

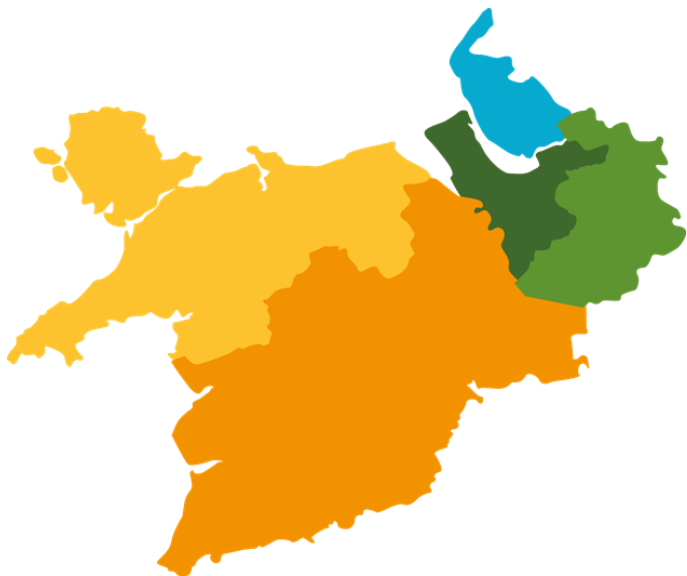
Smart Energy Wales

Thursday 22nd September 2016, SSE SWALEC, Cardiff

Rachel Shorney

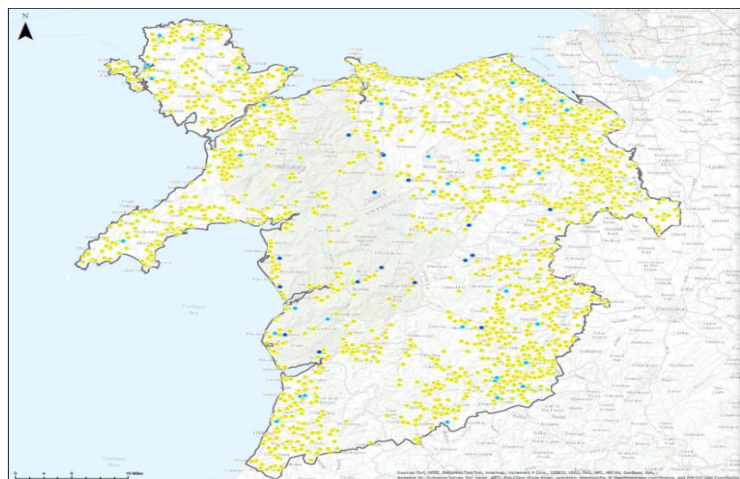
**Stakeholder & Community Engagement Manager
SP Manweb**

SP Energy Networks Licence areas - where we operate



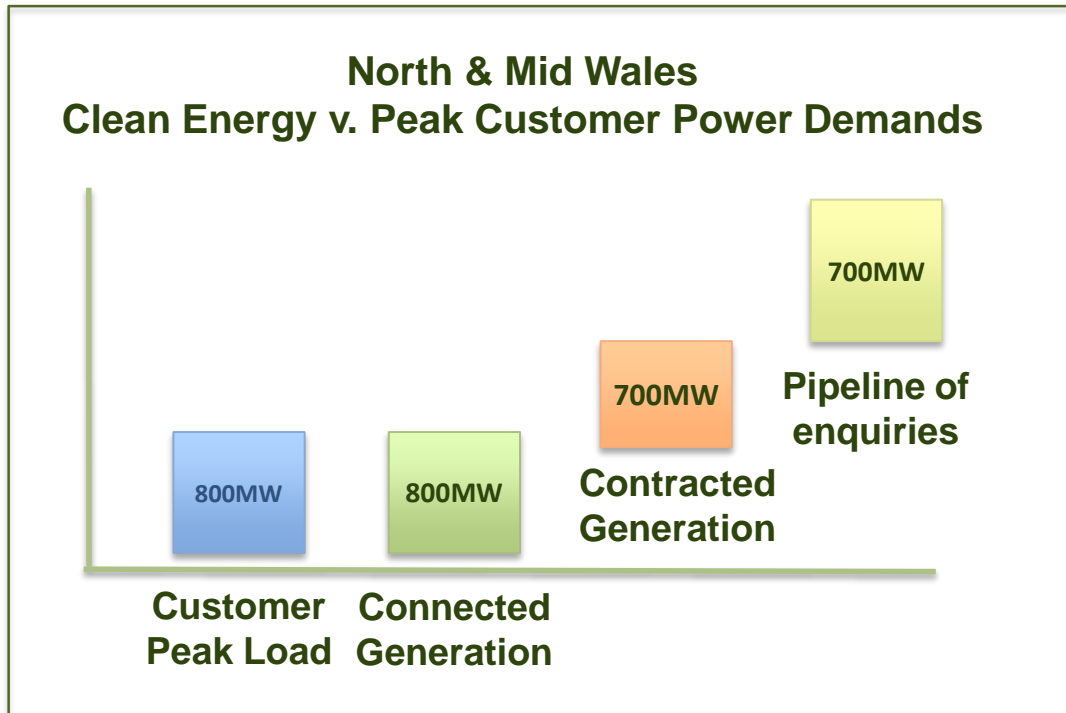
DNO for the Merseyside, Cheshire, North Shropshire and North & Mid Wales area

- We distribute the electricity to your home and business no matter who you pay your bill to
- Around 30p of your daily electricity bill allows us to maintain the network which brings power to your home
- New District Model with focus on getting closer to our Customers and Stakeholders



- **We have over 30% of the Distributed Generation Connected across the whole of the UK but only 14% of the demand**
- **We are now seeing a huge upturn in battery storage applications and electric vehicle charging point connections**

North & Mid Wales now have the ability to be a net exporter of power

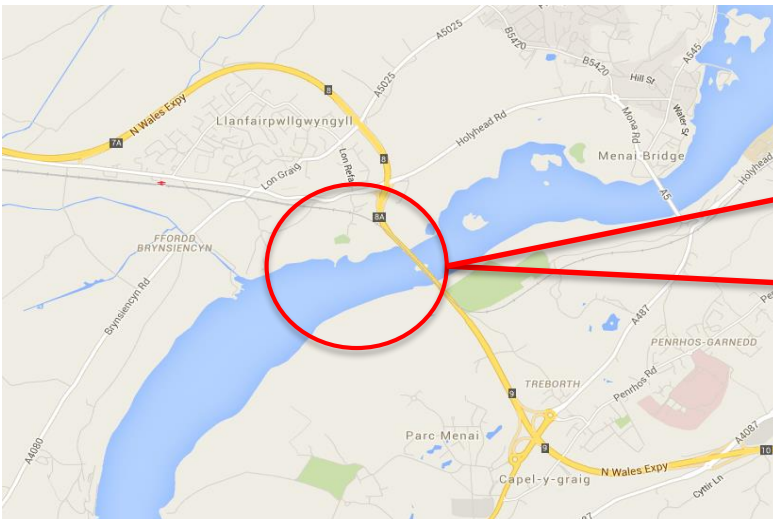
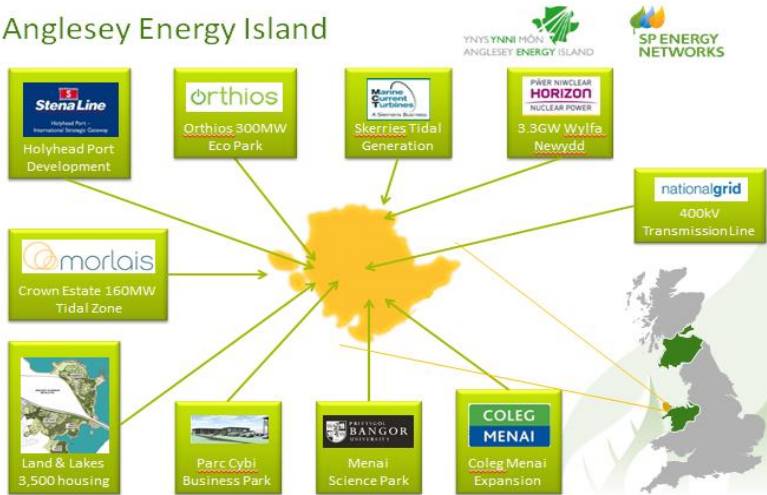


- Construction pipeline of contracted clean energy is nearly as much as everything already connected
- Wind power from the TAN8 windfarms is in addition to these figures.

We need to change the way we design our network to cope with additional generation and prepare for all the new technology that is heading our way

Innovation – ANGLE-DC Project

Anglesey Energy Island



Existing Demand and Generation profile

70 MVA
Demand

170MW Connected &
Contracted generation

160MW tidal generation

100MW other generation in
the pipeline

20% to 25% increase on capacity

Innovation Solution

Insertion of a flexible DC link between
Anglesey and the mainland

Conversion of an existing AC circuit to DC
operation

Control of power flows – solution can be used
in other locations across UK

We are using transmission technology from our HVDC link to benefit the distribution network in North Wales

SP Manweb Long-Term Strategy to help connect generation

The Manweb network provides unique opportunities to facilitate a low carbon future and transition to a Distribution System Operator



Active Network Management

Up to double DG compared with a radial equivalent

Up to ~£25k/MW saving at EHV

Improved monitoring and protection to control our network

Designing and building a network that is fit for purpose for all the new technology that will be commonplace in our daily lives in 15 years time

Hapus i helpu os oes gennych unrhyw gewstiynau
Happy to help if you have any questions

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