Tropicana Joint Venture –

AngloGold Ashanti Australia Ltd &

Regis Resources Ltd

Tropicana Gold Mine

Greenhouse Gas Environmental Management Plan

Version 1

January 2025

ANGLOGOLD ASHANTI

REGIS RESOURCES LTD

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EXECUTIVE SUMMARY

Proposal Name	**Tropicana Gold Project** Shire of Menzies, Shire of Laverton and the City of Kalgoorlie-Boulder.
Proponent name	Tropicana Joint Venture (AngloGold Ashanti Australia Ltd (AGAA) and AFB Resources Pty Ltd (AFB), with AGAA being the manager).
Proposal description and scope	The Tropicana Gold Mine (TGM) is an open pit and underground gold mine located approximately 330 km east-northeast of Kalgoorlie, in the Shire of Menzies on the western edge of the Great Victoria Desert in Western Australia.
Purpose of the GHG EMP	The purpose of the GHG Environmental Management Plan is to comply with Condition 11, specifically with Condition 11-2, of Ministerial Statement 839 (MS 839) and provide a clear demonstration of the GHG emission reductions which will be realised by the implementation of the Renewable Energy Project at Tropicana Gold Mine (TGM).
Emissions estimates	The forecast life of mine GHG emissions (2024 – 2029) based on TGM 2024 Business Plan: **Scope 1 Base Case**: • 1,198,891 t CO_2-e • Average emissions intensity of **0.51t CO_2-e per oz** of gold produced assuming 2.25 million oz produced. Scope 1 emissions are direct emissions from the consumption of fossil fuels at the operation, these are predominately natural gas and diesel. **Scope 2 Base Case**: • Not Applicable **Scope 3 Base Case**: Scope 3 emissions attributable to TGM result from upstream activities, including purchased goods and transport outside AGAA control, including manufacturing and employee commutes and supplier delivery, and not undertaken at the mine where the principle prescribed activities are mining and processing. See Section 2.1 for details.
Trajectory of emissions reductions	**Scope 1:** The trajectory of GHG emissions reductions over the life of mine

	(2024 – 2029) for Scope 1 emissions will be in accordance with Condition 11-1 of Ministerial Statement 839 as follows: 1. 935,000 tonnes of CO_2-e for the period between 1 January 2024 and 31 December 2026; 2. 320,000 tonnes of CO_2-e for the period between 1 January 2027 and 31 December 2029; 3. zero tonnes of CO_2-e from 1 January 2030 thereafter The Renewable Energy Project is a key component of helping AGAA achieve its GHG reduction targets. **Scope 2:** Not Applicable **Scope 3 Emissions:** See Section 2.2 for details.
Other statutory decision-making processes which require reduction in GHG emissions	National Greenhouse and Energy Reporting Scheme National Greenhouse and Energy Reporting Act 2007 (Commonwealth). AGAA will comply with the emissions Safeguard Mechanism (National Greenhouse and Energy Reporting Act 2007 (Commonwealth).
Key components in the GHG EMP	**Scope 1 Emissions:** The Renewable Energy Project is the key project to realise substantial GHG emission reductions at TGM. The Renewable Energy Project will comprise: • 24 MW of Wind Turbines • 24 MW Solar Farm • 14 MW Battery Energy Storage System The proposed REP is expected to supply approximately 48% of the power requirements for TGM, reducing carbon emissions by up to 81,000 tonnes of CO_2-e per year between 2025 and 2030. **Scope 3 Emissions:** TGM have processes in place to ensure continuous improvement to ensure Scope 3 emissions are minimised and reduced over the life of the project. AGAA will work with key partners to understand Scope 3 emissions and to identify opportunities for reduction.
GHG EMP reviews and reporting	TGM will review the GHGEMP every 3 years or in accordance with changes in legislation or at other significant triggers/milestones.

	Reporting of GHG emissions is currently required under the National Greenhouse and Energy Reporting Scheme (NGERs). Reports are submitted annually prior to 31 October.
Proposed construction date	Project is operational.
GHG EMP required pre-construction?	Yes ☐ No **X**
Proposed project end of life / decommissioning date	2029

1 CONTENT, SCOPE AND PURPOSE

1.1 Proponent, Proposal Description and Scope

1.1.1 Proposal

Tropicana Gold Project,

Shire of Menzies, Shire of Laverton and the City of Kalgoorlie- Boulder.

1.1.2 Proponent

Tropicana Joint Venture (AngloGold Ashanti Australia Ltd (AGAA) and AFB Resources Pty Ltd (AFB), with AGAA being the manager).

The Project is a joint venture (Tropicana JV) between AngloGold Ashanti Australia Limited (70% owner and manager) and Regis Resources Limited (30% owner), through its subsidiary AFB Resources Pty Ltd.

1.1.3 Proposal Description

The Tropicana Gold Mine (TGM) is an open pit and underground gold mine located approximately 330 km east-northeast of Kalgoorlie, in the Shire of Menzies on the western edge of the Great Victoria Desert in Western Australia (**Figure 1**).

The TGM includes:

- Operational Area containing open pits, underground mine, waste landforms, stockpiles, Tailings Storage Facility (TSF), process plant, village, aerodrome, borefield, Renewable Energy Project (REP) and other supporting infrastructure.
- Infrastructure Corridor including an access road and communications corridor linking the operational area to existing communications and road networks in Kalgoorlie.
- Water Supply Area providing processing water to the site.

The REP comprising of wind turbines, a solar farm and Battery Energy Storage System (BESS) was approved in September 2023 and is currently under construction (**Figure 2**). The REP is expected to be fully operational in 2025.

The TGM has undergone environmental assessment under both the *Environmental Protection Act 1986* and *Environment Protection and Biodiversity Conservation Act 1999* at the level of Public Environmental Review (PER). State environmental approval for the Project was obtained in September 2010 (Ministerial Statement 839) and Commonwealth approval obtained in December 2010 (EPBC 2008/4270).

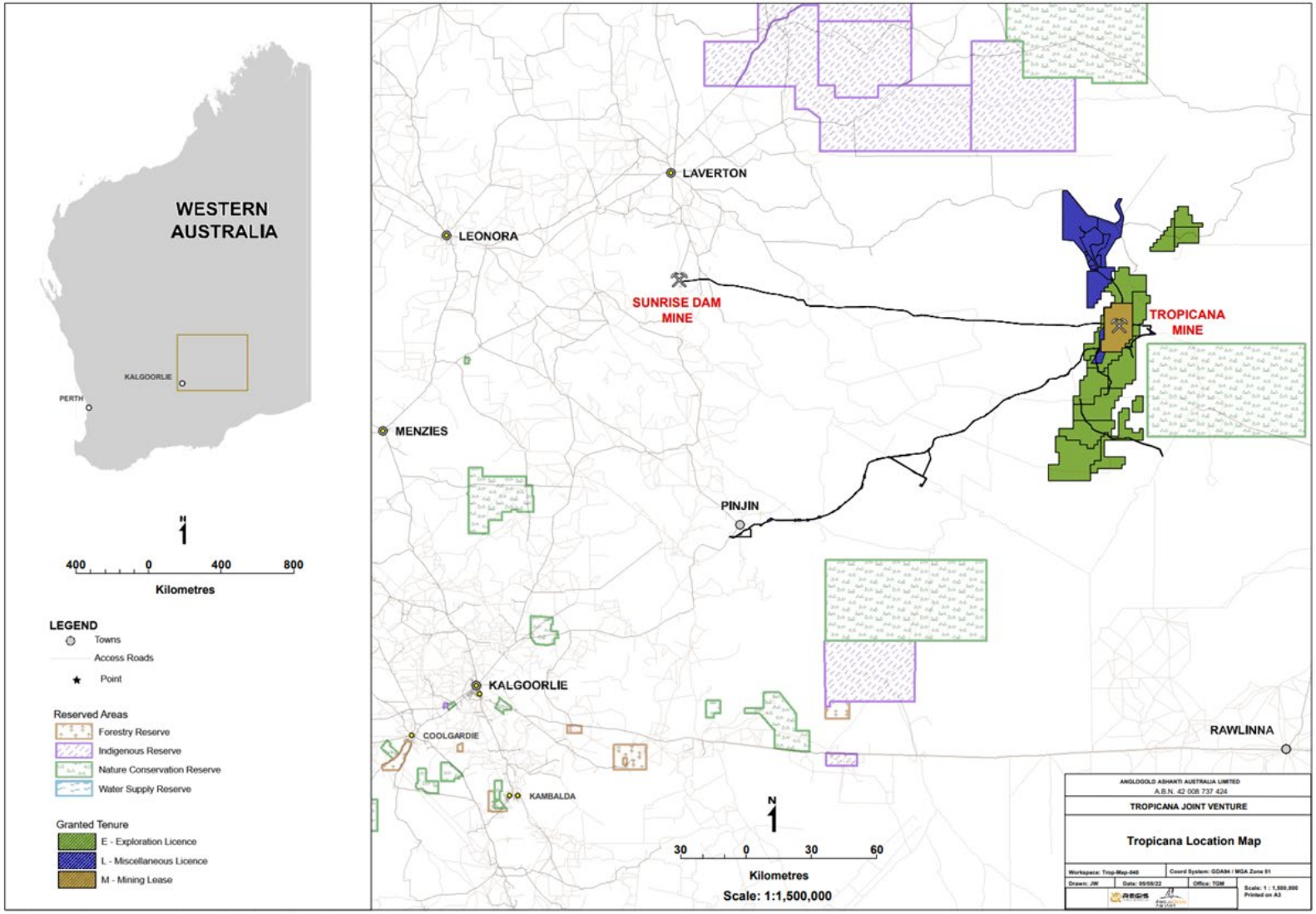

Figure 1: TGM Location Plan

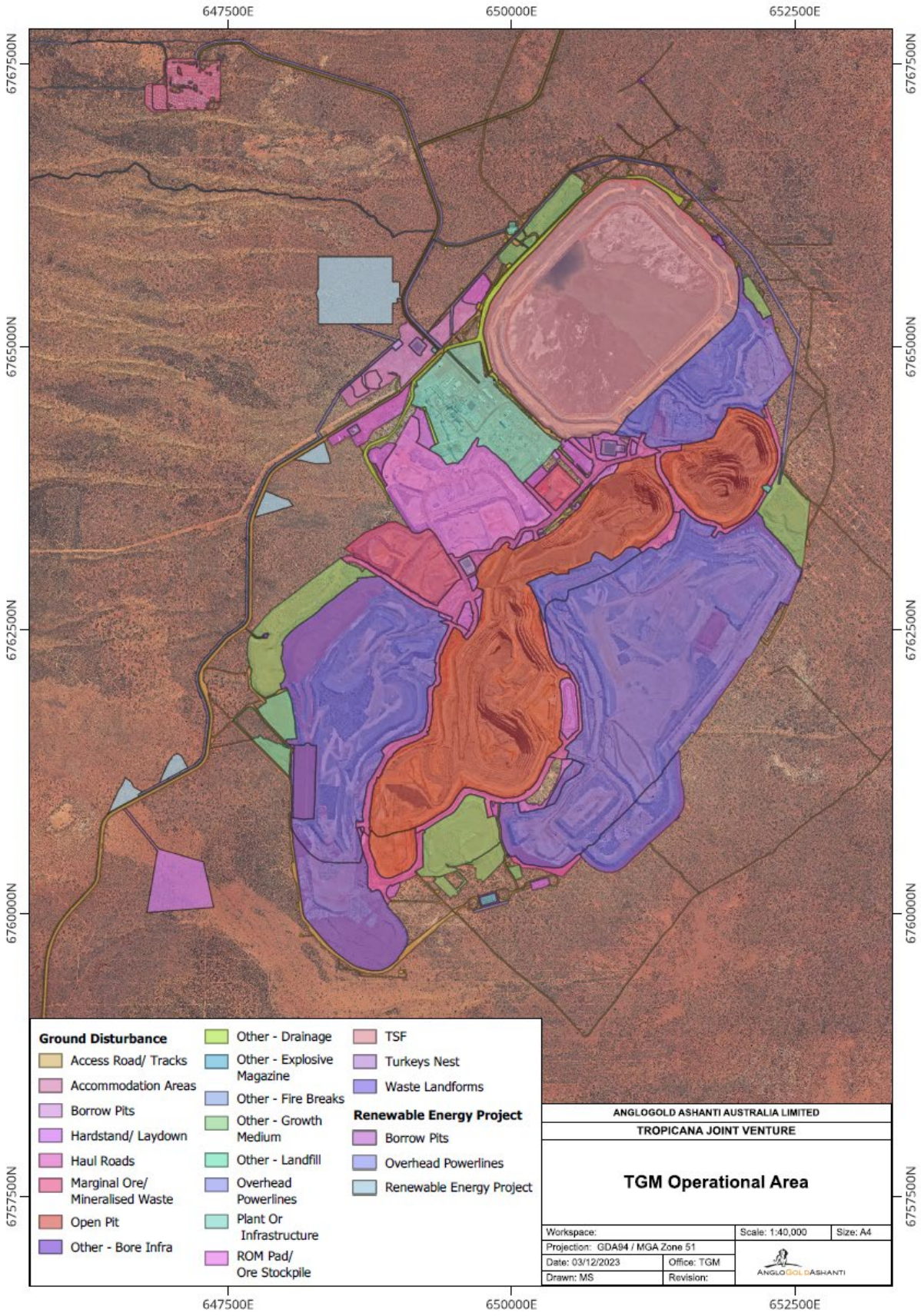

Figure 2: TGM Operational Area overview.

1.2 Purpose of GHG EMP

The purpose of the GHG Environmental Management Plan is to comply with Condition 11, specifically with Condition 11-2, of Ministerial Statement 839 (MS 839) and provide a clear demonstration of the GHG emission reductions which will be realised by the implementation of the Renewable Energy Project at Tropicana Gold Mine (TGM).

Condition 11:

11-1 The proponent must take measures to ensure that the proposal **Net GHG Emissions** do not exceed:

(1) 935,000 tonnes of CO2-e for the period between 1 January 2024 and 31 December 2026;

(2) 320,000 tonnes of CO2-e for the period between 1 January 2027 and 31 December 2029;

(3) zero tonnes of CO2-e from 1 January 2030 thereafter.

11-2 At least within six (6) months from Attachment 7 to Ministerial Statement 839 being issued, unless otherwise agreed by the **CEO,** the proponent shall develop and submit to the CEO, a Greenhouse Gas Emissions Environmental Management Plan to:

(1) be consistent with the achievement of the **Net GHG Emission** limits in condition 11-1 (or the achievement of Net GHG Emissions reductions beyond those required by those limits);

(2) specify the estimated proposal **GHG emissions** and **emissions intensity** for the proposal from the date Attachment 7 to Ministerial Statement 839 is issued;

(3) include a comparison of the estimated proposal **GHG emissions** and **emissions intensity** for the proposal against other comparable facilities;

(4) identify and describe any measures that the proponent will implement to avoid, reduce and/or offset **proposal GHG emissions** and/or reduce the **emissions intensity** of the proposal.

(5) provide a program for the future review of the plan to:

(a) assess the effectiveness of measures referred to in condition 11-2(4); and

(b) identify and describe options for future measures that the proponent may or could implement to avoid, reduce, and/or offset proposal **GHG emissions** and/or reduce the **emissions intensity** of the proposal. (EPA, 2010)

GHG EMP Extension

Condition 11-2 requires AGAA to submit the GHGMP within 6 months from Attachment 7 of Ministerial Statement 839 being issued. However, AGAA were required to submit a s45C to amend Condition 11-1 so that it aligned with the 2024 TGM Business Plan. AGAA submitted a request to the CEO of DWER seeking a 12-month extension to the submission of the GHG EMP in December 2023. The request for the GHG EMP submission extension was granted by DWER and now requires submission by 28 February 2025 (EPA, 2023b).

2 GMG EMP COMPONENTS

2.1 Emissions Estimates

Tropicana Gold Mine's expected GHG emissions for the periods 2024-2026 and 2027-2029 have been estimated using the TGM 2024 Business Plan (BP24) developed in 2023 for the year 2024 to the end of current Life of Mine (LOM).

2.1.1 Scope 1 Emissions

Scope 1 emissions are released into the atmosphere as a direct result of an activity, or series of activities, at TGM. The material scope 1 emissions are associated with combustion of diesel by mobile equipment and natural gas for power generation. **Figure 3** provides a breakdown of respective GHG sources and also illustrates the mitigation of CO_2-e contributed by Renewable Energy Project implementation. The graph provides an estimation of Scope 1 emissions from 2024 to 2029. These results are also tabulated in Table 1.

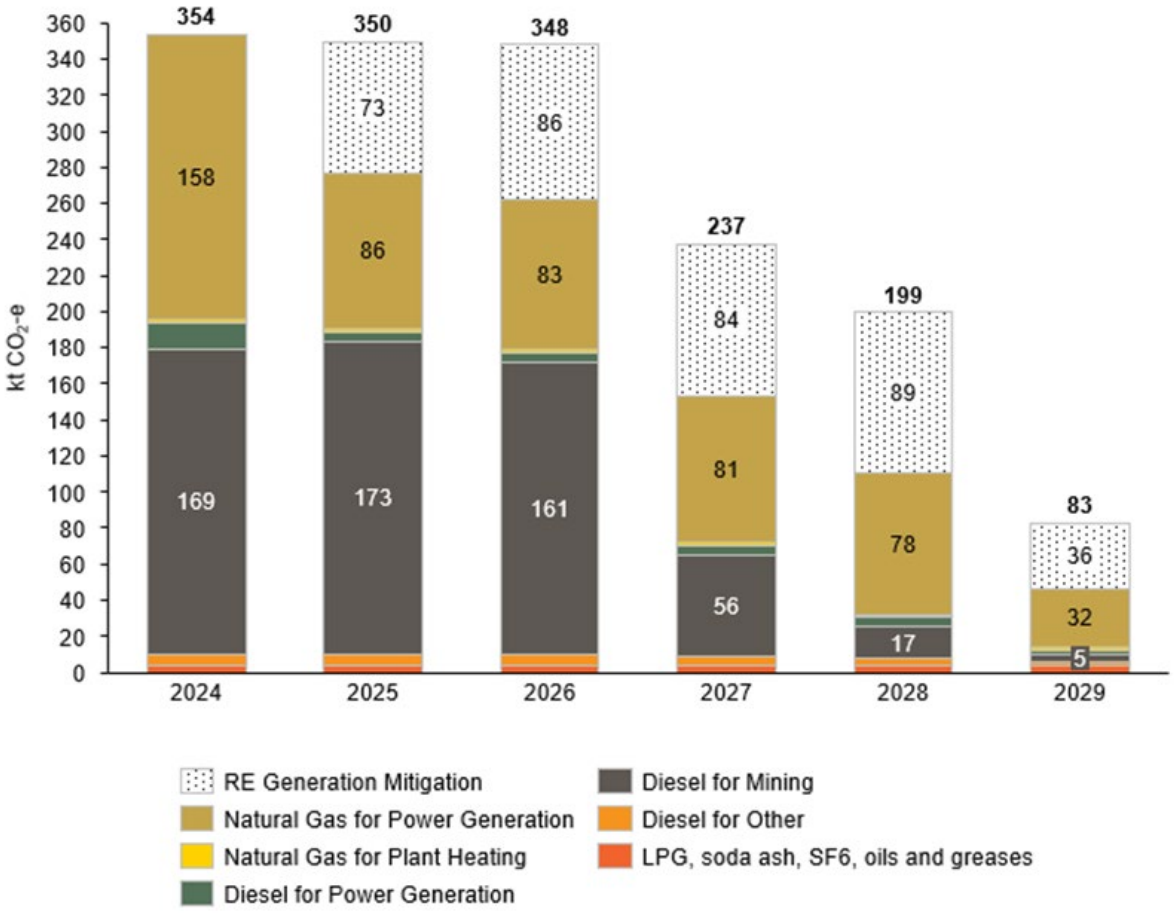

Figure 3: Estimated Scope 1 Emissions for TGM (inclusive of REP emission reductions)

Table 1: Estimated Scope 1 emissions for TGM

		2024	2025	2026	2027	2028	2029
Renewable Energy Generation Mitigation	tCO2e	-	80,712	80,859	80,530	80,583	80,859
Natural Gas for Power Generation	tCO2e	157,801	85,875	82,756	80,625	78,369	32,083
Natural Gas for Plant Heating	tCO2e	1,979	1,979	1,979	1,979	1,979	989
Diesel for Power Generation	tCO2e	14,734	5,565	5,581	5,100	5,048	1,819
Diesel for Mining	tCO2e	168,999	173,337	161,396	56,353	17,210	5,014
Diesel for Other	tCO2e	5,976	5,976	5,976	4,981	3,987	1,329
LPG, soda ash, SF6, oils and greases		4,021	4,021	4,021	4,021	4,021	4,021
TOTAL	**tCO2e**	**353,511**	**276,754**	**261,708**	**153,059**	**110,614**	**43,245**

The emissions intensity of the project is determined by the annual scope 1 emissions divided by the annual gold production which is in ounces. The Ministerial Statement emissions intensity definition is based on gold tonnes produced, not ounces. Converting this to emissions per ounce allows us to compare emissions intensity with other operations. This value can be used to benchmark the project's performance, regarding emissions efficiency, against other similar open cut gold projects within Western Australia. Currently, the average emissions intensity for similar open cut gold projects is approximately 0.81 t CO_2-e per oz (see Table 7). Table 2 provides a forecast of TGM's expected emissions intensity from 2024 to 2029. It demonstrates that the current emissions intensity is below average for similar gold mines within Western Australia. The emissions intensity is expected to decrease further as the REP comes online and other emissions efficiency measures are implemented.

Table 2: Scope 1 emissions intensity forecast

Year	Emission Estimate (t CO_2-e)	Emission Intensity (t CO_2-e per oz)
2024	353,511	0.73
2025	276,754	0.58
2026	261,708	0.56
2027	153,059	0.34
2028	110,614	0.38
2029	43,245	0.49
Total	**1,198,891**	**0.51 (avg)**

Methodology

Estimates of GHG emissions from TGM have been prepared using methods and factors from the National Greenhouse and Energy Reporting (NGER) (Measurement) Determination, 2008.

Electricity generation estimates are based on processing plant and underground load requirements. Fuel for generation is estimated based on historical efficiency data and power station capacity for gas and diesel generation.

AGAA have a long-standing contract with Greenbase consultants for all NGER Reporting and Safeguard Mechanism applications since TGM commenced construction.

Assumptions

The assumptions made in BP24 for mining and processing influence the predicted annual GHG emissions. On a high level for Tropicana, activities with the largest emission profiles are:

- Fleet movement for open pit mining. Open pit activity in BP24 will see a decline in 2025 and 2026, with the final year of open pit mining reached in 2027.
- Fleet movement for underground mining. Movements will remain steady until 2026 and then drop slightly in 2027 and 2028. Underground mining will end in the first half of 2029.
- Power required for underground mining will increase as the depth of the mine increases due to the provision of services such as ventilation.
- Power required for ore processing (including borefield activities) will remain stable throughout BP24, with a reduction in 2029 reflective of the partial final year of LOM.
- Natural Gas required for heating in the processing plant is based on historical requirements and forecast to remain at these volumes for the life of the operation. No allowance has been made for potential increases required.

Emissions History

AGAA have been reporting GHG emissions since 2017 as part of the reporting requirements under NGER. For this management plan, AGAA have provide the last 5 years emissions data in Table 3 to provide context for total Scope 1 emissions, gold produced and the emissions intensity.

Table 3: Scope 1 emissions history and intensity for TGM (2019 – 2023)

Financial Year	Baseline limit Safeguard Mechanism (t CO_2-e)	Scope 1 Emissions (t CO_2-e)	Excess Position (t CO_2-e)	Gold Produced (oz) (Calendar Year)	Emissions Intensity (t CO_2e/oz)
2019	283,693	278,020	-5,673	513,785	0.54
2020	323,180	306,129	-17,051	424,799	0.72
2021	323,180	294,418	-28,762	378,890	0.77
2022	323,180	304,274	-18,906	436,919	0.69
2023	352,345	316,050	-36,295	442,902	0.71
Average		**299,778.2**		**439,459**	**0.69**

As shown in Table 3, total Scope 1 emissions have been consistent at an average of 300,000 t CO_2-e per year. Gold production has varied due to several reasons which influences the emissions intensity. Despite this, the emissions intensity for TGM has remained below the benchmarking average of 0.8 t CO_2e/oz shown in Table 7.

AGAA's annual reporting to the Clean Energy Regulator (CER) under the Safeguard Mechanism enables a comparison of Scope 1 emissions against a baseline determined by the CER. As shown in Table 3, AGAA has consistently been under the baseline limit Safeguard Mechanism for the past five years.

Global Warming Potential

The Global Warming Potential (GWP) is a means used to examine the impact of different GHG that are emitted by the project. The heat-trapping ability of different GHG's varies as identified in Table 4, however, by using the GWP, emissions can be standardised to tCO_2-e. The GWP of various GHG's has been factored into the total emissions value reported under NGER. The GWP has been determined in accordance with Intergovernmental Panel on Climate Change Assessment Report 5 (IPCC AR5).

Table 4: Type of GHG emissions and Global Warming Potential

GHG Emission	Scope 1 (t CO_2-e) NGER FY 2022 - 23	Global Warming Potential (IPCC AR5)	Actual Emissions (t)
Carbon Dioxide (CO_2)	314,964	1	314,964
Methane (CH_4)	528	28	18.8
Nitrous Oxide (N_2O)	551	265	2.08
Perfluorocarbons (PFCs)	0	6630 (Perfluoromethane) 11,100 (Perfluoroethane)	0
Hydro Fluoro Carbons (HFCs)	0	Dependent on HFC type	0
Sulphur Hexafluoride (SF_6)	7	23,500	0.0003
Total	**316,050**		**314,984.8803**

2.1.2 Scope 2 Emissions

Scope 2 emissions are indirect emissions from the generation of purchased energy at operations. All power generation for the operation is produced on site and therefore, no Scope 2 emissions are generated for TGM.

2.1.3 Scope 3 Emissions

Scope 3 emissions are indirect GHG emissions generated as a result of activities undertaken either upstream or downstream of the TGM operation from sources not owned or controlled by the Tropicana JV (i.e. occur within the company value chain). The majority of the Scope 3 emissions are due to the purchase of goods and services from third parties and AGAA has limited control over these emissions and/or their abatement.

There is a strong focus on Scope 3 emissions from an overarching company level that directs how site monitor and manage their own Scope 3 emissions. It is inherently complex to estimate these emissions, so AGA works with targeted value chain partners to better understand our Scope 3 GHG emissions and the feasibility for targeted reductions.

2.1.4 Land Clearing Emissions

To estimate the GHG emissions that will enter the atmosphere through the loss of sequestration due to land clearing, AGAA utilised the Full Carbon Accounting Model (FullCAM) from the Department of Climate Change, Energy, the Environment and Water (DCCEEW).

The FullCAM model estimate for TGM was based on the following inputs:

- Latitude -29.2528, Longitude 124.5445
- Carbon mass of trees per hectare: 8.860 t C/ha

- Carbon mass of vegetation debris per hectare: 5.590 t C/ha
- Estimated land clearing from 1 Jan 2024 – 31 Dec 2029 of 47 ha.

Based on these inputs, the FullCAM tool estimated that an additional 2,491 t CO_2-e will enter the atmosphere over the remaining life of mine.

2.2 Trajectory of Emissions Reductions

2.2.1 Scope 1 Emissions Reduction Trajectory

The trajectory of GHG emissions reductions over the life of mine (2024 – 2029) for Scope 1 emissions will be in accordance with Condition 11-1 of Ministerial Statement 839. The condition stipulates the maximum allowable CO_2-e emissions for two periods, 2024 – 2026 and 2027 – 2029. After 2030, AGAA are required to have net zero for Scope 1 emissions. The emissions limits in the condition are provided below and in **Figure 4**.

1. 935,000 tonnes of CO_2-e for the period between 1 January 2024 and 31 December 2026;
2. 320,000 tonnes of CO_2-e for the period between 1 January 2027 and 31 December 2029;
3. zero tonnes of CO_2-e from 1 January 2030 thereafter

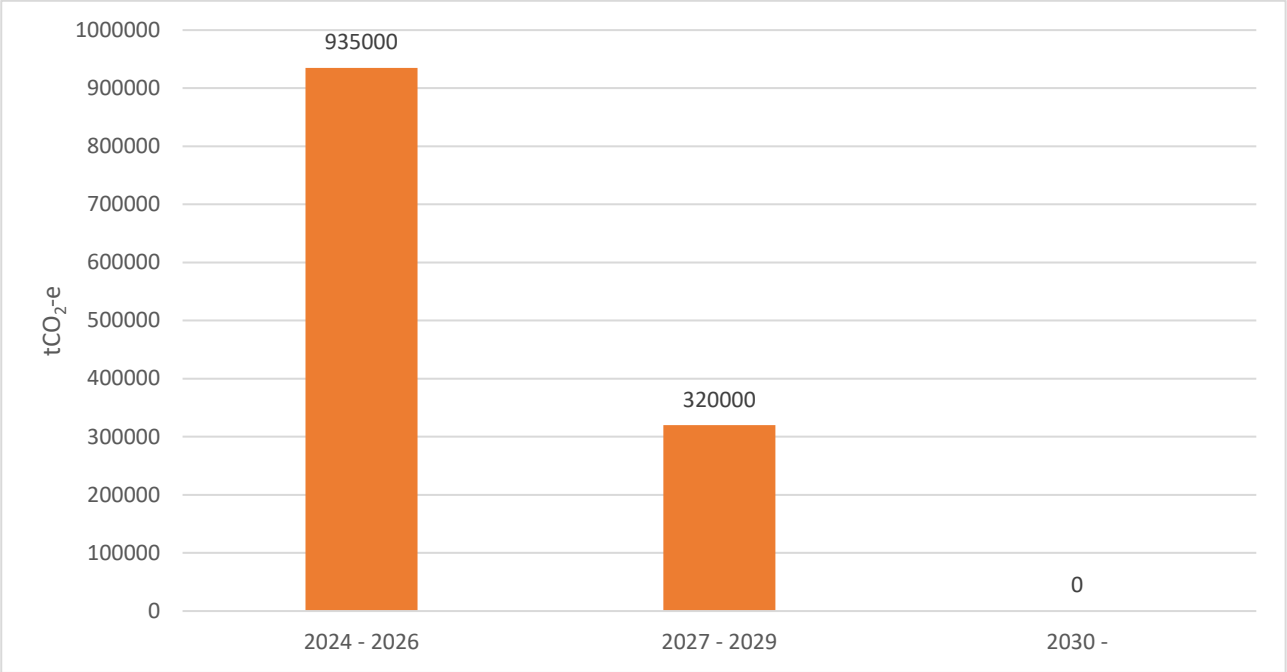

Figure 4: Scope 1 Emissions trajectory required by Ministerial Statement 839

The Renewable Energy Project is expected to mitigate up to 81,000 tonnes of CO_2-e annually to 2029 (**Table 5**). As a result, **Figure 5** demonstrates that the annual Scope 1 emissions trend decreases significantly each year until 2030 when the mine is expected to close and emissions would drop to zero.

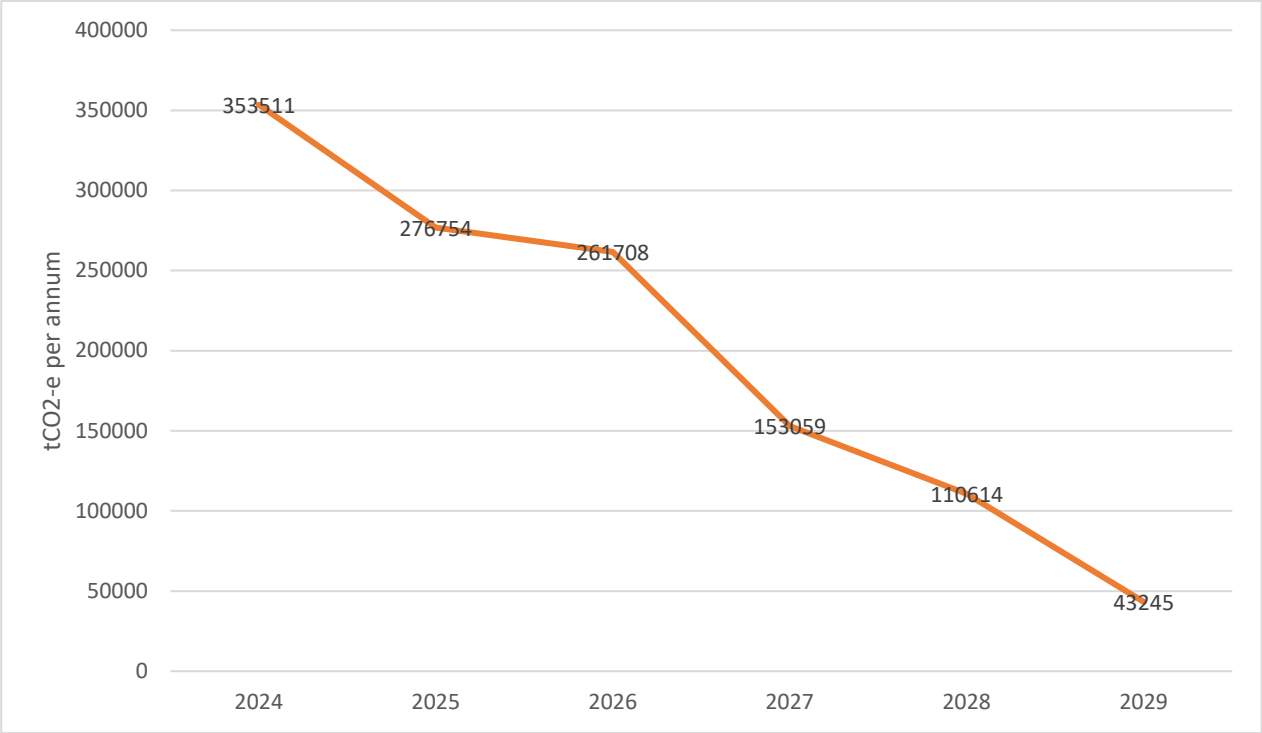

Figure 5: Estimated Scope 1 Emissions Trajectory for TGM

Table 5: Estimated Scope 1 emissions for TGM

		2024	2025	2026	2027	2028	2029
Renewable Energy Generation Mitigation	tCO_2-e	0	80,712	80,859	80,530	80,583	80,859
Natural Gas for Power Generation	tCO_2-e	157,801	85,875	82,756	80,625	78,369	32,083
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Diesel for Power Generation	tCO_2-e	14,734	5,565	5,581	5,100	5,048	1,819
Diesel for Mining	tCO_2-e	168,999	173,337	161,396	56,353	17,210	5,014
Diesel for Other	tCO_2-e	5,976	5,976	5,976	4,981	3,987	1,329
LPG, soda ash, SF6, oils and greases		4,021	4,021	4,021	4,021	4,021	4,021
TOTAL	**tCO_2-e**	**353,511**	**276,754**	**261,708**	**153,059**	**110,614**	**43,245**

2.2.2 Scope 2 Emissions Reduction Trajectory

Not applicable: no Scope 2 emissions are generated for TGM.

2.2.3 Scope 3 Emissions Reduction Trajectory

AGAA has a company wide policy that aims to reduce Scope 3. AGA is working with value chain partners to better understand our Scope 3 GHG emissions and the feasibility for targeted reductions.

2.3 Scope 1 – Mitigation Measures

2.3.1 Renewable Energy Project

The Renewable Energy Project (REP) for Tropicana, currently under construction, is planned to be commissioned in 2025, and is expected to contribute up to 50% of the site's energy requirements (based on a typical year of operation). It is estimated the REP will result in:

- Up to 81,000 tonnes carbon emission reduction per year
- Up to 90% reduction in diesel fuel (for power generation) per year
- Up to 47% reduction in natural gas per year
- Up to 50% reduction in power generation emissions per year.

The REP will comprise of a 24 MW wind farm, 24 MW solar farm and 14 MW battery storage system. When commissioned, the REP is expected to reduce total emissions by approximately 370,000 t CO2-e over 6 years (2024 – 2029).

The reduction in GHG from the REP will see the emissions intensity reduce over time. AGAA's emissions intensity is lower than the average gold miner of 0.81 tCO_2-e/oz and it is estimated that the emissions intensity will average 0.51 tCO_2-e/oz.

2.3.2 Eastern Goldfields Gas Pipeline

Due to the remote location off the national electricity grid, electricity production originally relied on diesel gensets until the arrival of natural gas to site via pipeline in 2016. This was a significant undertaking from AGAA requiring 294km of pipeline to be constructed for the Eastern Goldfields Gas Pipeline from Murrin Murrin to Tropicana Gold Mine. The conversion of electricity production to natural gas from diesel resulted in a substantial reduction in GHG emissions.

Following the transition of the Tropicana power station to primarily natural gas generation in 2016, there has been a displacement of 1,937 GWh of potential diesel generation by gas generation up until 2023. This shift has resulted in a substantial reduction of 300kt CO_2-e emissions over this eight-year span, thereby enhancing Tropicana's carbon efficiency.

2.3.3 Other

AGAA is conducting trials on the use of electric drive haul trucks and battery-electric trucks at Tropicana and Sunrise Dam operations respectively:

- Liebherr Electric Drive-train Haul Trucks

AGAA, in conjunction with its Mining Alliance partner MacMahon, has trialled the use of Liebherr Electric drive haul trucks at Tropicana. Seven Liebherr Electric drive trucks (T264) were trialled on the basis that the electric drive-train would maximise the electric power conversion into mechanical

torque, increasing the acceleration and minimising energy consumption, particularly when travelling uphill.

Based on feedback from the trial the ongoing implementation of the Liebherr T264 trucks as a part of the Tropicana haul truck fleet was not progressed.

- Sandvik TH665B Battery-Electric truck

AGAA is also investigating the use of electric underground trucks at the Sunrise Dam Gold Mine. This involves a partnership between Sandvik, AGAA and Barminco, to trial a Sandvik TH665B battery-electric truck at the mine. This is the world's largest battery-electric underground mining truck and the only one of its kind in Australia.

The trial was initiated in September 2023 and remains ongoing. The results and outcomes from the TH665B truck trial will be reviewed to assess the opportunity to implement the battery-electric underground trucks at TGM.

2.4 Scope 2 – Mitigation Measures

Not applicable: no Scope 2 emissions are generated for TGM.

2.5 Scope 3 – Mitigation Measures

TGM have processes in place for continuous improvement to minimise and reduce Scope 3 emissions over the life of the project. The AGA focus for Scope 3 emissions is to work with targeted value chain partners to better understand our Scope 3 emissions and the feasibility for targeted reductions.

2.6 Benchmarking

A benchmarking comparison was conducted to compare TGM and other similar gold mines within Western Australia that are predominately open pit operations. Mine sites that predominantly operate underground have not been included to ensure a fair comparison. The data in the table below compares the commencement of operation, GHG emissions, 2023 gold production, emissions intensity (tCO_2e/oz) and the composition of electricity generation.

Emission Intensity is defined under MS 839 as "Proposal GHG emissions per tonnes per annum of gold produced". However, standardised baseline reporting across all recent Sustainability/Climate Reports for Western Australian gold mines defines emissions intensities for gold as tonnes of CO_2 per ounce of gold produced. For ease of comparison, tonnes of CO_2 per ounce of gold produced has been used (**Table 6**).

Table 6: Emissions Intensity comparison between similar gold mines within Western Australia.

Company	Site	Operation Type	Commenced Operations	2023 GHG Emissions ($KtCO_2e$)	2023 Gold Production (Koz)	Emissions Intensity (tCO_2e/oz)	Electricity Generation (approx%)
Anglo Gold Ashanti Australia	**Tropicana**	**OP/UG**	**2012**	**316**	**443**	**0.71**	**Natural Gas – 96%** **Diesel – 4%**
Gold Fields	Gruyere	OP	2019	207	321	0.64	Natural Gas – 91% Solar – 9% Diesel – 0.1%
Newcrest	Telfer	OP/UG	1977 / 2004	447	349	1.28	Natural Gas – 99.7% Diesel – 0.3%
Newmont	Boddington	OP	1987 / 2010	511	575	0.89	Purchased Grid Electricity (non-renewable) – 95% Diesel – 5%
Northern Star	Yandal	OP/UG	2016	336	480	0.70	Natural Gas – 95% Diesel – 5%
	KCGM	OP/LHOS	1989	440	432	1.02	Purchased Grid Electricity (non-renewable) – 95% Diesel – 5%
	Kalgoorlie Operations ex. KCGM	OP/UG	1993	95	161	0.59	Purchased Grid Electricity (non-renewable) – 95% Diesel – 5%
	Carosue Dam	OP/UG	2010	150	243	0.62	Natural Gas – 98% Diesel – 1% Solar – 1%
					Average	**0.81**	

The emissions intensity of 0.71 tCO_2e/oz for TGM, obtained in 2023, is less than the average emissions intensity for the listed WA gold mines. The average emissions intensity across the gold miners was 0.81 tCO_2e/oz. This demonstrated that the current operating process at TGM are effective in producing lower emissions compared to average results of similar WA gold mines. With the implementation of the REP, this will further improve the emissions intensity of TGM making it best practise when compared to current industry standards.

2.7 Other Statutory Decision-Making Processes Which Require Reduction of GHG Emissions

The following federal legislative requirements have been considered in preparation of this GHG EMP, and are implemented by:

- *National Greenhouse and Energy Reporting Act 2007* (NGER Act);
- National Greenhouse and Energy Reporting Regulations 2008; and
- National Greenhouse and Energy Reporting (Safeguard Mechanism) Rule 2015 (Safeguard Mechanism Rule).

2.7.1 Safeguard Mechanism

On 1 July 2016, the Australian Government introduced a Safeguard Mechanism under section 22XS of the NGER Act**.** Under the Safeguard Mechanism, responsible emitters controlling facilities which emit 100,000 tonnes of carbon dioxide equivalent (tCO_2-e) (Default Baseline) or more of Scope 1 emissions will be required to meet the safeguard requirements, including keeping the facility's net emissions at or below a baseline emissions level.

Section 22XB of the Act requires that the responsible emitter report annual covered emissions to enable a comparison against a baseline determined by the Clean Energy Regulator (CER).

In the first instance, the CER allocated a baseline to existing facilities in accordance with the facility's NGER emissions reported for the five years commencing FY2009-10 and ending FY2013-14. TGM did not have a Reported-emissions Baseline as the facility only started operations in FY2012 and the Scope 1 emissions were below 100,000 t CO2-e prior to FY2014.

The facility's Scope 1 emissions (there are no Scope 2 emissions) were expected to be over 100,000 t CO2-e in FY2017; therefore, AGAA submitted an application for a Calculated-emissions Baseline to cover FY2017, FY2018 and FY2019. The CER approved the Calculated-emissions Baseline, which was 283,693 t CO_2-e.

TGM applied for a Transitional calculated-emissions baseline (under the transitional calculated baseline criteria) to cover FY2020, FY2021 and FY2022. The CER approved the Transitional calculated-emissions baseline at 323,180 tCO2-e, which included a Reasonable Assurance finding from a third-party auditor. This baseline expired 30 June 2022.

TGM applied for a Production-adjusted baseline to cover FY2024, using Run-of-mine Metal Ore and Electricity Generation. The CER approved the Production-adjusted calculated-emissions baseline at 290,437 tCO2-e

Run-of-Mine Metal Ore according to Schedule 2 Part 18 of the Safeguard Rule, the prescribed (annually adjusted) production variable for metal ore mining is the tonnes of run-of-mine metal ore that is produced as part of carrying on the mining activity at the facility.

As TGM used this prescribed (annually adjusted) production variable in their previous calculated baseline application, site-specific estimated emission intensity factor determined from the application will be used:

- 0.0184784 t CO2-e per tonne of run-of-mine metal ore

Electricity Generation according to Schedule 2 Part 26 of the Safeguard Rule, the prescribed (annually adjusted) production variable for electricity generation is the MWh of electricity that is produced as part of carrying on the electricity generation activity at the facility.

As TGM used the default emission intensity in the previous calculated baseline application, only the default emission intensity factor can be used in the production-adjusted baseline application.

- 0.539 tCO2-e per MWh of electricity generated

A reform to the Safeguard Mechanism passed parliament on 30 March 2023 to help Australia reach its net zero target by 2050 and align with recent commitments to a 43% reduction below 2005 emission levels by 2030. The reform achieves this by requiring companies to adjust current baselines to industry standard and then to tighten these baselines by 4.9% per year until 2030 with further reductions until zero emissions in 2050.

2.8 Consistency With Other Non-Statutory GHG Reduction Tools

2.8.1 AGA Roadmap to NetZero

AngloGold Ashanti Corporate (AGA) has recognised that decarbonisation of energy is an essential tool in managing the company's climate transition risks and leveraging the opportunities presented by climate change. AGA is committed to a goal of a 30% emission reduction by 2030 and net zero by 2050.

AGA has developed a strategy to reduce carbon emissions from energy use, to support a roadmap to Net Zero by:

- Tracking a pipeline of initiatives to ensure successful implementation, with the majority of benefits expected in 2027.
- Ensuring that each AGA Business Unit (e.g., Australia BU) makes a contribution to reduce its carbon footprint. Identified and scoped initiatives include renewable energy, fleet electrification and efficiencies.
- Investing AGA capital of $350m and 3rd party funding of $750m. With most initiatives NPV-positive, decarbonisation adds value to AGA.
- Arranging a green funding facility of ~$250 – $300m to exclusively finance defined green initiatives.
- Establishing governance structures and teams to support delivery on the AGA decarbonisation initiative with clear mandates, roles and accountabilities. The programme will be supported through the AGA incentive scheme.

2.8.2 Paris Agreement

AGAA remains committed to the Paris Agreement and the journey towards a net-zero carbon future by limiting global warming to well below 2°C, preferably 1.5°C above pre-industrial levels by 2050.

AngloGold Ashanti committed collectively with members of the International Council on Mining and Metals (ICMM), to a goal of net zero Scope 1 and 2 greenhouse gas (GHG) emissions by 2050 or sooner in line with the ambitions of the Paris Agreement.

2.9 Offsets

As a facility covered by the Safeguard Mechanism, TGM is required to offset any emissions over the Safeguard Mechanism Baseline. The Renewable Energy Project is the primary solution for TGM to reduce emissions below the declining baseline as this is known technology with high confidence results.

With the reformed baseline commencing an annual decline from July 2023, AGAA is commencing a procurement strategy for the acquisition of Australian Carbon Credit Units (ACCUs) to offset emission generation which exceeds the basline in the interim period.

A vendor panel has been established, and AGAA actively purchases ACCUs each quarter for the estimated Safeguard Mechanism baseline liability arising from the previous quarter.

Any forecast of baseline exceedance will be calculated as part of the Business Planning Process and budget provision will be made for the purchase of ACCUs for this purpose.

2.10 Projects Operating Beyond 2050

TGM has a current life of mine until 2029.

3 ADAPTIVE MANAGEMENT, CONTINUOUS IMPROVEMENT AND REVIEW OF THE GHG EMP

TGM will apply adaptive management of the GHG EMP to ensure that it responds to relevant changes in policy, markets, technology and regional infrastructure. The GHG EMP will be reviewed every three years to identify reasonable and practicable measures to mitigate GHG emissions that could better address the objectives. As new technologies are commercialised and made available in the Australian market, TGM will seek to determine how such technologies could fit into the overall decarbonisation pathway.

An adaptive management approach in respect to the GHG EMP based on the plan-do-check-act (PDCA) approach.

Plan: Defining the objectives and actions (i.e. this GHG EMP)

Do: Implementing the Management Actions

Check: Monitoring and evaluating the success of the Management Actions

Act: Adjusting the Management Actions if required to meet the objectives

3.1 Continuous Improvement

AGAA is committed to continuous improvement throughout the life of mine to reduce emissions.

Assumptions and uncertainties contained within this GHGMP will be re-evaluated against collected data on a recurrent basis with a focus on continual improvement and the establishment of early response triggers and thresholds.

3.2 GHG EMP Review

The GHG EMP is proposed to be reviewed every 3 years in line with the GHG emission limit periods established by Condition 11-1. The review will:

- Assess the effectiveness of measures referred to in Condition 11-2(4).
- Enable consideration of best practice design, operation and available technologies to avoid, reduce and/or offset GHG emissions and/or reduce the emissions intensity of the proposal.

The next review and update of the GHG EMP will be undertaken in 2027. Any revisions made to this GHG EMP will trigger a requirement for the revised plan to be submitted to DWER for formal review and written confirmation that the net GHG emissions contained in Condition 11-1 will be met.

Additional triggers for review of the GHG EMP may include a change to mine planning, processing or the introduction of new equipment of infrastructure that has the potential to result in a significant change to the emissions profile.

4 REPORTING

4.1 NGERs

The National Greenhouse and Energy Reporting (NGER) scheme, established by the *National Greenhouse and Energy Reporting Act 2007* (NGER Act), is a single national framework for reporting and disseminating company information about greenhouse gas emissions, energy production, energy consumption and other information specified under NGER legislation.

As TGM exceeds the reporting threshold of 25,000 t of CO2-e emitted per annum, Scope 1 GHG emissions from TGM are required to be reported under the National Greenhouse and Energy Reporting Scheme. Reports are submitted annually prior to 31 October and are publicly available at https://cer.gov.au/schemes/national-greenhouse-and-energy-reporting-scheme.

The objectives of the NGER scheme are to:

- inform government policy
- inform the Australian public
- help meet Australia's international reporting obligations
- assist Commonwealth, state and territory government programmes and activities
- avoid duplication of similar reporting requirements in the states and territories.

The Clean Energy Regulator administers the NGER Act, its legislative instruments, and related policies and processes.

4.2 Compliance Assessment Report

Condition 4-6 of MS839 requires a Compliance Assessment Report (CAR) for TGM to be submitted annually to DWER on 24 December. The CAR requires AGAA to report on their compliance with the conditions within MS839. Condition 11 – 5 requires AGAA to report GHG emissions for the previous financial year within the CAR, specifically:

- The quantity of proposal GHG emissions; and
- The emissions intensity for the proposal.

The confirmed GHG EMP will be made publicly available on the Tropicana JV website within two (2) weeks of receiving written confirmation from the CEO as per Condition 11-6 of MS 839.

4.3 AGA Sustainability Report

AngloGold Ashanti's Sustainability Report is released annually and provides an overview of our sustainability performance from all operations globally, for the period 1 January 2023 to 31 December 2023. The report provides a high-level overview of Scope 1, 2 and 3 emissions. It also provides emissions reduction measures that are being implemented or planned to achieve net zero by 2050 (AGA, 2023).

5 STAKEHOLDER CONSULTATION

AGAA has ensured the GHGMP has been developed with the consultation of appropriate stakeholders. **Table 7** provides a list of stakeholders that AGAA has consulted with in the development of the GHGMP.

Table 7: Stakeholder Consultation for GHGMP

Stakeholder	Date	Comment
EPA Services	20 November 2023	Meeting with EPA Services to discuss the GHG EMP and Condition 11 GHG emission limits.
EPA Services	14 March 2023	Letter from EPA Services advising of extension for the submission of the GHGMP. Submission now due 28 Feb 2025
EPA Services	22 May 2024	Request for Information from an independent consultant that compares the emissions intensity of the Tropicana Gold project to best practice and normal practice for similar gold mines, particularly in Western Australia.
CDM Smith	2 July 2024	Memo provided to AGAA which addresses RFI request of EPA Services.
EPA	23 Aug 2024	EPA approves s45C amendment to Condition 11-1 which permits an amendment to emission allowances which are in line with BP24.

6 CHANGES TO GHG EMP

Currently not required. This document represents Version1 of the GHG EMP.

The next review of the GHGMP is due February/March 2028.

Changes to the GHG EMP will be documented in the table below (EPA, 2023a).

Complexity of changes			**Minor revisions** ☐	**Moderate revisions** ☐	**Major revisions** ☐	
Number of Key Environmental Factors			**One** ☐	**2-3** ☐	**> 3** ☐	
Date revision submitted to EPA: DD/MM/YYYY						
Proponent's operational requirement timeframe for approval of revision **Reason for Timeframe:**				**< One Month** ☐	**< Six Months** ☐ **> Six Months** ☐	**None** ☐
Item no.	**EMP section no.**	**EMP page no.**	**Summary of change**	**Reason for change**		
1.						
2.						
3.						

7 REFERENCES

AGA (2023), *Sustainability Report 2023*, https://reports.anglogoldashanti.com/23/wp-content/uploads/2024/04/AGA-SR23.pdf, AngloGold Ashanti

Beard, J. (1990), *Plant Life of Western Australia.*

Bureau of Meteorology (2020), *Climate statistics for Laverton*.

EPA (2010), *Ministerial Statement 839 – Tropicana Gold Project, Shire of Menzies, Shire of Laverton and the City of Kalgoorlie – Boulder*, Environmental Protection Authority, Western Australia

EPA (2023a), *Templates - Greenhouse Gas Environmental Management Plan*, Environmental Protection Authority, Western Australia

EPA (2023b), *Letter from - Greenhouse Gas Environmental Management Plan*, Environmental Protection Authority, Western Australia

EPA (2024), *Instructions: How to prepare Environmental Protection Act 1986 Part IV environmental management plans*, Environmental Protection Authority, Western Australia

Greenhouse Gas Protocol (2013), *Technical Guidance for Calculating Scope 3 Emissions*, World Resources Institute & World Business Council for Sustainable Development

ICMM (2023), *Scope 3 Emissions Target Setting Guidance*, International Council on Mining and Metals.