# Public Accounts Committee

Hydro Tasmania provides the following response to the questions taken on notice following the Public Account Committee hearing held on 15 August 2016.

## Question 1

*Provide a table which details revenue received from renewable energy certificates since their introduction (and include an estimate for 2016-17).*

| Year | Net Contribution |
|---|---|
| 2001/2002 | $4.2m |
| 2002/2003 | $11.1m |
| 2003/2004 | $26.9m |
| 2004/2005 | $23.5m |
| 2005/2006 | $27.3m |
| 2006/2007 | $26.8m |
| 2007/2008 | $14.9m |
| 2008/2009 | $9.6m |
| 2009/2010 | $-10.1m |
| 2010/2011 | $37.1m |
| 2011/2012 | $29.0m |
| 2012/2013 | $64.3m |
| 2013/2014 | $77.2m |
| 2014/2015 | $46.0m |
| 2015/2016 | $32.3m |
| Total | $420.1m |
| 2016/2017 (forecast) | $16.9m |

Background:

- The above figures represent net contribution of Large Scale Generation Certificates (LGCs) to the Business within each financial year. Prior to 1 January 2011 these certificates were called Renewable Energy Certificates (RECs).
- The Renewable Energy (Electricity) Act 2000 determines that the Act applies to the year commencing 1 January 2001 and to all subsequent years. Therefore, certificates are created and surrendered on a calendar year basis as opposed to our financial reporting requirements which are 30 June based.
- Certificates are bankable and do not expire so can be held and sold at any time in the future. For example, a certificate created in 2011 can be sold at that point or held and sold at any time in the future.
- The negative number in the 2009-10 year means that more LGC's were purchased in that year than sold. This stems from a drought in a prior year, resulting in a year where no LGC's were created.

In March 2016, one commentator raised the specific issue of Renewable Energy Certificates (RECs), claiming they are 'the beacon on the hill' for our business. It was implied we had 'gamed' the current system by shifting generation from one calendar year to another and between power stations. This is incorrect. Generation shifts between stations as a result of inflows and the need for Hydro Tasmania to balance water usage prudently across the system. As a general rule, production will shift towards larger storages (Great Lake and Gordon) in drier years. Generation does not generally

shift between years although this did occur to some extent ahead of and during the carbon price period as the value of water in larger storages changed. Any significant outage on a major storage will naturally transfer generation to the other major storage and a rebalancing of major storage will always occur.

As part of our returns to the regulator each year, Hydro Tasmania specifies how each station is run to comply with legislation and only receives certificates for all eligible generation.

It was also claimed that there will be a shortage of RECs in the next few years as a result of the drought. Hydro Tasmania does not agree with this statement. We note that the period of historically poor inflows from September 2015 to April 2016 has been followed by three months of record inflows to hydro storages. Accordingly, the future is very uncertain and it is not appropriate to say that REC production will be lower or higher in future years.

## Question 2

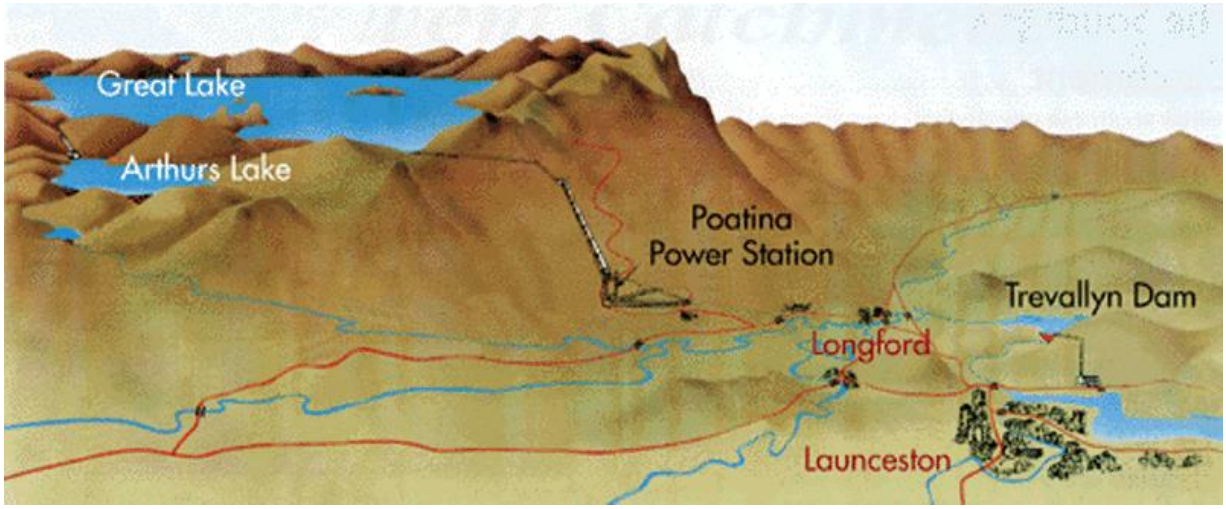
***Please advise the degree to which the Great Lake is being used to generate electricity at this stage***

The Great Lake is a vast natural storage located on the central plateau of Tasmania 1000 metres above sea level, and is an excellent resource for hydro-power. Water from the Great Lake flows through to the Poatina underground Power Station, Tasmania's second largest power station.

Since Basslink returned to service, Poatina has generated ~44 GWh at an average output of ~27 MW or ~8% of its capacity. This was worth approximately 2% of total Hydro generation and approximately 7.3% of inflows into Great Lake over the same time period.

Looking at Poatina in isolation over a short period is not useful for making conclusions about storage management. Storage management involves the optimisation of Hydro Tasmania's complete portfolio of 27 hydro power stations with wind energy and Basslink flows to meet Tasmania's electricity demand. This is at least an annual cycle with major storages being a key component during the drier periods of the year. Hydro Tasmania is continuing to focus on the rebalance of its major storages.

Hydro Tasmania is on track to meet its interim target of 40% total energy in storage at the end of spring with storages at 38% in the week commencing 22 August. This applies to the system as a whole, not each individual lake. With Basslink available and the CCGT on standby, operating storages at this level ensures energy security risk remains very low for Tasmania.



**Appendix 1- Additional information**

**Spot Price information**

| FY | Average spot price |
|---|---|
| **2001** | $32.00 |
| **2002** | $34.43 |
| **2003** | $36.96 |
| **2004** | $39.11 |
| **2005** | $32.29 |
| **2006** | $23.42 |
| **2007** | $24.43 |
| **2008** | $44.63 |
| **2009** | $48.71 |
| **2010** | $37.68 |
| **2011** | $35.95 |
| **2012** | $39.56 |
| **2013** | $35.94 |
| **2014** | $29.82 |
| **2015** | $41.45 |
| **2016** | $69.26 |
| **2017** | $85.82 |

**Sources of LGCs**

| Generation year (calendar year) | Hydro | Wind (includes pre-commissioning LGCs) |
|---|---|---|
| 2001 | 770,279 | |
| 2002 | 867,873 | |
| 2003 | 658,166 | |
| 2004 | 562,314 | |
| 2005 | 307,097 | |
| 2006 | 634,492 | |
| 2007 | 432,465 | |
| 2008 | 0 | 30,712 |
| 2009 | 372,090 | 83,051 |
| 2010 | 750,306 | 21,370 |
| 2011 | 626,876 | 99,214 |
| 2012 | 1,454,678 | 152,211 |
| 2013 | 2,525,980 | 270,416 |
| 2014 | 1,393,471 | 623,454 |
| 2015 | 381,190 | 795,815 |

| Calendar Year | Generation | Creations |
|---|---|---|
| 2001 | 770,279 | 119,000 |
| 2002 | 867,873 | 350,488 |
| 2003 | 658,166 | 614,904 |
| 2004 | 562,314 | 688,761 |
| 2005 | 307,097 | 499,915 |
| 2006 | 634,492 | 869,411 |
| 2007 | 432,465 | 657,742 |
| 2008 | 0 | 432,465 |
| 2009 | 372,090 | 0 |
| 2010 | 750,306 | 673,090 |
| 2011 | 626,876 | 449,306 |
| 2012 | 1,454,678 | 1,096,876 |
| 2013 | 2,525,980 | 2,073,102 |
| 2014 | 1,393,471 | 2,317,926 |
| 2015 | 381,190 | 513,101 |