

14 March, 2015

Submission from:

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Demand Management Incentive Scheme

ON 26 Feb 2015 I sent the following correspondence to Mathew Groom (Minister for Energy Tasmania):

Dear Minister

Like many power users in Tasmania I have installed a substantial photo-voltaic system. Within the next three years it is likely that battery technology will improve to the point where it is cost effective to add battery storage. At this point a significant number off power consumers may elect to go off grid, depriving Aurora / Hydro / TasNet (can't keep up with the name changes :) of both the variable power consumption charge and also the fixed supply charge.

As more consumers take this option, the cost of power production and distribution falls on a decreasing number of users – making it even more attractive for them also to disengage from the network. This has been called a “death spiral” by some commentators.

Tasmania may be more exposed to the consequences of this phenomenon than other States; interest bills on borrowings for dams and distribution infrastructure have to be paid regardless of how much electricity is sold (in other States, some costs can be reduced by reducing fuel consumption as demand falls).

Should the scenario outlined above eventuate it will have significant negative consequences for the State's finances, employment in power utilities and 'stranded' infrastructure.

Can you please advise whether or not your government is aware of these possibilities and what risk mitigation actions are planned.

Kind regards

Nigel Davies
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I believe that the combination of low-cost PV panels and, in the next five years, cost efficient batteries will bring a sea change to the electricity generation and distribution industries.

Utility companies should be planning for this now and Governments should be legislating to encourage this planning and to discourage expenditure on infrastructure that may become prematurely redundant.

What might our electricity generation and distribution landscape look like in 2035:

- A majority of private dwellings capable of operating independently from the grid through a combination of solar PV and batteries.
- These houses still connected to the grid for emergency backup and sale of surplus power – **but with no disincentive to disconnect caused by high fixed connection charges and derisory feed-in tariffs.**
- Potential self-sufficiency in energy needs leading to an increased awareness of energy efficiency and conservation – **further reducing electricity requirements.**
- The widespread use of electric cars - **recharged from roof top solar and with the car battery perhaps doubling as battery back-up for the PV solar.**
- Large scale PV installations on the roof tops of factories and commercial buildings.
- Distributed local battery storage banks to balance supply and demand.
- Consequently a higher proportion of power generated close to the point of consumption - **less demand for long distance transmission lines.**
- Less demand for centralised power generation – **no new coal fired power stations and no need for nuclear.**

The solar panels, electric cars and cost effective batteries will come from private industry.

Government policy needs to ensure that the generation and distribution utilities look ahead and set their capital investment and pricing policies in the best interests of the consumer – to permit a graceful transition from the current mode of operation to one resembling the scenario described above.