




# **PUBLIC DISCLOSURE STATEMENT**

**HANWHA ENERGY RETAIL AUSTRALIA  
PTY LTD (TRADING AS NECTR)**

**PRODUCT CERTIFICATION  
FY2023–24**

Australian Government  
**Climate Active**  
**Public Disclosure Statement**



NAME OF CERTIFIED ENTITY	HANWHA ENERGY RETAIL AUSTRALIA PTY LTD trading as NECTR
REPORTING PERIOD	Financial year 1 July 2023 – 30 June 2024
DECLARATION	<p><i>To the best of my knowledge, the information provided in this public disclosure statement is true and correct and meets the requirements of the Climate Active Carbon Neutral Standard.</i></p>  <hr/> <p>CEO Ickdon Choe Date</p>



**Australian Government**  
**Department of Climate Change, Energy,  
the Environment and Water**

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Version 9.

# 1.CERTIFICATION SUMMARY

TOTAL EMISSIONS OFFSET	170,137 tCO <sub>2</sub> -e
CARBON OFFSETS USED	6.81% VCUs, 93.19% CERs
RENEWABLE ELECTRICITY	46.56% (corporate electricity only)
CARBON ACCOUNT	Prepared by: Hanwha Energy Retail Australia Pty Ltd
TECHNICAL ASSESSMENT	25/10/2024 South Pole Australia, Pty Ltd. Next technical assessment due: FY 2026

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## 2. CERTIFICATION INFORMATION

### Description of product certification

This product certification is for electricity supplied to customers.

- Functional unit: 1MWh of electricity sold to customers
- Offered as: opt-in product
- Life cycle: cradle-to-gate. As an electricity retailer, our operations cover the procurement and sale of electricity up to the point of delivery to customers. We do not have control or information over the usage or disposal of the electricity by the end consumer.
- The responsible entity for this product certification is Hanwha Energy Retail Australia Pty Ltd trading as Nectr ABN: 82 630 397 214.

This Public Disclosure Statement includes information for FY2023-24 reporting period.

Hanwha Energy Retail Australia Pty Ltd trading as Nectr is an Authorised Electricity Retailer. Under this product certification, Nectr is certifying all electricity supplied to customers under the following plans:

- Nectr 100% Clean
- Nectr 100% Clean Solar
- Nectr Super Solar
- Nectr Clean
- Nectr Friends Clean
- Nectr Online
- Nectr Hive Saver
- Nectr Hive Connect
- Nectr Hive Solar Saver
- Nectr Plan BEE
- Nectr BEEyond
- Nectr BEE Super FIT

The component of electricity drawn from the grid and supplied for these plans is assumed to have an average grid emissions profile for the location where it is sold.

A cradle to gate lifecycle assessment was undertaken for this product as there are no emissions associated with end of life that aren't already captured in the cradle to gate approach.

### **Functional Unit**

The function unit for this certification is a megawatt hour (MWh) of electricity usage, with emissions expressed in terms of tons of CO<sub>2</sub>-e per MWh of electricity sold.

### **Description of business**

Australian-based, Nectr was launched in late 2019 and is backed by a global leader in renewable energy, including solar power and battery storage technologies – Hanwha Energy. Currently, Nectr provides electricity and new energy solutions within QLD, NSW, ACT, SA, VIC and TAS. Nectr is a 100% owned affiliate of the Hanwha Energy group.

The Hanwha Energy group is a major investor of utility scale solar farms with co-investments in two operating solar farms - the Barcaldine solar farm (Queensland) and Bannerton solar farm (Victoria).

We believe that every Australian has the right to choose affordable renewable energy and we are committed to offering affordable smarter energy products and plans that are environmentally sustainable and will ultimately allow our customers to control and reduce their energy usage.

## 3. EMISSIONS BOUNDARY

### Inside the emissions boundary

All emission sources listed in the emissions boundary are part of the carbon neutral claim.

**Quantified** emissions have been assessed as 'attributable processes' of a product or service. These attributable processes are services, materials and energy flows that become the product or service, make the product or service and carry the product or service through its life cycle. These attributable emissions have been quantified in the carbon inventory.

**Non-quantified** emissions have been assessed as attributable and are captured within the emissions boundary, but are not measured (quantified) in the carbon inventory. All material emissions are accounted for through an uplift factor. Further detail is available at Appendix C.

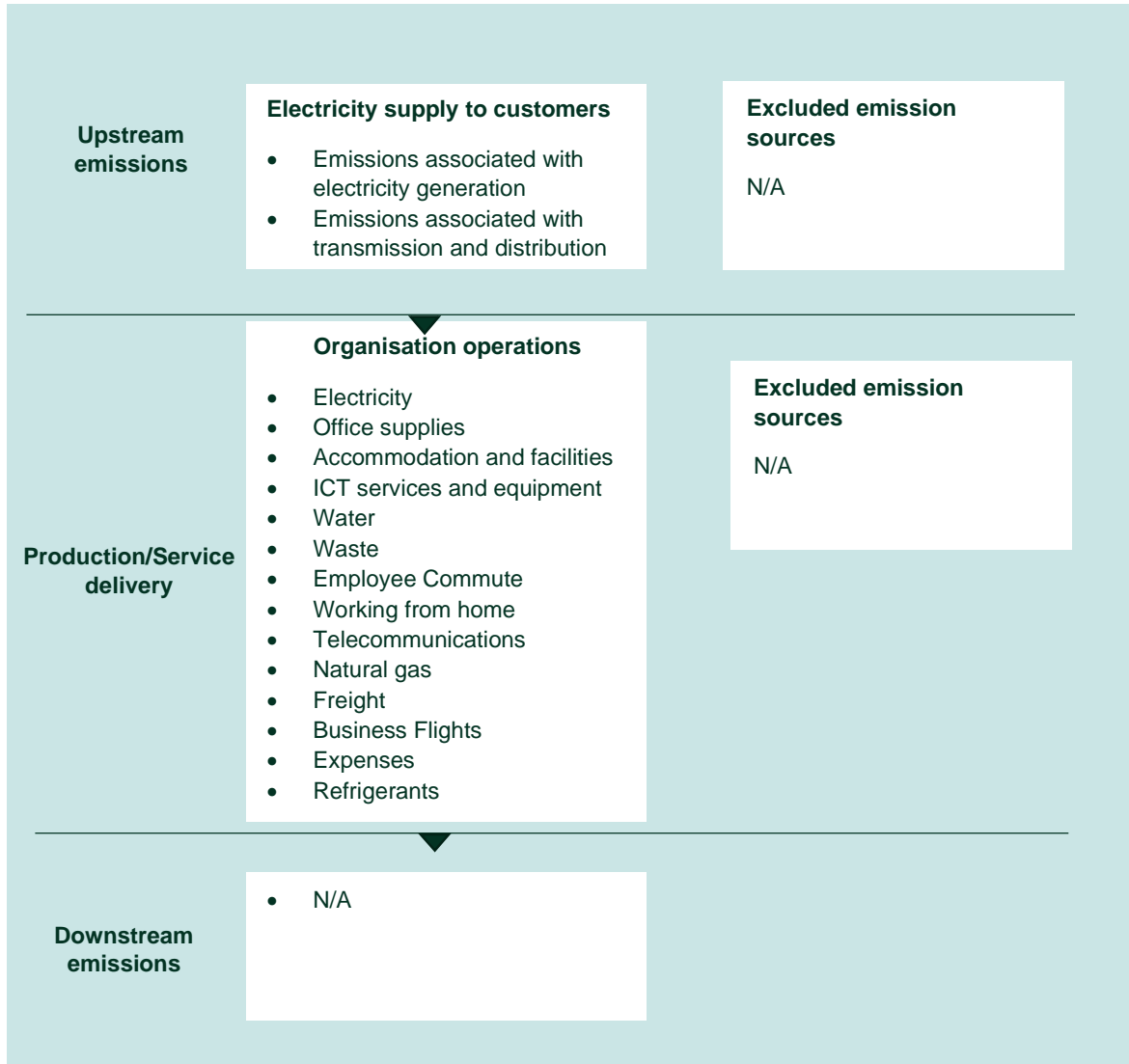
### Outside the emissions boundary

**Non-attributable** emissions have been assessed as not attributable to a product or service. They can be **optionally included** in the emissions boundary and therefore have been offset, or they can be listed as outside of the emissions boundary (and are therefore not part of the carbon neutral claim). Further detail is available at Appendix D.

Inside emissions boundary		Outside emission boundary
<p><b><u>Quantified</u></b></p> <p>Accommodation and facilities</p> <p>Electricity supplied to customers</p> <p>Electricity used by Nectr for its operations</p> <p>ICT services and equipment</p> <p>Stationary energy</p> <p>Water</p> <p>Waste</p> <p>Freight</p> <p>Business Flights</p> <p>Expenses</p> <p>Employee Commute</p> <p>Working from home</p> <p>Refrigerants</p> <p>Office supplies</p>	<p><b><u>Non-quantified</u></b></p> <p>N/A</p>	<p><b><u>Non-attributable</u></b></p> <p>N/A</p>
	<p><b><u>Optionally included</u></b></p> <p>N/A</p>	

## Product process diagram

The following diagram is cradle to gate.



## 4. EMISSIONS REDUCTIONS

### Emissions reduction strategy

At Hanwha Energy, we acknowledge the climate challenge and the urgency to take action. Australia is in a time of great shift in policy towards speeding up the transition to net zero and as responsible corporate citizens, we do our best to fulfill our social responsibilities for a sustainable future. We are committed to providing a greener path forward for all Australians. We understand that the environmental impact of our energy choices cannot be ignored any longer.

We have a long-proven track record in energy development and successful operation of global energy projects across diverse areas. Our goal is to meet the clean, safe and reliable energy needs of our customers and communities worldwide. Our deep experience and expertise in the energy industry will not only allow us to succeed today but also ensure that the sustainable energy for generations to come.

Hanwha Energy commits to reduce emissions across the value chain (scopes 1, 2 and 3) to net zero by 2050. Our vision is that customers will reduce their emissions as much as possible and the residual balance to be net zero will be achieved via carbon credits.

We are educating our customers to be energy efficient by publishing energy saving tips for customers on our website and social media channels. In addition, we are strongly advocating for customers to produce their own renewable energy by installing rooftop PV and battery storage systems via the products and promotions we offer to facilitate this.

Our own organizational energy consumption also is planned to be clean energy sourced from our own utility scale generation assets. We are also applying technology in our activities to continue reducing emissions incurred as part of our operations. We have transitioned to utilising digital channels as the primary avenue to communicate with customers and potential customers. Nectr continues to promote efficiency in all aspects of our operations, which will continue to achieve reduction in emissions. Any remaining emissions that are calculated from our activities will be offset with carbon certificates.

The current initiatives we are taking to achieve the emission reductions strategy include:

- Development of a portfolio of utility scale renewable energy projects
- Commercialising a range of residential solar and energy storage (behind the meter renewable energy plans) to compliment grid supplied solar electricity
- Utilising our Virtual Power Plant to optimise supply during periods of peak demand
- Continuing to enhance our phone app for our customers to assist them in monitoring their usage and address any of their queries

## **Emissions reduction actions**

Emissions reduction activities to date:

- Expanded promotion and customer uptake of distributed energy battery systems, with a focus on integrating these systems into home energy plans to reduce reliance on grid-supplied electricity.
- Ongoing development of virtual power plant (VPP) capability, supporting the future aggregation of customer-owned batteries to provide grid support and maximise renewable energy utilisation.
- Customer engagement campaigns highlighting the environmental benefits of home solar and battery systems, resulting in increased adoption of lower-emission energy solutions.

## 5. EMISSIONS SUMMARY

### Emissions over time

Emissions since base year			
		Total tCO <sub>2</sub> -e	Emissions intensity of the functional unit tCO <sub>2</sub> / MWh
Base year/Year 1:	2020–21	36,416.9	0.93
Year 1:	2021–22	97,808.41	0.90
Year 2:	2022–23	135,533.80	0.84
Year 3:	2023–24	170,136.10	0.828

### Significant changes in emissions

Significant changes in emissions			
Attributable process	Previous year emissions (t CO <sub>2</sub> -e)	Current year emissions (t CO <sub>2</sub> -e)	Reason for change
Carbon Neutral electricity sold to customers	134,532.77	169,495.64	There were increased sales in this reporting period which resulted in the increase in customer electricity.

### Use of Climate Active carbon neutral products, services, buildings or precincts

N/A

## Emissions summary

	Sum of Scope 1 emissions (tCO2-e)	Sum of Scope 2 emissions (tCO2-e)	Sum of Scope 3 emissions (tCO2-e)	Sum of Total emissions (t CO2-e)
Accommodation and facilities	0.00	0.00	9.38	9.38
Cleaning and chemicals	0.00	0.00	0.00	0.00
Construction materials and services	0.00	0.00	0.00	0.00
Electricity*	0.00	20.69	169498.20	169518.88
Food	0.00	0.00	0.00	0.00
Horticulture and agriculture	0.00	0.00	0.00	0.00
ICT services and equipment	0.00	0.00	61.34	61.34
Machinery and vehicles	0.00	0.00	0.00	0.00
Office equipment and supplies	0.00	0.00	9.97	9.97
Postage, courier and freight	0.00	0.00	9.87	9.87
Products	0.00	0.00	2.72	2.72
Professional services	0.00	0.00	442.94	442.94
Refrigerants	0.00	0.00	0.00	0.00
Roads and landscape	0.00	0.00	0.00	0.00
Stationary energy (gaseous fuels)	1.55	0.00	0.40	1.95
Stationary energy (liquid fuels)	0.02	0.00	0.00	0.02
Stationary energy (solid fuels)	0.00	0.00	0.00	0.00
Transport (air)	0.00	0.00	54.34	54.34
Transport (land and sea)	0.00	0.00	6.77	6.77
Waste	0.00	0.00	0.55	0.55
Water	0.00	0.00	0.42	0.42
Working from home	0.00	0.00	16.94	16.94
<b>Grand Total</b>	<b>1.57</b>	<b>20.69</b>	<b>170113.84</b>	<b>170136.10</b>

\*Includes electricity emissions from sold opt-in electricity product, and Nectr's own organisational electricity consumption.

Stage / Attributable Process / Source	tCO <sub>2</sub> -e
Total electricity sold as carbon neutral	169,495.64
Organisation emissions	640.46
<b>Attributable emissions (tCO<sub>2</sub>-e)</b>	<b>170,136.10</b>

Product / Service offset liability	
Emissions intensity per functional unit	0.828 tCO <sub>2</sub> / MWh
Emissions intensity per functional unit including uplift factors	N/A
Number of functional units covered by the certification	205,489
<b>Total emissions (tCO<sub>2</sub>-e) to be offset</b>	<b>170,137</b>

## 6. CARBON OFFSETS

### Eligible offsets retirement summary

#### Offsets retired for Climate Active certification

Type of offset unit	Quantity used for this reporting period	Percentage of total units used
Verified Carbon Units (VCUs)	11,578	6.81%
CERs	158,559	93.19%

Project name	Type of offset unit	Registry	Date retired	Serial number	Vintage	Total quantity retired	Quantity used in previous reporting periods	Quantity banked for future reporting periods	Quantity used for this reporting period	Percentage of total used this reporting period
7 MW Bundled Hydro power project at Himachal Pradesh of Raajratna Energy Holdings Pvt. Ltd	VCUs	Verra	20/11/2023	<a href="#">10567-229349065-229364701-VCS-VCU-1491-VER-IN-1-2323-01012017-31122017-0</a>	2017	15,637	4059	0	11,578	6.81%
Khe Bo Hydropower Project	CERs	ANREU	26/09/2024	<a href="#">30,302,411-30,462,264</a>	CP2	159,854	0	1295	158,559	93.19%

## **Co-benefits**

N/A

## 7. RENEWABLE ENERGY CERTIFICATE (REC) SUMMARY

### Renewable Energy Certificate (REC) Summary

N/A

## APPENDIX A: ADDITIONAL INFORMATION

N/A

## APPENDIX B: ELECTRICITY SUMMARY

There are two international best-practice methods for calculating electricity emissions – the location-based method and the market-based method. Reporting electricity emissions under both methods is called dual reporting.

Dual reporting of electricity emissions is useful, as it provides different perspectives of the emissions associated with a business's electricity usage.

### Location-based method

The location-based method provides a picture of a business's electricity emissions in the context of its location, and the emissions intensity of the electricity grid it relies on. It reflects the average emissions intensity of the electricity grid in the location (State) in which energy consumption occurs. The location-based method does not allow for any claims of renewable electricity from grid-imported electricity usage.

### Market-based method

The market-based method provides a picture of a business's electricity emissions in the context of its renewable energy investments. It reflects the emissions intensity of different electricity products, markets and investments. It uses a residual mix factor (RMF) to allow for unique claims on the zero emissions attribute of renewables without double-counting.

**The below electricity emissions summary represents Nectr's own organisational electricity consumption only, and do not represent electricity sold to customers. These are calculated using a market-based approach.**

Market Based Approach Summary			
Market Based Approach	Activity Data (kWh)	Emissions (kg CO <sub>2</sub> -e)	Renewable Percentage of total
Behind the meter consumption of electricity generated	0	0	0%
<b>Total non-grid electricity</b>	<b>0</b>	<b>0</b>	<b>0%</b>
LGC purchased and retired (kWh) (including PPAs)	0	0	0%
GreenPower	13,307	0	28%
Climate Active certified - Precinct/Building (voluntary renewables)	0	0	0%
Climate Active certified - Precinct/Building (LRET)	0	0	0%
Climate Active certified - Precinct/Building jurisdictional renewables (LGCs surrendered)	0	0	0%
Climate Active certified - Electricity products (voluntary renewables)	0	0	0%
Climate Active certified - Electricity products (LRET)	0	0	0%
Climate Active certified - Electricity products jurisdictional renewables (LGCs surrendered)	0	0	0%
Jurisdictional renewables (LGCs surrendered)	0	0	0%
Jurisdictional renewables (LRET) (applied to ACT grid electricity)	0	0	0%
Large Scale Renewable Energy Target (applied to grid electricity only)	8,947	0	19%
Residual electricity	25,540	23,241	0%
<b>Total renewable electricity (grid + non grid)</b>	<b>22,254</b>	<b>0</b>	<b>47%</b>
<b>Total grid electricity</b>	<b>47,794</b>	<b>23,241</b>	<b>47%</b>
<b>Total electricity (grid + non grid)</b>	<b>47,794</b>	<b>23,241</b>	<b>47%</b>
Percentage of residual electricity consumption under operational control	100%		
<b>Residual electricity consumption under operational control</b>	<b>25,540</b>	<b>23,241</b>	
Scope 2	22,733	20,687	
Scope 3 (includes T&D emissions from consumption under operational control)	2,807	2,554	
<b>Residual electricity consumption not under operational control</b>	<b>0</b>	<b>0</b>	
Scope 3	0	0	

<b>Total renewables (grid and non-grid)</b>	<b>46.56%</b>
<b>Mandatory</b>	<b>18.72%</b>
<b>Voluntary</b>	<b>27.84%</b>
<b>Behind the meter</b>	<b>0.00%</b>
<b>Residual scope 2 emissions (t CO<sub>2</sub>-e)</b>	<b>20.69</b>
<b>Residual scope 3 emissions (t CO<sub>2</sub>-e)</b>	<b>2.55</b>
<b>Scope 2 emissions liability (adjusted for already offset carbon neutral electricity) (t CO<sub>2</sub>-e)</b>	<b>20.69</b>
<b>Scope 3 emissions liability (adjusted for already offset carbon neutral electricity) (t CO<sub>2</sub>-e)</b>	<b>2.55</b>
<b>Total emissions liability (t CO<sub>2</sub>-e)</b>	<b>23.24</b>
<i>Figures may not sum due to rounding. Renewable percentage can be above 100%</i>	

Location Based Approach Summary						
Location Based Approach	Activity Data (kWh) total	Under operational control			Not under operational control	
Percentage of grid electricity consumption under operational control	100%	(kWh)	Scope 2 Emissions (kg CO <sub>2</sub> -e)	Scope 3 Emissions (kg CO <sub>2</sub> -e)	(kWh)	Scope 3 Emissions (kg CO <sub>2</sub> -e)
NSW	47,794	47,794	32,500	2,390	0	0
<b>Grid electricity (scope 2 and 3)</b>	<b>47,794</b>	<b>47,794</b>	<b>32,500</b>	<b>2,390</b>	<b>0</b>	<b>0</b>
ACT	0	0	0	0		
NSW	0	0	0	0		
SA	0	0	0	0		
VIC	0	0	0	0		
QLD	0	0	0	0		
NT	0	0	0	0		
WA	0	0	0	0		
TAS	0	0	0	0		
<b>Non-grid electricity (behind the meter)</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>		
<b>Total electricity (grid + non grid)</b>	<b>47,794</b>					

<b>Residual scope 2 emissions (t CO<sub>2</sub>-e)</b>	<b>32.50</b>
<b>Residual scope 3 emissions (t CO<sub>2</sub>-e)</b>	<b>2.39</b>
<b>Scope 2 emissions liability (adjusted for already offset carbon neutral electricity) (t CO<sub>2</sub>-e)</b>	<b>32.50</b>
<b>Scope 3 emissions liability (adjusted for already offset carbon neutral electricity) (t CO<sub>2</sub>-e)</b>	<b>2.39</b>
<b>Total emissions liability (t CO<sub>2</sub>-e)</b>	<b>34.89</b>

## Operations in Climate Active buildings and precincts

Operations in Climate Active buildings and precincts	Electricity consumed in Climate Active certified building/precinct (kWh)	Emissions (kg CO <sub>2</sub> -e)
N/A	0	0
<p><i>Climate Active carbon neutral electricity is not renewable electricity. These electricity emissions have been offset by another Climate Active member through their building or precinct certification. This electricity consumption is also included in the market based and location-based summary tables. Any electricity that has been sourced as renewable electricity by the building/precinct under the market-based method is outlined as such in the market based summary table.</i></p>		

## Climate Active carbon neutral electricity products

Climate Active carbon neutral product used	Electricity claimed from Climate Active electricity products (kWh)	Emissions (kg CO <sub>2</sub> -e)
N/A	0	0
<p><i>Climate Active carbon neutral electricity is not renewable electricity. These electricity emissions have been offset by another Climate Active member through their electricity product certification. This electricity consumption is also included in the market based and location-based summary tables. Any electricity that has been sourced as renewable electricity by the electricity product under the market-based method is outlined as such in the market based summary table.</i></p>		

## APPENDIX C: INSIDE EMISSIONS BOUNDARY

### Non-quantified emission sources

The following emissions sources have been assessed as attributable, are captured within the emissions boundary, but are not measured (quantified) in the carbon inventory. These emissions are accounted for through an uplift factor. They have been non-quantified due to one of the following reasons:

1. **Immaterial** <1% for individual items and no more than 5% collectively
2. **Cost effective** Quantification is not cost effective relative to the size of the emission but uplift applied.
3. **Data unavailable** Data is unavailable but uplift applied. A data management plan must be put in place to provide data within 5 years.
4. **Maintenance** Initial emissions non-quantified but repairs and replacements quantified.

Relevant non-quantified emission sources	Justification reason
N/A	

## Excluded emission sources

Attributable emissions sources can be excluded from the carbon inventory, but still considered as part of the emissions boundary if they meet **all three of the below criteria**. An uplift factor may not necessarily be applied.

1. A data gap exists because primary or secondary data cannot be collected (**no actual data**).
2. Extrapolated and proxy data cannot be determined to fill the data gap (**no projected data**).
3. An estimation determines the emissions from the process to be **immaterial**).

Emissions Source	No actual data	No projected data	Immaterial
N/A			

## Data management plan for non-quantified sources

There are no non-quantified sources in the emission boundary that require a data management plan.

## APPENDIX D: OUTSIDE EMISSION BOUNDARY

Non-attributable emissions have been assessed as not attributable to a product or service (do not carry, make or become the product/service) and are therefore not part of the carbon neutral claim. To be deemed attributable, an emission must meet two of the five relevance criteria. Emissions which only meet one condition of the relevance test can be assessed as non-attributable and therefore are outside the carbon neutral claim. Non-attributable emissions are detailed below.

1. **Size** The emissions from a particular source are likely to be large relative to other attributable emissions.
2. **Influence** The responsible entity could influence emissions reduction from a particular source.
3. **Risk** The emissions from a particular source contribute to the responsible entity's greenhouse gas risk exposure.
4. **Stakeholders** The emissions from a particular source are deemed relevant by key stakeholders.
5. **Outsourcing** The emissions are from outsourced activities that were previously undertaken by the responsible entity or from outsourced activities that are typically undertaken within the boundary for comparable products or services.

## Non-attributable emissions sources summary

Emission sources tested for relevance	Size	Influence	Risk	Stakeholders	Outsourcing	Justification
N/A						N/A



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