



**Environmental
Protection
Authority**

**330MW Gas-Fired Power Station Neerabup
– inquiry under section 46 of the
Environmental Protection Act 1986
to amend Ministerial Statement 759**

New Gen Neerabup Pty Ltd

Report 1706
September 2021

Inquiry under section 46 of the Environmental Protection Act 1986

The Minister for Environment has requested that the Environmental Protection Authority (EPA) inquire into and report on the matter of changing the implementation conditions 5 (Performance Review), 9 (Stack Emissions) and 11 (Decommissioning) of Ministerial Statement 759 relating to the 330 MW Gas-Fired Power Station, Neerabup in order to contemporise the conditions of the Statement and streamline its regulatory obligations.

Section 46(6) of the *Environmental Protection Act 1986* requires the EPA to prepare a report that includes:

- (a) a recommendation on whether or not the implementation conditions to which the inquiry relates, or any of them, should be changed
- (b) any other recommendations that it thinks appropriate.

The following is the EPA's report to the Minister pursuant to s. 46(6) of the *Environmental Protection Act 1986*.



Prof. Matthew Tonts
Chair

13 September 2021

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1 Proposal

The 330 MW Gas-Fired Power Station, Neerabup (the proposal) is to construct and operate a 330 megawatt open-cycle gas-turbine power station within Lots 506 and 507 Pederick Road (now Lot 100 Trandos Road) Neerabup; a 30 kilometre long gas pipeline and compressor station to transport natural gas from the Dampier to Bunbury Natural Gas Pipeline to the power station; and a 330 kilovolt electricity transmission line, approximately 2 kilometres long to connect the power station to the Western Power Neerabup terminal station. The proponent for the proposal is NewGen Neerabup Pty Ltd.

The Environmental Protection Authority (EPA) assessed the proposal at the level of Environmental Protection Statement, and published Bulletin 1268 (Report 1268) in October 2007. In this report, the EPA considered the following key environmental factors were relevant to the proposal:

- Conservation of biodiversity
- Air quality
- Noise
- Greenhouse gases.

In applying the *Statement of Environmental Principles, Factors and Objectives* (EPA 2020a) these factors are now represented by:

- Flora and vegetation
- Air quality
- Social surroundings
- Greenhouse gas emissions.

The EPA concluded in Report 1268, that the proposal could be managed to meet the EPA's environmental objectives, subject to the EPA's recommended conditions being made legally binding.

The then Minister for Environment approved the proposal for implementation subject to the implementation conditions of Ministerial Statement 759 (MS 759) on 21 January 2008.

Previously approved changes to the proposal

A change to the proposal was approved under s. 45C of the *Environmental Protection Act 1986* (EP Act) on 10 October 2008. The change is detailed in Attachment 1 to MS 759 and allowed for an amendment to the gas pipeline route.

The proponent has requested a separate change to the proposal to remove the transmission line component from the proposal. This transmission line is no longer owned or operated by the proponent and its management and ownership has been

transferred to Western Power. At the time of publishing this report the assessment of this change had not been finalised.

Previously approved changes to the conditions

There have been no previous changes approved under s. 46 of the EP Act.

2 Requested changes to the conditions

In September 2019, the proponent requested the following changes to the implementation conditions of MS 759:

- removal of condition 5 – relating to performance review
- removal of condition 9 – relating to stack emissions
- modification of condition 11 – (relating to decommissioning) to remove condition 11-1 (Prepare Preliminary Decommissioning Plan)
- changes to Table 1: *Summary of key proposal characteristics*, referred to in condition 1 of MS 759 – to remove certain elements.

In February 2020, the Minister for Environment requested that the EPA inquire into and report on the matter of changing the implementation conditions 5, 9 and 11 of MS 759 relating to the proposal.

This report satisfies the requirements of the EPA's inquiry.

3 Inquiry into changing the conditions

The EPA has discretion as to how it conducts this inquiry. In determining the extent and nature of this inquiry, the EPA had regard to information such as:

- the currency of its original assessment (Bulletin 1268)
- MS 759
- information provided by the proponent (Strategen 2019)
- advice from relevant decision-making authorities
- any new information regarding the potential impacts of the proposal on the environment.

EPA procedures

The EPA followed the procedures in the *Environmental Impact Assessment (Part IV Divisions 1 and 2) Administrative Procedures 2016* (State of Western Australia 2016) and the *Environmental Impact Assessment (Part IV Divisions 1 and 2) Procedures Manual* (EPA 2020b).

4 Inquiry findings

The EPA considered that air quality is the key environmental factor relevant to the change to the conditions.

4.1 Air quality

The EPA's environmental objective for air quality is *to maintain air quality and minimise emissions so that environmental values are protected*.

Conclusions from EPA Report 1268

The EPA noted in its original assessment that the proposed power station would use low nitrogen oxide (NO_x) burners that would produce a stack NO_x emission concentration which would be in accordance with the then EPA Guidance Statement No.15 – *Emissions of Oxides of Nitrogen from Gas Turbines*. The predicted cumulative ground level concentrations for NO_x, PM₁₀, CO, and SO₂ due to the existing sources and the proposed power station, would be below the relevant National Environmental Protection Measure (NEPM) standards.

The EPA noted that the cumulative 1-hour ozone ground level concentrations were predicted to exceed the NEPM standard in two different modelled scenarios, but that the proposed power station would have an insignificant impact on regional maximum ozone ground level concentrations, and would not contribute to any additional exceedances of the NEPM standard.

The EPA noted that the proponent committed to developing and implementing an Operational Environmental Management Plan which included a plan for air emissions management and monitoring.

To manage these impacts, the EPA recommended the following conditions:

- proposed targets and standards (Table 1 of MS 759)
- a stack emission management plan (condition 9) requiring a stack emission monitoring programme which included nitrogen oxides and other gaseous and particulate pollutants
- annual reporting to the CEO of the Department of Water and Environmental Regulation (DWER).

Assessment of the requested change to conditions

The EPA considered that *Environmental Factor Guideline – Air Quality* (EPA 2020c) is the current environmental policy and guidance relevant to its assessment of the proposal for this factor.

The proponent has requested removal of condition 9 of MS 759 relating to stack emissions.

Condition 9-1 requires the proponent to submit information relating to the engineering design and estimates of the concentration of gaseous and particulate pollutants from the plant to the CEO, prior to submitting a Works Approval application. The proponent submitted this information prior to construction of the facility, and as a result, the EPA considers this condition has been fulfilled and is no longer applicable. The EPA recommends this condition be removed from MS 759.

Conditions 9-2 to 9-4 require the proponent to submit a *Stack Emission Management Plan*, which includes proposed emission targets and standards, a stack emission monitoring programme and requires annual reporting. The proponent is required to implement the plan and make it publicly available in accordance with conditions 9-3 and 9-4. The *Stack Emissions Management Plan* was submitted to the EPA and approved in 2013.

The EPA has conducted a review of the current regulatory instruments that apply to the facility in relation to air emissions. The facility is currently managed in accordance with *Environmental Protection Act 1986* Licence L8356/2009/2 (EP Act Licence) issued under Part V of the EP Act, which requires that point source emissions to air (including stack emissions) are monitored and an annual environmental report (AER) is provided. This must include a stack emissions report for NO_x and carbon monoxide (CO). The EPA considers that conditions 9-2 and 9-3 of MS 759 are a duplication of these requirements.

Modelling undertaken for the construction of the plant indicated that under worst case scenario conditions (operational and weather conditions), the ground level concentrations were predicted to be less than 8 per cent of the NEPM.

In December 2020, DWER completed a review of EP Act Licence L8356/2009/2, which included a detailed assessment of the impacts associated with NO_x and CO emissions from the facility. The current EP Act Licence sets a target for NO_x emissions of 25 ppm (condition 2.2.2 of Licence L8356/2009/2). Data reported from 2015–16 to 2019–20 indicates that NO_x levels have not exceeded 25 ppm during this period and are consistently lower than design criteria. The assessment report for the licence concluded that there was a very low risk to public health and the environment from the operation.

In consideration of the above information, and noting the requirements of the proponent's EP Act Licence, the EPA considers that:

- there is no significant or additional information that justifies reassessment of the issues raised by the original proposal
- air emissions can be adequately managed by the EP Act Licence, under Part V of the EP Act.

4.2 Other conditions

MS 759 contains other conditions not related to the key environmental factors discussed above. The EPA's recommendations regarding these other conditions are summarised below.

Condition 5 – Performance Review

The proponent has requested the removal of condition 5 of MS 759 relating to the requirement to provide a performance review every five years. The condition was imposed to address major environmental issues associated with implementing the project.

Annual environmental performance reporting is a requirement of Licence L8356/2009/2. DWER has advised the EPA that contemporary statements no longer require the provision of Performance Review Reports, and the department no longer has any guidance on what these reports should contain.

Taking into consideration that there is an annual reporting requirement within Licence L8356/2009/2 and there is currently no guidance on what a Performance Review Report should contain, the EPA considers it appropriate to remove condition 5 from MS 759.

Condition 11 – Decommissioning

The proponent has requested to remove condition 11-1, and retain conditions 11-2, 11-3 and 11-4.

Condition 11-1 requires that the proponent to provide a Preliminary Decommissioning Plan prior to ground disturbing activities. This plan was submitted in compliance with this condition on 3 July 2010.

The plant has now been constructed and the requirements of condition 11-1 have been fulfilled. Therefore the EPA recommends it is appropriate to remove this condition from MS 759.

The remaining conditions, 11-2, 11-3 and 11-4 related to the provision of a Final Decommissioning Plan, at least six months prior to decommissioning. The EPA considers it is appropriate to retain these conditions to ensure the decommissioning and closure of the facility are appropriately assessed and managed. Condition 11-2 will be amended to replace reference to the EPA with the CEO of DWER in line with contemporary conditions.

Table 1: Summary of key proposal characteristics

The proponent has requested the removal of certain elements contained within Table 1 of MS 759 and referred to in condition 1. These elements relate primarily to the maximum output levels of the facility including nominal power output, thermal efficiency, operating times, annual levels of emissions and others. As these elements are not included in the Licence issued under Part V of the EP Act, the EPA does not consider it appropriate to remove or amend the table.

5 Conclusions and recommendations

Change to condition 5

The proponent has requested the removal of condition 5 relating to the requirement for a performance review every five years. The EPA considers it is appropriate to remove this condition, as conditions of the Licence issued under Part V of the EP Act contains reporting requirements that will satisfy the intent of the condition 5 of MS 759.

Change to condition 9

The proponent has requested the removal of condition 9 relating to the requirement for a stack emissions management plan and annual compliance reporting associated with the plan. The EPA considers it is appropriate to remove this condition, as stack emissions can be appropriately managed under the Licence issued under Part V of the EP Act and reporting requirements that will satisfy the intent of condition 9 of MS 759.

Change to condition 11

The proponent has requested the removal of condition 11-1 which relates to the submission of a Preliminary Decommissioning Plan prior to ground disturbing activities. The EPA considers that it is appropriate to amend this condition given the project has already commenced and a Preliminary Decommissioning Plan was provided in accordance with condition 11-1 and approved on 3 July 2012.

The EPA considers that the intent of conditions 11-2, 11-3 and 11-4 which require a Final Decommissioning Plan to be submitted at least six months prior to the anticipated date of closure, be implemented and be made publicly available, is still appropriate and should be retained.

The EPA recommends that condition 11-2 be amended to remove reference to the Environmental Protection Authority and replace it with the CEO (of DWER).

Change to Table 1 referred to in condition 1

The proponent has requested amendments to *Table 1: Summary of key proposal characteristics* to remove certain elements from the table. The EPA considers it is not appropriate to amend the table, as these elements are not represented in other regulatory instruments.

Conclusions

In relation to the environmental factors, and considering the information provided by the proponent and relevant EPA policies and guidelines, the EPA concludes that:

- there are no changes to the proposal associated with the request to change the conditions

- there is no significant new or additional information that changes the conclusions reached by the EPA under any of the relevant environmental factors since the proposal was assessed by the EPA in Report 1268 (October 2007)
- whether greenhouse gas emissions is a new significant factor since the EPA's original assessment of the proposal may be subject to a separate inquiry
- impacts to the key environmental factors are considered manageable, based on the requirements of the original conditions retained in MS 759, and the imposition of the attached recommended conditions (Appendix 1).

Recommendations

Having inquired into this matter, the EPA submits the following recommendations to the Minister for Environment under s. 46 of the EP Act:

1. While retaining the environmental requirements of the original conditions of Ministerial Statement 759, it is appropriate to:
 - remove implementation condition 5 (Performance Review)
 - remove implementation condition 9 (Stack Emissions)
 - amend condition 11 (Decommissioning) to remove condition 11-1, but retain conditions 11-2 (with amendment), 11-3 and 11-4
 - retain Table 1: *Summary of key proposal characteristics*.
2. After complying with s. 46(8) of the EP Act, the Minister may issue a statement of decision to change conditions 5, 9 and 11 of Ministerial Statement 759 in the manner provided for in the attached recommended statement (Appendix A).

6 Other advice

Since the commencement of this inquiry, the EPA has released a guideline on greenhouse gas emissions (EPA 2020d). The proposal reported scope 1 emissions of 257,037 tonnes CO₂-e during 2019–20.

Greenhouse gas emissions were not included in the original assessment of the proposal (Report 1268), and the initiation letter for this inquiry from the Minister did not include reference to greenhouse gas emissions.

As such, greenhouse gas emissions were not considered in this inquiry. However, the Minister may choose to request an additional s. 46 inquiry into whether implementation conditions for MS 759 should be changed as a result of greenhouse gas emissions. Alternately, conditions may be applied to the Part V licence through an amendment.

Appendix A: Recommended conditions

STATEMENT TO CHANGE THE IMPLEMENTATION CONDITIONS APPLYING TO A PROPOSAL (Section 46 of the *Environmental Protection Act 1986*)

330 MW GAS-FIRED POWER STATION, NEERABUP

Proposal: The proposal is to construct and operate a 330 megawatt open cycle gas-turbine power station within Lots 506 and 507 Pederick Road, Neerabup and a 30-kilometre long gas pipeline and compressor station to transport natural gas from the Dampier to Bunbury Natural Gas Pipeline to the power station; and a 330 kilovolt electricity transmission line, approximately two kilometres long, to connect the power station to the Western Power Neerabup terminal substation.

Proponent: NewGen Neerabup Pty Ltd
Australian Company Number 126 965 722

Proponent Address: Level 4, St George's Square
225 St George's Terrace
PERTH WA 6000

Report of the Environmental Protection Authority: 1706

Previous Report Relating to this Proposal: 1268

Preceding Statement/s Relating to this Proposal: 759

Pursuant to section 45 of the *Environmental Protection Act 1986*, as applied by section 46(8), it has been agreed that the implementation conditions set out in Ministerial Statement No. 759, be changed as specified in this Statement.

Conditions 5 and 9 of Ministerial Statement 759 are deleted.

Condition 11 of Ministerial Statement 759 is changed by removing condition 11-1 and amending 11-2:

11 Decommissioning

11-2 At least twelve (12) months prior to the anticipated date of closure, or at a time approved by the CEO, the proponent shall submit a Final Decommissioning Plan designed to ensure that the site is suitable for future land uses, for approval of the CEO.

The Final Decommissioning Plan shall set out procedures and measures for:

- (1) removal or, if appropriate, retention of plant and infrastructure agreed in consultation with relevant stakeholders;
- (2) rehabilitation of all disturbed areas to a standard suitable for the agreed new land use(s); and
- (3) identification of contaminated areas, including provision of evidence of notification and proposed management measures to relevant statutory authorities.

11-3 The proponent shall implement the Final Decommissioning Plan required by condition 11-2 until such time as the Minister for the Environment determines, on advice of the CEO, that the proponent's decommissioning responsibilities have been fulfilled.

11-4 The proponent shall make the Final Decommissioning Plan required by condition 11-2 publicly available in a manner approved by the CEO.

Note: CEO means the Chief Executive Officer of the Department of the Public Service of the State responsible for the administration of section 48 of the *Environmental Protection Act 1986*, or his delegate.

Appendix B: Identified decision-making authorities

The decision-making authorities in the table below have been identified for the purposes of s. 45 as applied by s. 46(8) of the *Environmental Protection Act 1986*.

Decision-making Authority	Legislation (and Approval)
1. Minister for Environment	<i>Biodiversity Conservation Act 2016</i> (Taking of protected flora and fauna) <i>Environmental Protection Act 1986</i>
2. Minister for Water	<i>Rights in Water and Irrigation Act 1914</i> (Groundwater abstraction licence)
3. Minister for Aboriginal Affairs	<i>Aboriginal Heritage Act 1972</i> (Section 18 approval for disturbance to recognised sites) <i>Land Administration Act 1997</i>
4. Minister for Mines and Petroleum	<i>Petroleum Pipeline Act 1969</i> (Licence to construct and operate a petroleum pipeline)
5. Minister for Lands (previously Dampier to Bunbury Natural Gas Pipeline (DBNGP) Land Access Minister)	<i>Dampier to Bunbury Pipeline Act 1997</i> (Activities and works within the DBNGP corridor)
6. Chief Executive Officer, Department of Water and Environmental Regulation	<i>Environmental Protection Act 1986</i> (Works approvals and licenses) <i>Contaminated Sites Act 2003</i>
7. Chief Dangerous Goods Officer	<i>Dangerous Goods Safety Act 2004</i> (Storage and handling of hazardous materials and mines safety)
8. Chief Executive Officer, City of Wanneroo	<i>Planning and Development Act 2005</i> (Planning approvals) <i>Local Government Act 1995</i> (Development approvals)
9. Director of Energy Safety	<i>Electricity Act 1945</i> (Approval of power stations)
10. Economic Regulation Authority	<i>Energy Coordination Act 1994</i> <i>Electricity Industry Act 2004</i>

Note: In this instance, agreement is only required with DMAs 1-4, since these DMAs are Ministers.

References

EPA 2020a, *Statement of Environmental Principles, Factors and Objectives*, Environmental Protection Authority, Perth, WA.

EPA 2020b, *Environmental Impact Assessment (Part IV Division 1 and 2) Procedures Manual*, Environmental Protection Authority, Perth, WA.

EPA 2020c, *Environmental Factor Guideline – Air Quality*, Environmental Protection Authority, Perth, WA.

EPA 2020d, *Environmental Factor Guideline – Greenhouse Gas Emissions*, Environmental Protection Authority, Perth, WA.

State of Western Australia 2016, *Western Australian Government Gazette*, No. 223, 13 December 2016.

Strategen 2019, 330 MW Gas-fired Power Station, Neerabup, City of Wanneroo s 46 application. Version 0, 12 September 2019.