



## 30A Approval Assessment Summary

<b>Application No.</b>	3023436
<b>Applicant Name</b>	Aggreko Generator Rentals Pty Ltd
<b>Address of Applicant</b>	101-101 WOODLANDS DRIVE BRAESIDE VIC 3195
<b>Address of Premises</b>	412 COMMERCIAL ROAD MORWELL VIC 3840
<b>Description</b>	The proposal is to use up to 114 diesel generators to produce peak demand electricity during the 2017/2018 summer period. A maximum operating period of 20 hours is proposed.

### Summary of Application

Aggreko Generator Rentals Pty Ltd (Aggreko) proposes to supply additional capacity in the electrical network through the use of 114 diesel generators to meet the projected shortfall of electricity during peak periods over the 2017/18 summer. The emergency reserve electricity is only required when demand exceeds current firm generation capacity. The generators will be located adjacent to the Energy Brix Power Station, 412 Commercial Road, Morwell, 3840 (the premises).

The Australian Energy Market Operator (AEMO) is responsible for operating Australia's gas, electricity and power market systems. AEMO performs projections for energy demand and in its most recent modelling, it has forecast that the reliability standard (a descriptor of power system security and reliability functions) may not be met this summer.

The application details that AEMO have undertaken additional modelling to understand when the diesel generation may be utilised and advised the following:

- There is 61% probability that the temporary diesel generators will not be required to run during the 2017-18 summer;
- There is a 19.5% probability of the generators being required to run for a total of 4 hours;
- There is a 13% probability of the generators being required to run for a total of 8 hours;
- There is a 3% probability of the generators being required to run for a total of 12 hours;
- There is a 2% probability of the generators being required to run for a total of 16 hours;
- There is a 1.5% probability of the generators being required to run for a total of 20 hours;
- If, or when the temporary standby emergency diesel generation is required (most likely on hot afternoon/s during a heatwave), it will be operated for short durations at full output.

As such, it is expected that if they are required to be used for power generation they will only need to be used for a total of between 4 to 20 hours over the 2017/18 summer period.

Aggreko submitted an application for 30A approval on 17 November 2017. The application included air modelling and associated risk assessment and also an acoustic report on noise emissions.

### EPA Assessment Against 30A Approval criteria

Section 30A approvals are an over-riding provision in the Act that permit commercial or industrial premises to temporarily:

- a) discharge, emit or deposit waste to the environment; or
- b) store, treat, handle or dispose of waste on or from any premises.

For the purpose of:

- a) meeting a temporary emergency; or
- b) providing for the temporary relief of a public nuisance or community hardship; or
- c) enabling the commissioning, repair, decommissioning or dismantling of any item of industrial plant or fuel burning equipment.

In order to be granted a 30A approval, EPA must be satisfied that one or more of the purposes outlined in s30A are met and also that there will be no long-term interference with beneficial uses of the environment if the approval is granted. This is to ensure protection of human health and the environment from pollution and waste.

A summary of this assessment is detailed below:

### **Community hardship**

EPA has published a specific guideline (EPA Publication 1590) for 30A approval applications which details key principles for consideration when assessing an application, such as: *“Hardship relates to difficulties experienced by a community arising from a lack of access to essential services such as water, power or transport.”*

The generators will only need to be used in heatwave conditions – hot days, especially during or towards the end of a heatwave (defined by Bureau of Meteorology as *“Three days or more of high maximum and minimum temperatures that is unusual for that location”*). As the application seeks to address times when the heat health temperature thresholds may be exceeded, and ensure continuous power supply (an essential service) in these periods it is considered that this application is providing relief of community hardship.

*Conclusion: EPA assessed that community hardship purpose is met*

### **Long term interference with beneficial uses**

EPA identified the key risk with the proposal is the air impact.

#### Air Emissions

There are many by-products as a result of diesel combustion, these include SO<sub>2</sub>, PM<sub>10</sub>, PM<sub>2.5</sub>, and Volatile Organic Compounds (VOCs). The key indicator for diesel combustion equipment is nitrogen dioxide (NO<sub>2</sub>). NO<sub>x</sub> is an expression of the total amount of both nitric oxide (NO) and nitrogen dioxide (NO<sub>2</sub>) in a gas, with the mass of NO<sub>x</sub> calculated by assuming that all of the NO has been oxidised to NO<sub>2</sub>. NO<sub>x</sub> is generated during combustion processes and is known to be a key emission from diesel-powered generators.

The air modelling assumes 8 hours per day operation, and is thus a very conservative representation of what is expected to occur in reality. Only NO<sub>2</sub> impacts showed potential exceedances at sensitive receptors beyond the site boundary and as such, a risk assessment was also submitted. It is estimated that the generators will run for a total of 4 to 20 hours throughout the summer period.

In addition, the northerly wind patterns that are prevalent during heatwave conditions produce favourable dispersion conditions in that the emissions are generally blown away from sensitive land uses located to the north of the site. SEPP(AQM) compliance has thus been demonstrated by the risk assessment provided. EPA assesses that despite these exceedances, the operations have are unlikely to cause any acute or long-term health effects.

Given the information that has been provided, the likelihood of the generators operating is low, with limited operating times expected. The emissions released during operations are unlikely to reach

any sensitive receptors beyond the boundary based on information from historical meteorological analysis. SEPP(AQM) compliance has thus been demonstrated by the health risk assessment.

It is also appropriate to consider the potential impact of the generators' emissions upon the nearby industrial receptors. Air quality within workplaces is regulated by Safe Work Australia via the Workplace Exposure Standards (WES) (Safe Work Australia, 2013). An exposure standard represents the airborne concentration of a particular substance or mixture that must not be exceeded in the workplace.

Both short-term exposure limits and 8-hour time weighted average limits are much higher concentrations than ambient air quality standards in EPA's SEPP(AQM) for NO<sub>2</sub>. When comparing these, the time weighted average limits were at least an order of magnitude larger. As such the risk of impacts upon industrial receptors (at some distance away) was considered to be low.

### Noise Emissions

During the evening period (6 -10 pm) there may be an exceedance of noise levels from between 4 - 6dB(A). Given the information provided, noise may exceed limits at some of the sensitive land uses. The likelihood of actually using the generators during the summer period is low. When required, the use of the generators will be limited to operating during the afternoon and early evening hours of the day to mitigate any noise concerns.

*Conclusion: EPA assessed that there is no long-term interference with any beneficial uses*

### **30A Approval Conditions**

EPA assessed that the following conditions should be included in the approval to mitigate any risks:

#### Air

Conditions have been drafted to mitigate air emission impacts, including:

- Requiring a monitoring program
- Continuous monitoring of nitrogen dioxide emissions when generators are in operation
- Making air emissions data available to the public in a timely manner
- Monitoring of noise levels

#### Noise

Conditions have been drafted to mitigate noise impacts, including:

- Limiting operation to 20 hours and no later than 10pm at night
- Having corrective action plan to mitigate noise if there are adverse impacts

#### Other

Some further general conditions have been drafted, including:

- Only valid for 120 days
- Waste must not be discharged to the environment except in accordance with this approval.
- The approval will not take effect until any permit which is required under the Planning and Environment Act 1987 has been issued by the Responsible Planning Authority.
- You must immediately notify EPA of any actual or potential non-compliance with any condition of this approval.

### **Conclusion**

EPA assessed that the 30A application is to provide temporary relief of community hardship and will not cause any long-term interference with beneficial uses and as such, the application was recommended for approval.