

PUBLIC



Thursday, 14 July 2011

ESTIMATES AND FINANCIAL OPERATIONS COMMITTEE
QUESTIONS ON NOTICE SUPPLEMENTARY INFORMATION

Savings in Agency Staff and Programs

(1) *What targeted savings in agency programs will be made in the out years?*

Answer: Western Power is a statutory corporation established by the *Electricity Corporations Act 2005*. It is owned by the State Government of Western Australia and is accountable to the Minister for Energy. The Board of Western Power is the governing body and has overall responsibility for Western Power's performance, which includes setting strategic direction and overseeing Western Power's management and commercial activities. These normal commercial activities and resources are directed to the strategic priorities outlined in Western Power's annual Statement of Corporate Intent and Strategic Development Plan, which are agreed by the Minister with the concurrence of the Treasurer. The Statement of Corporate Intent is tabled in Parliament.

This question is therefore not applicable to Western Power.

However, Western Power will meet the efficiency dividend targets as outlined in the 2011/12 Budget and has presented an implementation plan to achieve these savings to the Minister for Energy.

(2) *What specific programs will be cut in 2011-2012?*

Answer: This question is not applicable to Western Power.

(3) *What targeted savings will be achieved by the agency through the new round of voluntary separations?*

Answer: This question is not applicable to Western Power.

(4) *How many cuts to agency programs will that mean since September 2008?*

Answer: This question is not applicable to Western Power.

(5) *How many additional FTE will be cut through -*

5.1 *Voluntary severance*

5.2 *Involuntary severance*

Answer: None.

(6) *What will this bring the total cuts to in each of the above categories since September 2008?*

Answer: There have been 99 redundancies from September 2008 to date.

Strategic Review

(7) *Has there been a strategic review of the agency's activities to ensure that the activities and service delivery is aligned with the Government's priorities?*

Answer: Yes. This is completed each year through the 1 year Statement of Corporate Intent (SCI) and 5 year Strategic Development Plan (SDP).

(8) *If yes to (7) when was it conducted and by who?*

Answer: It is conducted annually by Western Power, the Minister for Energy and the Treasurer, with input from the Department of Treasury and the Office of Energy.

(9) *Can the review be provided to the Committee and if not why not?*

Answer: Yes. Once agreed, the Statement of Corporate Intent is tabled in Parliament and made available on Western Power's website.

Value for Money Review

(10) *Has there been a value for money review of the agency to determine the efficiency of agencies' service delivery and the effectiveness of the outcomes achieved?*

Answer: Yes

(11) *If yes to (10) when was it conducted and by who?*

Answer: The Economic Regulation Authority (Authority) reviews Western Power's proposed investment plans as part of its Access Arrangement (currently three year period,

extending to five years in future). At the completion of an Access Arrangement period, the Authority scrutinises actual capital expenditure to ensure it was prudent and efficient.

(12) Can the review be provided to the Committee and if not why not?

Answer: This is available on the ERA's website.

Cost and Demand Models

(13) Has the agency developed cost and demand models to strengthen the budget process to develop a more in-depth understanding of the cost and demand drivers in key service delivery areas?

Answer: Yes.

(14) If yes to (13) when was it conducted and by who?

Answer: By Western Power on an annual basis.

(15) Can the review be provided to the Committee and if not why not?

Answer: Yes. This is published annually in the Annual Planning Report, available on Western Power's website.

(16) Western Power's Annual Planning Report (p56) notes that the SWIS has excellent wind resources, but that uptake would be moderate rather than high, unless market rules and other technical factors are addressed and I ask-

(16.1) Are some of these other technical factors network or grid engineering issues?

Answer: The key technical factors are network related, including the lack of network capacity. There is currently limited capacity in the network to accommodate additional generation in the Mid West. The construction of the Mid West Energy Project stage 1 (MWEP) will provide additional capacity for more generation connection. The connection of additional base loads in the area will also enhance the ability to allow additional generation.

Increasing the penetration of wind generation is expected to increase the need for fast acting load following ancillary services. This is required to cater for the inherent variability of wind driven generation. The procurement of load following ancillary services is prescribed under the Wholesale Electricity Market Rules, and is an obligation of System Management.

Output of wind generation is intermittent and does not follow expected load patterns, as a consequence power system authorities across the world are looking at methods of storage to ensure power security is not compromised.

(16.2) Is there funding allocated in this budget to address these technical factors in this years or the forward estimates

Answer: Neither Western Power nor System Management has a funding allocation to address technical requirements imposed by wind generators. System Management is obliged to procure load following ancillary services, but this is funded by participants in the wholesale electricity market. This is not an asset investment by Western Power as a Network Service Provider.

However funding for the MWEP is included in Western Power's next Access Arrangement application, to be submitted to the Economic Regulation Authority in October 2011. This project will strengthen the network in the Mid West to be able to accommodate additional generation. A provision of \$314.2 million has been included in the 2011/12 State Budget for MWEP Stage 1, subject to final regulatory approval and Government review of the business case.

(16.3) What are the market rules changes that Western Power recommends to promote high uptake of wind energy.

Answer: As a network operator, Western Power is impartial on generation types that might connect to the network. In addition, and pursuant to legislative requirements, Western Power must not show preference to any particular generation type. The Application and Queuing Policy requires Western Power to act on a first come first serve basis irrespective of the type of generation applying or the prospect of each applicant.

However, it should be noted, from a systems management perspective the implications of higher penetration of wind on the system on power security must be considered.

(17) Western Power Annual Planning report consider four likely scenarios –three of these include proposals for Mungarra solar thermal plant (45 MW) in 2014-15, or 2015/16, -

(17.1) What investment is progressing for this in this budget and forward estimates?

Answer: The progress of new generator connections in the Mid West is dependent upon the MWEP proceeding. Once this project proceeds there will be capacity to connect additional generation. The amount of generation that can be accommodated will increase with the increase in base load.

Progress of generation investment is dependent upon the generator applicant applying and funding the required capital contribution.

(17.2) How progressed is the planning for this?

Answer: The planning work around the MWEP is well advanced with the project close to being submitted to the Economic Regulation Authority for New Facilities Investment Test pre-approval.

(17.3) One of the scenarios also includes 2 x wind farms at Mungarra (95 MW and 90 MW) – combining the wind and solar thermal energy production -

(17.3a) What planning is underway for this?

Answer: See 17.2.

(17.3b) What investment is proceeding for this in the forward estimates?

Answer: Not applicable.

(17.3c) What are the barriers to implementation of this development?

Answer: Development of more generation in the Mid West is dependent upon the MWEP being commissioned. In addition the Applications and Queuing Policy may impede progress of “later in time” applications.

Smart Grid Development

(18) I refer to the last paragraph on this page, and the Smart Grid Foundation Project. I understand Western Power is undertaking 5 technical trials as outlined below – please provide a brief update of the progress of each and indicate when evaluations will be available:

(18.1) Smart metering trial

Answer: Western Power has now installed 10,109 of its smart meters and 100% of the associated communications infrastructure required to send and receive data remotely. 99.8% of smart meters are successfully providing half-hourly interval reads via the remote communications network.

A formal report of Western Power’s results so far is not yet available, but will be by the end of 2011. This report will be made available to the Minister for Energy and to any other interested parties.

(18.2) Direct load control (DLC) trial (375 air conditioners in the summers of 10/11 and 11/12)

Answer: Western Power is currently analysing the results of its first summer Direct Load Control trial, which involved 203 households and 10 demand response events. The trial was very successful and the results are being used to plan the second summer 2012 trial. The data from the first summer is being analysed in detail, and a formal summary report will be made available by the end of 2011 to all interested parties.

(18.3) PV Saturation trial (30% customer penetration of PV's on a single distribution transformer);

(18.3a) Where is the trial being undertaken?

Answer: The trial is being carried out on a feeder section supplied by a single distribution transformer in Forrestfield.

(18.3b) Is it on track to commence in 2011?

Answer: Yes, the PV Saturation trial has commenced. PV systems have been installed to achieve a penetration of 25 systems out of a total of 77 residences on that transformer. One data logger was installed on the transformer in May 2011, and a second (control) data logger is planned to be installed on a similar adjacent feeder in July 2011.

(18.3c) When are the results expect?

Answer: Early data collection and preliminary analysis has commenced. More comprehensive results from the PV Saturation trial are expected in mid-2012. This will allow analysis of data collected over the summer of 2011/12.

(18.3d) Have there been some initial results?

Answer: No results of note are available at this stage.

(18.4) Heating Ventilation and Air-Conditioning trial (this trial finished mid 2010 in one City of Perth building in 2010 and achieved a 15% reduction in peak use and an 11% reduction in overall energy use on specific days);

(18.4a) What investigations are underway to assess the viability of further HVAC programs?

Answer: At this stage Western Power is not carrying out any specific investigations into the viability of further HVAC programs. HVAC programs are just one type of the many viable programs that could be developed. The trial has provided Western Power with a

useful tool that can be used when Western Power identifies constraints in a particular area of the network.

Western Power is focussing on a number of demand management opportunities and processes towards building up a demand management toolkit of programs that could be deployed in different locations. At the same time Western Power is continuing the demand management trials currently underway. This work is all aimed at embedding demand management as a business-as-usual alternative to conventional network augmentation in future.

Note, commercial entities are pursuing demand side management opportunities through the Wholesale Electricity Market.

(18.4b) Has Western Power assessed customer interest in participating in further HVAC programs?

Answer: Refer 18.4(a).

(18.4c) Are further HVAC programs underway? Where? How many?

Answer: Refer 18.4(a).

(18.4d) When are evaluations of these programs expected?

Answer: Refer 18.4(a).

(18.5) Green Town programs (Denmark and Walpole)

Answer:

After power outages in Easter 2007 in Denmark and Walpole, reducing peak electricity demand became a means to improve network capacity. The resultant Green Town project is a series of energy initiatives developed by Western Power in partnership with the Denmark and Walpole communities (via the South Coast Power Working Group) to reduce energy consumption at peak times.

Changing electricity consumption behaviour is critical to reducing consumption at peak times, and a Community Education Program has been implemented to promote energy efficiency by:

- Raising awareness of the cause and effect of peak electricity demand; and
- Educating the community about the means of reducing consumption, especially at times of peak demand.

Additionally, almost 6000 energy efficient compact fluorescent light globes have been installed in approximately 600 homes and businesses in the area, along with 31 gas boosted solar hot water systems.

The community now has a direct partnership with Western Power that is working to provide a more reliable, better quality power supply. The community also has an improved awareness of energy efficiency and the ability to put it into practice. They have also had the opportunity to take part in various initiatives that reduce their individual consumption and reduce their power bills.

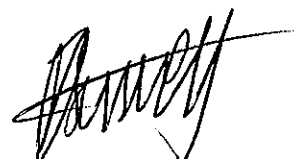
The Green Town project exceeded its target to reduce peak electricity consumption by 10% by 2010, with a final reduction of 14% being recorded. This reduction allowed Western Power to defer costly network augmentation that was planned for 2012 until 2015.

Western Power has deployed 1700 smart meters and associated communications infrastructure in Denmark and Walpole, and will further test the impact of residential access to real time electricity consumption information via In-Home Displays on peak electricity demand.

The intended future outcomes of the Green Town project are to transfer the model and sustainable energy solutions to other edge of grid locations to help customers reduce their energy bills, reduce carbon emissions and provide ongoing energy education while reducing peak electricity demand.

(19.2) What will the connection of that new project require of Western Power in terms of network balancing?

Answer: In terms of procuring load following ancillary service, Western Power is not required to do anything. However, Western Power's System's Management determines on an annual basis the amount of ancillary load services required to ensure the power system is secure. Load Following Ancillary Service must be procured pursuant to the Wholesale Electricity Market Rules.

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(19.1) What grid enhancement/reinforcement, if any, will be required in order to connect that new project?

Answer: No system reinforcement is required as part of installing this project. A 6km long transmission line will be installed from the existing 132kV transmission to the wind farm as part of the project to effect connection of the wind farm to the system.

(19.3) What is the expected cost of the customer access work for the Mumbida wind farm?

Answer: The total cost for this customer access work, excluding GST and excluding escalation, is \$13.5million.