

National Carbon Offset Standard  
Carbon Neutral Program  
Public Disclosure Summary



An Australian Government Initiative



Powershop Australia Pty Ltd

**Public Disclosure Summary**

Certification: Electricity Product

Period: 1 July 2016 – 30 June 2017



**Australian Government**

**Department of the Environment**

## Summary

Meridian Energy Australia Pty Ltd ("MEA") has a proud heritage of harnessing our earth's energy in generating affordable electricity through the Mt Millar and Mt Mercer wind farms –enough to supply approximately 116,000 Australian households.<sup>1</sup>

MEA's retail arm Powershop Australia Pty Ltd ("Powershop") seeks to drive investment in community based renewable energy products through Powershop's 'Your Neighbourhood Solar' and 'Your Community Energy' electricity products.

This Public Disclosure Statement ("**PDS**") supports Powershop's ongoing accreditation under the National Carbon Offset Standard, Carbon Neutral Program that covers Powershop's Carbon Neutral electricity 'Product' accreditation. It details for FY2017:

- the total of our existing emissions from this Product;
- how we define and measure those emissions; and
- how we use our purchases of Large-scale Generation Certificates ("LGC"), GreenPower and Carbon Emissions Reduction ("CER") carbon offsets to neutralise that impact.

The MEA Group (which includes Powershop) operates on a carbon neutral basis for its 'Organisation' accreditation and surrenders LGCs and CERs to neutralise its Scope 1, 2 and 3 emissions.

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<sup>1</sup> Based on average household usage of 5 MWh per annum, Mt Mercer approx. 36,000 households and Mt Mercer approx. 80,000 households.

## 1. Organisation and Emission details

**Table 1: Organisation and Product Information**

<b>Organisation Name</b>	Powershop Australia Pty Ltd	
<b>Name of the subject(s) of certification</b>	Powershop Carbon Neutral electricity	
<b>Type of certification (tick all applicable)</b>	<input type="checkbox"/> Organisation <input type="checkbox"/> Part of organisation	<input checked="" type="checkbox"/> Product/service <input type="checkbox"/> Event
<b>Reporting year period</b>	1st July 2016	30th June 2017
<b>Emissions in this reporting year</b>	<i>tonnes CO<sub>2</sub>-e</i>	
	Total Emissions	474,485
	Total Offsets	474,902
	Net emissions	(417)
<b>Base year period</b>	From 1st July 2014	30 June 2015
<b>Emissions in the previous year</b>	356,729 tCO <sub>2</sub> -e (reduced to 0 t CO <sub>2</sub> -e by offsets)	

## 2. Description of Organisation Activities

In addition to MEA generating renewable electricity, MEA also:

- manages the wholesale electricity trading in the Australian National Electricity Market ('**NEM**'); and
- manages the purchasing of electricity from the NEM for Powershop's retail business so that Powershop can sell that electricity Product to customers.

This PDS relates specifically to Powershop's electricity '*Product*' that is created by Powershop when it buys electricity from the NEM and on-sells that electricity to its retail customers under the Powershop brand. It is this Product which is accredited under the National Carbon Offset Standard ("NCOS") Carbon Neutral Program.

Further information about Powershop can be found at [www.powershop.com.au](http://www.powershop.com.au)

Further information about MEA can be found at [www.meridianenergy.com.au](http://www.meridianenergy.com.au).

## 3. Scope & System Boundary

Powershop retails electricity bought from the NEM to end user customers in Victoria, New South Wales and Queensland. In calculating the GHG emissions from electricity sales to Powershop customers, we have applied Scope 2 and Scope 3 emission factors to the quantity of electricity purchased from the NEM. The boundary of Powershop's Carbon Neutral electricity Product incorporates GHG emissions associated with extraction, production and transport of fuels, electricity generation, transmission and distribution to Powershop customers.

## 4. Purchase of GreenPower, Retirement of GreenPower Eligible LGCs and CERs

Powershop surrendered Mandatory LGCs, GreenPower LGCs and CERs<sup>2</sup> to ensure its retail electricity was carbon neutral for the FY2017 reporting period. The details of those instruments surrendered are set out in the following tables.

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<sup>2</sup> LGCs = 1MWh, CERs = 1 tCO<sub>2</sub>-e

**Table 2 -GreenPower LGC's pertaining to Powershop Retail Electricity Product (Quantification)**

Type	Volume	Unit	tCO <sub>2</sub> -e	Status
GreenPower Compliance	13,367	MWh	12,298	Surrendered Part of surrender June 2017: WD00VC17 388,585-399,845 (1,973) WD00SA06 2,743 – 14,136 (11,394)
GreenPower Compliance	13,452	MWh	12,241	Purchased To be surrendered in 2018

**Table 3: CERs Voluntarily Surrendered for Powershop 'Product'**

Details of CERs voluntarily Surrendered		
Quantity	Serial number	Date of surrender
61,116	9,439,822 - 9,500,937	August 2017
66,438	9,372,137 - 9,438,574	August 2017
2,889	5,215,371 – 5,218,259	August 2017
13,387	1,681,547 - 1,694,933	August 2017
26,754	1,654,793 - 1,681,546	August 2017
14,098	4,873,256 - 4,887,353	August 2017
152,300	4,376,179 - 4,528,478	August 2017
5,510	933,241 - 938,750	August 2017
3,201	920,859 - 924,058	August 2017
9,212	4,282,590 - 4,291,801	August 2017
5,978	52,908,704 - 52,914,682	August 2017
30,005	74,759,430 - 74,789,435	August 2017
77,549	1,553,648 - 1,631,197	August 2017
5,000	9,862,489 – 9,867,488	February 2018

Registry: Australian National Registry of Emissions Units (ANREU).

## 5. Purchase of NCOS Carbon Neutral Products

The purchase of carbon neutral products will be reported at the MEA group level as part of MEA's corporate accreditation.

## 6. Total Carbon Footprint

The total electricity sold is derived from AEMO invoices.

Powershop lower the total carbon footprint to zero by the voluntary surrender of CERs.

Powershop and MEA meet its LGC obligations under the Renewable Energy target. Each LGC is the equivalent of 1MWh of electricity and each CER represents the equivalent of 1 tonne of CO<sub>2</sub>-e.

The emissions from the electricity purchased by Powershop and sold to customers are categorised as:

- Scope 2 emission i.e.:

*Indirect GHG emissions (Scope 2): The release of greenhouse gas as a result of electricity generation, heating, cooling or steam - that is consumed by a facility<sup>3</sup>*

- Scope 3 emissions i.e.:

*Indirect GHG emissions (Scope 3): Emissions are all indirect emissions that occur as a consequence of the activities of the organisation, but occur from sources not owned or controlled by the organisation.*

The tCO<sub>2</sub>-e produced by the generation of this electricity has been calculated by:

- 1) calculating the volume (MWh) of electricity purchased by Powershop customers in each state (Victoria, Queensland and NSW) as shown on AEMO invoices. Calculate Powershop customers' voluntary GreenPower uptake using National Meter Identifier ("NMI") data. GreenPower eligible LGCs are then surrendered equal to the amount of voluntary GreenPower bought by customers; then
- 2) the total customer GreenPower uptake is then netted off the total amount of electricity sold to Powershop customers; then
- 3) Scope 2 emissions are then calculated by multiplying the remainder electricity volume (MWh) by the relevant Emission Factors for each state as shown in the National Greenhouse Accounts Factors (2016) at: Table 5 (a): Indirect (scope 2) emission factors for consumption of purchased electricity from the grid; and
- 4) to calculate Scope 3 emissions Powershop calculate the electricity solar generation from Powershop customers (data derived from Powershop's billing system) in each state. This solar generation volume is then netted off the remainder electricity volume. The remainder is then multiplied by the relevant Emission Factors for each state as shown in the National Greenhouse Accounts Factors (2016) at: the third bullet point that follows Table 41: Scope 2 and Scope 3 emission factors – consumption of purchased electricity by end users.<sup>4</sup>
- 5) The sum of these multiplications is the total of tonnes CO<sub>2</sub>-e for the Powershop electricity Product; then
- 6) CERs are surrendered to cancel out the remaining tCO<sub>2</sub> -e.

The NGA Factors continue to be an appropriate source because:

- NGA is listed as an appropriate source under section 2 of the National Carbon Offset Standard;
- NGA is published by the Department of Environment, the same entity that regulates NCOS;
- the emissions analysis within the NGA covers manufacture (including of materials). Electricity production, electricity distribution, electricity use and then the end of life activities associated with decommissioning, dismantling and recycling the facility; and

<sup>3</sup> National Carbon Offset Standard-V4

<sup>4</sup> The point of metering that Powershop uses to calculate its electricity products carbon footprint is at the Node (i.e. before the loss in the distribution networks) as such it is appropriate when calculating the Products Scope 3 emissions to use the same emissions factors as the distribution network.

- the methods used to generate the default factors are consistent with international guidelines and are subject to international expert review each year.<sup>5</sup>

The following is a copy of the relevant sections of the tables setting out those emissions factors from the National Greenhouse Accounts Factors document. (Note: Table numbering here is from the NGA document).

**Table 4 (a): Indirect (Scope 2) emission factors for consumption of purchased electricity from the grid<sup>6</sup>**

State or Territory	Emission factor kg CO <sub>2</sub> -e/kWh
New South Wales and Australian Capital Territory	0.84
Victoria	1.09
Queensland	0.78
South Australia	0.53
South West Interconnected System (SWIS) in Western Australia	0.72
North Western Interconnected System (NWIS) in Western Australia	0.64
Darwin Katherine Interconnected System (DKIS) in the Northern Territory	0.56
Tasmania	0.12
Northern Territory	0.67

**Example: calculation of emissions from electricity consumption**

A company in New South Wales consumes 100,000 kWh of purchased electricity from the grid.

Emissions of greenhouse gases (scope 2) in tonnes of CO<sub>2</sub>-e are estimated as follows:

$$= 100,000 \times (0.84 / 1000)$$

$$= 84 \text{ tonnes.}$$

Total scope 2 GHG emissions = 84 tonnes CO<sub>2</sub>-e

Electricity emission factors for end users

Table 41: Scope 2 and 3 emissions factors - consumption of purchased electricity by end users. Dot point three:

- Scope 3 emission factors for transmission and distribution network operators are lower as they include only emissions attributable to the extraction, production and transport of fuels and not emissions attributable to the electricity lost in transmission and distribution networks. Transmission and distribution network operators should use the scope 2 factors in the table above and the following latest estimate scope 3 factors for 2012/13: NSW and ACT: 0.03kg CO<sub>2</sub>-e/kWh, VIC: 0.01kg CO<sub>2</sub>-e/kWh, QLD: 0.04kg

<sup>5</sup> This approach was discussed and approved by the Department of Environment on 3 August 2015.

<sup>6</sup> National Greenhouse Accounts Factors – Updated August 2015 (pg. 19)

CO<sub>2</sub>-e/kWh, SA: 0.05kg CO<sub>2</sub>-e/kWh, WA: 0.02kg CO<sub>2</sub>-e/kWh, TAS: 0.02kg CO<sub>2</sub>-e/kWh, NT:0.05 kg CO<sub>2</sub>-e/kWh.

The application of this calculation for the FY2017 is shown in the following tables; *Table 2 – Powershop net Carbon Footprint* and *Table 3 – Emissions to be offset by CERs from the Powershop Retail Electricity Product (Quantification)*.



**Table 3 - Powershop net Carbon Footprint**

<b>Large-scale Generation Certificates (LGC) and GreenPower</b>	<b>2016 (July - Dec)</b>	<b>2017 (Jan - June)</b>	<b>Totals for FY2017</b>
<b>Electricity purchases VIC (MWh)</b>	154,234	155,054	<b>309,288</b>
<b>GreenPower Purchases VIC (MWh)</b>	7,895	7,861	<b>15,756</b>
<b>Electricity purchases NSW (MWh)</b>	70,379	82,690	<b>153,069</b>
<b>GreenPower Purchases NSW (MWh)</b>	5,229	5,436	<b>10,665</b>
<b>Electricity purchases QLD (MWh)</b>	6	3,733	<b>3,739</b>
<b>GreenPower Purchases QLD (MWh)</b>	0	155	<b>155</b>
<b>National Totals (MWh)</b>	<b>237,743</b>	<b>254,929</b>	<b>492,672</b>
<b>GreenPower LGC Liability</b>			
<b>GreenPower LGCs Surrendered (period)</b>	13,367	0	
<b>GreenPower LGC Liability Outstanding</b>	(0)	13,452	LGCs to be surrendered in March 2018 in accordance with market practices
<b>Electricity Purchases VIC – Net of voluntary GreenPower LGCs (MWHrs)</b>	146,339	147,193	<b>293,532</b>
<b>Electricity Purchases NSW – Net of voluntary GreenPower LGCs (MWHrs)</b>	70,119	80,737	<b>142,404</b>
<b>Electricity Purchases QLD – Net of voluntary GreenPower LGCs (MWHrs)</b>	5	3,665	<b>3,584</b>
<b>Net National Totals (MWh)</b>	<b>211,495</b>	<b>228,025</b>	<b>439,520</b>

**Table 4 – Emissions to be offset by CERs from the Powershop Retail Electricity Product (Quantification)**

Scope	Emission source	Source of activity data	Methodology reference	Energy content factor	Emission factor	Activity data	Unit	t CO <sub>2</sub> -e
2	Electricity purchased from the NEM and sold to Powershop's Victorian customers (net of GreenPower uptake)	AEMO Finalised Market Invoices	<p>NGA Factors - August 2016</p> <p>Table 5: Indirect (scope 2) emission factors for consumption of purchased electricity from the grid - Victoria.</p> <p>Powershop purchased 325,044 MWh of electricity from the NEM to sell to Victorian customers.</p> <p>Powershop sold 15,757 MWh worth of accredited GreenPower to Victorian customers during the 2016-17 financial year.</p>	N/A	kg CO <sub>2</sub> -e/KWh 1.09	309,287	MWh	<b>337,123</b>
2	Electricity purchased from the NEM and sold to Powershop's NSW customers (net of GreenPower uptake)	AEMO Finalised Market Invoices	<p>NGA Factors - August 2016</p> <p>Table 5: Indirect (scope 2) emission factors for consumption of purchased electricity from the grid - NSW.</p> <p>Powershop purchased 163,734 MWh of electricity from the NEM to sell to NSW customers.</p> <p>Powershop sold 10,665 MWh worth of accredited GreenPower to NSW customers during the 2016-17 financial year.</p>	N/A	kg CO <sub>2</sub> -e/KWh 0.84	153,069	MWh	<b>128,578</b>



2	Electricity purchased from the NEM and sold to Powershop's QLD customers (net of GreenPower uptake)	AEMO Finalised Market Invoices	<p>NGA Factors - August 2016</p> <p>Table 5: Indirect (scope 2) emission factors for consumption of purchased electricity from the grid - QLD.</p> <p>Powershop purchased 3,894 MWh of electricity from the NEM to sell to QLD customers.</p> <p>Powershop sold 155 MWh worth of accredited GreenPower to NSW customers during the 2016-17 financial year.</p>	N/A	kg CO <sub>2</sub> -e/KWh 0.78	3,739	MWh	2,916
3	Electricity purchased from the NEM and sold to Powershop's Victorian customers (net of GreenPower uptake and solar generated by Powershop customers)	AEMO Finalised Market Invoices and Powershop customer electricity usage data at the NMI	<p>NGA Factors - August 2016</p> <p>Third bullet point in Notes that follow Table 41: Scope 2 and 3 emissions factors - consumption of purchased electricity by end users (pg. 70).</p> <p>Powershop supplied 306,585 MWh of electricity (net of solar generated electricity by customers) from the NEM to Victorian customers.</p> <p>Powershop sold 15,575 MWh worth of accredited GreenPower to Victorian customers during the 2016-17 financial year.</p>	N/A	kg CO <sub>2</sub> -e/KWh 0.01	290,828	MWh	2,908



3	Electricity purchased from the NEM and sold to Powershop's NSW customers (net of GreenPower uptake and solar generated by Powershop customers)	AEMO Finalised Market Invoices and Powershop customer electricity usage data at the NMI	<p>NGA Factors - August 2016 Third bullet point in Notes that follow Table 41: Scope 2 and 3 emissions factors - consumption of purchased electricity by end users (pg. 70).</p> <p>Powershop supplied 152,020 MWh of electricity (net of solar generated electricity by customers) from the NEM to sell customers.</p> <p>Powershop sold 10,665 MWh worth of accredited GreenPower NSW customers during the 2016-17 financial year.</p>	N/A	kg CO <sub>2</sub> -e/KWh 0.02	141,355	MWh	2,827
3	Electricity purchased from the NEM and sold to Powershop's QLD customers (net of GreenPower uptake and solar generated by Powershop customers)	AEMO Finalised Market Invoices and Powershop customer electricity usage data at the NMI	<p>NGA Factors - August 2016 Third bullet point in Notes that follow Table 41: Scope 2 and 3 emissions factors - consumption of purchased electricity by end users (pg. 70).</p> <p>Powershop supplied 3,469 MWh of electricity (net of solar generated electricity by customers) from the NEM to sell customers.</p> <p>Powershop sold 155 MWh worth of accredited GreenPower QLD customers during the 2016-17 financial year.</p>	N/A	kg CO <sub>2</sub> -e/KWh 0.04	3,245	MWh	133
<b>Total Footprint</b>								<b>474,485</b>

## 7. Carbon Offset Purchases and Retirement for this Reporting Period

Powershop will utilise CERs for offsetting all included Scope 1, Scope 2 and Scope 3 emissions associated with the Powershop Carbon Neutral Electricity Product.

Excess offsets that have been surrendered for this FY17 reporting period will be banked for future use in the following FY18 reporting period. Only NCOS eligible carbon offsets will be utilised in this activity.

Surplus offsets are to be carried forward into the next reporting period for future periods are shown in the following table.

**Table 5: Surplus Offset Cancellations from FY2017 – banked for future use**

Details of CERs Voluntarily Surrendered		
Quantity	Serial numbers	Date of surrender
417	9,867,071 – 9,867,488	February 2018

## 8. Emission Reduction Measures

The MEA business will continue to surrender LGCs to comply with RET obligations and will continue to purchase 100% accredited GreenPower for the office. Both of the measures aim to reduce the emissions associated with operations.

In addition to offsetting all emissions associated with this organisational boundary, the Powershop retail arm encourages emission reductions through the following measures:

- Powershop’s smartphone application and online portal is available free of charge for all Powershop customers. These tools allow customers to easily track their electricity usage and make informed decisions to reduce their electricity usage and therefore reduce emissions.
- Hepburn Wind is a partnership between Powershop and Hepburn Wind Community Project. The partnership began in late 2016 and means that MEA will assist in the management of the day-to-day operations of Hepburn Wind’s two wind turbines. Powershop will also facilitate Hepburn Wind’s interaction with the NEM enabling Hepburn Wind to sell electricity and Renewable Energy Certificates, delivering value to community shareholders.
- Your Neighbourhood Solar electricity product is a power pack available in Powershop’s online store. This initiative gives Powershop customers the opportunity to support other Powershop customers with solar panels. When customers choose to purchase this pack they pay a small premium. The amounts raised as a result of customers paying the premium are pooled and redistributed to Powershop customers with solar systems. This is Powershop’s first step toward peer-to-peer electricity trading.
- Your Community Energy electricity product is a power pack available in Powershop’s online store. This initiative gives Powershop customers the chance to help raise funds for community renewable energy projects. When customers choose to purchase this pack they pay a small premium. The amounts raised as

a result of customers paying the premium are pooled and distributed to community renewable energy projects.

## 9. Marketing and Communication of Carbon Neutral Certification

Powershop use the NCOS trademark across a number of different marketing and communication channels.

Use of the NCOS trademark is captured in a register. This register is maintained by Powershop's marketing team. MEA does not use the NCOS trademark as part of their organisational accreditation.

### Use of the trademark

Powershop customers Account Review (electricity bill):

#### Carbon emissions offset

Powershop has fully offset all the electricity we supply, at no extra cost to you. Because the increase in CO2 levels (greenhouse gasses) in the atmosphere is a global problem, Powershop has chosen to use Certified Emissions Reduction units to achieve carbon neutrality.

More information can be found here: [The What, Why and How of carbon offsetting at Powershop.](#)



0.28829 tonnes\*  
For the period 19 Jul – 20 Aug



Your energy usage is certified  
100% carbon neutral under  
the Australian Government's  
Carbon Neutral Program

\* in addition, if you purchase our 100% GreenPower product, you are also supporting the development and promotion of renewable energy in Australia. Your mum would be proud

Powershop website – Environment & Community page:

## Powershop and Renewable Energy

Ranked Australia's greenest power company by Greenpeace for two years running and backed by Meridian Energy, Australasia's largest 100% renewable generator, Powershop is a modern electricity provider passionate about the future of renewable energy in Australia.

Renewable Generation

Carbon Neutral

Community Energy

GreenPower

Energy Efficiency

**Carbon Neutral**



As a Powershop customer, all of your energy usage is certified carbon neutral at no extra cost.

Meridian Energy Australia, one of our group companies, has been certified carbon neutral against the requirements of the National Carbon Offset Standard (NCOS) by the Australian Government. Although it's a bit of a mouthful, as the first power company to be accredited in Australia, we're chuffed.

Meridian Energy Australia, Powershop, and all of our operations are certified carbon offset under the NCOS benchmark. But importantly for our customers, the NCOS accreditation applies to the electricity we sell as well.

Use in digital marketing:

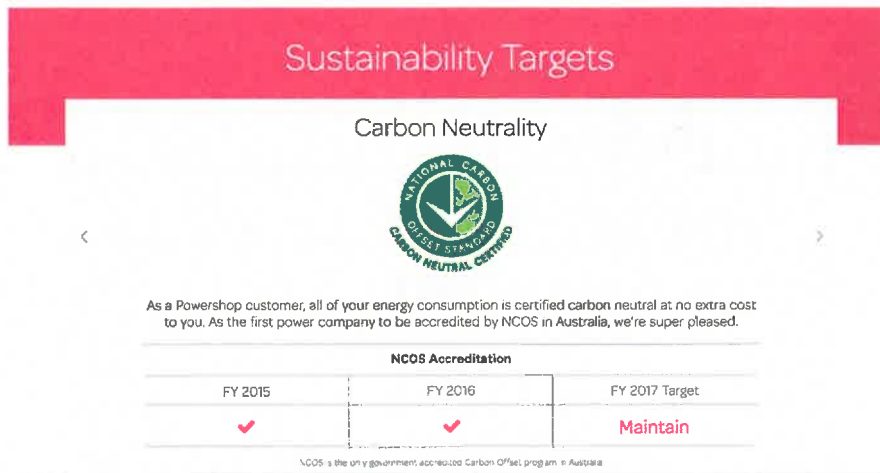
Referenced in our pricing statements:



**Carbon Neutrality**

We offset all of the carbon associated with our own operations and our customers' electricity usage drawn from the National Electricity Market (NEM), and we have been certified carbon neutral under the Australian Government's National Carbon Offset Standard (NCOS) program. So if you're a Powershop customer all your energy usage is certified 100% carbon neutral - at no extra cost.

Powershop website – Sustainability page:



Referenced in website FAQs:

• Does Powershop have official accreditation as Carbon Neutral?

Meridian Energy Australia - our parent company - has been certified carbon neutral under the Australian Government's National Carbon Offset Standard (NCOS) program.

The NCOS accreditation provides a benchmark for businesses and other organisations that are voluntarily seeking to be carbon neutral. The benchmark sets out what is required for calculating, auditing and offsetting the carbon account of an organisation, product or service to achieve carbon neutrality. It also provides guidance on what is a genuine offset unit.

To remain compliant with the NCOS program, we're required to record all emissions associated with conducting our business and then offset these emissions by surrendering voluntary GreenPower Large-scale Generation Certificates (LGCs) bought by our customers as well as voluntarily surrender Certified Reduction Certificates (CRs). We also comply with the obligation to surrender LGCs as is mandatory with the RET's Renewable Percentage.

So Meridian Energy Australia (our parent company), Powershop (us), and all our operations are certified carbon offset under the NCOS program. But importantly for our customers, the NCOS accreditation applies to our product as well. So if you're a Powershop customer all your energy usage is certified carbon neutral - at no extra cost.

Head to the [Government website](#) for more information on this scheme.

Use in website footer banner:

We're an electricity company, but one you'll like.



100% carbon neutral at no extra cost to our customers

[Learn more >](#)



We love our customers and they love us

[Learn more >](#)



Greenpeace Green Electricity Guide, 2014 & 2015

[Learn more >](#)

## 10. Declaration

To the best of my knowledge and having implemented the quality controls and standards required under the NCOS Carbon Neutral Program and made all appropriate inquiries, the information provided in this Public Disclosure Summary is true and correct.

<b>Name of Signatory</b>	<i>Lynne Sutton</i>
<b>Signature:</b>	<i>[Handwritten Signature]</i>
<b>Position:</b>	<i>General Counsel</i>
<b>Date</b>	<i>15 March 2018</i>