/1) and will be subject to an independent assessment under the National Accredited Certification Scheme for Individual Gas Fitting Operatives (ACS) e.g. CMA1 and MET1. Accredited training providers who use the MLP/ACS route for gas training and assessment as a gas only accreditation will be required to evidence the route through the EEIAS and will also be required to undertake appropriate up-skilling training, development and assessment to incorporate the industry agreed National Assessment Specification for smart metering. The specification includes an assessment of the installation, testing and commissioning of smart metering equipment, communications and customer interaction requirements and will be carried out by a competent assessor at a Skills Academy accredited centre.

Accredited training providers who use either of the two routes described above will be required to evidence the routes through the EEIAS in line with the current requirements for all accredited providers for smart metering.



quality

safety

Smart Metering Approved Providers

Over the five-year period of the smart meter rollout, installers will be changing approximately 40,000 meters every working day. The scale of this task has demanded rigorous new training standards and the deployment of a new network of accredited training providers.

The first phase of this programme has been completed and eight major employers have been accredited along with a further four training companies in collaboration with Skills Academy member employers.

Smart Metering Approved Providers*	
Amey	Electricity
British Gas	Dual Fuel
Brookhouse Training w/Trojan Utilities	Dual Fuel
Develop Training w/Siemens	Dual Fuel
EDF Energy	Electricity
E.ON	Dual Fuel
Gateshead College w/G4S Utility Services	Dual Fuel
Lowri Beck	Electricity
Oldham College	Gas
RWE npower	Dual Fuel
ScottishPower	Electricity
SSE	Dual Fuel
Utility and Construction Training w/SSE	Electricity

*Data as at April 2015

Working Towards Accreditation

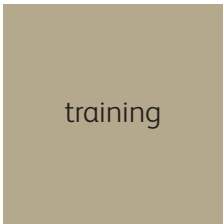
- CH4 Gas Utility & Maintenance Services
- Group Horizon
- Manchester College
- Nutech Training
- Siemens
- Skanska
- Sterling Power Training
- Trojan Utilities

Utilities Academy Launched

In February 2015, the Utilities Academy was launched. The first of its kind in the UK, the Academy is a bespoke dual fuel smart metering training centre. The Academy was created in joint venture with global energy recruitment specialists Spencer Ogden.

The Academy is training smart meter engineers in response to the demands of the smart meter rollout. It is well placed to supply the expected demand for 14 thousand new engineers with its ground breaking go-to market business model to recruit, train, supply and retain specialist Skills Academy, and Gas Safe accredited dual fuel and smart metering engineers to the market.

“At the Utilities Academy our approach is to invest in people and the future of the energy and utilities sector. By developing people, skills and knowledge our mission is to ensure smart meter technology deployment in the UK is delivered with the skills needed now and in the future.



As the first dedicated smart meter training facility In the UK our commitment is to provide highly skilled and employable smart meter engineers to the industry as a solution. We offer a ground breaking go-to market business model to recruit, train, supply, and retain specialist Skills Academy, and Gas Safe accredited dual fuel and smart metering engineers and are fast becoming recognised as the solution that will revolutionise the way smart meter technology is deployed in the UK.”

Daniel Coleman, Managing Director, Utilities Academy

“The energy sector is gearing up for a significant challenge to ensure the government’s investment in this rollout is carried out with the correct workforce, skills, and knowledge. Our mission is to ensure our energy industries have the skills they need now and in the future; the Utilities Academy is a fine example of just that.

Created by forward thinking and experienced energy sector workers, I can see how the Academy will be creating a consistent flow of highly skilled and developed smart meter engineers – it’s good to see such commitment from a relatively small company.”

**Neil Robertson, Chief Executive*,
National Skills Academy for Power**

*As at time of publication - May 2015

Smart Metering Traineeships

A Traineeship is an education and training programme which includes work experience and focuses on giving young people the skills and experience that employers are looking for. The Skills Academy is currently working with E.ON to develop a Traineeship that will feed the Smart Metering Trailblazer Apprenticeship.

Traineeships can last up to a maximum of six months and include:

- A meaningful, high quality, work experience placement lasting at least six weeks
- Work preparation training which will include CV writing, interview preparation, interpersonal skills and sector business/career information
- English and maths support from the host to improve young people's literacy and numeracy skills if required

In addition to these elements, employers and their preferred partners can add sector specific, flexible content to meet the needs of their business. The Metering Network are currently developing both collaborative sector models and integrated company progression programmes.

employer-led

traineeships



Smart Metering Trailblazer Apprenticeships

In response to Government reform of the Apprenticeship programme, the Skills Academy, its member employers and major industry stakeholder partners are developing a Trailblazer Apprenticeship Standard for Dual Fuel Smart Meter Installer (Electricity & Gas).

Trailblazer standards are the successor to existing Apprenticeship frameworks. Standards define what a competent person can do, understand and how they behave, and the associated assessment plan determines how achievement of this standard is assessed, quality assured and validated. The transition from Apprenticeship frameworks to the new standards must be complete by July 2017, when Government recognition and funding for new starts on Apprenticeship frameworks will cease.

Apprenticeships enable employers to address skills gaps in craft and technical roles, provide a talent pipeline for higher level occupations and meet the requirements of natural wastage. They are a key mechanism for workforce development in the gas industry which is experiencing an ageing workforce. Of the current workforce, 27 % are aged between 45 and 54. The Workforce Planning Model developed by EU Skills forecasts that this figure is set to increase over the next 15 years. The model presents an overall picture of significant levels of retirement.

In addition to the above, over 10,000 meter installers will be needed at the peak of the smart metering rollout programme in 2018. Therefore the new standard for smart meter installers will underpin Apprenticeships in the smart metering rollout and the metering industry beyond the smart rollout. The first starters for this new Apprenticeship are targeted to commence in September 2015.



apprenticeships

Smart Manager Training Programme

The Smart Manager programme is a training and assessment package, developed in collaboration with network employers and industry experts. The smart modules are aimed at supervisors and managers of smart meter installation teams, other support roles within the sector and more widely involved stakeholders. The aim of the course is to provide delegates with the knowledge to effectively manage, supervise and support staff involved in the UK smart metering rollout programme.

Comprising of three specific delivery days, the course contains 28 sub-modules of content, including support session plans, presentations, trainer notes and assessments.

These training materials compliment the Skills Academy's previously developed Smart Communications package and include the following three modules:

- Module 1 - Smart Metering: An Introduction
- Module 2 - Smart Metering: Installation and Guidance
- Module 3 - The Customer Experience

To register your interest in purchasing these new materials or for more information, please contact the National Skills Academy for Power on **0845 077 99 22** or e-mail **enquiries@power.nsacademy.co.uk**

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Network Quotes

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“The complexities of delivering smart metering to meet our customer needs and regulatory obligations continue to provide exciting opportunities for RWE npower.

For us, smart is more than a meter exchange programme. We're building a customer centric approach which is driving a fundamental shift in how our business engages with and supports our customers through their smart metering journey and beyond. It's for this reason that our approach to developing Meter Fixers has evolved to excel in both technical and soft skills. This is already reaping rewards and we're proud of our people and their ability to adapt.

It's encouraging to see energy suppliers collaborate effectively through the Skills Academy network and the new Smart Metering Trailblazer Apprenticeship. Employers recognise that we're all a part of creating a truly smart enabled world.”

David Woolham, Smart Meter Lead, RWE npower

“We have seen a number of challenges in the sector over the past few years. It's no surprise that the main one has been recruiting operatives with the correct skills and the desire to continually improve, in a market that has been through peaks and troughs of demand. We welcome the opportunities the Skills Academy network provides to collaborate with other smart metering employers.

As we head into the smart world, we are continuing our philosophy of putting people first by investing in our management team, a dual fuel training academy to train new entrants into the market, upskill our existing workforce and offer these services in the open market. Whilst this is an exciting time for the industry we must focus on our safety obligations and the customer service we provide. This has been, and will continue to be the key to our success.”

David Burke, Business Development Manager, CH4 Gas Utility & Maintenance Services

“As Britain's biggest power distributor we currently have 33 smart meter intervention specialists undergoing an 18-month training scheme to learn the skills needed in preparation to support the transition by suppliers to smart meters across London, the South East and East Anglia.

The training partnerships developed with the Skills Academy and UCT are essential to developing the resources needed to support the national smart meter roll-out. The Trailblazer qualifications developed with industry leaders ensure a common industry standard in the skills we teach.”

Paul Morris, Smart Meter Intervention Planning Manager, UK Power Networks



Photography courtesy of: Amey

The Last Word

“The Skills Academy’s Metering Network continues to produce excellent employer and stakeholder collaboration. Progress is being made with additional routes to competence with the development of a Trailblazer Apprenticeship standard for dual fuel smart metering installers, plus the introduction of a Traineeship that has the capability to lead into the Smart Metering Apprenticeship. In addition to this, other employee

roles within the smart rollout programme will benefit from the launch of the Smart Manager Programme, successfully piloted at Gateshead College late last year. The Smart Metering National Database has continued to grow, therefore complimenting the launch of the Referencing Scheme.”

**Ian Moss, Client Manager: Smart Metering,
National Skills Academy for Power**

Amey is one of the largest and most diverse companies working for the public and regulated sectors in the UK. It is also one of the UK's leading meter operators, administrators and consultancies.

We have been providing a range of services to energy companies nationally since the 1990s.

The markets we operate in provide both challenges and opportunities. For example, there is a significant skills shortage and nowhere near enough young people entering the industry.

Working with EDF Energy, npower and Utilita across the UK we have an estimated resource level of 400 smart engineers required by 2018.

As a responsible business, we take ownership of this resource requirement and skills shortage by making our company attractive to new entrants and providing them with training and career opportunities in a safe working environment.

We are delighted to offer training for traditional and smart metering systems in our National Skills Academy for Power (NSAP) accredited training facility. To find out more about Amey and what we do visit:

www.amey.co.uk

in [linkedin.com/company/amey](https://www.linkedin.com/company/amey)

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