

5: TAHMOOR COAL PTY LTD - GROUP MEMBER

Name	TAHMOOR COAL PTY LTD
Australian Business Number (ABN)	97076663968
Australian Company Number (ACN)	076663968
Australian Registered Body Number (ARBN)	-
Trading Name	-
Street address line 1	c/o GFG Alliance Australia
Street address line 2	Level 28
Street address line 3	88 Phillip Street
Street city/suburb	Sydney
Street state	New South Wales
Street postcode	2000
Street country	AUSTRALIA

The following tables summarise total greenhouse gas emissions and energy data for all facilities that were under the operational control of this group member during the reporting period.

GREENHOUSE GAS EMISSIONS (t CO ₂ -e)		
Scope 1	Scope 2	Total of Scope 1 and Scope 2
1,260,004	83,312	1,343,316

ENERGY PRODUCED AND ENERGY CONSUMED (GJ)		
Energy Consumed Total	Energy Consumed Net	Energy Produced
1,418,933	1,418,933	52,557,369

GREENHOUSE GAS SCOPE 1 EMISSIONS BY GAS (t CO ₂ -e)						
Carbon Dioxide CO ₂	Methane CH ₄	Nitrous Oxide N ₂ O	Perfluorocarbons PFCs	Hydro Fluoro Carbons HFCs	Sulphur Hexafluoride SF ₆	Total
215,317	1,044,653	31	-	-	3	1,260,004

6: TAHMOOR COAL MINE - FACILITY

Name	TAHMOOR COAL MINE
Facility Street Address	Remembrance Drive TAHMOOR New South Wales 2573 AUSTRALIA
Geographic Coordinates	Latitude 34.250S / Longitude 150.576E
Facility location	-
Activity location	New South Wales
Location description	-
Activity description	-
ANZSIC Code	060 - Coal mining
Operational Control	TAHMOOR COAL PTY LTD
Number of Days with Operational Control	Full Year
Operational Control Dates	01/07/2018 - 30/06/2019
Grid Connected Electricity Generator	No

The following tables summarise total greenhouse gas emissions from operation of this facility during the period that it was under the operational control of TAHMOOR COAL PTY LTD.

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SCOPE 1 EMISSIONS					
EC = Energy Content Factor, Z = Energy Content, EF = Emission Factor					
Source Activity	Fuel / Criterion	Quantity	Energy Values (EC & Z)	Gas / Method	Scope 1 Emissions (t CO ₂ -e)
Source category: Fuel combustion Source of emissions: Stationary and Transport energy purposes (excluding electricity generation) Activity type: Emissions released from combustion of liquid fuels other than petroleum oils or greases - Stationary energy purposes	Fuel / Energy commodity: Diesel oil Fuel usage: combustion Criterion: AA	0 kL	EC (GJ/Unit): 38.6 Z (GJ): -	Gas: CO ₂ EF (kg CO₂-e / GJ): 69.9 Method: Method 1	0
				Gas: CH ₄ EF (kg CO₂-e / GJ): 0.1 Method: Method 1	0
				Gas: N ₂ O EF (kg CO₂-e / GJ): 0.2 Method: Method 1	0

<p>Source category: Fuel combustion</p> <p>Source of emissions: Stationary and Transport energy purposes (excluding electricity generation)</p> <p>Activity type: Emissions released from combustion of liquid fuels other than petroleum oils or greases - Stationary energy purposes</p>	<p>Fuel / Energy commodity: Diesel oil</p> <p>Fuel usage: combustion</p> <p>Criterion: A</p>	1,012 kL	<p>EC (GJ/Unit): 38.6</p> <p>Z (GJ): 39,063</p>	<p>Gas: CO2</p> <p>EF (kg CO2-e / GJ): 69.9</p> <p>Method: Method 1</p>	2,731
				<p>Gas: CH4</p> <p>EF (kg CO2-e / GJ): 0.1</p> <p>Method: Method 1</p>	4
				<p>Gas: N2O</p> <p>EF (kg CO2-e / GJ): 0.2</p> <p>Method: Method 1</p>	8
<p>Source category: Fuel combustion</p> <p>Source of emissions: Stationary and Transport energy purposes (excluding electricity generation)</p> <p>Activity type: Emissions released from combustion of liquid fuels other than petroleum oils or greases - Transport energy purposes</p>	<p>Fuel / Energy commodity: Gasoline (other than for use as fuel in an aircraft) - Transport</p> <p>Fuel usage: combustion</p> <p>Criterion: A</p>	6,534 kL	<p>EC (GJ/Unit): 34.2</p> <p>Z (GJ): 223</p>	<p>Gas: CO2</p> <p>EF (kg CO2-e / GJ): 67.4</p> <p>Method: Method 1</p>	15
				<p>Gas: CH4</p> <p>EF (kg CO2-e / GJ): 0.5</p> <p>Method: Method 1</p>	0
				<p>Gas: N2O</p> <p>EF (kg CO2-e / GJ): 1.8</p> <p>Method: Method 1</p>	0
<p>Source category: Fuel combustion</p> <p>Source of emissions: Stationary and Transport energy purposes (excluding electricity generation)</p> <p>Activity type: Emissions released from combustion of liquid fuels other than petroleum oils or greases - Transport energy purposes</p>	<p>Fuel / Energy commodity: Diesel oil - Transport</p> <p>Fuel usage: combustion</p> <p>Criterion: A</p>	2,829 kL	<p>EC (GJ/Unit): 38.6</p> <p>Z (GJ): 109</p>	<p>Gas: CO2</p> <p>EF (kg CO2-e / GJ): 69.9</p> <p>Method: Method 1</p>	8

				Gas: CH4 EF (kg CO2-e / GJ): 0.1 Method: Method 1	0
				Gas: N2O EF (kg CO2-e / GJ): 0.5 Method: Method 1	0
Source category: Fuel combustion Source of emissions: Stationary and Transport energy purposes (excluding electricity generation) Activity type: Emissions released from combustion of petroleum based oils or greases	Fuel / Energy commodity: Petroleum based oils (other than petroleum based oil used as fuel) Fuel usage: combustion Criterion: A	142.211 kL	EC (GJ/Unit): 38.8 Z (GJ): 5,518	Gas: CO2 EF (kg CO2-e / GJ): 13.9 Method: Method 1	77
Source category: Fuel combustion Source of emissions: Stationary and Transport energy purposes (excluding electricity generation) Activity type: Emissions released from combustion of petroleum based oils or greases	Fuel / Energy commodity: Petroleum based greases Fuel usage: combustion Criterion: A	10.3 kL	EC (GJ/Unit): 38.8 Z (GJ): 400	Gas: CO2 EF (kg CO2-e / GJ): 3.5 Method: Method 1	1
Source Total			45,313		2,844
Source category: Fugitive emissions Source of emissions: Underground mines Activity type: Emissions released from coal mine waste gas flared	Fuel / Energy commodity: Coal mine waste gas that is captured for combustion Fuel usage: combustion	26,733,743 m3	EC (GJ/Unit): 0.0377 Z (GJ): 1,007,862	Gas: CO2 EF (kg CO2-e / GJ): 49.12525 Method: Method 2	48,795
				Gas: CH4 EF (kg CO2-e / GJ): 4.1 Method: Method 2	3,150
				Gas: N2O EF (kg CO2-e / GJ): 0.03 Method: Method 2	23

Source category: Fugitive emissions Source of emissions: Underground mines Activity type: Fugitive emissions from extraction of coal	-	-	-	Gas: CO2 EF (kg CO2-e / GJ): - Method: Method 4	163,690
	-	-	-	Gas: CH4 EF (kg CO2-e / GJ): - Method: Method 4	1,001,343
Source category: Fugitive emissions Source of emissions: Underground mines Activity type: Fugitive emissions from post mining activities	-	-	-	Gas: CH4 EF (kg CO2-e / GJ): 0.017 Method: Method 1	40,156
Source Total			1,007,862		1,257,157
Source category: Industrial processes Source of emissions: Emissions of hydrofluorocarbons and sulphur hexafluoride gases Activity type: Emissions of sulphur hexafluoride gases from gas insulated switchgear and circuit breaker applications	-	335.94 tonnes	-	Gas: SF6 EF (kg CO2-e / GJ): - Method: Method 1	3
Source Total			-		3
Total			1,053,175		1,260,004

MATTERS TO BE IDENTIFIED (MTBI) PER SOURCE

Source of Emissions	MTBI	Methods	Activity	Activity Value	Unit
Underground mines	the tonnes of coal mine waste gas (CO2-e) flared	Method 1	-	51968	tonnes (CO2-e)(flared)
Underground mines	the tonnes of raw coal produced	Method 4	Fugitive emissions from extraction of coal	2362111	tonnes
		Method 1	Fugitive emissions from post mining activities	2362111	tonnes
	the tonnes of carbon dioxide captured for energy production on site	Method 4	Fugitive emissions from extraction of coal	0	tonnes (CO2-e)
	the tonnes of methane (CO2-e) captured for energy production on site	Method 4	Fugitive emissions from extraction of coal	0	tonnes (CO2-e)
	the tonnes of carbon dioxide captured and transferred off site	Method 4	Fugitive emissions from extraction of coal	8325	tonnes (CO2-e)
	the tonnes of methane (CO2-e) captured and transferred off site	Method 4	Fugitive emissions from extraction of coal	248249	tonnes (CO2-e)
	the tonnes of carbon dioxide flared	Method 4	Fugitive emissions from extraction of coal	11051	tonnes (CO2-e)
	the tonnes of methane (CO2-e) flared	Method 4	Fugitive emissions from extraction of coal	352692	tonnes (CO2-e)
	whether the mine is a gassy mine or a non-gassy mine	Method 1	Fugitive emissions from post mining activities	Gassy	

SCOPE 2 EMISSIONS

Activity Type	Amount	Units	Emission Factor (kg CO₂-e / unit)	Scope 2 Emissions (t CO₂-e)
Purchase and loss of electricity from main electricity grid in a State or Territory	101,599,419	kWh	0.82	83,312
			Total	83,312

ENERGY CONSUMED BY MEANS OF COMBUSTION FOR TRANSPORT

Activity Type	Fuel / Energy Commodity	Fuel Usage	Criterion	Sub-criterion	Amount	Units	Energy Content Factor (GJ/Unit)	Energy Content (GJ)
Emissions released from combustion of liquid fuels other than petroleum oils or greases - Transport energy purposes	Gasoline (other than for use as fuel in an aircraft) - Transport	combustion	A	-	6.534	kL	34.2	223
Emissions released from combustion of liquid fuels other than petroleum oils or greases - Transport energy purposes	Diesel oil - Transport	combustion	A	-	2.829	kL	38.6	109
Total								332

ENERGY CONSUMED BY MEANS OF COMBUSTION FOR PURPOSES OTHER THAN PRODUCING ELECTRICITY, PRODUCING A CHEMICAL OR METAL PRODUCT OR FOR TRANSPORT

Activity Type	Fuel / Energy Commodity	Fuel Usage	Criterion	Sub-criterion	Amount	Units	Energy Content Factor (GJ/Unit)	Energy Content (GJ)
Emissions released from combustion of liquid fuels other than petroleum oils or greases - Stationary energy purposes	Diesel oil	combustion	AA	-	0	kL	38.6	0
Emissions released from combustion of liquid fuels other than petroleum oils or greases - Stationary energy purposes	Diesel oil	combustion	A	-	1,012	kL	38.6	39,063
Emissions released from combustion of petroleum based oils or greases	Petroleum based oils (other than petroleum based oil used as fuel)	combustion	A	-	142.211	kL	38.8	5,518
Emissions released from combustion of petroleum based oils or greases	Petroleum based greases	combustion	A	-	10.3	kL	38.8	400
Emissions released from coal mine waste gas flared	Coal mine waste gas that is captured for combustion	combustion	-	-	26,733,743	m3	0.0377	1,007,862
Total								1,052,843

ENERGY CONSUMED BY MEANS OTHER THAN COMBUSTION

Activity Type	Fuel / Energy Commodity	Fuel Usage	Criterion	Sub-criterion	Amount	Units	Energy Content Factor (GJ/Unit)	Energy Content (GJ)
Purchase and loss of electricity from main electricity grid in a State or Territory	-	-	-	-	101,599,419	kWh	0.0036	365,758
Total								365,758

ENERGY PRODUCED

Activity Type	Fuel / Energy Commodity	Primary/Secondary	Amount	Units	Energy Content Factor	Converted Amount (GJ)
Energy content of fuel produced	Coking coal	Primary	1,694,301	tonnes	30	50,829,030
Energy content of fuel produced	Coal mine waste gas that is captured for combustion	Primary	26,733,743	m3	0.0377	1,007,862
Energy content of fuel produced	Coal mine waste gas that is captured for combustion	Primary	19,110,783	m3	0.0377	720,477
Total						52,557,369