

ESTIMATES COMMITTEE

Question Taken on Notice

Date: 11 June 2019

Subject: Assessment and response to request for solar panels on Parliament House

From: Mr Terry Mills

To: Hon Kezia Purick

Agency: Department of the Legislative Assembly

Number: 1.2

Question: I am requesting a copy of the detail or comprehensive assessment and response to an unsolicited proposal regarding the installation of solar panels on the top of Parliament House.

Answer: Attached are copies of detailed assessments and communications with proponents of solar panels on the roof of Parliament House.

The Department of the Legislative Assembly responded to a proposal in 2015 and another in 2017 and neither proponent pursued the matter any further.

The Government would be required to provide additional funding to complete any solar panel project at Parliament House.

It remains unclear as to the cost benefit and a complete cost benefit analysis would also require funding by Government.



DEPARTMENT OF THE LEGISLATIVE ASSEMBLY

MEMORANDUM

TO SPEAKER
FROM CLERK
SUBJECT [REDACTED] advice on solar roofing at Parliament House
FILE REF 2015/000140.23

Matter for Consideration

To provide you a draft response to unsolicited advice concerning the installation of solar panels on the roof at Parliament House.

Background

You have received advice from [REDACTED] about the capacity to install solar panels at Parliament House (Attachment A).

Current Situation

[REDACTED] is a public company whose business is to provide aerial imaging solutions. One arm of the company, [REDACTED], provides aerial images of roof space and calculates how much electricity could be generated from installation of solar panels. The company does not provide solar panels, only information which could be used for quotations by solar panel installation companies.

The idea of solar panels on the roof of Parliament has been mooted on several occasions. It has been done in other Parliaments, most recently at the Knesset in Israel. A previous unsolicited proposal was received from [REDACTED] in September 2015. Draft correspondence to [REDACTED] has been prepared advising of previous consideration of solar energy projects and enclosing a copy of the Northern Territory Government's Unsolicited Proposals Policy.

Financial Implications

The DLA has no budget to implement solar panels on its roof.

Recommendation

It is recommended that you:

- a) Note the information from [REDACTED] in Attachment A.
- b) Sign the letter to [REDACTED] advising that solar panels are not contemplated at this time.

MICHAEL TATAM
Clerk

December 2017

Signed/ Not Signed

Hon Kezia Purick MLA
Speaker

14th December 2017



SPEAKER

Ref: 2015/00140.24

[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

Dear [REDACTED]

Re: Investigation of solar panels on the roof of Parliament House NT

I refer to your recent communication including an aerial image of the roof at Parliament House and the potential for installing solar panels on it.

Parliament House operates on a 24 hour, seven day a week basis and is host to after-hours functions. While committed to energy efficiency and the moderation of power consumption, this is subject to external factors such as weather, the number of Assembly Meeting days and the amount of after hour/weekend functions.

The Department of the Legislative Assembly has investigated solar energy projects at Parliament House a number of times in the last decade. On each occasion, proposals have not proceeded because the capital costs of the proposals were assessed as significantly outweighing the potential environmental benefits.

The Department of the Legislative Assembly continues to investigate and implement efficiencies to maximise the environmental sustainability of the building. These measures include educating occupant behaviour, upgrading lighting (LED light replacement program), installing lighting sensors, increasing the use of natural light, the use of heat reflective paint when the roof was repainted in 2014 and upgrading air conditioning facilities (magnetic drive air conditioning chiller and four energy efficient cooling towers).

Should you wish to recommend a solar panel project, I refer you to the Northern Territory Government's Unsolicited Proposals Policy (copy enclosed). Any proposal would be provided to the Department of Trade, Business and Innovation for assessment.

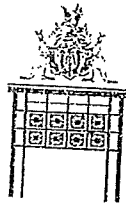
I thank you for taking the time to bring this matter to my attention.

Yours sincerely



Hon Kezia Purick MLA
Speaker

14th December 2017



SPEAKER
LEGISLATIVE ASSEMBLY OF THE NORTHERN TERRITORY

Dear [REDACTED]

Reynolds
Levin

Here is 2 letter for the

With Compliments

[REDACTED] - if you want
to take it further, please talk with

GPO Box 3721
DARWIN NT 0801
AUSTRALIA

Marionne Conzky

DARWIN PH (08) 8946 1433
FAX (08) 8981 3284



DEPARTMENT OF THE LEGISLATIVE ASSEMBLY

MEMORANDUM

TO The Clerk
FROM Deputy Clerk
SUBJECT Unsolicited proposal – solar roofing at Parliament House
FILE REF 2015/00140.11

Matter for Consideration

To provide you a draft response to an unsolicited proposal to install solar panels on the roof at Parliament House.

Consultation

Bill Fryar was consulted in the preparation of this brief.

Background

The Department of Business requests information to enable preliminary consideration of an unsolicited proposal from [REDACTED]. The Northern Territory Government's *Unsolicited Proposals Policy* is Attachment A.

Current Situation

The matter of renewable energy and energy efficiency has been the subject of intermittent investigation by the Department of the Legislative Assembly (DLA). To date there has been no formal cost benefit analysis undertaken as preliminary investigations suggested that the installation of renewable energy at Parliament House is not cost effective and efficiencies have otherwise been able to be achieved.

The use of energy in Parliament House has featured during Estimates Committee proceedings over the years. Attachment B is a compiled collection of transcripts of questions asked between 2002 and 2015. Attachment C sets out answers to two questions taken on notice in 2013 and 2014 respectively.

A tender process for the supply of retail electricity to Parliament House for a period of 12 months with 2 x 12 months extensions was undertaken in 2015. Jacana Energy was awarded the tender and commenced supply on 1 May 2015.

Financial Implications

The DLA has no budget to implement solar panels on its roof.

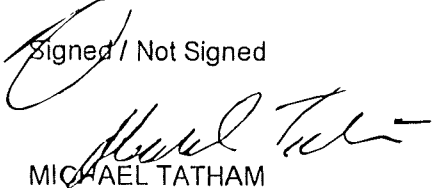
Recommendation

It is recommended that you:

- a) Note the information in this brief
- b) Sign the attached to the Department of Business enclosing information about electricity supply to Parliament House and sustainability measures.


MARIANNE CONATY
Deputy Clerk

3 September 2015


Signed / Not Signed
MICHAEL TATHAM
Clerk
3 September 2015



LEGISLATIVE ASSEMBLY OF THE NORTHERN TERRITORY

Office of the Clerk

Mr Jeffrey McAlister
Director General
Office of Asian Engagement, Trade and Investment
Department of Business
GPO Box 3200
Darwin, NT 0801

Dear Mr McAlister

Re Unsolicited proposal solar panels on the roof at Parliament House

I refer to recent communications regarding an unsolicited proposal your Department has received via [REDACTED] to install solar panels on the roof at Parliament House.

As this proposal covers a number of issues, I have structured my correspondence to provide you with as much information as possible to assist in evaluating this proposal.

Electricity use at Parliament House

The current average annual consumption (2012 to 2014) is 3 016 460 KW per annum.

Parliament House operates on a 24 hour, seven day a week basis and is host to an indeterminate number of after-hours functions. While committed to energy efficiency and the moderation of power consumption, this is subject to external factors such as weather, the number of sitting days and the amount of after hour/weekend functions.

The Department of the Legislative Assembly has two 775 kVA standby generating sets that can carry the entire Parliament House load via a traditional change-over arrangement. They cannot run in parallel with the grid or export load.

The need for uninterrupted power supply and priority reconnection during unplanned outages is paramount to the operation of the facilities at Parliament House. The impact of LED lighting replacements in a number of areas in the building in 2014 and 2015 is not yet known.

A tender process for the supply of retail electricity to Parliament House for a period of 12 months with 2 x 12 months extensions was undertaken in 2015. Jacana Energy was awarded the tender and commenced supply on 1 May 2015.

Previous investigation of renewable energy

The Departments of the Legislative Assembly and Infrastructure and the Power Water Corporation have previously investigated solar energy projects at Parliament House. The Parliament House roof is approximately 4,500 square metres, two tiered and features a 5-10% incline.

In 2008, the Department conducted a feasibility study for the installation of solar panels on the Parliament House roof. The study was based on the installation of cells over 1850 square metres at the Queen Victoria Markets, Melbourne. With known power savings supplied by the Victoria Markets it was assumed that an additional 25% increase in savings could be achieved in Darwin. The Department extrapolated the installation of photovoltaic cells over 4,300 square metres at an expected cost of \$5,140,000 with possible energy savings of \$135,000 per year.

The project was not considered viable as the pay-back period for installation was estimated at 38 years.

The Department investigated the issue again in 2010 and noted that if the project were to receive further consideration, detailed reports from architects and engineers would be required to assess the roof loadings and what reinforcement would be required for the solar cell installation. Again, due to the costs of the project, it did not proceed because the capital costs of this initiative were assessed as significantly outweighing the potential environmental benefits.

Other Solar Energy Installations

NSW Parliament

Since 2008, the NSW Parliament House has undertaken a facilities and engineering program to improve solar, water and energy consumption in its building. The installation of 162 solar panels on top of the NSW Parliament has reduced annual electricity consumption by over 2,400 megawatt-hours.

Parliament House, Canberra

In 2012, the Department of Parliamentary Services approved a pilot solar project to assess how alternative technologies can be integrated into the Parliament of Australia building systems. The project consisted of 43.3 kW of photovoltaic modules, with 42 panels on the roof of the Gardeners' Compound and 192 panels on the roof of the Senate wing. The total annual production from the pilot modules is estimated at 65,000 kWh (equivalent to 20 average home installations). The pilot demonstrated that Parliament House is well suited to solar panels, having large flat roof spaces to capture sunlight and minimal shading. The panels were integrated well into the existing infrastructure.

Green Knesset, Israel

In March 2015, Israel's Knesset (Parliament) launched a 4,560-square-metre solar field on its roof and those of surrounding buildings. This from part of a Green Knesset Project, launched in January 2014, involves 13 different ecologically conscious projects.

Pakistan's Parliament

It was announced in April 2015 that China is giving a solar power system to Pakistan supply power to its Parliament building as a gesture of goodwill. The countries concluded a number of agreements relating to energy. The Pakistan Parliament project is reported as being of a larger scale than the Knesset.

Casuarina Library, Darwin

A total of 416 photovoltaic cells were installed at the Casuarina Library, Darwin in 2014. The cells are expected to last for 20 years and are projected to be paid back within four years. The project also anticipates that 4186 trees and 2588 tonnes of carbon emissions will be offset during the 20 year period.

Energy efficiency in Parliament House NT

The Department of the Legislative Assembly continues to investigate and implement efficiencies to maximise the environmental sustainability of the building. These measures include educating occupant behaviour, upgrading lighting (LED light replacement program), installing lighting sensors, increasing the use of natural light and upgrading air conditioning facilities (magnetic drive air conditioning chiller and four energy efficient cooling towers).

The Parliament House roof was repainted in 2014 at a cost of \$203,000 using the Dulux AcraTex Membrane coating system, and is guaranteed for ten years. This was its first repainting since construction of the building in 1994. This product has heat reflection qualities, but it is not possible to quantify specific energy reduction savings from using this product.

Finally, in preparing my response it has come to my attention that [REDACTED] features an image of Parliament House on its website [REDACTED]. Although permission may be sought from the Speaker to use an image of the building, the Legislative Assembly of the Northern Territory does not advertise or promote commercial products or services. Recently a government relations advertising firm and a Darwin real estate agency were required to remove the image as it associated the Assembly with a commercial enterprise. Please ask the proponent to remove the image.

Yours sincerely


MICHAEL TATHAM
Clerk

3.9.15