

SMART HOMES

Smart homes are not mainstream just yet, but more new homes are being wired for smart technology that allows the owner to do things such as:

- Turn up the thermostat remotely so it's warm when they get home
- Turn on/off and dim lights
- See who's at the door on their smart phone, even when they are out of the house
- Have their fridge tell them when they are out of milk and automatically add it to their on-line supermarket shopping cart



Not everybody wants or is interested in this type of technology but within around 10 years time, it's expected that these systems will have become the norm.



SMART HOMES



Submit your meter reading



Check your account balance



Get your tariff end date



Know your next payment date

In combination with the Amazon echo, you can control your heating through a smart thermostat; either through your phone or your Amazon Echo.

SMART METER CONSUMPTION DATA

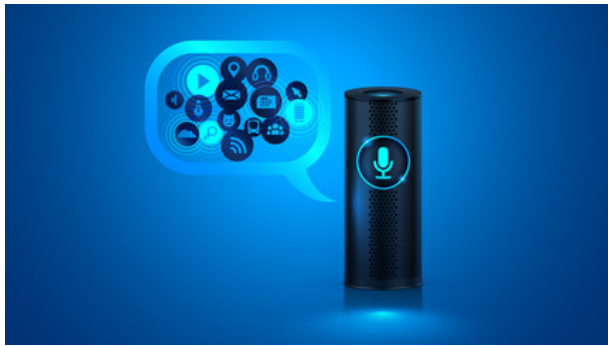
The use of Smart Meter data is stringently bound by data privacy and security principles, which mean that customers control who has access to their consumption data and how it's used (except where it's required to meet certain obligations i.e. sending correct bills).

This means that any personal data collected by Smart Meters will be protected by the rules of the Data Protection Act.

Aggregated Smart Meter data will probably be available to DNOs in the future. This may include an indication that everyone on a cable is experiencing a power cut OR a calculation of the combined amount of electricity being used by every property fed by the cable. This will help DNOs to manage the network and balance supply with demand. It will also mean that they can quickly respond to faults and speed up the time it takes to restore supply when there has been a power cut.

Very detailed information about exactly what type of smart appliances are being used in the home (and when) is unlikely to be available to the DNO from the Smart Meter. This will most likely be monitored, recorded and stored by other 'cloud based' technologies.

BRENDA AND JAMES' FAMILY



HOLOGRAPHIC TEAM



SHOWCARD F

JON'S OFFICE

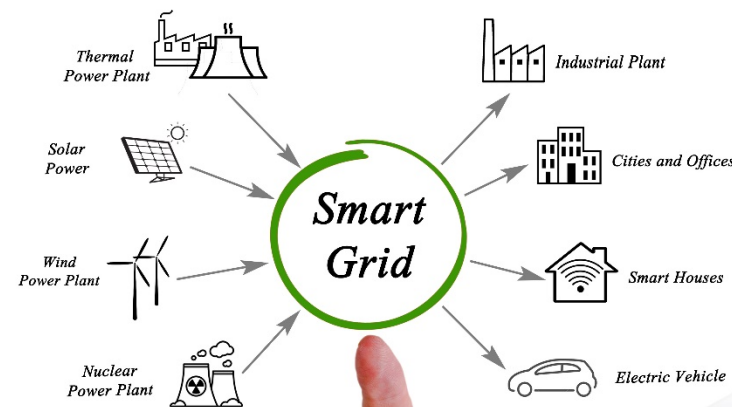


Bringing energy to your door



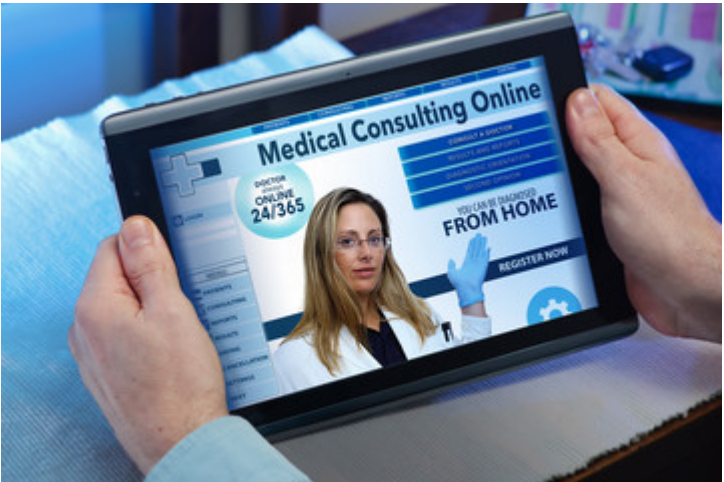
Distribution System Operators (DSO's)

Customers' changing electricity needs, carbon reduction legislation and new innovative technology is changing the way that companies, local community groups and individual customers generate and distribute energy. These changes mean that in the future, DNOs will need to adopt a much more interactive approach to managing a 'smart grid' that allows customers to operate and integrate these smart energy systems with the DNO's network and enables them to benefit from commercial opportunities.



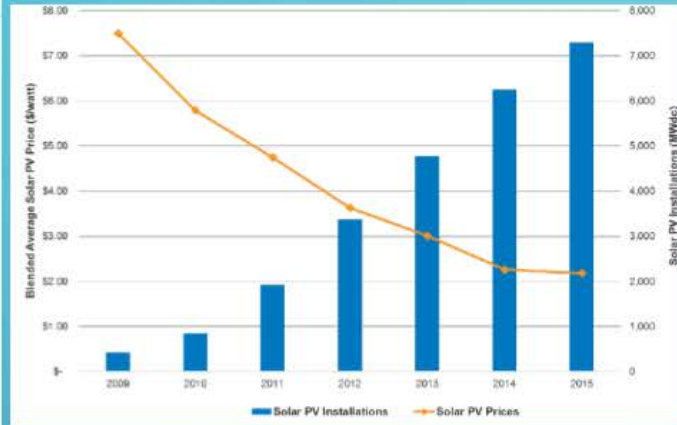
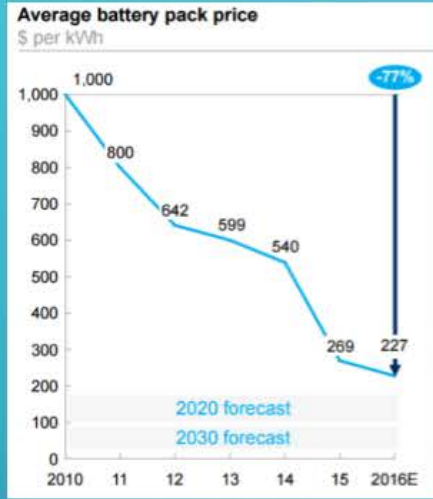
The electricity regulator, Ofgem, The Department for Business, Energy and Industrial Strategy (BEIS) and all GB DNOs are working together to develop a new Distribution System Operator (DSO) model, to bring about these changes, which will eventually replace the current DNO model for electricity distribution .

JANET



Mega Trends

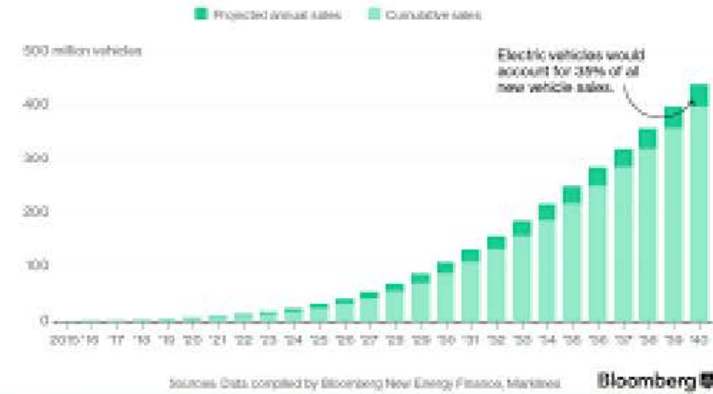
Falling Price of Solar and Batteries



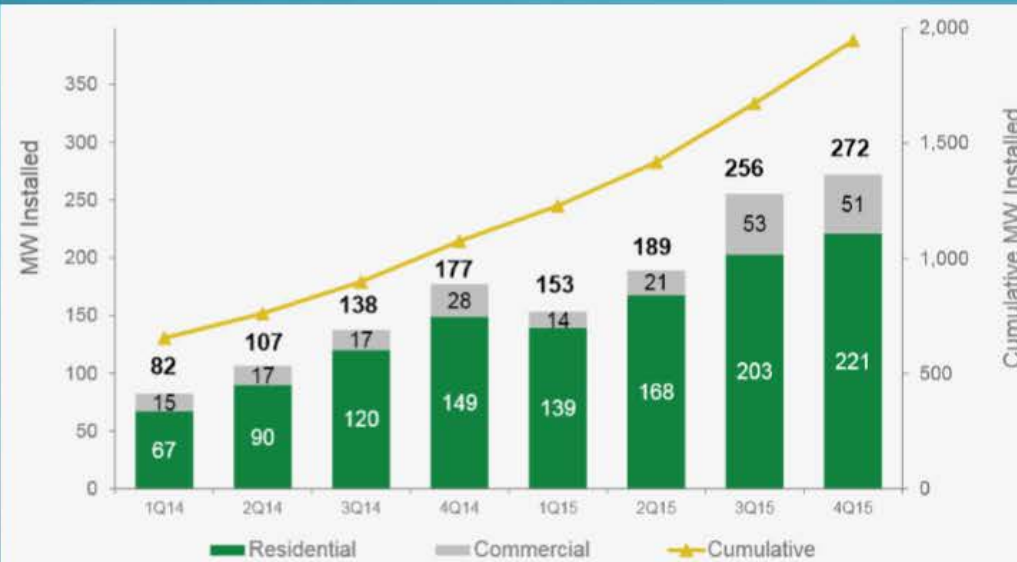
Growing Share of Electric Vehicles

The Rise of Electric Cars

By 2022 electric vehicles will cost the same as their internal-combustion counterparts. That's the point of liftoff for sales.

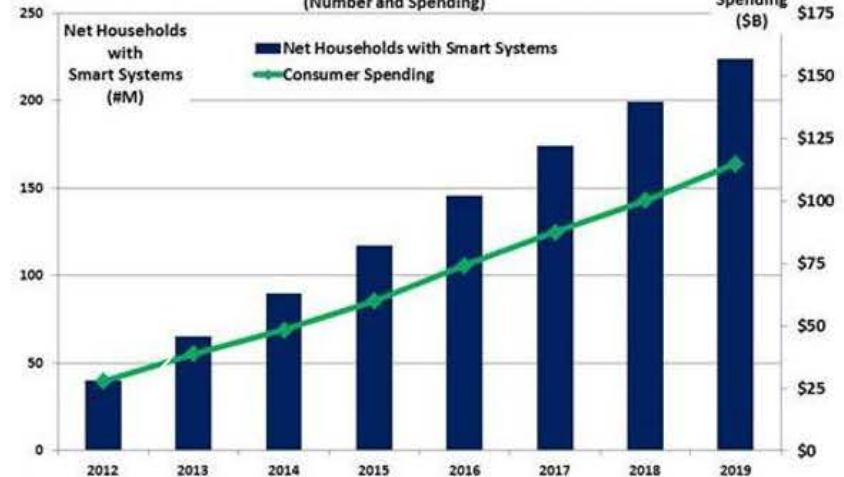


Deployment of Residential Solar + Storage



Smart Home Technology

Households with "Smart" Systems: Global Total (Number and Spending)

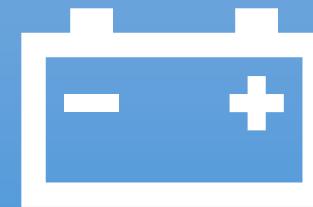




Store energy before
a planned power
cut



Report an
unplanned power
cut to ENW



Track how much
energy stored



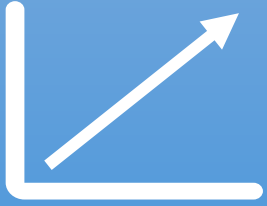
Charge electric
vehicle to avoid
peak time



Track charge of
electric vehicle



When to sell stored energy
to DSO for the best price
at the best time



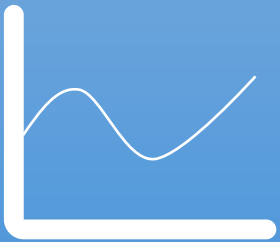
High consumption
rooms



Peak times of own
usage



High consumption
devices



Trended data of use
over previous years



Comparison data of
similar properties



Average use split by
rooms/time period