IPART

Independent Pricing and Regulatory Tribunal
New South Wales

Prices for Sydney Desalination Plant Pty Ltd's Water Supply Services

1 July 2017 to 30 June 2022

Determination

Water

June 2017

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The Tribunal members for this review are:

Dr Peter J Boxall AO, Chair

Mr Ed Willett

Ms Deborah Cope

Contents

Preliminary

1 Application of this determination

This determination sets a methodology for fixing the maximum prices that Sydney Desalination Plant Pty Ltd (ACN 125 935 177) (**SDP**) may charge for the Water Supply Services.

2 Commencement and term of this determination

(a) This determination commences on the later of 1 July 2017 and the date that it is published in the NSW Government Gazette (**Commencement Date**).

(b) The maximum prices set out in, or calculated in accordance with, this determination apply from the Commencement Date to 30 June 2022 (**Term**). The maximum prices set out in, or calculated in accordance with, this determination prevailing at 30 June 2022 continue to apply beyond 30 June 2022 until this determination is replaced.

3 Declaration

(a) Section 51 of the WIC Act provides that the Minister administering Part 5 of the WIC Act (**Minister**) may declare that a specified licensed retail supplier or licensed network operator is a monopoly supplier in relation to:

(i) a specified water supply or sewerage service; and

(ii) a specified area; and

(iii) a specified class of customers.

(b) By order dated 2 May 2011, the Minister, under section 51 of the WIC Act, declared SDP to be a monopoly supplier in a network operator and retail supplier capacity:

(i) for the purposes specified in SDP's Network Operator's Licence and Retail Supplier's Licence; and

(ii) for distribution within the area of operations as specified in SDP's Network Operator's Licence and Retail Supplier's Licence; and

(iii) to specified persons or classes of persons as specified in SDP's Retail Supplier's Licence.

4 Referral to IPART

(a) Under section 52(1)(a) of the WIC Act, the Minister may refer to IPART, for investigation and report, the determination of the pricing for any service in respect of which a declaration is in force under section 51 of the WIC Act.

(b) Under a referral made on 2 May 2011 and amended on 16 February 2012 (**Referral**), the Minister required IPART to determine the pricing for the following services provided by SDP (**Water Supply Services**):

(i) the supply of non-rainfall dependent drinking water to purchasers; and

(ii) the making available of the desalination plant to supply non-rainfall dependent drinking water.

(c) Under section 52(2) of the WIC Act, the provisions of Part 3 of the IPART Act in relation to government monopoly services apply to and in respect of a matter referred to IPART under section 52 of the WIC Act, in the same way as they apply to and in respect of a matter referred to IPART under section 12 of the IPART Act.

(d) In investigating and reporting on the pricing of the Water Supply Services, IPART has had regard to matters including:

(i) the matters it is required to consider under the Referral in accordance with section 13(1)(c) of the IPART Act; and

(ii) the matters set out in section 15(1) of the IPART Act.

(e) This determination is made under section 52 of the WIC Act, pursuant to the Referral.

5 Schedules

Schedules 1-3 are pricing schedules

(a) Schedule 1 sets out the methodology to be applied to determine the maximum prices that SDP may charge for the Water Supply Services during a Plant Operation Period.

(b) Schedule 2 sets out the methodology to be applied to determine the maximum prices that SDP may charge for the Water Supply Services during a Shutdown Period.

(c) Schedule 3 sets out the methodology to be applied to determine the maximum prices that SDP may charge for the Water Supply Services during a Restart Period.

Schedule 4 makes provision for the abatement mechanism

(d) Schedule 4 makes provision for an abatement mechanism which modifies the Abatable Charges provided for in schedules 1-3.

Schedule 5 contains definitions and interpretation provisions

(e) Definitions and interpretation provisions used in this determination are set out in schedule 5.

Schedule 6 is a statement of reasons for using a methodology to fix maximum prices

(f) In accordance with section 13A of the IPART Act, IPART has set a methodology for fixing the maximum prices that SDP may charge for the Water Supply

Services. As required by section 13A(3) of the IPART Act, a statement of the reasons why IPART has chosen to make a determination that involves setting the methodology for fixing maximum prices is set out in schedule 6.

6 Compliance with this determination

Section 52(3) of the WIC Act has the effect that it is a condition of SDP's licences under the WIC Act that it must comply with this determination.

7 Monitoring

(a) Under section 85(1) of the WIC Act, IPART may monitor and report to the Minister on the extent to which SDP complies or fails to comply with the conditions of SDP's licences under the WIC Act.

(b) Under section 87 of the WIC Act, IPART may require SDP to keep specified records and provide IPART with specified information for the purpose of IPART monitoring and reporting on SDP's compliance with SDP's licences under the WIC Act.

(c) Under clause 1(1) of schedules 1 and 2 to the *Water Industry Competition (General) Regulation 2008*, SDP must provide IPART with such information in relation to SDP's activities under its Retail Supplier's Licence and Network Operator's Licence as IPART may direct within the time specified by IPART.

8 Simplified outline

The following is a simplified outline of this determination.

Broadly, the applicable charges in the different modes of operation consist of the following:

During a Plant Operation Period:

- a water usage charge (a volumetric charge, including a variable network costs component) ($/ML);
- a base service charge (a fixed daily charge, including variable and fixed network costs components) ($/day);
- an incremental service charge (a fixed daily charge, including a variable network costs component) ($/day);
- a pipeline charge (a fixed daily charge) ($/day); and
- a membrane service charge (a fixed daily charge) ($/day).

During a Shutdown Period:

- a water usage charge (a volumetric charge, which applies to Desalinated Water supplied from storage only, and includes a variable network costs component) ($/ML);
- a base service charge (a fixed daily charge, including variable and fixed network costs components) ($/day);
- a transition to shutdown charge (a one-off charge payable at the beginning of certain shutdown periods);
- a pipeline charge (a fixed daily charge) ($/day);
- a membrane service charge (a fixed daily charge) ($/day); and
- a residual membrane charge (a one-off charge payable in certain shutdown periods immediately following the first Plant Operation Period of the Term only).

During a Restart Period:

- a water usage charge (a volumetric charge, which applies to Desalinated Water supplied from storage only, and includes a variable network costs component) ($/ML);
- a base service charge (a fixed daily charge, including variable and fixed network costs components) ($/day);
- a transition to restart charge (a one-off charge payable at the beginning of certain restart periods);
- a pipeline charge (a fixed daily charge) ($/day); and
- a membrane service charge (a fixed daily charge) ($/day).

Schedule 1 Maximum prices for the Water Supply Services during a Plant Operation Period

1 Application

(a) This schedule specifies the methodology for determining the maximum prices that SDP may charge for the Water Supply Services provided during a Plant Operation Period.

(b) This schedule 1 does not apply to Water Supply Services provided during:

(i) a Shutdown Period; or

(ii) a Restart Period.

2 Maximum prices for the Water Supply Services during a Plant Operation Period

The maximum price that SDP may levy on a customer for the Water Supply Services during a Plant Operation Period is the sum of the following:

(a) the **water usage charge** calculated in accordance with clause 3;

(b) the **base service charge** calculated in accordance with clause 4;

(c) the **incremental service charge** calculated in accordance with clause 5;

(d) the **pipeline charge** calculated in accordance with clause 6; and

(e) the **membrane service charge** calculated in accordance with clause 7.

3 Plant Operation Period water usage charge

(a) The water usage charge that SDP may levy on a customer for a day during a Plant Operation Period is to be calculated as follows:

$$\left(WUC + \frac{\$/MWh \times 320{,}835MWh}{91{,}250ML}\right) \times AS$$

where:

WUC = the water usage charge for the applicable period, as set out in Table 1;

$/MWh = the Variable Network Charge for the applicable period; and

[Note: 320,835MWh is the annual average amount of electricity consumption used to allocate variable network charges to SDP's water usage charge. 320,835MWh was determined by taking the annual average electricity consumption over the Term (328,500MWh p.a.) and subtracting the annual average amount of electricity consumption allocated to the fixed water service charge (5,000MWh) and incremental service charge (2,665MWh). 320,835MWh is divided by the approximate amount of Desalinated Water the Plant would produce if it were to run at full

capacity for a year (91,250ML), to yield an approximation of the incremental amount of electricity required to produce each megalitre of Desalinated Water.]

AS = the number of ML of Desalinated Water supplied by SDP from the Plant to that customer on the day.

(b) Despite paragraph (a), the water usage charge that SDP may levy on Sydney Water Corporation for a day will be nil if:

(i) the day falls outside a Drought Response Period;

(ii) the Desalinated Water supplied to Sydney Water Corporation on the day is not supplied under an Emergency Response Notice; and

(iii) the day occurs more than 14 months after the most recent Drought Response Trigger Day.

4 Plant Operation Period base service charge

[Note: This is an Abatable Charge that is subject to the Abatement Factor set out in Schedule 4.]

The base service charge that SDP may levy on a customer for a day during a Plant Operation Period is to be calculated as follows:

$$\left(BSC + FNC + (\$/MWh \times 13.70MWh)\right) \times \left(\frac{CI}{TI}\right)$$

where:

BSC = the base service charge for the applicable period, as set out in Table 2;

FNC = the Fixed Network Charge for the day;

$/MWh = the Variable Network Charge for the applicable period;

[Note: 13.70MWh is the rounded, annual average electricity consumption, converted to a daily amount for allocating variable network charges to SDP's base service charge. This value equates to 5,000MWh p.a. reflecting the fixed electricity consumption of the Plant regardless of its mode of operation.]

CI = the customer's Customer Impact for the day; and

TI = the Total Impact for the day.

5 Plant Operation Period incremental service charge

[Note: This is an Abatable Charge that is subject to the Abatement Factor set out in Schedule 4.]

Incremental service charge during a Drought Response Period or within 14 months after a Drought Response Trigger Day

(a) The incremental service charge that SDP may levy on a customer for a day that falls within a Drought Response Period, or falls within 14 months after a Drought Response Trigger Day, or both, is to be calculated as follows:

$$\left(ISC + (\$/MWh \times 7.30MWh)\right) \times \left(\frac{CI}{TI}\right)$$

where:

ISC = the incremental service charge for the applicable period, as set out in Table 3;

$/MWh = the Variable Network Charge for the applicable period;

[Note: 7.30MWh is the rounded, annual average electricity consumption, converted to a daily amount for allocating variable network charges to SDP's incremental service charge. This value equates to 2,665MWh p.a. reflecting the incremental fixed electricity consumption of the Plant during a Plant Operation Period.]

CI = the customer's Customer Impact for the day; and

TI = the Total Impact for the day.

Incremental service charge outside a Drought Response Period and not within 14 months after a Drought Response Trigger Day

(b) Subject to paragraph (c), the incremental service charge that SDP may levy on a customer for a day that falls neither within a Drought Response Period nor within 14 months after a Drought Response Trigger Day is to be calculated as follows:

$$\left(ISC + (\$/MWh \times 7.30MWh)\right) \times \left(\frac{AS}{TS}\right)$$

where:

ISC = the incremental service charge for the applicable period, as set out in Table 3;

$/MWh = the Variable Network Charge for the applicable period;

[Note: 7.30MWh is the rounded, annual average electricity consumption, converted to a daily amount for allocating variable network charges to SDP's incremental service charge. This value equates to 2,665MWh p.a. reflecting the incremental fixed electricity consumption of the Plant during a Plant Operation Period.]

AS = the number of ML of Desalinated Water supplied by SDP from the Plant to that customer on the day; and

TS = the number of ML of Desalinated Water supplied by SDP from the Plant to all customers on the day.

[Note: If SDP only supplies one customer, customer A, and assuming that SDP supplies 200ML to customer A, then AS and TS = 200ML.

If SDP supplies 3 customers and assuming that SDP supplies 20ML to customer A, 100ML to customer B and 50ML to customer C, then TS = 170ML and AS for customer A = 20ML, AS for customer B = 100ML and AS for customer C = 50ML.]

(c) If SDP does not supply any Desalinated Water from the Plant on a day (that is, if TS = 0), then:

(i) AS is the number of ML of Desalinated Water supplied by SDP from the Plant to that customer on the most recent day on which SDP supplied Desalinated Water; and

(ii) TS is the number of ML of Desalinated Water supplied by SDP from the Plant to all customers on the most recent day on which SDP supplied Desalinated Water.

6 Plant Operation Period pipeline charge

The pipeline charge that SDP may levy on a customer for a day during a Plant Operation Period is to be calculated as follows:

$$PC \times \left(\frac{CI}{TI}\right)$$

where:

PC = the pipeline charge for the applicable period, as set out in Table 4;

CI = the customer's Customer Impact for the day; and

TI = the Total Impact for the day.

7 Plant Operation Period membrane service charge

[Note: This is an Abatable Charge that is subject to the Abatement Factor set out in Schedule 4.]

(a) If SDP has previously been entitled to levy a residual membrane charge during the Term under clause 8 of schedule 2, then SDP must not levy a membrane service charge under this clause 7.

Membrane service charge where a Drought Response Trigger Day has occurred

(b) Where a Drought Response Trigger Day has occurred during the Term, the membrane service charge that SDP may levy on a customer for a day is to be calculated as follows:

$$MSC \times \left(\frac{CI}{TI}\right)$$

where:

MSC = the membrane service charge for the applicable period, and the period when the first Non-Emergency Restart Period began, as set out in Table 5;

CI = the customer's Customer Impact for the day; and

TI = the Total Impact for the day.

[Note: No charge will apply unless there have been one or more days of a Non-Emergency Restart Period.]

Membrane service charge where no Drought Response Trigger Day has occurred

(c) Subject to paragraph (d), where no Drought Response Trigger Day has occurred during the Term, the membrane service charge that SDP may levy on a customer for a day is to be calculated as follows:

$$MSC \times \left(\frac{AS}{TS}\right)$$

where:

MSC = the membrane service charge for the applicable period, and the period when the first Non-Emergency Restart Period began, as set out in Table 5;

AS = the number of ML of Desalinated Water supplied by SDP from the Plant to that customer on the day; and

TS = the number of ML of Desalinated Water supplied by SDP from the Plant to all customers on the day.

[Note: No charge will apply unless there have been one or more days of a Non-Emergency Restart Period.]

(d) If SDP does not supply any Desalinated Water from the Plant on a day (that is, if TS = 0), then:

(i) AS is the number of ML of Desalinated Water supplied by SDP from the Plant to that customer on the most recent day on which SDP supplied Desalinated Water; and

(ii) TS is the number of ML of Desalinated Water supplied by SDP from the Plant to all customers on the most recent day on which SDP supplied Desalinated Water.

Tables 1, 2, 3, 4 and 5

Table 1 Water usage charge

Period	Water usage charge ($/ML)
Commencement Date to 30 June 2018	858.94
1 July 2018 to 30 June 2019	729.99 x $(1+\Delta CPI_1)$
1 July 2019 to 30 June 2020	667.65 x $(1+\Delta CPI_2)$
1 July 2020 to 30 June 2021	638.23 x $(1+\Delta CPI_3)$
1 July 2021 to 30 June 2022	627.32 x $(1+\Delta CPI_4)$

Table 2 Base service charge

Period	Base service charge ($/day)
Commencement Date to 30 June 2018	373,429
1 July 2018 to 30 June 2019	369,667 x $(1+\Delta CPI_1)$
1 July 2019 to 30 June 2020	364,531 x $(1+\Delta CPI_2)$
1 July 2020 to 30 June 2021	360,317 x $(1+\Delta CPI_3)$
1 July 2021 to 30 June 2022	356,108 x $(1+\Delta CPI_4)$

Table 3 Incremental service charge

Period	Incremental service charge ($/day)
Commencement Date to 30 June 2018	21,388
1 July 2018 to 30 June 2019	21,832 x $(1+\Delta CPI_1)$
1 July 2019 to 30 June 2020	21,793 x $(1+\Delta CPI_2)$
1 July 2020 to 30 June 2021	21,524 x $(1+\Delta CPI_3)$
1 July 2021 to 30 June 2022	22,847 x $(1+\Delta CPI_4)$

Table 4 Pipeline charge

Period	Pipeline charge ($/day)
Commencement Date to 30 June 2018	101,152
1 July 2018 to 30 June 2019	101,167 x $(1+\Delta CPI_1)$
1 July 2019 to 30 June 2020	100,867 x $(1+\Delta CPI_2)$
1 July 2020 to 30 June 2021	101,090 x $(1+\Delta CPI_3)$
1 July 2021 to 30 June 2022	100,976 x $(1+\Delta CPI_4)$

Table 5 Membrane service charge

Period when first Non-Emergency Restart Period began	Membrane service charge ($/day) Period				
	Commencement Date to 30 June 2018	1 July 2018 to 30 June 2019	1 July 2019 to 30 June 2020	1 July 2020 to 30 June 2021	1 July 2021 to 30 June 2022
Commencement Date to 30 June 2018	14,106	13,624 x $(1+\Delta CPI_1)$	13,107 x $(1+\Delta CPI_2)$	12,661 x $(1+\Delta CPI_3)$	12,179 x $(1+\Delta CPI_4)$
1 July 2018 to 30 June 2019	Nil	14,106 x $(1+\Delta CPI_1)$	13,624 x $(1+\Delta CPI_2)$	13,107 x $(1+\Delta CPI_3)$	12,661 x $(1+\Delta CPI_4)$
1 July 2019 to 30 June 2020	Nil	Nil	14,106 x $(1+\Delta CPI_2)$	13,624 x $(1+\Delta CPI_3)$	13,107 x $(1+\Delta CPI_4)$
1 July 2020 to 30 June 2021	Nil	Nil	Nil	14,106 x $(1+\Delta CPI_3)$	13,624 x $(1+\Delta CPI_4)$
1 July 2021 to 30 June 2022	Nil	Nil	Nil	Nil	14,106 x $(1+\Delta CPI_4)$
If no Non-Emergency Restart Period	Nil	Nil	Nil	Nil	Nil

Schedule 2 Maximum prices for the Water Supply Services during a Shutdown Period

1 Application

(a) This schedule specifies the methodology for determining the maximum prices that SDP may charge for the Water Supply Services provided during a Shutdown Period.

(b) This schedule 2 does not apply to Water Supply Services provided during:

(i) a Plant Operation Period; or

(ii) a Restart Period.

2 Maximum prices for the Water Supply Services during a Shutdown Period

The maximum price that SDP may levy on a customer for the Water Supply Services provided during a Shutdown Period is the sum of the following:

(a) the **water usage charge** calculated in accordance with clause 3;

(b) the **base service charge** calculated in accordance with clause 4;

(c) the **transition to shutdown charge** calculated in accordance with clause 5;

(d) the **pipeline charge** calculated in accordance with clause 6;

(e) the **membrane service charge** calculated in accordance with clause 7; and

(f) the **residual membrane charge** calculated in accordance with clause 8.

3 Shutdown Period water usage charge

(a) The water usage charge that SDP may levy on a customer for a day during a Shutdown Period is to be calculated as follows:

$$\left(WUC + \frac{\$/MWh \times 320{,}835MWh}{91{,}250ML}\right) \times AS$$

where:

WUC = the water usage charge for the applicable period, as set out in Table 6;

$/MWh = the Variable Network Charge for the applicable period; and

[Note: 320,835MWh is the annual average amount of electricity consumption used to allocate variable network charges to SDP's water usage charge. 320,835MWh was determined by taking the annual average electricity consumption over the Term (328,500MWh p.a.) and subtracting the annual average amount of electricity consumption allocated to the fixed water service charge (5,000MWh) and incremental service charge (2,665MWh). 320,835MWh is divided by the

approximate amount of Desalinated Water the Plant would produce if it were to run at full capacity for a year (91,250ML), to yield an approximation of the incremental amount of electricity required to produce each megalitre of Desalinated Water.]

AS = the number of ML of Desalinated Water supplied by SDP from the Plant to that customer on the day.

[Note: Although the Plant will not produce Desalinated Water during a Shutdown Period, SDP may continue to supply Desalinated Water out of storage after production has stopped.]

(b) Despite paragraph (a), the water usage charge that SDP may levy on Sydney Water Corporation for a day will be nil if:

(i) the day falls outside a Drought Response Period;

(ii) the Desalinated Water supplied to Sydney Water Corporation on the day is not supplied under an Emergency Response Notice; and

(iii) the day occurs more than 14 months after the most recent Drought Response Trigger Day.

4 Shutdown Period base service charge

[Note: This is an Abatable Charge that is subject to the Abatement Factor set out in Schedule 4.]

The base service charge that SDP may levy on a customer for each day of the Shutdown Period is to be calculated as follows:

$$\left(BSC + FNC + (\$/MWh \times 13.70MWh)\right) \times \left(\frac{CI}{TI}\right)$$

where:

BSC = the base service charge for the applicable period, as set out in Table 7;

FNC = the Fixed Network Charge for the day;

$/MWh = the Variable Network Charge for the applicable period;

[Note: 13.70MWh is the rounded, annual average electricity consumption, converted to a daily amount for allocating variable network charges to SDP's base service charge. This value equates to 5,000MWh p.a. reflecting the fixed electricity consumption of the Plant regardless of its mode of operation.]

CI = the customer's Customer Impact for the day; and

TI = the Total Impact for the day.

5 Transition to shutdown charge

[Note: This clause sets out two circumstances in which SDP may levy a transition to shutdown charge:

- **where the Shutdown Period is the first since a Drought Response Trigger Day (i.e., within drought); and**
- **where the Shutdown Period is triggered by a Cease Supply Notice or by the occurrence of an Emergency Response Cease Day (i.e., outside drought).]**

First Shutdown Period since Drought Response Cease Day

(a) Subject to paragraph (c), SDP may levy a transition to shutdown charge in respect of a Shutdown Period if the Shutdown Period is the first since the most recent Drought Response Cease Day.

(b) Where paragraph (a) applies, the transition to shutdown charge that SDP may levy on a customer is to be calculated as follows:

$$TTS \times \left(\frac{CI}{TI}\right)$$

where:

TTS = the transition to shutdown charge for the applicable period (being the period that includes the first day of the Shutdown Period), as set out in Table 8;

CI = the customer's Customer Impact for the most recent Drought Response Period prior to the Shutdown Period; and

TI = the Total Impact for the most recent Drought Response Period prior to the Shutdown Period.

(c) SDP must not levy a transition to shutdown charge under paragraph (a), if it is entitled to levy a transition to shutdown charge under paragraph (d).

Shutdown Period triggered by Cease Supply Notice or Emergency Response Cease Day

(d) SDP may levy a transition to shutdown charge in respect of a Shutdown Period if the Shutdown Period was triggered by a customer.

[Note: See clause 2.1(l) of schedule 5 as to when a customer triggers a Shutdown Period.]

(e) Where paragraph (d) applies, the transition to shutdown charge that SDP may levy on each customer who triggered the commencement of the Shutdown Period is to be calculated as follows:

$$TTS \times \frac{1}{TNC}$$

where:

TTS = the transition to shutdown charge for the applicable period (being the period that includes the first day of the Shutdown Period), as set out in Table 8; and

TNC = the total number of customers who triggered the commencement of the Shutdown Period.

6 Shutdown Period pipeline charge

The pipeline charge that SDP may levy on a customer for each day of the Shutdown Period is to be calculated as follows:

$$PC \times \left(\frac{CI}{TI}\right)$$

where:

PC = the pipeline charge for the applicable period, as set out in Table 9;

CI = the customer's Customer Impact for the day; and

TI = the Total Impact for the day.

7 Shutdown Period membrane service charge

[Note: This is an Abatable Charge that is subject to the Abatement Factor set out in Schedule 4.]

(a) If SDP has previously been entitled to levy a residual membrane charge during the Term under clause 8 of this schedule 2, then SDP must not levy a membrane service charge under this clause 7.

Membrane service charge where a Drought Response Trigger Day has occurred

(b) Where a Drought Response Trigger Day has occurred during the Term, the membrane service charge that SDP may levy on a customer for a day is to be calculated as follows:

$$MSC \times \left(\frac{CI}{TI}\right)$$

where:

MSC = the membrane service charge for the applicable period, and the period when the first Non-Emergency Restart Period began, as set out in Table 10;

CI = the customer's Customer Impact for the day; and

TI = the Total Impact for the day.

[Note: No charge will apply unless there have been one or more days of a Non-Emergency Restart Period.]

Membrane service charge where no Drought Response Trigger Day has occurred

(c) Where:

(i) at least one Restart Period has been triggered by a customer serving a Restart Plant Notice during the Term; and

(ii) no Drought Response Trigger Day has occurred during the Term,

the membrane service charge that SDP may levy on a customer for a day is to be calculated as follows:

$$MSC \times \left(\frac{AS}{TS}\right)$$

where:

MSC = the membrane service charge for the applicable period, and the period when the first Non-Emergency Restart Period began, as set out in Table 10;

AS = the number of ML of Desalinated Water supplied by SDP from the Plant to that customer on the most recent day on which SDP supplied Desalinated Water; and

TS = the number of ML of Desalinated Water supplied by SDP from the Plant to all customers on the most recent day on which SDP supplied Desalinated Water.

[Note: No charge will apply unless there have been one or more days of a Non-Emergency Restart Period.]

8 Shutdown Period residual membrane charge

(a) SDP may only levy a residual membrane charge for the first day of a Shutdown Period if:

(i) SDP has not previously been entitled to levy a residual membrane charge during the Term;

(ii) the Shutdown Period was triggered by a customer serving a Cease Supply Notice; and

(iii) as at the start of the Shutdown Period:

(A) no Drought Response Trigger Day has occurred during the Term; and

(B) at least one Restart Period has been triggered by a customer serving a Restart Plant Notice during the Term.

(b) Where SDP may levy a residual membrane charge, that charge may be levied on each customer who triggered the commencement of the Shutdown Period by serving a Cease Supply Notice and is to be calculated as follows:

$$RMC \times \left(\frac{1}{TNC}\right)$$

where:

RMC = the residual membrane charge for the applicable period, and the year when the first Non-Emergency Restart Period began, as set out in Table 11; and

TNC = the total number of customers who triggered the commencement of the Shutdown Period by serving a Cease Supply Notice.

[Note: No charge will apply unless there have been one or more days of a Non-Emergency Restart Period.]

Tables 6, 7, 8, 9, 10 and 11

Table 6 Water usage charge

Period	Water usage charge ($/ML)
Commencement Date to 30 June 2018	858.94
1 July 2018 to 30 June 2019	729.99 x $(1+\Delta CPI_1)$
1 July 2019 to 30 June 2020	667.65 x $(1+\Delta CPI_2)$
1 July 2020 to 30 June 2021	638.23 x $(1+\Delta CPI_3)$
1 July 2021 to 30 June 2022	627.32 x $(1+\Delta CPI_4)$

Table 7 Base service charge

Period	Base service charge ($/day)
Commencement Date to 30 June 2018	373,429
1 July 2018 to 30 June 2019	369,667 x $(1+\Delta CPI_1)$
1 July 2019 to 30 June 2020	364,531 x $(1+\Delta CPI_2)$
1 July 2020 to 30 June 2021	360,317 x $(1+\Delta CPI_3)$
1 July 2021 to 30 June 2022	356,108 x $(1+\Delta CPI_4)$

Table 8 Transition to shutdown charge

Period	Transition to shutdown charge ($)
Commencement Date to 30 June 2018	1,721,406
1 July 2018 to 30 June 2019	1,721,406 x $(1+\Delta CPI_1)$
1 July 2019 to 30 June 2020	1,721,406 x $(1+\Delta CPI_2)$
1 July 2020 to 30 June 2021	1,721,406 x $(1+\Delta CPI_3)$
1 July 2021 to 30 June 2022	1,721,406 x $(1+\Delta CPI_4)$

Table 9 Pipeline charge

Period	Pipeline charge ($/day)
Commencement Date to 30 June 2018	101,152
1 July 2018 to 30 June 2019	101,167 x $(1+\Delta CPI_1)$
1 July 2019 to 30 June 2020	100,867 x $(1+\Delta CPI_2)$
1 July 2020 to 30 June 2021	101,090 x $(1+\Delta CPI_3)$
1 July 2021 to 30 June 2022	100,976 x $(1+\Delta CPI_4)$

Table 10 Membrane service charge

Period when first Non-Emergency Restart Period began	Membrane service charge ($/day) Period				
	Commencement Date to 30 June 2018	1 July 2018 to 30 June 2019	1 July 2019 to 30 June 2020	1 July 2020 to 30 June 2021	1 July 2021 to 30 June 2022
Commencement Date to 30 June 2018	14,106	13,624 x $(1+\Delta CPI_1)$	13,107 x $(1+\Delta CPI_2)$	12,661 x $(1+\Delta CPI_3)$	12,179 x $(1+\Delta CPI_4)$
1 July 2018 to 30 June 2019	Nil	14,106 x $(1+\Delta CPI_1)$	13,624 x $(1+\Delta CPI_2)$	13,107 x $(1+\Delta CPI_3)$	12,661 x $(1+\Delta CPI_4)$
1 July 2019 to 30 June 2020	Nil	Nil	14,106 x $(1+\Delta CPI_2)$	13,624 x $(1+\Delta CPI_3)$	13,107 x $(1+\Delta CPI_4)$
1 July 2020 to 30 June 2021	Nil	Nil	Nil	14,106 x $(1+\Delta CPI_3)$	13,624 x $(1+\Delta CPI_4)$
1 July 2021 to 30 June 2022	Nil	Nil	Nil	Nil	14,106 x $(1+\Delta CPI_4)$
If no Non-Emergency Restart Period	Nil	Nil	Nil	Nil	Nil

Table 11 Residual membrane charge

Period when first Non-Emergency Restart Period began	Residual membrane charge ($) Period				
	Commencement Date to 30 June 2018	1 July 2018 to 30 June 2019	1 July 2019 to 30 June 2020	1 July 2020 to 30 June 2021	1 July 2021 to 30 June 2022
Commencement Date to 30 June 2018	26,801,250	22,972,500 x $(1+\Delta CPI_1)$	19,143,750 x $(1+\Delta CPI_2)$	15,315,000 x $(1+\Delta CPI_3)$	11,486,250 x $(1+\Delta CPI_4)$
1 July 2018 to 30 June 2019	Nil	26,801,250 x $(1+\Delta CPI_1)$	22,972,500 x $(1+\Delta CPI_2)$	19,143,750 x $(1+\Delta CPI_3)$	15,315,000 x $(1+\Delta CPI_4)$
1 July 2019 to 30 June 2020	Nil	Nil	26,801,250 x $(1+\Delta CPI_2)$	22,972,500 x $(1+\Delta CPI_3)$	19,143,750 x $(1+\Delta CPI_4)$
1 July 2020 to 30 June 2021	Nil	Nil	Nil	26,801,250 x $(1+\Delta CPI_3)$	22,972,500 x $(1+\Delta CPI_4)$
1 July 2021 to 30 June 2022	Nil	Nil	Nil	Nil	26,801,250 x $(1+\Delta CPI_4)$
If no Non-Emergency Restart Period	Nil	Nil	Nil	Nil	Nil

Schedule 3 Maximum prices for the Water Supply Services during a Restart Period

1 Application

(a) This schedule specifies the methodology for determining the maximum prices that SDP may charge for the Water Supply Services provided during a Restart Period.

(b) This schedule 3 does not apply to Water Supply Services provided during:

(i) a Plant Operation Period; or

(ii) a Shutdown Period.

2 Maximum prices for the Water Supply Services during a Restart Period

The maximum price that SDP may levy on a customer for the Water Supply Services provided during a Restart Period is the sum of the following:

(a) the **water usage charge** calculated in accordance with clause 3;

(b) the **base service charge** calculated in accordance with clause 4;

(c) the **transition to restart charge** calculated in accordance with clause 5;

(d) the **pipeline charge** calculated in accordance with clause 6; and

(e) the **membrane service charge** calculated in accordance with clause 7.

3 Restart Period water usage charge

(a) The water usage charge that SDP may levy on a customer for a day during a Restart Period is to be calculated as follows:

$$\left(WUC + \frac{\$/MWh \times 320{,}835MWh}{91{,}250ML}\right) \times AS$$

where:

WUC = the water usage charge for the applicable period, as set out in Table 12;

$/MWh = the Variable Network Charge for the applicable period; and

[Note: 320,835MWh is the annual average amount of electricity consumption used to allocate variable network charges to SDP's water usage charge. 320,835MWh was determined by taking the annual average electricity consumption over the Term (328,500MWh p.a.) and subtracting the annual average amount of electricity consumption allocated to the fixed water service charge (5,000MWh) and incremental service charge (2,665MWh). 320,835MWh is divided by the approximate amount of Desalinated Water the Plant would produce if it were to run at full

capacity for a year (91,250ML), to yield an approximation of the incremental amount of electricity required to produce each megalitre of Desalinated Water.]

AS = the number of ML of Desalinated Water supplied by SDP from the Plant to that customer on the day.

[Note: Desalinated Water will not ordinarily be supplied from the Plant during a Restart Period. However:

- **Desalinated Water may be supplied out of storage during a Restart Period; and**
- **a Restart Period will be a single day in duration where Desalinated Water is first produced and supplied on the same day following a Shutdown Period.**

In these cases, the water usage charge will apply to Desalinated Water supplied during the Restart Period.]

(b) Despite paragraph (a), the water usage charge that SDP may levy on Sydney Water Corporation for a day will be nil if:

(i) the day falls outside a Drought Response Period;

(ii) the Desalinated Water supplied to Sydney Water Corporation on the day is not supplied under an Emergency Response Notice; and

(iii) the day occurs more than 14 months after the most recent Drought Response Trigger Day.

4 Restart Period base service charge

[Note: This is an Abatable Charge that is subject to the Abatement Factor set out in Schedule 4.]

The base service charge that SDP may levy on a customer for each day of the Restart Period is to be calculated as follows:

$$\left(BSC + FNC + (\$/MWh \times 13.70MWh)\right) \times \left(\frac{CI}{TI}\right)$$

where:

BSC = the base service charge for the applicable period, as set out in Table 13;

FNC = the Fixed Network Charge for the day;

$/MWh = the Variable Network Charge for the applicable period;

[Note: 13.70MWh is the rounded, annual average electricity consumption, converted to a daily amount for allocating variable network charges to SDP's base service charge. This value equates to 5,000MWh p.a. reflecting the fixed electricity consumption of the Plant regardless of its mode of operation.]

CI = the customer's Customer Impact for the day; and

TI = the Total Impact for the day.

5 Transition to restart charge

[Note: This clause sets out two circumstances in which SDP may levy a transition to restart charge:

- **where the Restart Period is the first since a Drought Response Trigger Day (ie, within drought); and**
- **where the Restart Period is triggered by a customer serving a Restart Plant Notice or an Emergency Response Notice (ie, outside drought).]**

First Restart Period since Drought Response Trigger Day

(a) SDP may levy a transition to restart charge in respect of a Restart Period if the Restart Period is the first since a Drought Response Trigger Day.

(b) Where paragraph (a) applies, the transition to restart charge that SDP may levy is to be calculated as follows:

$$(TTR + (\$/MWh \times 35{,}840MWh)) \times \left(\frac{CI}{TI}\right)$$

where:

TTR = the transition to restart charge for the applicable period (being the period that includes the first day of the Restart Period), as set out in Table 14;

$/MWh = the Variable Network Charge for the applicable period;

[Note: 35,840MWh is the rounded electricity consumption for allocating variable network charges to SDP's transition to restart charge. This is the electricity consumption required during a Restart Period to recommence activities associated with preparing the Plant for the production of Desalinated Water and not for the supply of Desalinated Water.]

CI = the customer's Customer Impact for the 365 days immediately preceding the first day of the Restart Period; and

TI = the Total Impact for the 365 days immediately preceding the first day of the Restart Period.

(c) If SDP is entitled to levy a transition to restart charge under paragraph (a), then it must not levy a transition to restart charge under paragraph (d).

Restart Period triggered by Restart Plant Notice or Emergency Response Notice

(d) Subject to paragraph (c), outside a Drought Response Period, SDP may levy a transition to restart charge in respect of a Restart Period if the Restart Period was triggered by a customer.

[Note: See clause 2.1(m) of schedule 5 as to when a customer triggers a Restart Period.]

(e) Where paragraph (d) applies, the transition to restart charge that SDP may levy on each customer who triggered the commencement of the Restart Period is to be calculated as follows:

$$(TTR + (\$/MWh \times 35{,}840MWh)) \times \frac{1}{TNC}$$

where:

TTR = the transition to restart charge for the applicable period (being the period that includes the first day of the Restart Period), as set out in Table 14; and

$/MWh = the Variable Network Charge for the applicable period;

[Note: 35,840MWh is the rounded electricity consumption for allocating variable network charges to SDP's transition to restart charge. This is the electricity consumption required during a Restart Period to recommence activities associated with preparing the Plant for the production of Desalinated Water and not for the supply of Desalinated Water.]

TNC = the total number of customers who triggered the commencement of the Restart Period.

6 Restart Period pipeline charge

The pipeline charge that SDP may levy on a customer for each day of the Restart Period is to be calculated as follows:

$$PC \times \left(\frac{CI}{TI}\right)$$

where:

PC = the pipeline charge for the applicable period, as set out in Table 15;

CI = the customer's Customer Impact for the day; and

TI = the Total Impact for the day.

7 Restart Period membrane service charge

[Note: This is an Abatable Charge that is subject to the Abatement Factor set out in Schedule 4.]

(a) If SDP has previously been entitled to levy a residual membrane charge during the Term under clause 8 of schedule 2, then SDP must not levy a membrane service charge under this clause 7.

Membrane service charge where a Drought Response Trigger Day has occurred

(b) Where a Drought Response Trigger Day has occurred during the Term, the membrane service charge that SDP may levy on a customer for a day is to be calculated as follows:

$$MSC \times \left(\frac{CI}{TI}\right)$$

where:

MSC = the membrane service charge for the applicable period, and the period when the first Non-Emergency Restart Period began, as set out in Table 16;

CI = the customer's Customer Impact for the day; and

TI = the Total Impact for the day.

[Note: No charge will apply unless there have been one or more days of a Non-Emergency Restart Period.]

Membrane service charge where no Drought Response Trigger Day has occurred

(c) Subject to paragraph (e), outside a Drought Response Period, SDP may levy a membrane service charge in respect of a Restart Period if a customer triggered the Restart Period by serving a Restart Plant Notice.

(d) Where paragraph (c) applies, the membrane service charge that SDP may levy on each customer who triggered the commencement of the Restart Period by serving a Restart Plant Notice for a day is to be calculated as follows:

$$MSC \times \frac{1}{TNC}$$

where:

MSC = the membrane service charge for the applicable period, and the period when the first Non-Emergency Restart Period began, as set out in Table 16; and

TNC = the total number of customers who triggered the commencement of the Restart Period by serving a Restart Plant Notice.

[Note: No charge will apply unless there have been one or more days of a Non-Emergency Restart Period.]

(e) If SDP is entitled to levy a membrane service charge under paragraph (b), then it must not levy a membrane service charge under paragraph (c).

Tables 12, 13, 14, 15 and 16

Table 12 Water usage charge

Period	Water usage charge ($/ML)
Commencement Date to 30 June 2018	858.94
1 July 2018 to 30 June 2019	729.99 x $(1+\Delta CPI_1)$
1 July 2019 to 30 June 2020	667.65 x $(1+\Delta CPI_2)$
1 July 2020 to 30 June 2021	638.23 x $(1+\Delta CPI_3)$
1 July 2021 to 30 June 2022	627.32 x $(1+\Delta CPI_4)$

Table 13 Base service charge

Period	Base service charge ($/day)
Commencement Date to 30 June 2018	373,429
1 July 2018 to 30 June 2019	369,667 x $(1+\Delta CPI_1)$
1 July 2019 to 30 June 2020	364,531 x $(1+\Delta CPI_2)$
1 July 2020 to 30 June 2021	360,317 x $(1+\Delta CPI_3)$
1 July 2021 to 30 June 2022	356,108 x $(1+\Delta CPI_4)$

Table 14 Transition to restart charge

Period	Transition to restart charge ($)
Commencement Date to 30 June 2018	14,225,612
1 July 2018 to 30 June 2019	12,917,850 x $(1+\Delta CPI_1)$
1 July 2019 to 30 June 2020	12,283,623 x $(1+\Delta CPI_2)$
1 July 2020 to 30 June 2021	11,981,446 x $(1+\Delta CPI_3)$
1 July 2021 to 30 June 2022	11,865,587 x $(1+\Delta CPI_4)$

Table 15 Pipeline charge

Period	Pipeline charge ($/day)
Commencement Date to 30 June 2018	101,152
1 July 2018 to 30 June 2019	101,167 x $(1+\Delta CPI_1)$
1 July 2019 to 30 June 2020	100,867 x $(1+\Delta CPI_2)$
1 July 2020 to 30 June 2021	101,090 x $(1+\Delta CPI_3)$
1 July 2021 to 30 June 2022	100,976 x $(1+\Delta CPI_4)$

Table 16 Membrane service charge

Period when first Non-Emergency Restart Period began	Membrane service charge ($/day) Period				
	Commencement Date to 30 June 2018	1 July 2018 to 30 June 2019	1 July 2019 to 30 June 2020	1 July 2020 to 30 June 2021	1 July 2021 to 30 June 2022
Commencement Date to 30 June 2018	14,106	13,624 x $(1+\Delta CPI_1)$	13,107 x $(1+\Delta CPI_2)$	12,661 x $(1+\Delta CPI_3)$	12,179 x $(1+\Delta CPI_4)$
1 July 2018 to 30 June 2019	Nil	14,106 x $(1+\Delta CPI_1)$	13,624 x $(1+\Delta CPI_2)$	13,107 x $(1+\Delta CPI_3)$	12,661 x $(1+\Delta CPI_4)$
1 July 2019 to 30 June 2020	Nil	Nil	14,106 x $(1+\Delta CPI_2)$	13,624 x $(1+\Delta CPI_3)$	13,107 x $(1+\Delta CPI_4)$
1 July 2020 to 30 June 2021	Nil	Nil	Nil	14,106 x $(1+\Delta CPI_3)$	13,624 x $(1+\Delta CPI_4)$
1 July 2021 to 30 June 2022	Nil	Nil	Nil	Nil	14,106 x $(1+\Delta CPI_4)$
If no Non-Emergency Restart Period	Nil	Nil	Nil	Nil	Nil

Schedule 4 The abatement mechanism

1 The Abatement Factor

(a) For any day which is an Abatement Application Day, any Abatable Charge that SDP may levy for Water Supply Services provided on that day is to be multiplied by the Abatement Factor calculated for that day under paragraph (b).

(b) The Abatement Factor for a day is to be calculated as follows:

$$\frac{AC}{TC}$$

where:

AC = the Available Capacity for the day in ML; and

TC = the Total Capacity for the day in ML.

2 Reset of Daily Volumes on Drought Response Cease Day or Emergency Response Cease Day

(a) A Cease Day is a **Reset Day** if the average of the Daily Volumes for the immediately preceding 365 Availability Days (the **Preceding Days**) exceeds the Total Capacity.

(b) For the purposes of calculating the Abatement Factor on or after a Reset Day, the Daily Volume for each of the Preceding Days is deemed to be equal to the Total Capacity.

(c) Where this clause 2 applies, it applies notwithstanding any other provision of this determination.

3 Refund at the end of a Drought Response Period or Emergency Response Period

(a) A Cease Day is a **Refund Day** if the Total Refund Amount for the Cease Day, calculated in accordance with paragraph (d), is positive.

(b) A customer is eligible for a refund on a Refund Day if the Customer Abatement Net Overpayment for that customer and that Refund Day, calculated in accordance with paragraph (e), is positive.

(c) Where a customer is eligible for a refund on a Refund Day:

(i) the amount of that refund is to be calculated in accordance with paragraph (f) (where the Refund Day is a Drought Response Cease Day) or paragraph (g) (where the Refund Day is an Emergency Response Cease Day); and

(ii) SDP must pay that refund to the customer within one month after the Refund Day.

(d) The **Total Refund Amount** for a Cease Day is the sum of the following for each Abatement Application Day *i* within the Preceding Period:

$$(AF_i - 1) \times TAC_i \times (1 + WACC_d)^{cease\_day - i}$$

where:

$\mathbf{AF_i}$ = the Abatement Factor for Abatement Application Day *i*;

$\mathbf{TAC_i}$ = the sum of all of the Abatable Charges SDP may levy on its customers for Abatement Application Day *i*;

$\mathbf{WACC_d}$ = the daily weighted average cost of capital calculated in accordance with paragraph (i); and

$\mathbf{cease\_day - i}$ = the number of days from Abatement Application Day *i* (inclusive) to the Cease Day (exclusive).

(e) The **Customer Abatement Net Overpayment** for a customer in relation to a Refund Day is the sum of the following for each Abatement Application Day *i* within the Preceding Period:

$$(AF_i - 1) \times CTAC_i \times (1 + WACC_d)^{cease\_day - i}$$

where:

$\mathbf{AF_i}$ = the Abatement Factor for Abatement Application Day *i*;

$\mathbf{CTAC_i}$ = the sum of all Abatable Charges SDP levied on that customer for Abatement Application Day *i*;

$\mathbf{WACC_d}$ = the daily weighted average cost of capital calculated in accordance with paragraph (i); and

$\mathbf{cease\_day - i}$ = the number of days from Abatement Application Day *i* (inclusive) to the Cease Day (exclusive).

(f) Where a customer is eligible for a refund on a Refund Day, and the Refund Day is a Drought Response Cease Day, that refund is to be calculated as follows:

$$TRA \times \frac{CCI\_overs}{TCI\_overs}$$

where:

TRA = the Total Refund Amount for the Refund Day calculated in accordance with paragraph (d);

CCI_overs = the sum of that customer's Customer Impacts for the Abatement Application Days:

(i) within the Preceding Period; and

(ii) for which the Abatement Factor exceeded 1; and

TCI_overs = the sum of all Eligible Customers' Customer Impacts for the Abatement Application Days:

(i) within the Preceding Period; and

(ii) for which the Abatement Factor exceeded 1; or

(g) Where a customer is eligible for a refund on a Refund Day, and the Refund Day is an Emergency Response Cease Day, that refund is:

(i) the amount calculated as follows, unless the customer is Sydney Water Corporation:

$$TIRA \times \frac{CCI\_overs}{TCI\_overs}$$

where:

TIRA = the **Total Impactor Refund Amount** for the Refund Day calculated in accordance with paragraph (h);

CCI_overs = the sum of that customer's Customer Impacts for the Abatement Application Days:

(A) within the Preceding Period; and

(B) for which the Abatement Factor exceeded 1; and

TCI_overs = the sum of all Eligible Customers' Customer Impacts for the Abatement Application Days:

(A) within the Preceding Period; and

(B) for which the Abatement Factor exceeded 1; and

(ii) if the customer is Sydney Water Corporation, the amount calculated in accordance with paragraph (g)(i) plus the difference between the Total Refund Amount for the Refund Day and Total Impactor Refund Amount, if that difference is positive.

(h) The **Total Impactor Refund Amount** for a Refund Day which is an Emergency Response Cease Day is the sum of the following for each Abatement Application Day *i* within the Preceding Period:

$$(AF_i - 1) \times ITAC_i \times (1 + WACC_d)^{cease\_day - i}$$

where:

AF_i = the Abatement Factor for Abatement Application Day *i*;

$ITAC_i$ = the sum of the following Abatable Charges SDP may levy on its customers for Abatement Application Day *i*:

(i) the sum of all base service charges that SDP may levy on its customers for Abatement Application Day *i*; and

(ii) where a Drought Response Trigger Day has occurred during the Term prior to Abatement Application Day *i*, the sum of all membrane service charges that SDP may levy on its customers for Abatement Application Day *i*;

$WACC_d$ = the daily weighted average cost of capital calculated in accordance with paragraph (i); and

cease_day − i = the number of days from Abatement Application Day *i* (inclusive) to the Emergency Response Cease Day (exclusive).

(i) The daily weighted average cost of capital is to be calculated as follows:

$$WACC_d = (1 + WACC)^{\frac{1}{365}} - 1$$

where:

WACC = the nominal pre-tax weighted average cost of capital of 8.2% per year (which corresponds to the real post-tax weighted average cost of capital of 4.7% per year used to set prices in this determination).

Schedule 5 Definitions and interpretation

1 Definitions

1.1 General definitions

Where they appear in title case in this determination, the terms in bold below have the corresponding meanings.

Abatable Charge means any of the following:

(a) the base service charge under clause 4 of schedule 1;

(b) the incremental service charge under clause 5 of schedule 1;

(c) the membrane service charge under clause 7 of schedule 1;

(d) the base service charge under clause 4 of schedule 2;

(e) the membrane service charge under clause 7 of schedule 2;

(f) the base service charge under clause 4 of schedule 3; and

(g) the membrane service charge under clause 7 of schedule 3.

Abatement Application Day means:

(a) a day during a Plant Operation Period; or

(b) a day that satisfies the following three criteria:

  (i) it occurs during a Shutdown Period or a Restart Period;

  (ii) it occurs during a Drought Response Period or an Emergency Response Period; and

  (iii) it occurs on or after 13 December 2018,

and which is not an Abatement Non-Application Day.

Abatement Factor means the multiplier calculated in accordance with clause 1(b) of schedule 4.

Abatement Non-Application Day means a day upon which the supply capability of the Plant is reduced as a result of the consequences of a Force Majeure Event, provided that SDP would not have been able to obtain insurance, on reasonable commercial terms, against those consequences reducing the supply capability of the Plant on that day.

Agreed Volume means the volume of Desalinated Water, in ML, agreed by Sydney Water Corporation and SDP to be supplied by SDP from the Plant in respect of a day, as specified in an Emergency Response Notice.

Availability Day means any day:

(a) which is either:

(i) a day during a Drought Response Period; or

(ii) a day in respect of which SDP has agreed to supply Desalinated Water from the Plant under an Emergency Response Notice; but

(b) which is none of the following:

(i) a Drought Response Trigger Day;

(ii) a day during a Grace Period;

(iii) a day during a Shutdown Period or a Restart Period before 13 December 2018;

(iv) a day on which SDP is required to reduce production below Total Capacity in order to comply with a law or a binding direction, order or similar, made under a law; or

(v) an Abatement Non-Application Day.

Available Capacity means, for a day, either:

(a) the average of the Daily Volumes for the most recent 365 Availability Days (including that day if it is an Availability Day); or

(b) if fewer than 365 Availability Days have occurred up to and including that day, an amount calculated as follows:

$$\frac{(365-n) \times TC + TDV}{365}$$

where:

n = the number of Availability Days that have ever occurred, up to and including that day;

TC = Total Capacity; and

TDV = the sum of the Daily Volumes for the Availability Days that have occurred up to and including that day.

Available Storage means the available storage in Sydney's water supply reservoirs as published on a weekly basis on the website of Water NSW. If for any reason Water NSW does not calculate or publish the Available Storage, the Available Storage is the amount of water as calculated and notified from time to time by such other authority as is nominated by the Minister responsible for Part 2 of the WIC Act.

Cease Day means a day which is a Drought Response Cease Day or an Emergency Response Cease Day.

Cease Supply Notice means a notice:

(a) in writing;

(b) served on SDP by a customer of SDP for the supply of Desalinated Water;

(c) copied to IPART; and

(d) which requires SDP to cease the supply of Desalinated Water to the customer.

Commencement Date means the Commencement Date defined in clause 2(a) of the Preliminary section of this determination.

Customer Abatement Net Overpayment means, for a customer and a Refund Day, the amount calculated for that customer and that Refund Day in accordance with clause 3(e) of schedule 4.

Customer Impact means, for a period, the total volume of water supplied during that period by Water NSW and/or SDP to an Impactor, for use within Sydney Water Corporation's area of operations.

Daily Volume, subject to clause 2 of schedule 4, means either:

(a) for a day during an Emergency Response Period, the lesser of:

(i) the volume, in ML, calculated as follows:

$$VP \times \left(\frac{TC}{AV}\right)$$

where:

VP = the volume of Desalinated Water supplied by the Plant on that day, in ML;

TC = Total Capacity; and

AV = the Agreed Volume in respect of that day; or

[Note: For example, if the Agreed Volume for a day was 100ML and 100ML was produced by the Plant on the day, the Daily Volume would be calculated as follows: Daily Volume = $\mathbf{100ML \times \frac{250ML}{100ML} = 250ML}$.]

(ii) 110% of Total Capacity; or

(b) for any other day, either:

(i) the volume of Desalinated Water supplied by the Plant on that day; or

(ii) where the nameplate capacity of the Plant has been expanded since that day, the volume of Desalinated Water referred to in paragraph (b)(i) multiplied by the proportion that the expanded nameplate capacity of the Plant bears to the nameplate capacity of the Plant as at that day.

[Note: For example, if the nameplate capacity of the Plant was expanded to 500ML per day and the volume of Desalinated Water produced by the Plant on an earlier day was 100ML, the Daily Volume would be calculated as follows: Daily Volume = $\mathbf{100ML \times \frac{500}{250} = 200ML}$.]

Desalinated Water means desalinated water produced at the Plant which is suitable for the purposes specified in SDP's Network Operator's Licence and Retail Supplier's Licence.

Distribution Network Service Provider has the meaning given in the National Electricity Rules.

Drought Response Cease Day means a day on which Available Storage equals or exceeds the Drought Response Cease Level for the first time since Available Storage was last less than the Drought Response Trigger Level.

Drought Response Cease Level means either:

(a) 80%; or

(b) if the reference to 80% in SDP's Network Operator's Licence is replaced with a reference to a different percentage, that percentage.

Drought Response Period means a period:

(a) beginning on, and including, a Drought Response Trigger Day; and

(b) ending on, and including, the day immediately before the following Drought Response Cease Day.

Drought Response Trigger Day means a day on which Available Storage falls below the Drought Response Trigger Level for the first time since Available Storage last equalled or exceeded the Drought Response Cease Level.

Drought Response Trigger Level means either:

(a) 70%; or

(b) if the reference to 70% in SDP's Network Operator's Licence is replaced with a reference to a different percentage, that percentage.

Eligible Customer means, in relation to a Refund Day, a customer eligible for a refund on that Refund Day under clause 3 of schedule 4.

Emergency Response Cease Day means the day specified in an Emergency Response Notice as the day on which Sydney Water Corporation and SDP have agreed that SDP is to cease to supply Sydney Water Corporation with Desalinated Water under that Emergency Response Notice.

Emergency Response Commencement Day means the day specified in an Emergency Response Notice as the day on which Sydney Water Corporation and SDP have agreed that SDP is to begin to supply Sydney Water Corporation with Desalinated Water under that Emergency Response Notice.

Emergency Response Notice means a notice from Sydney Water Corporation and SDP jointly which:

(a) is delivered by post or in person to IPART's address;

(b) is addressed to IPART's chair;

(c) is in writing;

(d) states that Sydney Water Corporation has requested SDP to supply Sydney Water Corporation with Desalinated Water during a specified period to mitigate the effect of a public heath incident or to ensure security of supply or network stability during periods of outages, unavailability or maintenance on any water industry infrastructure within Sydney Water Corporation's area of operations;

(e) specifies the Agreed Volume in respect of each day during the specified period;

(f) specifies an Emergency Response Commencement Day;

(g) specifies an Emergency Response Cease Day; and

(h) may be replaced from time to time by another Emergency Response Notice.

Emergency Response Period means a period of time:

(a) beginning, and including, on the Emergency Response Commencement Day specified in an Emergency Response Notice; and

(b) ending on, and including, the Emergency Response Cease Day specified in the Emergency Response Notice.

Fixed Network Charge, for a day, means either:

(a) if one or more days of a Restart Period have occurred during the Term, the fixed charges, fees and tariffs payable by SDP in respect of Use of System Services provided on the relevant day by a Distribution Network Service Provider (including access charges and capacity charges) which are applied to the NMI (or NMIs) at which SDP's electricity usage at the Plant is measured; or

(b) if no day of a Restart Period has occurred during the Term, the lesser of the following:

  (i) the fixed charges, fees and tariffs payable by SDP in respect of Use of System Services provided on the relevant day by a Distribution Network Service Provider (including access charges and capacity charges) which are applied to the NMI (or NMIs) at which SDP's electricity usage at the Plant is measured; and

  (ii) the fixed charges, fees and tariffs referred to in sub-paragraph (i) above that would have applied, had the maximum demand used to calculate each relevant capacity charge been 1,090kVA.

Force Majeure Event means any event or circumstance which:

(a) reduces the amount of Desalinated Water the Plant is capable of supplying to SDP's customers, including by means of the Pipeline;

(b) is outside the reasonable control of SDP (including its contractors); and

(c) could not have been prevented, avoided or overcome by SDP and its contractors acting in accordance with Good Industry Practice.

Good Industry Practice has the meaning given in SDP's Network Operator's Licence.

Grace Period means a period of time:

(a) beginning on a Drought Response Trigger Day or an Emergency Response Commencement Day; and

(b) ending on the earlier of:

(i) the day 8 months after it began; or

(ii) a Grace Period Opt Out Day.

Grace Period Opt Out Day means a day specified in a Grace Period Opt Out Notice as the day that SDP elects to bring a Grace Period to an end, and must be a day at least 7 days after the date on which the Grace Period Opt Out Notice is served on all of SDP's customers for the supply of Desalinated Water.

Grace Period Opt Out Notice means a notice which:

(a) is in writing;

(b) is served by SDP on all of its customers for the supply of Desalinated Water;

(c) is copied to IPART;

(d) is irrevocable, except by further notice served by SDP on all of its customers for the supply of Desalinated Water prior to the Grace Period Opt Out Day specified in the first notice; and

(e) informs SDP's customers for the supply of Desalinated Water that SDP elects to bring a Grace Period to an end, with effect from a Grace Period Opt Out Day specified in the notice.

GST has the meaning given under the *A New Tax System (Goods and Services Tax) Act 1999* (Cth).

Impactor means:

(a) Sydney Water Corporation; and

(b) any holder of a Retail Supplier's Licence:

(i) who is supplied water by Water NSW or SDP; and

(ii) whose Retail Supplier's Licence is subject to a condition requiring its holder to contribute to the costs of the Plant.

[Note: In certain circumstances, section 13(2)(c)(ii) of the WIC Act permits the Minister administering Part 2 of the WIC Act to impose a condition on a Retail Supplier's Licence requiring the licensee to contribute to the costs of specified infrastructure.]

IPART means the Independent Pricing and Regulatory Tribunal of New South Wales established by section 5(1) the IPART Act.

IPART Act means the *Independent Pricing and Regulatory Tribunal Act 1992* (NSW).

IPART's Address means either:

(a) Level 15, 2-24 Rawson Place, Sydney NSW 2000; or

(b) a different address advised or published by IPART from time to time.

kVA means kilovolt-amps.

Minister has the meaning given in clause 3(a) of the Preliminary section of this determination.

ML means megalitres.

MWh means megawatt hours.

National Electricity Law means the National Electricity Law set out in the Schedule to the *National Electricity (South Australia) Act 1996* (SA).

National Electricity Rules means the National Electricity Rules made under the National Electricity Law.

Network Operator's Licence has the meaning given in the WIC Act.

NMI means a meter allocated a National Metering Identifier as defined in the National Electricity Rules.

Non-Emergency Restart Period means any Restart Period during the Term, other than a Restart Period which immediately precedes an Emergency Response Commencement Day.

Pipeline means the pipeline system running from Lot 2 in Deposited Plan 1077972 in the suburb of Kurnell up to, but not including, the connection valve at Shaft 11C on the City Tunnel at Bridge Street in Lot A in Deposited Plan 365407 in the suburb of Erskineville and consisting of the following infrastructure:

(a) an overland pipeline running from the drinking water pumping station at the Plant to Silver Beach;

(b) a marine pipeline running from Silver Beach to a point 800 metres offshore from Silver Beach;

(c) twin marine pipelines running from 800 metres offshore of Silver Beach to Cook Park, Kyeemagh; and

(d) an overland pipeline running from Cook Park, Kyeemagh to the connection valve at Shaft 11C on the City Tunnel at Bridge Street, Erskineville.

Plant means the infrastructure covered by the Network Operator's Licence held by SDP according to the definition of water industry infrastructure in that licence (excluding the Pipeline).

Plant Operation Period means a period:

(a) beginning on the day immediately after the last day of a Restart Period; and

(b) ending on the day immediately preceding the eleventh consecutive day on which the Plant is Shutdown.

For the avoidance of any doubt, a Plant Operation Period can include a period of Shutdown of ten days or fewer in duration.

Preceding Day has the meaning given in clause 2(a) of schedule 4.

Preceding Period means:

(a) in respect of a Drought Response Cease Day, the Drought Response Period which ended with that Drought Response Cease Day; and

(b) in respect of an Emergency Response Cease Day, the Emergency Response Period which ended with that Emergency Response Cease Day.

Referral means the referral referred to in clause 4(b) of the Preliminary section of this determination.

Refund Day has the meaning given in clause 3(a) of schedule 4.

Reset Day has the meaning given in clause 2(a) of schedule 4.

Restart Period means a period:

(a) beginning on the day of recommencement of activities associated with preparing the Plant for the production of Desalinated Water (other than production of the kind referred to in paragraph (b) of the definition of "Shutdown" below) following a Shutdown Period; and

(b) ending on the later of:

  (i) the day referred to in paragraph (a); or

  (ii) the day before the first day that Desalinated Water is produced by the Plant and supplied by SDP from the Plant to a customer after that Shutdown Period.

Restart Plant Notice means a notice:

(a) in writing;

(b) served on SDP by a customer of SDP for the supply of Desalinated Water;

(c) is copied to IPART; and

(d) which requires SDP to initiate a Restart Period.

[Note: For the avoidance of any doubt, an Emergency Response Notice is not a Restart Plant Notice.]

Retail Supplier's Licence has the meaning given in the WIC Act.

SDP has the meaning set out in clause 1 of the Preliminary section of this determination.

Shutdown means when the Plant:

(a) is not producing Desalinated Water; or

(b) is producing minimal quantities of Desalinated Water for the sole purpose of maintaining the Plant (including Plant membranes).

Shutdown Period means a period:

(a) beginning on the eleventh consecutive day (outside of a Restart Period) for which the Plant is Shutdown; and

(b) ending on the day immediately preceding the first day of a Restart Period.

Sydney Water Corporation means the corporation of that name constituted by section 4(1) of the *Sydney Water Act 1994* (NSW).

Term means the Term defined in clause 2(b) of the Preliminary section of this determination.

Total Capacity means either:

(a) 250ML per day; or

(b) if the Plant is expanded, the nameplate capacity per day of the expanded Plant in ML.

Total Impact means, for a period, the sum of all Customer Impacts for the period.

Total Impactor Refund Amount means an amount calculated in accordance with clause 3(h) of schedule 4.

Total Refund Amount means an amount calculated in accordance with clause 3(d) of schedule 4.

Use of System Services has the meaning given in the National Electricity Rules.

Variable Network Charge means the variable charge, fee or tariff per megawatt hour payable by SDP in respect of Use of System Services provided by a Distribution Network Service Provider in respect of electricity supplied to the NMI (or NMIs) at which SDP's electricity usage at the Plant is measured for the applicable period.

Water NSW means the corporation of that name constituted by the *Water NSW Act 2014*.

Water Supply Services has the meaning set out in clause 4(b) of the Preliminary section of this determination.

WIC Act means the *Water Industry Competition Act 2006* (NSW).

1.2 Consumer Price Index

(a) $\Delta CPI_1 = \left(\frac{CPI_{March2018}}{CPI_{March2017}}\right) - 1$

$\Delta CPI_2 = \left(\frac{CPI_{March2019}}{CPI_{March2017}}\right) - 1$

$\Delta CPI_3 = \left(\frac{CPI_{March2020}}{CPI_{March2017}}\right) - 1$

$\Delta CPI_4 = \left(\frac{CPI_{March2021}}{CPI_{March2017}}\right) - 1$

each as calculated and notified by IPART, where **CPI** means:

(i) the consumer price index, All Groups index number for the weighted average of eight capital cities as published by the Australian Bureau of Statistics; or

(ii) if the Australian Bureau of Statistics does not or ceases to publish the index, then CPI will mean an index determined by IPART.

(b) The subtext (for example $_{March2018}$) when used in relation to the CPI in paragraph (a) above refers to the CPI for the quarter and year indicated (in the example, the March quarter for 2018).

2 Interpretation

2.1 General provisions

In this determination:

(a) headings are for convenience only and do not affect the interpretation of this determination;

(b) a reference to a schedule, clause or table is a reference to a schedule to, clause of, or table in, this determination unless otherwise indicated;

(c) a construction that would promote a purpose or object expressly or impliedly underlying the IPART Act or the WIC Act is to be preferred to a construction that would not promote that purpose or object;

(d) words importing the singular include the plural and vice versa;

(e) a reference to a law or statute includes regulations, rules, codes and other instruments (including licences) under it and consolidations, amendments, reenactments or replacements of them or of the law or statute itself;

(f) where a word is defined, other grammatical forms of that word have a corresponding meaning;

(g) a reference to a day is to a calendar day;

(h) a reference to a month is to a calendar month;

(i) a reference to a person includes a reference to the person's executors, administrators, successors, substitutes (including, but not limited to, persons taking by novation), replacements and assigns;

(j) a reference to an officer includes a reference to the officer which replaces it or which substantially succeeds to its powers or functions;

(k) a reference to a body, whether statutory or not:

(i) which ceases to exist; or

(ii) whose powers or functions are transferred to another body,

is a reference to the body which replaces it or which substantially succeeds to its powers or functions;

(l) a customer is taken to have triggered a Shutdown Period if:

(i) the customer served a Cease Supply Notice and was the last customer SDP supplied prior to the Shutdown Period;

(ii) the customer served a Cease Supply Notice within 14 days before the Cease Supply Notice referred to in paragraph (l)(i); or

(iii) the customer is Sydney Water Corporation and the Shutdown Period begins within 30 days after an Emergency Response Cease Day.

(m) a customer is taken to have triggered a Restart Period if:

(i) the customer served a Restart Plant Notice and was the first customer SDP supplied after a Shutdown Period;

(ii) the customer served a Restart Plant Notice within 14 days after the Restart Plant Notice referred to in paragraph (m)(i); or

(iii) the customer is Sydney Water Corporation and the Restart Period immediately precedes an Emergency Response Commencement Day.

2.2 Explanatory notes and clarification notice

(a) Explanatory notes do not form part of this determination, but in the case of uncertainty may be relied on for interpretation purposes.

(b) In the event of any inconsistency between clause 8 of the Preliminary section of this determination ("Simplified outline") and the balance of this determination, the balance of this determination is to prevail over clause 8 of the Preliminary section of this determination to the extent of the inconsistency.

(c) IPART may publish a clarification notice in the NSW Government Gazette to correct any manifest error in this determination. Such a clarification notice is taken to form part of this determination.

2.3 Prices exclusive of GST

Prices or charges specified in this determination do not include GST.

2.4 SDP's billing cycle

For the avoidance of doubt, nothing in this determination affects when SDP may issue a bill to a customer for prices or charges under this determination.

2.5 Rounding rule

(a) Any price or charge calculated in accordance with this determination is to be rounded to the nearest whole cent.

(b) In applying paragraph (a), any amount that is a multiple of 0.5 cents (but not a multiple of 1 cent), is to be rounded up to the nearest whole cent.

2.6 Notices

(a) Any notice served under this determination:

(i) must be in writing addressed to either:

(A) the intended recipient at the physical, postal, facsimile or email address last advised by the intended recipient to the sender; or

(B) in the case of a notice to IPART, IPART's chair at IPART's Address;

(ii) must be signed by an authorised officer of the sender (or, where the notice is be issued jointly, signed by an authorised officer of each sender); and

(iii) will be taken to have been delivered:

(A) in the case of delivery in person – when delivered to the recipient's address for service and a signature is received as evidence of delivery;

(B) in the case of delivery by post – within three business days of posting;

(C) in the case of delivery by facsimile – at the time of dispatch if the sender receives a transmission report which confirms that the facsimile was sent in its entirety to the facsimile number of the recipient; and

(D) in the case of delivery by email – on receipt of confirmation by the sender (either by automatic receipt request or otherwise) that the recipient has received the email.

(b) If delivery or receipt of a notice under this determination occurs on a day on which business is not generally carried on in the place to which the notice is sent, or occurs later than 4.00pm (local time in that place) on any day, it will be deemed to have occurred at 9.00am (local time in that place) on the next business day in that place.

Schedule 6 Statement of reasons why IPART has chosen to set a methodology for fixing a maximum price

Under section 13A of the IPART Act, in determining prices for the Water Supply Services, IPART may either fix maximum prices or set a methodology for fixing maximum prices. However, IPART may not set a methodology for fixing maximum prices unless it is of the opinion that it is impractical to make a determination directly fixing the maximum price.

In this determination, IPART has set a methodology for fixing the maximum prices that SDP may charge for the Water Supply Services. IPART's reasons for setting a methodology for that purpose, rather than directly fixing maximum prices, are set out in this schedule.

The methodology in this determination allows for:

- different prices to be charged depending on the operating mode of the Plant;
- different prices to apply to different types of customers under different circumstances;
- abating components of maximum prices if SDP does not produce to a certain level;
- recovery of the costs of replacing membranes; and
- a pass through of actual electricity network costs incurred by SDP in providing the Water Supply Services.

SDP's costs vary greatly depending on the operating mode of the Plant. As an example, the Plant tends to consume much more electricity when it is operating than when it is in shutdown. Having a pricing methodology that varies based on the operating mode of the Plant allows prices to better reflect the different costs of each mode.

IPART considers that, in some circumstances, it is necessary for different prices to apply to different types of customers. As an example, IPART considers that Impactors should ordinarily pay SDP's incremental service charge, essentially because those who draw on Sydney's water supply should pay to supplement it with Desalinated Water during drought. However, in a scenario where a particular customer calls SDP into operation outside of drought, IPART considers that that customer should pay SDP's incremental service charge. It is necessary for IPART to use a methodology, rather than directly fixing maximum prices, to allocate charges to different types of customer in different scenarios.

IPART considers that abating components of maximum prices if SDP does not produce to a certain level provides an important incentive for SDP to supply Desalinated Water when the community needs it. It is necessary to use a methodology to incorporate the abatement mechanism; it would not be possible for IPART to do so if it directly fixed maximum prices.

SDP may need to replace the membranes used in the Plant at some time after the date of this determination. The methodology allows SDP to levy charges that reflect the costs SDP is likely to incur in replacing the membranes if it is called into operation.

IPART considers it important that SDP is able to pass through electricity network costs through its water prices given that SDP will have little ability to control these costs. In addition, there is uncertainty about average changes in network prices into the future. Given these uncertainties, we have established a mechanistic cost pass through provision for network charges to ensure that SDP does not have to bear the risk associated with changes in network costs (unless the cap provided for in paragraph (b)(ii) of the definition of Fixed Network Charge applies). This in turn ensures that the charges paid by water customers ultimately reflect the actual network costs.