



# Ray Noble, APSE Associate

Leeds

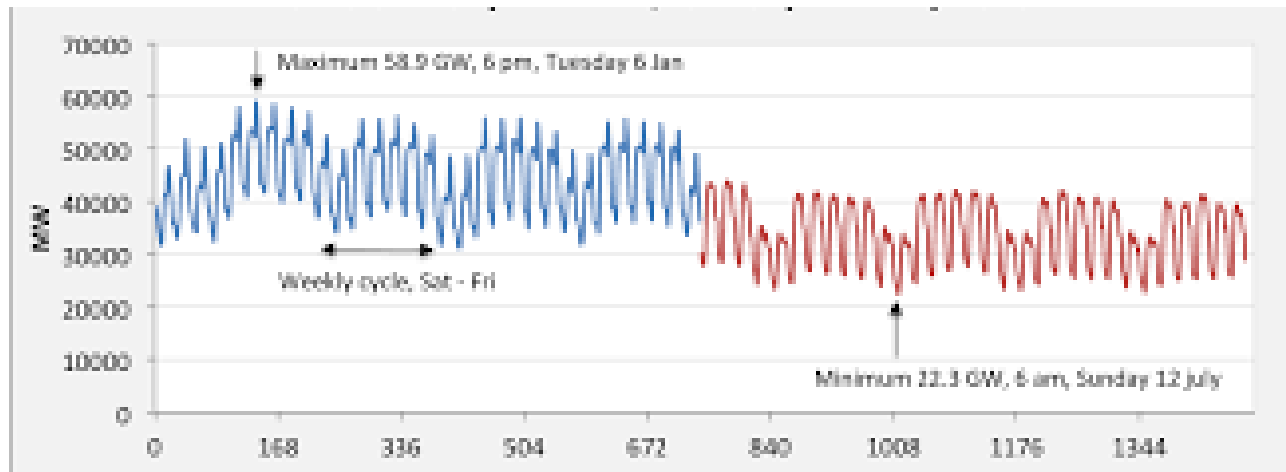
16 June 2017

# Issues for LA's to consider when investing in batteries, grid connectivity and capacity

Ray Noble – APSE Advisor

# Energy Industry is changing fast

- Large amounts of Storage allows the variations between Winter and Summer demand to be levelled out
- At times in Summer we have too much electricity
- At times at night we have too much electricity
- DNO's and NG on learning curve!



# Time of use tariffs & Smart meters are coming

- Time of use tariffs are going to be standard across all users, even domestic
- 4.00pm to 8.00pm is the highest charges (Red Zone)
- Using electric or charging EV's at this time should be avoided
- Storage provides a way of moving electricity and avoiding Red Zone costs
- Supply of electricity is getting smarter



# “Fuel Poor”

- “Fuel Poor” will be hit by Smart Meters (time of use electricity)
- They tend to use lots of electricity at Red Zone times
- Government must prevent high bills to “Fuel Poor”
- Solar and Storage with Smart Controls in all Housing Association / Local Authority stock provides the answer
- Moving spare (cheap) electricity and store to when needed.



# Provision for charging EV's

- New houses should be generators and provide EV charging points
- Retrofit program should be undertaken on existing houses with garages / drives
- Buildings should provide standard charging points for all parking spaces
- Fast chargers should be provided at Service areas and Filling stations





# Start working out the opportunities

## Cornwall's energy future

We will create an energy future that is cleaner and more affordable, retaining the social and economic benefits in Cornwall.



CORNWALL & ISLES OF SCILLY  
LOCAL ENTERPRISE PARTNERSHIP



### Cornwall has a wealth of renewable energy resources

- Best wind resource in Western Europe**
- Best solar resource in mainland UK**
- Best geothermal resource in the UK**
- Huge potential for offshore renewables**

**32%** of our electricity demand met by renewables in 2016

### We will exploit this unique opportunity to...

#### Tackle energy inequalities



Making our homes, businesses and transport greener and more affordable.

#### Take local control of our energy

Generating, owning and using our energy locally to reduce bills.



#### Become a world-leading green economy

Retaining benefits in our communities and securing year round jobs.



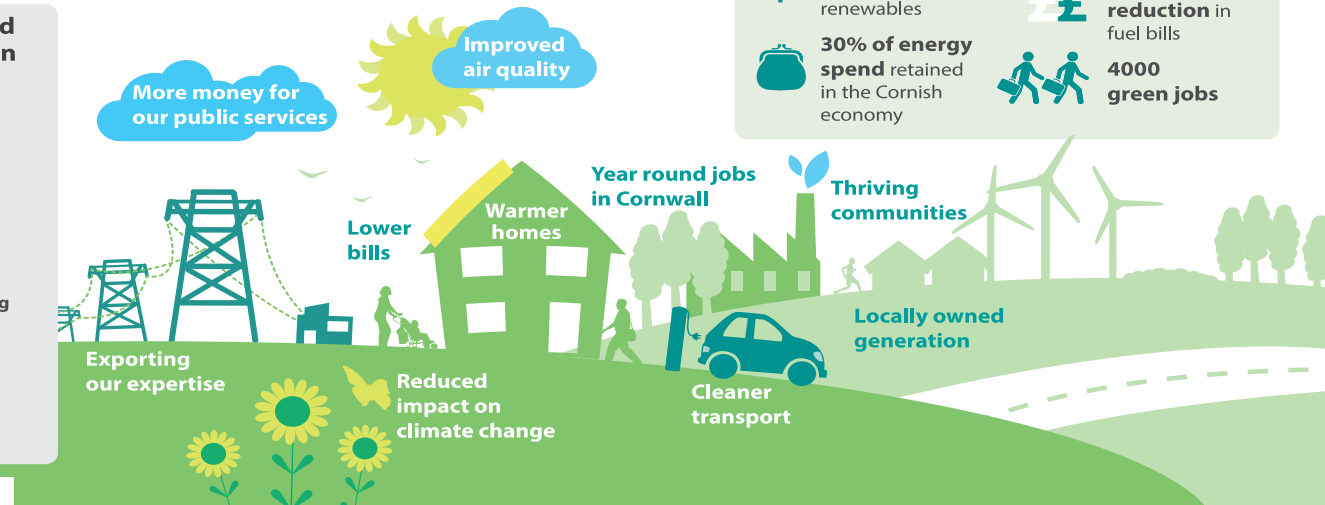
### We will create an energy future that is cleaner and more affordable, retaining benefits in Cornwall

#### 2030 outcomes

- Reduce fuel poverty to 5%**
- 100% electricity demand met by renewables**
- 30% of energy spend retained in the Cornish economy**
- 50% locally owned generation**
- 20% reduction in fuel bills**
- 4000 green jobs**

### but Cornwall is not benefiting and we currently spend £1bn a year on our energy

- 98%** of our energy spend leaves the local economy
- People are struggling to heat their homes**
- Public sector budgets and funding are reducing**
- Our economy is under performing**
- Our infrastructure is outdated**



Thank You

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