From:

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Sent: To: Monday, 3 March 2014 7:22 PM

To: Cc: TransGrid Revenue Reset Wayne Ford; Stevens, Kurt

Subject:

TRIM: TransGrid - Determination 2014-2019

HP TRIM Record Number: D14/28039

Dear Team,

The ANU is working closely with local distributors to reduce energy consumption for financial reasons, because it aligns with our Environmental Management Plan and because we have a new reporting requirements having triggered thresholds within the Energy Efficiency Opportunities Regulations 2013 Cth.

We learn of transmission issues mostly through our distributor and we were pleasantly surprised when we learned of a demand management scheme that I understand to be funded by the transmitters through the distributors. We have in fact been beneficiaries of a significant grant to install a minimum of 16 power factor correction (PFC) devices into LV installations. This grant does not cover the full cost of the installations but we believe that it is a good scheme and should be extended.

We see installations of PFC into sites of LV demand and installations into HV distribution and transmission sites as an appropriate engineered solution. Further we see that overall system costs can be reduced by undertaking further demand management initiatives.

The obvious and higher yielding demand management initiatives apart from the basic abatement or curtailing are to transfer loads to off peak and the ANU has a large opportunity to transfer load. We however need to see that these demands are planned for by the transmission and distribution service providers in conjunction with ANU and that these are detailed into the AER submission:

Whilst we have not heard directly from Transgrid on the topic of demand management we have been participating in increasingly open and meaningful dialog with ActewAGL Networks and we believe that ActewAGL are dealing appropriately with the transmitters.

The following are key demand management priorities that ANU are working with ActewAGL Networks on and we have no issue sharing outcomes of discussions with Transgrid:

- Chilled water storage ANU will look at existing example/s and savings and determine feasibility of new storages.
- Transfer from electric to gas heating, (limited opportunities as most have been transferred already).
- Grid connection of existing generators or facilitation of connection points for application of external on skids installed generators.
- HV Power factor correction.

In saying all this ANU has some concerns that Transgrid submission is overstating the asset replacements required whilst understating the network augmentations that would lead to increased capacity in an effort to maintain the status quo. ANU would like to see is that Transgrid provide all asset replacement & augmentation projects with there cost first without large scale customer side demand management schemes and then for them to comment on the effects with significant reductions that a larger demand management scheme could bring about so that AER and the wider government can see how larger demand management initiatives such as district heating and cooling or embedded generation stack up.

ANU believe that the system costs of demand side initiatives whilst still capital intensive have larger effects to reduce transmission and distribution loads and that funding collected from previous determinations should be provided to demand management initiatives. Further we feel that wider government grants could be provided direct to ANU for agreed reductions to offset transmission and distribution augmentation.

Whilst I work in a Facilities & Service role we do have several programs that engage with the ANU academic community. Via these programs we have some capacity to actually model some of the above mentioned scenarios but we feel that more engineering modelling of options should be undertake to guide evidence based decisions and determinations. If AER have any capacity to extend our modelling efforts we believe that we could bring transmitters, distributers, funders (ANU & Government), customers (ANU) and academics to the table to solve this complex engineering problem to bring about the optimal solution.

Should you require further information about this submission please get back to me.

Regards

## **BEN CROSSLING**

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