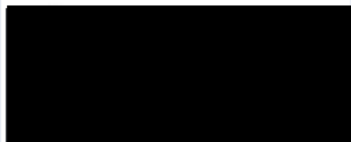




Decision Brief – Request for exemption for Vales Point Power Station

<p>Purpose</p>	<p>To decide whether to grant an exemption to Sunset Power International Pty Ltd (Delta Electricity) under section 284 of the <i>Protection of the Environment Operations Act 1997 (POEO Act)</i>.</p>		
<p>Analysis</p>	<p>The purpose of this brief is to decide whether an exemption should be granted and, in particular, whether the EPA is satisfied that the prerequisites for granting an exemption under section 284 of the POEO Act have been met.</p> <p>The requested exemption is linked to an EPA decision made on 15 December 2021 that the EPA now considers is likely to be invalid. The decision report for the 15 December 2021 (Tab 1) and its attachments contains information and analysis that is relevant to the decision about the proposed exemption.</p> <p>In particular, you should consider analysis in the 15 December 2021 decision which indicates that nitrogen oxides (NO_x) emissions for Vales Point Power Station below 980 mg/m³ will <u>not</u> exceed the ambient air quality criteria under the <i>National Environment Protection (Ambient Air Quality) Measure (NEPM)</i> at any local sensitive receivers. The ambient air quality criteria under the NEPM is protective of human health.</p> <p>Additional information has been obtained about energy security from NSW Treasury and discussions have occurred with the EPA Air Technical Unit (TA Air) about the new information from Delta Electricity that it has identified that exceedances of the 800mg/m³ criteria are mainly occurring when the power station is operating at low load.</p> <p>A proposed exemption has been drafted and is at Tab 2. Conditions are proposed to limit the exemption to two years, to investigate and mitigate the causes of spikes in NO_x emissions when the plant is operating at low capacity, and to impose NO_x limits aligned with the limits imposed in the 15 December 2021 decision.</p>		
<p>Recommendation</p>	<p>That you:</p> <ul style="list-style-type: none"> • Note the request for an exemption for Delta Electricity in Tab 3. • Consider the content of and attachments to this brief, the 15 December 2021 decision making report (Tab 1), the reports referenced in the December 2021 decision making report, the letter at Tab 4, the additional information from discussions with the TA Air, the additional information from NSW Treasury about energy security, the recent letter from Environmental Justice Australia (EJA) (Tab 5) and the recent email from the Nature Conservation Council of NSW (NCC) (Tab 6). • Decide you are satisfied that it is not practicable for Delta Electricity to comply with the relevant provisions by implementing operational changes to plant or practices for the purposes of section 284(2)(b)(i) of the POEO Act. • Decide you are satisfied that non-compliance with the relevant provisions by Delta Electricity will not have any significant adverse effect on public health, property or the environment for the purposes of section 284(2)(b)(ii) of the POEO Act. • Approve that the draft exemption order at Tab 2 is provided to Delta Electricity for comment in advance of seeking Board approval. 	<p>Yes</p> <p><input checked="" type="checkbox"/></p> <p><input checked="" type="checkbox"/></p> <p><input checked="" type="checkbox"/></p> <p><input checked="" type="checkbox"/></p> <p><input checked="" type="checkbox"/></p>	<p>No</p> <p><input type="checkbox"/></p> <p><input type="checkbox"/></p> <p><input type="checkbox"/></p> <p><input type="checkbox"/></p> <p><input type="checkbox"/></p>

Action by	Wednesday 28 September 2022
Signature/ comment	 <p>Stephen Beaman Acting Chief Executive Officer Date: 28 September 2022</p>

Background

Delta Electricity is the operator of Vales Point Power Station, which is regulated by environment protection licence 761 (**EPL 761**).

Under EPL 761, two of the boilers at Vales Point Power Station are identified as boiler 5 and boiler 6 (**Boilers 5 and 6**).

Under condition P1.1 of EPL 761, 'points' are identified for the purposes of monitoring and setting limits for the emission of pollutants to air from a point. In EPL 761, Point 2 and Point 3 corresponds to the air emission monitoring for Boilers 5 and 6, respectively (**Points 2 and 3**). The tables in conditions L3.4 and L3.5 of EPL 761 prescribes the 100th and 99th percentile air concentration limits for Points 2 and 3.

The requirement to comply with prescribed NO_x emission criteria and the requirement for emissions to improve over time under the *Protection of the Environment Operations (Clean Air) Regulation 2021* (**Clean Air Regulation**) are detailed in **Tab 1**. This includes the specific application of those requirements with respect to EPL 761.

The EPA varied the licence on 15 December 2021 to impose tighter limits. This imposed:

- A condition for the purposes of clause 36(2) of the Clean Air Regulation which postponed Boilers 5 and 6 from transitioning from Group 2 (less stringent) to Group 5 (more stringent) with respect to NO_x emission criteria;
- Revised 100th percentile and 99th percentile NO_x emission limits which were less stringent than the Group 5 NO_x emission criteria; and
- Other conditions, such as pollution reduction programs, feasibility studies and the installation of a new monitoring station.

In early 2022, environment groups represented by EJA wrote to the EPA to raise concerns about the validity of the EPA's 15 December 2021 licence variation decision. The EPA has received advice from junior and senior counsel about the 15 December 2021 decision (**Tab 8**).

On 15 July 2022, the EPA wrote to Delta Electricity to confirm its view that the licence variation for EPL 761 on 15 December 2021 which commenced on 1 January 2022 was likely invalid and that the plant and activities at Vales Point Power Station have transitioned to Group 5 under the Clean Air Regulation (**Tab 4**). If a court accepted this position, it would mean the Group 5 NO_x emission criteria, being 800 mg/m³, applies to Boilers 5 and 6 at Vales Point Power Station, not the 100th percentile limit of 980mg/m³ and 99th percentile of 850mg/m³ that were imposed by a licence variation made on 15 December 2021.

Delta Electricity has requested that the EPA consider issuing an exemption under section 284 of the POEO Act (**Tab 3**). This exemption would exempt Delta Electricity from section 128(1) of the POEO Act and Schedule 3 of the Clean Air Regulation with respect to the Group 5 criteria for emissions of air impurities relating to NO_x at Points 2 and 3. Separately to the decisions required in this briefing note, the EPA proposes to vary EPL 761 to remove the NO_x emission limits inserted on 15 December 2021.

Key issues

The proposed course of action effectively maintains the status quo

The EPA proposes to issue an exemption under section 284 and to make licence variations. The licence variations would have the effect of removing the potentially invalid licence condition about NO_x limits, which would mean that the Group 5 criteria under the Clear Air Regulation apply, and using the exemption to set an alternative NO_x limit.

The proposed licence variations are subject to a separate decision-making brief (DOC22/862704).

The information considered by the EPA in the 15 December 2021 decision remains relevant and additional information has been obtained

This briefing note relates to a decision about an exemption under section 284 of the POEO Act. The legal test in this section is different to the considerations in section 45 of the POEO Act and clause 38 of the Clean Air Regulation that informed the 15 December 2021 licence variation. However, the information prepared to support the 15 December 2021 decision addresses issues that are relevant to this exemption decision.

The EPA has also previously considered matters relating to climate change, net zero and ecologically sustainable development. The EPA has also previously considered the objects of the EPA and the objects of the POEO Act. This information remains relevant and current.

All information must be freshly considered when deciding whether or not to grant the exemption.

New information from Delta Electricity about when the exceedances are occurring must be considered (**Tab 3**). It is also relevant to consider information from your discussion with the TA Air about the new information from Delta Electricity. You should also consider the additional information obtained from NSW Treasury about energy security issues, given the recent pressures on the energy market that are more evident than when the EPA made its 15 December 2021 decision. EJA (**Tab 5**) and the NCC (**Tab 6**) have also recently written to the EPA, and you should consider the issues raised in their submissions. In addition, you should also consider EJA submission on behalf of NCC, Environmental Justice Australia, Australian Conservation Foundation and Healthy Futures received on 16 September 2022 (**Tab 7a**).

Delta Electricity has requested an exemption from section 128 of the POEO Act and the requirement to comply with the Group 5 NO_x emissions criteria

Delta Electricity has requested an exemption from section 128 of the POEO Act. Section 128 is an offence provision which requires the occupier of premises to not carry on any activity or operate any plant at that premises in such a manner as to emit air impurities that exceed the criteria prescribed in the regulation.

For the purposes of section 128(1) of the POEO Act, clause 39 of the Clean Air Regulation prescribes the criteria for emissions of air impurities. In relation to NO_x emissions from Points 2 and 3 the applicable standard, by operation of clause 39(1)(b), is the Group 5 NO_x emission criteria in Schedule 3 of the Clean Air Regulation.

The maximum penalty for breaching section 128 of the POEO Act is \$1,000,000 for a corporation and \$250,000 for an individual, with daily penalties of \$120,000 and \$60,000, respectively, for each day the offence continues.

An offence against section 128 of the POEO Act that is committed by a corporation attracts special executive liability for directors or other persons involved in the management of the offending corporation.

Delta Electricity has also requested an exemption for Boilers 5 and 6 from the Group 5 NO_x emission criteria of 800 mg/m³ under Schedule 3 of the Clean Air Regulation.

To grant an exemption under section 284 of the POEO Act the EPA must be satisfied of certain matters

Relevantly, section 284 of the POEO Act provides:

- (1) **Exemptions** The EPA may exempt any person or class of persons from any specified provision or provisions of this Act or the regulations, in the circumstances referred to in subsection (2).
- (2) **Situations where exemptions may be granted** An exemption may be granted in—

...

(b) circumstances where—

- (i) the EPA is satisfied that it is not practicable to comply with the relevant provision or provisions, by implementing operational changes to plant or practices, and
- (ii) the EPA is satisfied that non-compliance with the provision or provisions will not have any significant adverse effect on public health, property or the environment, and
- (iii) the Board of the EPA approves the granting of the exemption.

As the EPA's delegate, you must be satisfied of the matters in sections 284(2)(b)(i) and (ii) in relation to the requested exemption.

If you are satisfied of the matters in sections 284(2)(b)(i) and (ii), and the EPA Board approves the granting of the requested exemption under section 284(b)(iii), then the EPA may grant the requested exemption by publishing an exemption order in the NSW Government Gazette.

Delta Electricity has indicated that it cannot comply with Group 5 NO_x limits

Electricity generation at Vales Point Power Station requires the operation of boilers for which emissions criteria are prescribed in Schedule 3 of the Clean Air Regulation.

In their request for an exemption (**Tab 3**), Delta Electricity has submitted that over 98% of the time, Vales Point Power Station complies with the Group 5 NO_x emissions criteria.

However, Delta Electricity observe that the majority of emissions from Point 2 and 3 at Vales Point Power Station which exceed the Group 5 NO_x emission criteria occurred at minimum or low load conditions, where the average load was less than 50% of the power station's capacity. Delta Electricity state that this observation was based on an analysis of the compliance reporting data for Vales Point Power Station for the period of 1 July 2021 to 30 June 2022.

TA Air were consulted on 21 September 2022 about the minimum or low load conditions that resulted in NO_x emission exceedances of the Group 5 limit for less than 2% of the time. TA Air advised to ensure NO_x emissions from the Vales Point Power Station are minimised as far as is practicable, it is recommended that Delta Electricity undertake a study to investigate NO_x emissions under low load conditions and identify mitigation measures that will be implemented to minimise low load NO_x emissions.

There are reasons why it is not practicable for Delta Electricity to comply with section 128 of the POEO Act and Group 5 NO_x emissions criteria

The 15 December 2021 decision required consideration of the factors in section 45 POEO Act and clause 38 of the Clean Air Regulation.

Section 45(d) required consideration of:

- (d) the practical measures that could be taken—
 - (i) to prevent, control, abate or mitigate that pollution, and
 - (ii) to protect the environment from harm as a result of that pollution,

Clause 38 required consideration of:

any control equipment that has been installed, or that the holder of the licence has agreed to install, in relation to the activity or plant, and

While the legal requirement of section 284 POEO Act to be "satisfied that it is not practicable to comply with the relevant provision or provisions, by implementing operational changes to plant or practices" is different to that of section 45 and clause 38, the provisions conceptually overlap in important respects. As part of making its 15 December 2021 decision the EPA considered whether it was practical to require the installation of new pollution control equipment to meet the Group 5 emission standard or if there were additional operational changes that could be made, such as changes to how Boilers 5 and 6 were operated.

The Pollution Reduction Program report prepared by Jacobs states that to meet the Group 5 limit of 800 mg/m³ at the Premises, *'it would require changes to burners or emission controls that are prohibitively expensive'*.

The EPA's 2021 decision report at **Tab 1**, especially the TA Air Report in Tab 3 of that document, considered the practical measures to mitigation pollution including pollution control equipment. That information is relevant to whether or not it is now practicable for Delta Electricity to comply with the Group 5 criteria of 800mg/m³. TA Air accepted the position in Delta Electricity's more recent *NO_x Pollution Reduction Study – Evaluation of Potential NO_x Emission Controls* (6 October 2021) which concluded that, with the exception of combustion optimisation, the options identified were cost prohibitive.

The EPA decision report from December 2021 at **Tab 1** notes that:

The Applicant's reasons for concluding that identified control technologies are not feasible are summarised in the expert report of TA Air and include that:

- The implementation of post combustion controls is cost prohibited
- Due to the forecast reduction in generation from the Premises, the Applicant predicts a decrease in the NO_x mass emissions, from the present to the predicted closure in 2029, and
- Emissions from the Premises are unlikely to increase significantly in the future; emissions should reduce in 2021 with the change of burner tips in Boiler 6.

New information from Delta Electricity about NO_x emissions above 800 mg/m³ must be considered by the decision maker.

The EPA position is that post-combustion controls appear to remain cost prohibitive and there is no new information about costs it has considered. The timeframe to implement any plant upgrades, which are likely to require planning approval, is also a relevant matter.

While in the lead up to the EPA's December 2021 decision Delta Electricity had forecast that a reduction in generation was likely to result in a decrease in NO_x mass emissions, the EPA notes that the frequency of these emissions have increased *but based on modelling are expected to remain under 980 mg/m³*. Delta Electricity has observed (**Tab 3**) that when NO_x emissions from Boilers 5 and 6 at Vales Point Power Station exceed the Group 5 NO_x emission criteria less than 2% of the time, that this usually occurs when the plant is operating at minimum or low load conditions.

Given the recent pricing volatility in the energy market the EPA believes it is more likely that Delta Electricity will be making decisions based on economic drivers to reduce power generation during daylight hours. This increases the risk that exceedances of the 800 mg/m³ limit may continue. If an exemption is issued it would be appropriate to include conditions requiring investigation of the reasons for these exceedances occurring at low load. Following consultation with TA Air, it is proposed that the exemption conditions (**Tab 2**) state:

By 30 April 2023, Delta Electricity must submit to the Manager EPA a Low Load NO_x Emission Control Feasibility Report which includes, but is not limited to, the following:

1. An analysis of at least 12 months of the most recent NO_x emissions data for points 2 and 3 under varying power station loads. This is to include a detailed analysis of NO_x emissions from Points 2 and 3 when the power station is operating at less than 50% capacity.
2. Identification of the cause of any spikes in NO_x emissions when the power station is operating at less than 50% capacity.
3. A detailed feasibility evaluation study of NO_x emission control measures to minimise NO_x emissions when the power station is operating at less than 50% capacity. For the purpose of this requirement, feasibility is taken to be what is technically possible to be implemented at the premises from an engineering perspective. The expected reduction in NO_x emissions for each mitigation measure is to be provided.
4. Based on points 1 – 3 above, identification of the preferred mitigation measure that will be implemented to minimise NO_x emissions when the power station is operating at less than 50% capacity.

The EPA notes that the percentage of non-compliance with the Group 5 NO_x emission criteria has increased from that modelled in 2021, particularly when operating with minimum or low load, suggesting in the immediate context of a more volatile energy market that it is increasingly not practicable for Delta Electricity to comply with the Group 5 criteria at this time.

It is further noted that Condition E11 of EPL 761 requires Delta Electricity to undertake a nitrogen oxides emission control engineering feasibility study for Vales Point Power Station. That report is due to be submitted to the EPA by 31 December 2022. To avoid any potential argument that this condition was invalidly attached on 15 December 2021, the EPA proposes to revoke and reissue this requirement in the licence, rather than requiring it as a condition of the exemption. The licence variation decision with respect to Condition E11 will be considered in a separate decision-making brief.

Delta Electricity submit in their request for an exemption that in the course of conducting the emission control engineering feasibility study under condition E11 of their licence (which is ongoing) they have not, to date, identified any practicable means of complying with the Group 5 NO_x emission criteria at all times through the implementation of operational changes.

Given the feasibility studies that are underway, the EPA proposes to issue an exemption for two years, rather than the maximum five years, so that it can consider the findings of the feasibility studies in the lead up to the expiry of the exemption. This timeframe ensures the EPA has sufficient time to undertake a technical review of the reports it is requiring Delta Electricity to prepare and obtain cost benefit analysis or other analysis about the studies that are being prepared. If warranted, the exemption could be continued after two years, with the same or varied conditions, for up to a further three years.

The EPA notes that under the National Electricity Rules, the expected closure date for Vales Point Power Station is 2029 (Source – Australian Energy Market Operator, Generating Unit Expected Closure Year, July 2022).

The EPA has also noted comments in the NSW Parliamentary Inquiry report No.12 of the Planning and Environment Portfolio Committee No.7 into the *Protection of the Environment Operations Amendment (Clean Air) Bill 2021*. The Committee's report refers to comments of the Australian Energy Market Operator (AEMO) that there are existing issues with the reliability of energy in NSW, and that these issues will be compounded with the closure of Vales Point in 2029.

The Inquiry report also includes comments of Delta Electricity about the tighter air emission limits proposed under the Private Members Bill if implemented, which would require it to cease operations immediately and then take several years for it to become operational and meet the standards proposed in the Bill. In its view, that would impact on the reliability of the energy grid: '*Post the Liddell closure, the early closure of even one more major plant... would present an immediate energy crisis in NSW at a time when the industry is already under very significant financial strain because of the transition towards higher levels of renewables in the National Electricity Market* (Inquiry report, paragraph 2.110 p 35). These views are reinforced by additional information from NSW Treasury discussed below.

Non-compliance with section 128 of the POEO Act and the Group 5 NO_x criteria will not have any significant adverse effect on public health, property or the environment if NO_x emissions are limited to 980 mg/m³

The 15 December 2021 decision required consideration of the factors in section 45 POEO Act and clause 38 of the Clean Air Regulation.

Section 45(c) required consideration of:

(c) the pollution caused or likely to be caused by the carrying out of the activity or work concerned and the likely impact of that pollution on the environment

Clause 38 required consideration of:

the impact on local and regional air quality and amenity of a decision to grant the application.

While the legal requirement of section 284 POEO Act to be "satisfied that non-compliance with the provision or provisions will not have any significant adverse effect on public health, property or the environment," is different to that of section 45 and clause 38, the provisions conceptually overlap in important respects.

Previous analysis considered by the EPA (**Tab 1**) indicated that NO_x emissions from Boilers 5 and 6 at Vales Point Power Station of up to 980 mg/m³ will not exceed the ambient air quality criteria under the *National Environment Protection (Ambient Air Quality) Measure (NEPM)* at any local sensitive receivers. The ambient air quality criteria under the NEPM are protective of human health. The decision maker needs to freshly consider these issues as part of deciding that non-compliance will not have any significant adverse effect on public health, property or the environment. In relation to regional air quality impacts, the EPA's previous analysis (**Tab 1**) included regional photochemical modelling conducted the then Department of Planning, Industry and Environment (**DPIE**) for the EPA. This is relevant to considering whether non-compliance would have any significant adverse impact on the environment and human health. That analysis indicated that even if the NO_x emissions from Boilers 5 and 6 at Vales Point Power Station were limited to 800 mg/m³ (as compared to 99th percentile limit proposed under the 15 December 2021 licence variation of 850 mg/m³ and the previous 99^h percentile limit of 1100 mg/m³) this was unlikely to result in noticeable changes to regional air quality impacts. The decision maker needs to consider these matters afresh as part of being satisfied non-compliance would not have a significant adverse effect on human health and the environment.

On 13 September 2022, the EPA received correspondence from the NCC (**Tab 6**) which conveyed their concerns about the DPIE photochemical modelling that the EPA considered in its 15 December 2021 decision to vary EPL 761. The NCC's concerns included that the photochemical modelling "*finds that in a scenario with reduced NO_x emissions, PM_{2.5} pollution would increase across much of the GMR [...] We and our science advisers cannot understand how a reduction in NO_x pollution could lead to an increase in PM_{2.5} pollution in parts of the GMR [...] As well as being counter-intuitive, this result is out of step with published literature*".

The EPA has considered the concerns raised by the NCC and consulted with atmospheric scientists at the Department of Planning and Environment (**DPE**) (formerly DPIE) about these concerns. The EPA is advised by DPE and TA Air that the photochemical modelling results appear to be counter intuitive due to the nonlinear relationship between emission changes and the resulting concentration changes. PM_{2.5} consists of primary and secondary particulate species. Primary particulates are directly emitted to the air while secondary particulates are formed by complex chemical reactions between gaseous or particulate precursors. The precursors for the formation of secondary PM_{2.5} include volatile organic compounds (VOCs), sulfur dioxide (SO₂), NO_x and ammonia (NH₃).

The formation of secondary PM_{2.5} is a complex and non-linear process. The non-linear behaviour results from chemical regimes where the formation process can be limited by the presence of select species. Reducing NO_x emissions can, under certain conditions, increase secondary PM_{2.5} formation. This is because the secondary PM_{2.5} formation depends on the ambient air composition (specifically the availability of select precursors species) over the areas downwind of the source.

The EPA has drafted a response to the correspondence from the NCC which details the EPA's position on the photochemical modelling results (DW22/388-2).

The decision maker is also required to be satisfied that non-compliance would not have any significant adverse effect on property. The EPA's decision is not expected to have a physical or non-physical impact on real property or other forms of property in any specific or adverse way.

Under s 284(6), an exemption may be subject to conditions. To satisfy the EPA that the Delta Electricity's non-compliance with section 128 and the Group 5 NO_x emission criteria will not have significant adverse effects on public health, it is proposed that the exemption include a condition that NO_x emissions from Point 2 and 3 at Vales Point Power Station to not exceed 980 mg/m³ at any time (**Tab 2**). The EPA considers that it is also appropriate to impose a 99th percentile limit of 850mg/m³. These limits are the same limits imposed in the 15 December 2021 decision.

Climate change, net zero considerations and ecologically sustainable development analysis that informed the 15 December 2021 decision remains relevant and should be considered

Most greenhouse gas emissions in NSW are produced by the energy sector. In 2019 stationary energy sources for electricity generation emitted 52 Mt of carbon dioxide equivalent (37% of total NSW emissions) (Adapt NSW website, accessed 27 September 2022).

The *Net Zero Plan Stage 1: 2020-2030* is the foundation for NSW's action on climate change. The NSW Government has committed to net zero emissions by 2050 and to halve its greenhouse gas emissions by

2030 as set out in its Net Zero Plan Stage 1: 2020 – 2030, released in March 2020. This Plan will result in a reduction of local and regional air pollutants.

The EPA has also publicly committed on its website and in its Strategic Plan to implement the NSW Government's Net Zero Plan Stage 1: 2020-2030.

To achieve the targets in the Plan, the National and NSW Electricity Market are in transition and are moving from a centralised coal-fired generation system to a mix of renewable energy (wind, solar, gas and storage) supported by transmission grid and service capabilities. The NSW Electricity Infrastructure Roadmap, released in November 2020, sets out a 20-year plan to deliver the needed generation, storage, firming and transmission infrastructure.

The federal Energy Security Board has also made recommendations to state and territory Energy Ministers regarding the post-2025 market and jurisdictions are now implementing a range of responses, including the effective and efficient management of early exits. The NSW Government response is wanting to ensure the building of new capacity and retirement of existing capacity occurs in a balanced way.

The EPA's draft Climate Change Policy and draft Climate Change Action Plan 2022–25 has been released for comment until 3 November 2022. The Policy and Action Plan adopt, support and build on foundations set by the NSW Government. These foundations include the NSW Climate Change Policy Framework, the Net Zero Plan, Climate Change Adaptation Strategy, the NSW Electricity Infrastructure Roadmap, and supporting policies and strategies.

It is relevant to consider the transition that is occurring in the energy sector and note that while NSW government policy is driving transformation of the energy system, it is essential to maintain reliable and affordable energy supplies as the transition occurs. This includes consideration of the potential consequences of imposing additional cost and/or regulatory burdens on existing generation that is currently on track for retirement within a predicted timeframe. These costs will also be influenced by the costs and any technical difficulties of retrofitting the plant given its individual characteristics of location, age and configuration.

It is also relevant to consider the need to avoid any perverse policy outcomes from requiring even stricter emissions limits to those proposed whereby Delta Electricity's investment in further pollution control technologies carrying high capital costs could result in an extension of the life of a power station and the emission of additional greenhouse gases over a longer timeframe. These types of issues have been addressed above in relation to whether it is practicable to comply, and also below in relation to additional information about energy security. The implications of any changes announced by the incoming owners about the predicted closure date of the power station would be considered at the relevant time. No new information is currently available.

The EPA has considered what is the most appropriate regulatory approach to reduce and manage NO_x emissions that reflects environmental considerations and the impact of emissions on human health locally and regionally, and that also accounts for economic considerations, including economic costs to Delta Electricity of installing further pollution control technologies or other practical measures to reduce pollution.

Environmental considerations in the EPA's proposed regulatory approach are reflected in further pollution prevention, including reducing human health risks and preventing environmental degradation, by way of reduced air emission limits for NO_x, and supporting strategies in the new/additional licence conditions. The 15 December 2021 decision reduced these limits from:

- 1500 mg/m³ to 980 mg/m³ for the 100 percentile
- 1100 mg/m³ to 850 mg/m³ for the 99 percentile.

The EPA has considered whether the limits are protective of public health, noting that the NSW criteria in the Approved Methods for the Modelling and Assessment of Air Pollutants in New South Wales and the NEPM, a complementary Commonwealth environmental standard, are reflective of an adequate level of health protection for the Australian community. Economic considerations are reflected in not imposing prohibitive costs on the Delta Electricity whilst ensuring the emission limits reflect the proper and efficient operation of the plant and equipment. The regulatory approach includes feasibility assessments of what further improvements can be made to incorporate accessible technologies and promote pollution prevention.

The EPA considers that the proposed emission limits balance, and effectively integrate, environmental and economic considerations as they relate to Vales Point Power Station.

The objects of the POEA Act and the POEO Act and the objectives of the EPA should be considered

In addition to the matters in section 284, the EPA can be satisfied that the recommended decisions are consistent with the objects of the EPA in section 6 of the *Protection of the Environment Administration Act 1991* (**POEA Act**) and the objects in section 3 of the POEO Act.

Section 3 of the POEO Act provides that:

The objects of this Act are as follows—

- (a) to protect, restore and enhance the quality of the environment in New South Wales, having regard to the need to maintain ecologically sustainable development,
- (b) to protect, restore and enhance the quality of the environment in New South Wales, having regard to the need to maintain ecologically sustainable development,
- (c) to protect, restore and enhance the quality of the environment in New South Wales, having regard to the need to maintain ecologically sustainable development,
- (d) to reduce risks to human health and prevent the degradation of the environment by the use of mechanisms that promote the following—
 - (i) pollution prevention and cleaner production,
 - (ii) the reduction to harmless levels of the discharge of substances likely to cause harm to the environment,
 - (iia) the elimination of harmful wastes,
 - (iii) the reduction in the use of materials and the re-use, recovery or recycling of materials,
 - (iv) the making of progressive environmental improvements, including the reduction of pollution at source,
 - (v) the monitoring and reporting of environmental quality on a regular basis,
- (e) to rationalise, simplify and strengthen the regulatory framework for environment protection,
- (f) to improve the efficiency of administration of the environment protection legislation,
- (g) to assist in the achievement of the objectives of the Waste Avoidance and Resource Recovery Act 2001.

Likewise, section 6 of the POEA Act provides that:

(1) The objectives of the Authority are—

- (a) to protect, restore and enhance the quality of the environment in New South Wales, having regard to the need to maintain ecologically sustainable development, and
- (b) to reduce the risks to human health and prevent the degradation of the environment, by means such as the following—
 - promoting pollution prevention,
 - adopting the principle of reducing to harmless levels the discharge into the air, water or land of substances likely to cause harm to the environment,
 - minimising the creation of waste by the use of appropriate technology,
 - regulating the transportation, collection, treatment, storage and disposal of waste,
 - encouraging the reduction of the use of materials, encouraging the re-use and recycling of materials and encouraging material recovery,
 - adopting minimum environmental standards prescribed by complementary Commonwealth and State legislation and advising the Government to prescribe more stringent standards where appropriate,
 - setting mandatory targets for environmental improvement,

- promoting community involvement in decisions about environmental matters,
 - ensuring the community has access to relevant information about hazardous substances arising from, or stored, used or sold by, any industry or public authority,
 - conducting public education and awareness programs about environmental matters.
- (2) For the purposes of subsection (1) (a), ecologically sustainable development requires the effective integration of social, economic and environmental considerations in decision-making processes. Ecologically sustainable development can be achieved through the implementation of the following principles and programs—
- (a) the precautionary principle—namely, that if there are threats of serious or irreversible environmental damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation.
- In the application of the precautionary principle, public and private decisions should be guided by—
- (i) careful evaluation to avoid, wherever practicable, serious or irreversible damage to the environment, and
 - (ii) an assessment of the risk-weighted consequences of various options,
- (b) inter-generational equity—namely, that the present generation should ensure that the health, diversity and productivity of the environment are maintained or enhanced for the benefit of future generations,
- (c) conservation of biological diversity and ecological integrity—namely, that conservation of biological diversity and ecological integrity should be a fundamental consideration,
- (d) improved valuation, pricing and incentive mechanisms—namely, that environmental factors should be included in the valuation of assets and services, such as—
- (iii) polluter pays—that is, those who generate pollution and waste should bear the cost of containment, avoidance or abatement,
 - (iv) the users of goods and services should pay prices based on the full life cycle of costs of providing goods and services, including the use of natural resources and assets and the ultimate disposal of any waste,
 - (v) environmental goals, having been established, should be pursued in the most cost effective way, by establishing incentive structures, including market mechanisms, that enable those best placed to maximise benefits or minimise costs to develop their own solutions and responses to environmental problems.

In particular, the EPA has considered the need to ‘protect, restore and enhance the quality of the environment in New South Wales, having regard to the need to maintain ecologically sustainable development’ as stated in section 3(a) of the POEO Act and section 6(a)(1) of the POEA Act. Ecologically sustainable development is specifically addressed above. Under section 6(2) of the POEA Act, the EPA has integrated ‘social, economic and environmental considerations in decision-making process.’ The EPA has considered the risk-weighted consequences of granting or not granting the exemption. Overall, emissions from the Vales Point Power Station will be more strictly regulated than they were prior to 15 December 2021. While higher than the Group 5 NO_x emission criteria of 800 mg/m³, the proposed emission limits of 980 mg/m³ (100th percentile) and 850 mg/m³ (99th percentile) represent reductions of 35% and 23%, respectively, from the NO_x emission limits that were in force prior to 15 December 2021.

These proposed emission limits are consistent with the EPA’s objective of promoting pollution prevention and will contribute to reducing the risks to human health associated with air pollution. It is also consistent with the object of the POEO Act to make progressive environmental improvements, including the reduction of pollution at source.

Previous modelling conducted in 2021 shows that with the proposed NO_x emission limits the operation of Vales Point Power Station is unlikely to cause adverse local air quality. Continuous operation of the Vales Point Power Station at the proposed NO_x emission limits is predicted to comply with the 1-hour and annual NEPM standard for NO₂ in the local community. Compliance with the NEPM standard is consistent with the EPA’s objective in section 6 POEA Act “to adopt minimum environmental standards prescribed by complimentary Commonwealth... legislation”.

Overall, emissions from the Vales Point Power Station will be more strictly regulated than they were prior to 15 December 2021. Accordingly, this exemption supports 'the making of progressive environmental improvements, including the reduction of pollution at source' (section 3(d)(iv) POEO Act) while accounting for the social, economic and environmental considerations involved in the principle of ecologically sustainable development. Further, it is proposed that the monitoring and reporting requirements for Delta Electricity under EPL 761 will be reattached to that licence (section 3(d)(v) of the POEO Act).

Additional information about energy security matters has been obtained

Government policy and economic factors are driving the transition from coal-fired to renewable energy sources. It remains essential to maintain a reliable and affordable energy supply as the transformation occurs. Energy security and electricity pricing are a major community concern.

The EPA notes the statement from Delta Electricity that the application of the Group 5 limits "*could have material implications for the operation of the power station and consequent impacts on energy security if not addressed*" and has obtained further advice from NSW Treasury on this issue. The statement by Delta Electricity is supported by the advice from NSW Treasury. Granting the exemption would mitigate this potential risk.

In particular, the NSW Jurisdictional System Security Coordinator within NSW Treasury has advised that during the June 2022 electricity market disruption, if Vales Point had not been available to generate there would more than likely have been multiple significant load shedding events impacting NSW households and businesses. Due to the unavailability of multiple units at Liddell and Bayswater, as well as low wind and solar generation, system security at peak demand times relied on generation from Vales Point, Eraring, Mt Piper, Colongra, Uranquinty and Snowy Hydro units.

NSW Treasury also advise that Origin Energy's announcement of the early retirement of Eraring is being addressed through work by EnergyCo NSW and the development of Renewable Energy Zones and other initiatives to deliver additional capacity. However, recent reports have indicated that based on the current timeframes for delivery of these key projects there is still some risks of energy supply shortfalls if Eraring retires in 2025. Therefore, losing the capacity or availability of Vales Point at peak demand times before its current expected retirement would create a significant challenge for maintaining security of electricity supplies in NSW. Addressing this challenge would likely involve significant direct and indirect costs to Government, households and businesses.

The EPA is investigating two fish kills at Mannering Park, Lake Macquarie

The EPA has received some new information from Delta Electricity about the recent fish kills at Mannering Park, Lake Macquarie. EPA specialist investigators are undertaking an investigation, which is ongoing. A media statement was issued on 13 September 2022. The EPA has the ability to vary or revoke an exemption and could consider these responses depending on the results of the investigation and any relevance to the exemption.

It has been announced that the Vales Point power station is being sold

The proposed sale of Vales Point power station has been announced and is subject to Commonwealth approval. The EPA understands that no change of legal entity is proposed. In any event, the draft exemption can be worded so that it applies to the holder of EPL 761.

It is not known whether the incoming owners propose any changes to the predicted 2029 closure date of the power station. Any announcement and the potential implications for the exemption would be considered at the relevant time. As noted elsewhere in this brief an exemption can be varied or revoked from time to time.

The EPA proposes to consult Delta on the draft exemption, although not legally required

While there is no legal requirement in section 284 to consult with Delta Electricity, it is proposed that a draft exemption is provided for comment. It is possible that limiting the exemption to two years will be contentious.

Environment groups have made submissions to the EPA that should be considered

The EJA letter (**Tab 5**) states that "the level of nitrogen oxides that have been and can continue to be emitted while Delta Electricity operates in compliance with the Purported Exemption pose real and

lasting risks to the health of the surrounding community”. This view is not supported by the EPA’s analysis above.

The letter further states that if the EPA is proposing further licence variations that public consultation must occur under section 58(6) of the POEO Act. This provision is not relevant to a decision to grant an exemption.

The NCC email (**Tab 6**) raises concerns about the DPE air modelling. These issues are addressed elsewhere in this brief.

Environment groups represented by EJA have written on 16 September 2021 (**Tab 7a**) and provided copies of reports and studies that are indexed at **Tab 7b**. The submission makes 5 key points:

1. The EPA should undertake public consultation before varying the licence.
2. The EPA should request further independent modelling that models ambient air impacts across the Sydney Greater Metropolitan Area of emission scenarios based on the installation of various pollution control technologies at Vales Point.
3. The EPA should find that it cannot be satisfied that providing some form of exemption from the Group 5 limits to Delta will not have a significant adverse effect on public health or the environment.
4. The EPA requires Delta to comply with the Group 5 emission concentration standards contained in the Clean Air Regulation.
5. Notwithstanding the above submissions, if the EPA determines to provide Delta with some form of exemption or otherwise from the Group 5 NO_x emission concentration standards, it should only do so for a limited time, based on the shortest reasonable time necessary for Delta to comply with the Group 5 standards.

Point 1 reiterates matters also raised in **Tab 5** that are not relevant to the exemption decision.

In relation to point 2 the exemption includes conditions requiring Delta Electricity to further investigate emissions that are occurring when the power station is operating at below 50% capacity. The EPA considers that it has sufficient information to make a decision. The EPA has powers to require or commission further modelling or analysis in the future if this is needed.

Point 3 has been considered and is not supported as, if this brief is approved, the EPA is satisfied that non-compliance with the relevant provisions by Delta Electricity will not have any significant adverse effect on public health, property or the environment for the purposes of section 284(2)(b)(ii) of the POEO Act.

Point 4 has been considered and the EPA considers that a short-term exemption is warranted.

Point 5 has been considered and is reflected in the proposed two-year duration for the exemption.

The index of reports and studies (**Tab 7b**) does not include any papers published since the EPA’s decision of 15 December 2021.

The EPA proposes to release this decision brief on the EPA website

Any person may request reasons for the granting an exemption (section 284(9) POEO Act). EJA requested reasons for the 15 December 2021 licence variation. In response to EJA’s request, the EPA released its decision report on the EPA website, along with the reports prepared by the then DPIE and TA Air.

A similar approach is proposed for this decision brief about the exemption, though no attachments would be proactively released but may be requested through the formal application process. **Tab 1** is already on the EPA website. Proactive release of government information is authorised under the *Government Information (Public Access) Act 2009* unless there is an overriding public interest against disclosure (**OPIAD**) of the information. Any information in this decision report that is personal information, commercially sensitive or otherwise subject to an OPIAD would be redacted.

EJA has requested a copy of Delta Electricity’s submission on the Draft Protection of the Environment Operations (Clean Air) Regulation 2022 (**Tab 9**). DPE is preparing to release submissions made as part

of the public consultation about the Regulation, where the submitter agreed to the public release of their submission. As Delta Electricity requested its submission is treated as confidential it would not be released as part of the DPE process or the EPA's decision about the exemption.

Next steps

If the decision to grant an exemption is supported, a Board paper will be prepared to request that the EPA Board approve the granting of the exemption for Delta Electricity in accordance with section 284(2)(b)(iii) of the POEO Act.

The sequencing of steps to make the exemption, if approved by the Board, and the related licence variations is at **Tab 10**.

Contact and approval

Contact officer	Position	Phone
David Gathercole	A/Director Regulatory Operations	
Approving officer	Position	Date
Melinda Murray	Director Legislation and Legal Advice	28/09/2022

Attachments

Tab	Title
1	Decision report dated 15 December 2021 about the licence variation
2	Draft Exemption Order under s 284 of the POEO Act
3	Letter from Delta Electricity to EPA dated 21 July 2022
4	Letter from EPA to Delta Electricity dated 15 July 2022
5	Letter from EJA to EPA dated 6 September 2022
6	Email from NCC to EPA dated 13 September 2022
7a	Letter from EJA to EPA dated 16 September 2022
7b	Index of Annexure 1 to letter from EJA to EPA dated 16 September 2022
8	Advice dated 26 May 2022 from Georgina Wright SC
9	Delta Electricity submission dated 6 June 2022 to the Clean Air Regulation public consultation
10	Proposed sequencing of steps to make the exemption and related licence variations