

Senate Rural and Regional Affairs and Transport Legislation Committee

ANSWERS TO QUESTIONS ON NOTICE

National Museum of Australia

Additional Estimates 12 February 2013

Question: 152

Topic: Electricity Expenditure for National Museum of Australia

Asked By: Senator BRANDIS

Type of Question: Written

Date set by the committee for the return of answer: 5 April 2013

Number of pages: 4

In response to Questions on Notice 40 and 41, October 2012, the National Museum reported a significant increase in expenditure for electricity.

- a. Has the Museum been compensated by the Commonwealth for this increase in electricity expenditure?
- b. How much did the Museum spend on electricity in 2011-12?
- c. How much does the Museum expect it will now spend on electricity in 2012-13?
- d. From where will the Museum find the additional funds to pay for this increase?
- e. To what does the Museum attribute this increase in electricity cost?
- f. Did the Museum have in place energy saving measures prior to June 2012?
 - i. Please detail the energy saving measures in place prior to June 2012.

Answer:

- a. No.
- b. 2011-12 - \$1,314, 706.
- c. The Museum expects current usage levels to be maintained.
- d. The Museum's operating budget changes year to year, electricity is included in that budget.
- e. This is a matter for the electricity supplier.
- f. Yes. The Museum Energy Management initiatives commenced in 2001, with several reports and ongoing annual initiatives being carried out over this period of time.
 - i. Refer to Attachment A.

NMA Register of Environmental Initiatives

The NMA Register of Environmental Initiatives includes:

Energy Management - Key Planning Initiatives

1. 2002/03 - Initial energy reporting and planning initiatives commenced (ActewAGL energy report and Ecology Engineering Energy and HVAC Report).
2. 2003 to present - Annual/monthly monitoring to provide quantifiable historical trend data to assist in the optimisation of system operation and development of energy management strategies and allow assessment over each previous year to the current year.
3. 2005 - Focused tracking of energy usage across the Acton site — the Museum's computer based energy monitoring system (EP&T) enables independent monitoring of the heating, ventilation and air conditioning systems and general light and power for revision of energy optimisation strategies.
4. 2007 - Integration into the whole-of-government (Department of Defence) energy contract.
5. 2007 - Museum has purchased 5 – 10 per cent of its electricity from renewable energy sources under whole- of-government contract.
6. 2008/09 - Formation of an ACT cultural group for the provision of a combined gas contract.
7. 2009 - Review and re-development of an Energy Management Plan (NMA and Energetics).
8. Ongoing - Integration of energy management initiatives into the twenty-five year Asset Management Plan based on technology changes and life cycle cost principles.
9. 2011/12 - Provision of an energy management report based on existing HVAC deficiencies (Steensen and Varming) and review of the humidification systems.

Heating Ventilation and Air Conditioning (HVAC) Initiatives.

1. 2003/04 - Installation of power factor correction equipment (\$10,000 annual saving).
2. 2005/06 - Installation of a new low load chiller and chiller staging control strategies to provide a more efficient operation of the chilled water system, and provide operational redundancy (\$30,000 estimated annual saving).
3. 2007/08 - Optimising chiller efficiency by revising chiller control strategy and integration of the new load low chiller into the day-to-day operational running cycle and improved condenser water control (\$50 -70,000 estimated annual saving).
4. 2009/10 - Optimising chiller and cooling tower efficiency by implementing a chilled water reset strategy (reduced energy losses and minimised maximum demand usage).
5. 2010/11 - Installation of variable speed drives on the cooling tower fans (minimised energy losses on start-up of fan systems).
6. 2011/12 - Revised optimised programming to the main hall to minimise energy losses (estimated \$8000 annual saving).
7. 2011/12 - Installation of improved boiler unit controls incorporating carbon dioxide monitoring facility to reduce carbon emissions.
8. Ongoing - Changes (reviewed in 2012/13) to the computerised building management system to ensure that the chillers operate at optimum efficiency resulting in savings in energy costs.
9. Ongoing - Review of newer technologies to optimise energy usage and whole-of-life environmental impact of Museum plant and equipment - Humidifiers, Enthalpy (Heat Recovery) Wheel.
10. 2013/14 works include replacement of the electric humidifiers with an ultrasonic (adiabatic) system (estimated savings of \$100,000 annually).

Lighting Initiatives.

1. 2002 to 2005 - Installation of multi-channel lighting controllers and dimmers within exhibition cases to reduce lighting levels for objects;
2. 2003 – Ongoing - Retrofit of all exhibition lighting from 500 Watt to 300 Watt fittings and revised dimming programming to allow lighting to be optimised for differing time zones within the course of the day (cleaning, operational, secure etc).
3. 2005 - Reprogramming of lighting control systems and use of high efficiency lighting in the Main Hall together with the introduction of PE cells has helped to increase lamp life and to improve lighting conditions on cloudy days.
4. Circa 2007 - Re-lamping in storage facilities to meet LUX requirements and reduce overall energy use.
5. Circa 2008 - Installation of voltage reduction units to linear T8 type lighting Circuits.
6. Ongoing - Replacement of 50 Watt light fittings and luminaires to 35 Watt fittings, such as bathroom lights and outdoor lights on the Museum building, provision of energy efficient 9 Watt Light Emitting Diodes (LED) lights. These require less maintenance and replacement, further reducing their whole-of-life environmental impact. Existing light fittings were also modified to improve energy efficiency.
7. Ongoing - Provision of external LED display lighting (lower operational and energy costs).
8. Ongoing - Installation of additional photoelectric cells on external lights for greater energy efficiency;
9. Ongoing - Installation of ultrasonic and infrared motion detectors in office and gallery areas to reduce lighting levels when areas are not occupied.
10. Passive solar efficient initiatives including window blinds.

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ANSWERS TO QUESTIONS ON NOTICE

National Museum of Australia

Additional Estimates 12 February 2013

Question: 153

Topic: Staffing Numbers for the National Museum of Australia

Asked By: Senator BRANDIS

Type of Question: Written

Date set by the committee for the return of answer: 5 April 2013

Number of pages: 1

For each of the financial years from 2007-08 to 2015-16, please provide the number of staff, or projected number of staff, employed by the Museum.

Answer:

2007-08) refer to the 2007-08 annual report

2008-09) refer to the 2008-09 annual report

2009-10) refer to the 2009-10 annual report

2010-11) refer to the 2010-11 annual report

2011-12) refer to the 2011-12 annual report

2012-13) 255 (ASL) Portfolio Budget Statements (estimates) Staffing projections are likely to be consistent at current levels.

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ANSWERS TO QUESTIONS ON NOTICE

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Additional Estimates 12 February 2013

Question: 154

Topic: Ministerial Attendance at National Museum of Australia Functions

Asked By: Senator BRANDIS

Type of Question: Written

Date set by the committee for the return of answer: 5 April 2013

Number of pages: 1

When did the Minister or the Prime Minister attend a function or visit your facilities in:

- a. 2013
- b. 2012
- c. 2011
- d. 2010
- e. 2009
- f. 2008

Answer:

- a. 2013: The Minister attended non-National Museum of Australia function in March 2013.
- b. 2012: The Minister attended official National Museum of Australia function in October 2012.
- c. 2011: The Minister attended official National Museum of Australia function in March 2011.
- d. 2010: The Minister attended official National Museum of Australia function in July 2010.
- e. 2009: Not applicable.
- f. 2008: The Minister attended official National Museum of Australia function in August and December 2008.