Submission No 19

COGENERATION AND TRIGENERATION IN NEW SOUTH WALES

Organisation: Sydney Airport

Name: Ms Sally Fielke

Position: General Manager Corporate Affairs

Date Received: 4/09/2013

4 September 2013

The Committee Manager
Public Accounts Committee
Parliament House
Macquarie Street
Sydney NSW 2000

Via email: pac@parliament.nsw.gov.au

Dear Committee Manager

Re: Cogeneration and Trigeneration in New South Wales (Inquiry)

We refer to the Public Accounts Committee inquiry on the installation and use of cogeneration / trigeneration technology in New South Wales, in particular the adequacy of the current regulatory framework in supporting precinct developments and economic viability issues.

Sydney Airport is committed to continual improvement of environmental performance and the further development of energy savings plans across the airport. Recently Sydney Airport carried out a number of energy savings projects including the installation of LED lighting on the departures roadway at T2, installation of solar hot water at T1 and the installation of lighting isolation switches in areas of T1.

The Airport's energy savings plan potentially includes the introduction and implementation of cogeneration / trigeneration technology. However, there are some fundamental issues that remove the incentive to invest in such technology at the Airport. The dominant reason is the connection with the distribution network and the real dollar value of the savings from reduced demand / consumption from the distribution network over the long term.

The current regulations allow for the Distribution Network Service Provider **(DNSP)** to generate revenue based on asset value not on asset utilisation. That is, if there is a reduction in use of the asset for example from the introduction of precinct cogeneration / trigeneration facilities, the distribution network fee charged by the DNSP has to be recalibrated in the next pricing period for the DNSP to achieve the same gross income.

Therefore, the DNSP charge per $/MWh today will inevitably be higher at some point in the future if there is a reduction in the energy used by the customer. This recalibration of the charge to achieve the same return irrespective of demand / usage of the system over time erodes the savings any demand reduction achieves.

This also erodes cogeneration / trigeneration project revenue over time and pushes up the price for delivered power for all connected customers in the state. A 20% reduction in energy used by connected customers will deliver a 20% increase in distribution use of system charge.

This reset is on a 5 year time frame and may allow some energy efficiency projects to payoff but this is unlikely for larger projects with larger energy efficiency savings and longer investment periods.

The more recent move by DNSPs to a fixed charge for dedicated customers regardless of usage is a huge failure of the market and removes the incentive to invest in energy efficiency projects including cogeneration / trigeneration technology.

Sydney Airport Corporation Limited
ABN 62 082 578 809

Locked Bag 5000
Sydney International Airport NSW 2020

Central Terrace Building
10 Arrivals Court
Sydney International Airport NSW 2020
Australia

T 61 2 9667 9111
www.sydneyairport.com.au

The most perverse outcome from fixed network charges is that Sydney Airport receives a lower delivered energy cost the greater the consumption of energy. This is clearly at odds with the broader objectives of government, the Australian Energy Regulator and the energy savings plans of the Airport.

We have answered the relevant questions from the Terms of Reference information pack below.

Terms of Reference

(i) **Whether the current regulatory framework can adequately support the utilisation of cogeneration / trigeneration precinct developments;**

For the reasons stated above, our submission is that the current regulatory framework does not adequately support the utilisation of cogeneration / trigeneration precinct developments. If the current regulatory framework did in fact support the deployment of cogeneration / trigeneration technology, the quantity of projects in Australia and New South Wales would increase to quantities equivalent to that in Europe and other markets.

(ii) **The operation of cogeneration / trigeneration technology in other jurisdictions and the applicability of the technology to New South Wales;**

There is wider implementation of cogeneration / trigeneration plants in a growing list of leading Airports around the world. The step to central plants is a function of the price of power and gas along with the requirement for heating and cooling in each of these Airports. The overwhelming commercial issue for Sydney Airport is the ability to displace network cost and energy cost for the life of the project.

The current regulations make it uneconomical for Sydney Airport to take full advantage of the natural application of this technology at the Airport.

(iii) **The economic viability of cogeneration / trigeneration technology in New South Wales including the impact of future gas prices on the running costs of cogeneration / trigeneration systems;**

The price of gas is a material input to these projects although business as usual costs have a much bigger impact on the commercial payback of these projects. Given that in most projects there would have been some gas consumption to create heat at the site, the gas price issue is not directly 1:1.

Changes and or uncertainty in the power price and network charges have a much larger impact on the uncertainty of the real savings over time.

(iv) **Any financial, public safety and/or other risks to prospective cogeneration / trigeneration customers;**

No comment.

(v) **Any supply security and reliability issues associated with cogeneration / trigeneration, especially for residential customers of these systems;**

No comment.

(vi) **The ability of existing regulatory arrangements at the New South Wales and national level to address issues which may be identified;**

The regulations in both NSW and at a national level are the issue. The regulations will have to be changed if there is to be an improvement in the

economic viability and an increase in the roll out of cogeneration / trigeneration technology. There are a number of documents and reports that cover this well including reports by the Energy Efficiency Council and recent Senate committee reports on energy pricing.

(vii) **any other relevant matters.**

No comment.

Please contact Ted Plummer on [redacted] if you have any questions or would like any further information with respect to this submission.

Yours sincerely

[redacted]

Sally Fielke
General Manager Corporate Affairs