



**GAS IMPORT JETTY AND PIPELINE PROJECT  
ENVIRONMENT EFFECTS STATEMENT  
INQUIRY AND ADVISORY COMMITTEE**

**TECHNICAL NOTE**

**TECHNICAL NOTE NUMBER:** TN 037

**DATE:** 21 October 2020

**LOCATION:** Crib Point Pipeline and Jetty Works

**EES/MAP BOOK REFERENCE:** Technical Report I – Landscape and Visual (including Appendix E)

**SUBJECT:** Response to RFI’s 90 and 91 - Section 10.3 Lighting.

**SUMMARY** Advice on the scope to ameliorate light impacts arising from the Project

**REQUEST:** This technical note has been prepared in response to RFIs 90 and 91 provided to the proponents by the Crib Point Inquiry and Advisory Committee dated 16 September 2020.

**NOTE:**

**RFI 90 - Provide advice on the scope to ameliorate light impacts from the FSRU, jetty and CPRF, including optimal lighting design measures and minimum light intensity that could be achieved, particularly from the viewpoints in Technical Report I Table 8.1 described as having “considerable” scale of change.**

- The relevant viewpoints identified in Technical Report I as being subject to either a “considerable” or “noticeable” change are set out below:

	<b>Viewpoint</b>	<b>Visual impact/lighting assessment</b>	<b>Magnitude of Change</b>	<b>Viewpoint Sensitivity</b>	<b>Significance of Visual Impact</b>	<b>Direct light spill (lux levels) assessment</b>
<b>5</b>	<b>Jacks Beach</b>					
5(b)	Residential Uses	Night (lighting)	Considerable	Medium	Moderate	Negligible – not measurable
<b>6</b>	<b>Victorian Maritime Centre</b>					
6(a)	Submarine Lookout	Night (lighting)	Noticeable	Negligible	Negligible	Negligible – not measurable
6 (b)	Victorian Maritime Centre	Night (lighting)	Noticeable	Low	Minor	Negligible – not measurable

<b>7</b>	<b>Woolleys Beach</b>					
7 (a) and (b)	Foreshore North and South	Night (lighting)	Considerable	Low	Minor	Negligible – not measurable

2. It is important to recognise, in each case, that whilst the magnitude of the change is identified as either considerable or noticeable:
  - (a) the significance of visual impact is rated as either moderate, negligible or minor; and
  - (b) at no location is it anticipated that direct light spill from any component of the Project would result in any measurable lux at the affected location
3. As addressed by Mr Cook in evidence, it will be possible to design each component of the Project to comply with Australian Standards and guidelines, where applicable. Whilst the ultimate lighting design will be determined as part of the ongoing detailed design process, design and amelioration measures to ensure compliance with the applicable standards may include: only adding light for specific purposes for the area intended; using adaptive light controls to manage timing; using the lowest intensity appropriate for the task; keeping lights directed or shielded; using non-reflective, dark-coloured surfaces.
4. Mr Burge separately identifies the potential for screening to be introduced to affected residential properties as a means of addressing the visual impact of the FSRU.

**RFI 91 - Advise whether there should be a Mitigation Measure to address the amenity and scenic impacts of light generated by the FSRU and associated port facilities, and if so, what it might be and how it might be implemented.**

5. The Day 1 EPRs (Document 174) currently provide for the following measures to ameliorate the impact of lighting on amenity and scenic impacts:
  - (a) LV02 Vegetation will be retained where practicable and introduced to screen facilities within the viewshed of roads (such as The Esplanade) and where possible residences, if reasonably requested by affected landholders and with any necessary approvals granted.
  - (b) LV05 Reflective surfaces on infrastructure will be minimised to reduce reflection of artificial light where practicable.
  - (c) MM-ME11 Limit lights to the number for safe operations. Reduce direct light spill where possible subject to meeting navigation and vessel safety standards.
6. EPR-LV02 is consistent with the following recommendation from Mr Hayden Burge in paragraph 463 of his witness statement:
  - (a) *Mitigation of both views to the FSRU, which will include direct nighttime lighting can be screened and will reduce visual impacts to negligible to nil overtime. It is recognised that this will, however, remove views towards Cowes and Phillip Island as well as the generally open waters of Western Port and therefore may not be desirable by the owners. There would, however, depending on atmospheric conditions, be residual light spill by way of glow. This light spill would be in addition*



to that which would already be noticeable from lighting at the United Fuels Depot immediately south of the proposed receiving facility.

7. Mr Mark Cook states at section 10 of his witness statement that:
  - (a) *Design resolution (exceptions as noted in Section 2.4 of the Report) as part of the Detailed Design process will achieve compliance with the Standards as identified in Section 9.0 of this Statement. I remain of the view that there are no current design and project impediments to prevent the detailed design documentation achieving design compliance in accordance with the standards.*
  - (b) *I recommend, through Detailed Design, that a Lighting Report be commissioned to demonstrate the implementation and response to the appropriate mitigation measures listed in Section 11.0 including adherence to the National Light Pollution Guidelines for Wildlife January 2020 Version 1.0.*
8. Clause 4.4 of the Day 1 Incorporated Document requires the proponents to prepare a Development Plan which must include:
  - (a) the Lighting Details for the Project; and
  - (b) an explanation demonstrating how the Development Plan is in accordance with the approved EPRs included within the Environment Management Plan.
9. The proponents propose to include an amendment in the Day 2 EPRs to address the recommendation made by Mr Cook.

**CORRESPONDENCE** N/A

**ATTACHMENTS:** N/A