

A few bullets thinking about future business models

Benefits to the nation's total capital expenditure:

- Moving peak (as in flattening) has following benefits:
 - Generator Capacity benefit
 - Transmission line capacity benefit
 - Local network line capacity benefit
 - Local transformer capacity benefit
- Increasing load when renewables are strong has a carbon benefit
 - help consume wind, solar rooftop pv

Benefits to the nation's utilisation of existing capital & fossil fuel consumption

Assisting with the balancing of the half hourly balancing mechanism brings benefits to utilising existing capital equipment and optimising the burning of fossil fuel. For example:

- Moving consumers' load profile to flatten forecast
- Moving consumers' load profile to match actual to forecast
- (These are time of use benefits)

Or thinking about it all another way

The UK invented a thing called the balancing mechanism. It was invented by economists to try and simulate free market capitalism. Most people tend to think about the balancing mechanism perhaps a little too much: its what they know. How about instead:

The regulator allows a national private network, outside of the balancing mechanism

It is now technically possible to directly connect householders with generation plant. An internet signal between the two of them can elicit a trade. For example, imagine a million householders, all with super smart meters and smart plugs and stuff and all signed up to a national private network. The householder instructs "turn on my two smart plugs any time between now and 8pm tonight". The generator collates these demand requests on their internet screens and turns on their plant when and how they want. Should one of their generators fail for an hour during the day, they simply defer customer load to when they want. The householder gets what they want and we all get better utilisation of generation plant. It is an opt out market whereby consumers can instruct "turn me on". There is no opportunity within today's balancing mechanism legislation for the "turn me on" market and consumers pay for that restriction.

If a "turn me on" market could be established over the internet then a consumer could set a buy price in an on line auction which states "when the price falls to X, buy/turn me on". This could be useful when the wind picks up.

This private national network, maybe some would call it a virtual network, could compete directly with utilities. There will be no point in having utilities. We can move to a system where there is just generators, wires and consumers playing energy demands in an on line game.

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