

Templates

Greenhouse Gas Environmental Management Plan

This template has been developed to support transparency and consistency of Greenhouse Gas Environmental Management Plans (GHG EMP). It is intended that this template is a 'living document' that will be periodically updated in response to further feedback and changing expectations.

- 1. Executive Summary** *[Template in Attachment 1]*
- 2. Context, scope and purpose** *[Template for items 2–7 below in Attachment 2]*
 - 2.1. Proponent, proposal description and scope
 - 2.2. Purpose of GHG EMP
- 3. GHG EMP Components**
 - 3.1. Emissions estimates
 - 3.2. Trajectory of emissions reductions
 - 3.3. Mitigation measures adopted to avoid, reduce or offset **scope 1 emissions**
 - 3.4. Mitigation measures adopted to avoid, reduce or offset **scope 2 emissions**
 - 3.5. Mitigation measures adopted to reduce **scope 3 emissions**
 - 3.6. Other statutory decision-making processes which require reduction in GHG emissions
 - 3.7. Consistency with other GHG reduction tools
 - 3.8. Offsets
 - 3.9. Projects operating beyond 2050
- 4. Adaptive management, continuous improvement, and review of the GHG EMP**
- 5. Reporting**
- 6. Stakeholder consultation**
- 7. Changes to GHG EMP** *[Template in Attachment 3 – if required]*

Figures

Glossary *[if required]*

Schedules *[optional]*

Appendices *[if required]*

Attachment 1

Template table: GHG EMP executive summary

Section 1	
Proposal name	
Proponent name	
Proposal description and scope	
Purpose of the GHG EMP	Including Ministerial Statement condition requirements if relevant
Emissions estimates	<ul style="list-style-type: none"> Annual and expected life of proposal emission estimates for scope 1, 2 and 3 (as tonnes of carbon dioxide equivalent (CO₂-e)) Emission estimates for all project phases
Trajectory of emissions reductions	<ul style="list-style-type: none"> Trajectory of emissions reductions over the life of proposal for scope 1 and 2 (separately and together) Application of the mitigation hierarchy – summary of the emissions avoided, reduced or offset for scope 1, 2 and 3 emissions
Other statutory decision-making processes which require reduction in GHG emissions	<ul style="list-style-type: none"> Trajectory of emissions over the life of proposal for scope 1 and 2 (separately and together) under statutory decision-making process Are the trajectory of emissions consistent with the EPA GHG objective
Key components in the GHG EMP	<ul style="list-style-type: none"> Best practice measures adopted to avoid, reduce and offset scope 1 emissions Reasonably practicable measures adopted to avoid, reduce and offset scope 2 emissions Reasonably practicable measures adopted to reduce scope 3 emissions
GHG EMP reviews and reporting	
Proposed construction date	MM/YYYY
GHG EMP required pre-construction?	Yes <input type="checkbox"/> No <input type="checkbox"/>
Proposed project end of life/decommissioning date	MM/YYYY

Attachment 2

Template table: GHG EMP

Section 2	
Proposal name	
Proponent name	
Proposal description/scope	
Purpose of the GHG EMP	Including Ministerial Statement condition requirements if relevant
Section 3	
3.1 Emissions estimates	<ul style="list-style-type: none"> • Provide estimated proposal scope 1, 2 and 3ⁱ emissions, as tonnes of CO₂-e for all project phases, including: <ul style="list-style-type: none"> ○ Annual emissions, and total emissions over the expected life of the proposalⁱⁱ ○ Estimates should be based on throughput at maximum nameplate/nominal capacityⁱⁱⁱ and annual average operational design capacity, incorporating shutdowns for maintenance and other likely inefficiencies. (Include applicable rates and assumptions) ○ Estimates based on actual expected operational throughput, (if expected to be significantly different from the above) ○ For proposals that are in operations phase, also provide history of actual emissions and throughputs ○ Emissions baseline proposed for the commencement of the trajectory in section 3.2 ○ Justification for the emissions baseline proposed and the alternative approaches that were considered to calculate the baseline (including an explanation why these were not adopted) ○ Breakdown of material emissions by proposal source^{iv} ○ Types of GHG emitted and their Global Warming Potential^v ○ Explanation of: <ul style="list-style-type: none"> - methodologies^{vi} and likely error and limitations of methodology (or software) used - assumptions used in providing estimates^{vii} - the scope boundaries for scope 1, 2 and 3 emissions; and - justification for any emissions excluded from a scope^{viii}.
3.2 Trajectory of emissions reductions	<ul style="list-style-type: none"> • Provide trajectory of estimated proposal scope 1 and 2 emissions (separately and together), as tonnes of CO₂-e for all project phases, including: <ul style="list-style-type: none"> ○ Trajectory of annual emissions, and total emissions over the expected life of the proposal

	<ul style="list-style-type: none"> ○ Trajectory of emissions which will be avoided, reduced and offset (separately and together) ○ Trajectories should be presented in both table and graph formats (time periods should align in tables and graphs) ○ Trajectory graphs should include annual time periods along the X axis, and emissions as tonnes of CO₂-e along the Y axis. 5-year commitments and targets should be overlaid. The baseline used at commencement should be clear (see 3.1) ○ Trajectory tables should include annual emissions, emissions totalled for 5-year commitments and targets, and life of proposal emissions <ul style="list-style-type: none"> ● A separate trajectory of scope 3 emissions should be provided, consistent with the above.
<p>3.3 Scope 1 – Mitigation measures</p>	<ul style="list-style-type: none"> ● Describe best practice design and operational measures which are proposed to avoid and reduce emissions, together with implementation timeframes ● Provide estimates of emissions avoidance and reduction from adoption of best practice measures ● Provide evidence that proposed best practice measures are likely to achieve stated emissions reductions ● Summary^{ix} of benchmarking review of baseline at commencement of scope 1 emissions intensity against relevant sector pathways and milestones, international and Australian best practice, comparable projects, and other relevant industry standards and milestones^x ● Summary of best practice review process^{xi}, including: <ul style="list-style-type: none"> ○ Design and operational best practice measures identified following international and Australian review ○ Selection criteria used to identify design and operational best practice measures for the proposal ○ Ranking best technologies and practice, by effectiveness ○ If some design and operational best practice measures were reviewed but are not proposed then explain why, including consideration of local conditions and Australian circumstances which influenced the choice of design and operational measures, and consideration of what measures are appropriate for the scale or duration of the proposal ○ If the most effective (best in class) design and practice is not selected, provide a justification.
<p>3.4 Scope 2 – Mitigation measures</p>	<ul style="list-style-type: none"> ● Describe the process used to consider alternatives and measures to avoid, reduce or offset scope 2 emissions ● If the most effective emissions reducing alternatives and measures were not selected, provide a justification ● Summarise whether scope 2 emissions are subject to emissions reduction regulation under a statutory decision-making process, relevant policy or other GHG reduction instrument(s).
<p>3.5 Scope 3 – Mitigation measures</p>	<ul style="list-style-type: none"> ● Describe the process used to consider alternatives and measures to reduce scope 3 emissions ● If the most effective emissions reducing alternatives and measures were not selected, provide a justification ● Description of any (non-confidential elements of) arrangements with or actions by third parties to reduce scope 3 emissions of the proposal

	<ul style="list-style-type: none"> • Summary of where scope 3 emissions will be emitted (domestic or international) and whether they are or are reasonably expected to be subject to similar emissions reduction regulation as scope 1 or 2 emissions.
3.6 Other statutory decision-making processes which require reduction in GHG emissions	<ul style="list-style-type: none"> • Summary of other relevant statutory decision-making process(es) which apply to the proposal’s scope 1, 2 or 3 emissions, including any applicable Commonwealth and State emissions reduction legal requirements • Provide the baseline and trajectory of emissions under each statutory decision-making process (presented in a graph and table format, consistent with trajectory graph requirements in section 3.2). Include scope 1 and 2, separately and together • Explain any difference in the emission baseline, or reduction trajectory under another statutory decision-making processes compared with that presented for assessment by the EPA • Summarise consistency of proposal emissions reductions presented for assessment by the EPA, with the emissions reductions required under other statutory decision-making processes • Provide a summary of the key monitoring and reporting requirements under the statutory decision-making process.
3.7 Consistency with other (non-statutory) GHG reduction instruments	<ul style="list-style-type: none"> • Describe any corporate emissions reductions targets for proposal entities • Describe any emissions reductions targets in industry-wide commitments or sectoral pathways (such as emissions reductions across economic sectors, such as Sectoral Emissions Reduction Strategies) and how the proposal emissions reductions contribute to achievement of these • Describe any other state, federal, industry or international emission reduction instruments the proponent is subject to • Summarise consistency of proposal emissions reductions under other GHG reduction tools with those presented for assessment by the EPA, with the emissions reductions under other GHG reduction instruments.
3.8 Offsets	<ul style="list-style-type: none"> • Summary of circumstances where offsets are proposed to be used to achieve emission reduction targets • Estimated volume and proportion of proposal emissions proposed to be offset (including any range), annually, over the 5-year commitment and target periods in section 3.2, and total over the life of the proposal • Summarise the general type of offsets proposed (i.e., forestry, renewable energy, waste to energy), the certifying body of the offsets (i.e., Clean Energy Regulator), and where the offsets will be generated (state, domestic or international) • Summary of whether offsets are likely to be reasonably available at the time they are proposed to be surrendered^{xii} • Summary^{xiii} of offsets integrity and assurance mechanisms relevant to the proposed offsets and likely consistency with relevant “offset integrity principles”^{xiv} • Proposed reporting and evidence of surrender of offsets.
3.9 Projects operating beyond 2050	Demonstrate how the scope 1, 2 and 3 emissions from project operation beyond 2050 is consistent with a global low-carbon transition to net-zero by 2050 scenario.

Section 4	
Adaptive management, continuous improvement and review of the GHG EMP	<ul style="list-style-type: none"> • A demonstrated commitment to continuous improvement to ensure emissions reductions over the life of the project. This should include a consideration of measures to improve performance or setting targets for emissions intensity improvement over time. • Describe review process to enable the reconsideration of best practice design and operational best practice over the life of the proposal. • Describe the adaptive management approach for the GHG EMP and the process for the review of the GHG EMP.
Section 5	
Reporting	<ul style="list-style-type: none"> • Outline reporting against the commitments and interim targets identified in emissions reductions trajectory. • The GHG EMP should indicate that it will be made publicly available on the proponent’s website. • Annual reporting, with consolidated reporting aligned with the 5-year milestones set out in the Paris Agreement (e.g. 2025, 2030) should be included.
Section 6	
Stakeholder consultation	<ul style="list-style-type: none"> • Summary of consultation parties and consultation process for the GHG EMP to date • Outcomes of consultation to date • Consultation proposed during the life of the GHG EMP.
Section 7	
Changes to GHG EMP	Complete Template in EMP instructions ‘How to prepare <i>Environmental Protection Act 1986</i> Part IV Environmental Management Plans Instructions’ (EPA, October 2021) to propose any change to the GHG EMP (Template 3).

ⁱ [GHG Protocol Corporate Value Chain \(Scope 3\) Accounting and Reporting Standard \(World Resources Institute and the World Business Council for Sustainable Development, 2013\)](#) can be used as a guide to identify potential sources of scope 3 emissions.

ⁱⁱ Emission estimates and scopes should reflect the nature and extent of the EP Act ‘proposals’. If there is a difference in the *National Greenhouse and Energy Reporting Act 2007* (NGER Act) ‘facilities’ estimates or scopes and the EP Act ‘proposal’ estimates or scopes, NGER Act data should be utilised to provide emissions estimates, once adapted to be fit for purpose for the EP Act. For example, NGER emissions estimates for transport facilities that are part of the proposal should be estimated as scope 1 emissions under the EPA Act.

ⁱⁱⁱ The maximum output from a facility/equipment/component based on its design specifications under ideal/optimal conditions.

^{iv} [Climate Active Carbon Neutral Standard for Organisations, Commonwealth of Australia, 2022](#) can be used to identify material emissions sources.

^v Global Warming Potential factors should be consistent with the most up to date NGER Act and Intergovernmental Panel on Climate Change (IPCC) publications (if there is a difference between these, estimates applying both factors should be provided).

^{vi} Identify methodologies applied and provide references. When estimating GHG emissions from vegetation clearing and loss of sequestration potential (where relevant), National Carbon Accounting Model (FullCAM) and Transport Authorities Greenhouse Group (TAGG) methodologies are available.

^{viii} Refer to endnote 2.

^{ix} Summary only need be included - benchmarking report should be separately provided and can be provided with the best practice review.

^x For example, compare the emission intensity of the proposal with the Commonwealth Safeguard Mechanism default emission intensity default value for the associated industry type (if available).

^{xi} Summary only needs to be included – best practice review report should be separately provided.

^{xii} Summary only needs to be included – offsets availability review report should be provided separately and can be provided in a single offsets review.

^{xiii} Summary only needs to be included – offsets integrity report should be provided separately and can be provided in a single offsets review.

^{xiv} Such as the standards in the Commonwealth *Carbon Credits (Carbon Farming Initiative) Act 2011* or the principles in the [Climate Active Carbon Neutral Standard for Organisations, Commonwealth of Australia, 2022](#).

Attachment 3

Template table: Changes to GHG EMP

Complexity of changes					
		Minor revisions <input type="checkbox"/>		Moderate revisions <input type="checkbox"/>	
Major revisions <input type="checkbox"/>					
Date revision submitted to EPA: DD/MM/YYYY					
Is the change proposed to be implemented under condition C3-3? If so, the proponent must provide a copy to the CEO at least 20 days before commencing implementation				Yes <input type="checkbox"/>	
No <input type="checkbox"/>					
Proponent's operational requirement timeframe for approval of revision				< One Month <input type="checkbox"/>	
Reason for Timeframe:					
< Six Months <input type="checkbox"/>					
> Six Months <input type="checkbox"/>					
None <input type="checkbox"/>					
Item no.	GHG EMP section no.	GHG EMP page no.	Summary of change (separate track changes document to be provided)	Reason for change	New or increased adverse impacts to the environment? Risk to the achievement of limits, outcomes or objectives?
1.					
2.					
3.					