Letters for the Environment Central Australia

Case Card
ALICE SPRINGS HOSPITAL COGENERATION SYSTEM

The Issue
The Alice Springs Hospital (ASH) cogeneration system is not operating to capacity.

Background Information
Cogeneration is the use of a heat engine or power station to generate electricity and useful heat at the same time.

The ASH cogeneration system was completed in 2014/15. The system can generate more than half of the hospital's electricity using a reciprocating gas engine (this type of engine can be fuelled with non-pipeline gas such as landfill gas[1]). The generator's exhaust heat can be used to make 40% of the steam ASH uses for sterilisation, laundry, hot water and heating, instead of burning gas in the hospital's boilers to make this steam[2].

Due to its inherent energy efficiency, the use of cogeneration leads to reduced greenhouse gas emissions.

On 06/01/2021 The ASH Engineering Department provided verbal confirmation that the ASH cogeneration system has not been operating at capacity and is currently shut down.

Why This Issue is a Concern
The NT Government has committed to a target of net zero emissions by 2050[3]. Royal Darwin Hospital and Alice Springs Hospital are the two largest emitting NT Government facilities. Their emissions have been trending up in recent years[4]. Operating the cogeneration system at maximum capacity will significantly reduce ASH emissions.

The NT Government is required to demonstrate sound fiscal management[5]. It has been estimated that $1 million per year could be saved when the cogeneration system operates to capacity[4].

Information / Action Request (what we would like done / possible solutions)
We would like:

- Advice on estimated power costs ($) and greenhouse gas emissions (tonnes $CO2_e$) the cogeneration system could have saved per year when operating at full capacity.
- Advice on actual power costs ($) and greenhouse gas emissions (tonnes $CO2_e$) the cogeneration system has saved per year since installation was completed.
- An explanation for any periods when the system was operating below capacity.
- Assurance that the system will operate at full capacity in 2021/22 (If this assurance cannot be given we would like advice on the plan for reaching this target, including timeframes).

References

1. Clarke Energy, *Jenbacher Type-3 Engine*, Accessed 15 January 2021, https://www.clarke-energy.com/gas-engines/type-3-gas-engines/
2. Clarke Energy, *Alice Springs Hospital Cogeneration Plant,* Accessed 15 January 2021 https://www.clarke-energy.com/2011/alice-springs-hospital/
3. Office of Climate Change, Department of Environment and Natural Resources Northern Territory Government, *Northern Territory Climate Change Response: Towards 2050*, July 2020 https://depws.nt.gov.au/programs-and-strategies/climate-change-response-towards-2050
4. Department of Infrastructure, Planning and Logistics, Northern Territory Government *Northern Territory Health Building Greenhouse Gas Emission,* Presentation for Climate Change and Health PHAA and CAD event, 16 October 2019 https://www.phaa.net.au/documents/item/3941
5. NT Fiscal Integrity and Transparency Act, Accessed 18 January 2021, https://legislation.nt.gov.au/Legislation/FISCAL-INTEGRITY-AND-TRANSPARENCY-ACT-2001

Write To The Minister for Renewables and Energy; Minister for Infrastructure, Planning and Logistics; Minister for Environment; Minister for Climate Change; Minister for Essential Services

Tell the Minister we expect the Alice Springs Hospital cogeneration system to operate at full capacity so we can reach our goal of net zero greenhouse gas emissions.

Hon Eva Lawler
GPO Box 3146
Darwin NT 0801
minister.lawler@nt.gov.au
08 8999 5397

Action Request Achieved
Case Closed

Letters for the Environment Central Australia

Example Letter #1
ALICE SPRINGS HOSPITAL COGENERATION SYSTEM

Action Request Achieved
Case Closed

Your name
Address

Hon Eva Lawler
Minister for Renewables and Energy;
Minister for Infrastructure, Planning and Logistics;
Minister for Environment;
Minister for Climate Change;
Minister for Essential Services
GPO Box 3146
Darwin NT 0801

Date

Dear Hon Eva Lawler MP,

Briefly introduce yourself e.g. I am a resident of Alice Springs

I am concerned that the Alice Springs Hospital (ASH) cogeneration system is not operating to capacity.

I understand ASH is the second largest emitting facility in the NT Government and that it's emissions have been trending up in recent years. Operating the cogeneration system at maximum capacity will significantly reduce ASH emissions. This reduction is vital if the NT is to reach its target of net zero emissions by 2050.

The ASH cogeneration system represents significant investment. I understand the system can deliver estimated savings of $1 million per year when fully operational. Such savings must be realised, especially during this critical period of economic recovery.

I respectfully request:

- Advice on the estimated power costs ($) and greenhouse gas emissions (tonnes $CO2_e$) the cogeneration system could have saved per year since 2014/15 if operating at full capacity.
- Advice on the actual power costs ($) and greenhouse gas emissions (tonnes $CO2_e$) the cogeneration system has saved per year since 2014/15.
- Reasons for periods that the cogeneration system has operated below capacity.
- Assurance that the system will operate at full capacity in 2021/22. If this assurance cannot be given please advise on the plan for reaching this target, including timeframes.

Thank you for taking the time to consider this letter. I look forward to your response.

Yours Sincerely,

Your Name

Letters for the Environment Central Australia

Example Letter #2
ALICE SPRINGS HOSPITAL COGENERATION SYSTEM

Hon Eva Lawler
Minister for Renewables and Energy; Minister for Infrastructure, Planning and Logistics; Minister for Environment; Minister for Climate Change; Minister for Essential Services
PO Box 400
Palmerston
NT 0830

Your name
Address

Date

Dear Hon Eva Lawler MP,

Briefly introduce yourself e.g. I am a resident of Alice Springs.

I am concerned that the Alice Springs Hospital (ASH) cogeneration system is not operating to capacity.

Operating the cogeneration system at maximum capacity will significantly reduce ASH emissions. This reduction is vital if the NT is to reach its target of net zero emissions.

I understand the cogeneration system can deliver estimated savings of $1 million per year when fully operational. Such savings must be realised, especially during this critical period of economic recovery.

I respectfully request assurance that the ASH cogeneration system will operate at full capacity in 2021/22. If this assurance cannot be given please advise on the plan for reaching this target, including timeframes.

Thank you for taking the time to consider this letter. I look forward to your response.

Yours Sincerely,

Your Name

Action Request Achieved
Case Closed