Australian Electricity Futures and Options

Contract Specifications
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Australian Electricity Futures
Contract Specifications

Monthly Base Load Futures

Underlying Commodity
Electrical energy bought and sold in the New South Wales, Victoria, South Australia and Queensland wholesale electricity pool markets conducted by the Australian Energy Market Operator (AEMO).

Contract Unit
1 Megawatt of electrical energy per hour based on a base load profile. Where the base load profile is defined as the Wholesale Electricity Pool Market base load period from 00:00 hours Monday to 24:00 hours Sunday over the duration of the Contract Month.

For example: the size (in Megawatt hours) of each contract month will vary depending on the number of days and base load hours within the month, as follows:
- A 28 day contract month will equate to 672 Megawatt hours
- A 29 day contract month will equate to 696 Megawatt hours
- A 30 day contract month will equate to 720 Megawatt hours
- A 31 day contract month will equate to 744 Megawatt hours

Price Quotation
Prices are quoted in Australian dollars per Megawatt hour

Contract Months
January, February, March, April, May, June, July, August, September, October, November, December, between 4 to 6 months ahead.

Commodity Code
<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>EN</td>
<td>NSW Base Load Monthly Futures</td>
</tr>
<tr>
<td>EV</td>
<td>VIC Base Load Monthly Futures</td>
</tr>
<tr>
<td>EQ</td>
<td>QLD Base Load Monthly Futures</td>
</tr>
<tr>
<td>ES</td>
<td>SA Base Load Monthly Futures</td>
</tr>
</tbody>
</table>

Minimum Price Movement
Minimum price fluctuations of $0.01 per Megawatt hour

Tick Size
Tick size for a $0.01/MWh price fluctuation:
- A 672 MWh contract month has a tick size of $6.72
- A 696 MWh contract month has a tick size of $6.96
- A 720 MWh contract month has a tick size of $7.20
- A 744 MWh contract month has a tick size of $7.44

Trading Hours
10:00am – 4:00pm

Last Trading Day
The last Business Day of the Contract Month. On this day, trading terminates at 4:00pm.

Cash Settlement Day
The Cash Settlement Day of the Contract shall be the fourth Business Day after the expiry of the Contract Month.

Cash Settlement Price
The Cash Settlement Price is calculated by taking the arithmetic average of the Wholesale Electricity Pool Market base load spot prices on a half hourly basis over the Contract Month, rounded to the nearest cent. A Provisional Cash Settlement Price will be declared on the first Business Day after expiry of the Contract and shall be later confirmed on the third Business Day after expiry.

Cash Settlement Process
Upon the fourth Business Day after the expiry of the Contract, the Contract will be cash settled at the Cash Settlement Price confirmed on the third business day of the Contract Month. The final settlement price is rounded to the nearest cent. All bought and sold contracts in existence as at the close of trading in the Contract Month shall be settled by the ASX Clear (Futures) at the Cash Settlement Price.

Cash Settlement Value
The Cash Settlement Value is the Cash Settlement Price multiplied by the number of Megawatt hours (MWh) in the underlying Contract Month.

Unless otherwise indicated, all times are Sydney, Australia time
Quarterly Base Load Futures

Underlying Commodity
Electrical energy bought and sold in the New South Wales, Victoria, South Australia and Queensland wholesale electricity pool markets conducted by the Australian Energy Market Operator (AEMO).

Contract Unit
1 Megawatt of electrical energy per hour based on a base load profile. Where the base load profile is defined as the Wholesale Electricity Pool Market base load period from 00:00 hours Monday to 24:00 hours Sunday over the duration of the Contract Quarter.

For example: the size (in Megawatt hours) of each contract quarter will vary depending on the number of days and base load hours within the quarter, as follows:
- A 90 day contract quarter will equate to 2,160 Megawatt hours
- A 91 day contract quarter will equate to 2,184 Megawatt hours
- A 92 day contract quarter will equate to 2,208 Megawatt hours

Price Quotation
Prices are quoted in Australian dollars per Megawatt hour

Contract Quarters
March, June, September, December, up to the next 4 calendar years and 3 financial years or 3 calendar years and 4 financial years.

Commodity Code
<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
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<tbody>
<tr>
<td>BN</td>
<td>NSW Base Load Quarterly Futures</td>
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<tr>
<td>BV</td>
<td>VIC Base Load Quarterly Futures</td>
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<tr>
<td>BQ</td>
<td>QLD Base Load Quarterly Futures</td>
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<tr>
<td>BS</td>
<td>SA Base Load Quarterly Futures</td>
</tr>
<tr>
<td>HN</td>
<td>NSW Base Load Strip Products</td>
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<tr>
<td>HV</td>
<td>VIC Base Load Strip Products</td>
</tr>
<tr>
<td>HQ</td>
<td>QLD Base Load Strip Products</td>
</tr>
<tr>
<td>HS</td>
<td>SA Base Load Strip Products</td>
</tr>
</tbody>
</table>

Minimum Price Movement
Minimum price fluctuations of $0.01 per Megawatt hour

Tick Size
Tick size for a $0.01/MWh price fluctuation:
- A 2,160 MWh contract quarter has a tick size of $21.60
- A 2,184 MWh contract quarter has a tick size of $21.84
- A 2,208 MWh contract quarter has a tick size of $22.08

Trading Hours
10:00am – 4:00pm

Last Trading Day
The last Business Day of the Contract Quarter. On this day, trading terminates at 4:00pm.

Cash Settlement Day
The Cash Settlement Day of the Contract shall be the fourth Business Day after the Last Trading Day of the Contract Quarter.

Cash Settlement Price
The Cash Settlement Price is calculated by taking the arithmetic average of the Wholesale Electricity Pool Market base load spot prices on a half hourly basis over the Contract Quarter, rounded to the nearest cent. A Provisional Cash Settlement Price will be declared on the first Business Day after the Last Trading Day of the Contract and shall be later confirmed on the third Business Day after the Last Trading Day.

Cash Settlement Process
Upon the fourth Business Day after the expiry of the Contract, the Contract will be cash settled at the Cash Settlement Price confirmed on the third business day after the Last Trading Day of the Contract Quarter. The final settlement price is rounded to the nearest cent. All bought and sold contracts in existence as at the close of trading in the Contract Quarter shall be settled by the ASX Clear (Futures) at the Cash Settlement Price.

Cash Settlement Value
The Cash Settlement Value is the Cash Settlement Price multiplied by the number of Megawatt hours (MWh) in the underlying Contract Quarter.

Unless otherwise indicated, all times are Sydney, Australia time
Quarterly Peak Load Futures

Underlying Commodity
Electrical energy bought and sold in the New South Wales, Victoria, South Australia and Queensland wholesale electricity pool markets conducted by the Australian Energy Market Operator (AEMO).

Contract Unit
1 Megawatt of electrical energy per hour based on a peak load profile. Where the peak load profile is defined as the Wholesale Electricity Pool Market peak load period from 07:00am hours to 10:00pm hours Monday to Friday (excluding Public holidays and any other days determined by ASX) over the duration of the Contract Quarter.

For example: the size (in Megawatt hours) of each contract quarter will vary depending on the number of peak days and peak load hours within the quarter, as follows:
- A 59 day contract quarter will equate to 885 Megawatt hours
- A 60 day contract quarter will equate to 900 Megawatt hours
- A 61 day contract quarter will equate to 915 Megawatt hours
- A 62 day contract quarter will equate to 930 Megawatt hours
- A 63 day contract quarter will equate to 945 Megawatt hours
- A 64 day contract quarter will equate to 960 Megawatt hours
- A 65 day contract quarter will equate to 975 Megawatt hours
- A 66 day contract quarter will equate to 990 Megawatt hours

Price Quotation
Prices are quoted in Australian dollars per Megawatt hour

Contract Quarters
March, June, September, December, up to the next 4 calendar years and 3 financial years or 3 calendar years and 4 financial years.

Commodity Code

<table>
<thead>
<tr>
<th>Commodity Code</th>
<th>Description</th>
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<tbody>
<tr>
<td>PN</td>
<td>NSW Peak Load Quarterly Futures</td>
</tr>
<tr>
<td>PV</td>
<td>VIC Peak Load Quarterly Futures</td>
</tr>
<tr>
<td>PQ</td>
<td>QLD Peak Load Quarterly Futures</td>
</tr>
<tr>
<td>PS</td>
<td>SA Peak Load Quarterly Futures</td>
</tr>
<tr>
<td>DN</td>
<td>NSW Peak Load Strip Products</td>
</tr>
<tr>
<td>DV</td>
<td>VIC Peak Load Strip Products</td>
</tr>
<tr>
<td>DQ</td>
<td>QLD Peak Load Strip Products</td>
</tr>
<tr>
<td>DS</td>
<td>SA Peak Load Strip Products</td>
</tr>
</tbody>
</table>

Minimum Price Movement
Minimum price fluctuations of $0.01 per Megawatt hour

Tick Size
Tick size for a $0.01/MWh price fluctuation:
- A 885 MWh contract quarter has a tick size of $8.85
- A 900 MWh contract quarter has a tick size of $9.00
- A 915 MWh contract quarter has a tick size of $9.15
- A 930 MWh contract quarter has a tick size of $9.30
- A 945 MWh contract quarter has a tick size of $9.45
- A 960 MWh contract quarter has a tick size of $9.60
- A 975 MWh contract quarter has a tick size of $9.75
- A 990 MWh contract quarter has a tick size of $9.90

Trading Hours
10:00am – 4:00pm

Last Trading Day
The last Business Day of the Contract Quarter. On this day, trading terminates at 4:00pm.

Cash Settlement Day
The Cash Settlement Day of the Contract shall be the fourth Business Day after the Last Trading Day of the Contract Quarter.

Cash Settlement Price
The Cash Settlement Price is calculated by taking the arithmetic average of the Wholesale Electricity Pool Market peak load spot prices on a half hourly basis over the Contract Quarter, rounded to the nearest cent. A Provisional Cash Settlement Price will be declared on the first Business Day after the Last Trading Day of the Contract and shall be later confirmed on the third Business Day after the Last Trading Day.

Cash Settlement Process
Upon the fourth Business Day after the Last Trading Day of the Contract, the Contract will be cash settled at the Cash Settlement Price confirmed on the third business day after the Last Trading Day of the Contract Quarter. The final settlement price is rounded to the nearest cent. All bought and sold contracts in existence as at the close of trading in the Contract Quarter shall be settled by the ASX Clear (Futures) at the Cash Settlement Price.

Cash Settlement Value
The Cash Settlement Value is the Cash Settlement Price multiplied by the number of Megawatt hours (MWh) in the underlying Contract Quarter.

Unless otherwise indicated, all times are Sydney, Australia time
Quarterly Base Load $300 Cap Futures

Underlying Commodity
Electrical energy bought and sold in the New South Wales, Victoria, South Australia and Queensland wholesale electricity pool markets conducted by the Australian Energy Market Operator (AEMO).

Contract Unit
1 Megawatt of electrical energy per hour based on a base load profile. Where the base load profile is defined as the Wholesale Electricity Pool Market base load period from 00:00 hours Monday to 24:00 hours Sunday over the duration of the Contract Quarter.

For example: the size (in Megawatt hours) of each contract quarter will vary depending on the number of days and base load hours within the quarter, as follows:
- A 90 day contract quarter will equate to 2,160 Megawatt hours
- A 91 day contract quarter will equate to 2,184 Megawatt hours
- A 92 day contract quarter will equate to 2,208 Megawatt hours

Price Quotation
Prices are quoted in Australian dollars per Megawatt hour

Contract Quarters
March, June, September, December, up to the next 4 calendar years and 3 financial years or 3 calendar years and 4 financial years.

Commodity Code
<table>
<thead>
<tr>
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</thead>
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<tr>
<td>GN</td>
<td>NSW Base Load Quarterly $300 Cap Futures</td>
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<tr>
<td>GQ</td>
<td>QLD Base Load Quarterly $300 Cap Futures</td>
</tr>
<tr>
<td>GV</td>
<td>VIC Base Load Quarterly $300 Cap Futures</td>
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<td>GS</td>
<td>SA Base Load Quarterly $300 Cap Futures</td>
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<tr>
<td>RN</td>
<td>NSW Base Load $300 Cap Strip Products</td>
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<tr>
<td>RQ</td>
<td>QLD Base Load $300 Cap Strip Products</td>
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<tr>
<td>RV</td>
<td>VIC Base Load $300 Cap Strip Products</td>
</tr>
<tr>
<td>RS</td>
<td>SA Base Load $300 Cap Strip Products</td>
</tr>
<tr>
<td>RN</td>
<td>NSW Base Load Quarterly $300 Cap Strip Products</td>
</tr>
<tr>
<td>RS</td>
<td>SA Base Load Quarterly $300 Cap Strip Products</td>
</tr>
</tbody>
</table>

Minimum Price Movement
The minimum price fluctuation is $0.01 per MWh

Tick Size
Tick size for a $0.01/MWh price fluctuation:
- A 2,160 MWh contract quarter has a tick size of $21.60
- A 2,184 MWh contract quarter has a tick size of $21.84
- A 2,208 MWh contract quarter has a tick size of $22.08

Trading Hours
10:00am – 4:00pm

Last Trading Day
The last Business Day of the Contract Quarter. On this day, trading terminates at 4:00pm.

Cash Settlement Day
The Cash Settlement Day of the Contract shall be the fourth Business Day after the Last Trading Day of the Contract Quarter.

Cash Settlement Price
The Cash Settlement Price = \( \frac{C - (300 \times D)}{E} \), where:
- \( C \) = the sum of all base load half hourly spot prices for the Region in the Calendar Quarter greater than $300.00
- \( D \) = the total number of base load half hour spot prices for the Region in the Calendar Quarter greater than $300.00
- \( E \) = the total number of base load half hour spot prices for the Region in the Calendar Quarter

A Provisional Cash Settlement Price will be declared on the first Business Day after the Last Trading Day of the Contract and shall be later confirmed on the third Business Day after the Last Trading Day.

Cash Settlement Process
Upon the fourth Business Day after the expiry of the Contract, the Contract will be cash settled at the Cash Settlement Price confirmed on the third business day after the Last Trading Day of the Contract Quarter. The final settlement price is rounded to the nearest cent. All bought and sold contracts in existence as at the close of trading in the Contract Quarter shall be settled by the ASX Clear (Futures) at the Cash Settlement Price.

Cash Settlement Value
The Cash Settlement Value is the Cash Settlement Price multiplied by the number of Megawatt hours (MWh) in the underlying Contract Quarter.

Unless otherwise indicated, all times are Sydney, Australia time
Australian Electricity Options

Contract Specifications

Calendar Year Base Load Strip Options

Underlying Commodity
A strip of four Quarterly Base Load Futures Contracts.

An equivalent of 1 Megawatt of electrical energy per hour on a base load profile for the respective States (NSW, QLD, VIC and SA) over the duration of a Calendar Year.

Contract Years
Options available on 3 Calendar Year Strip Futures Products up to three years ahead.

Commodity Code

<table>
<thead>
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<tr>
<td>HN</td>
<td>NSW Base Load Strip Options</td>
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<tr>
<td>HV</td>
<td>VIC Base Load Strip Options</td>
</tr>
<tr>
<td>HQ</td>
<td>QLD Base Load Strip Options</td>
</tr>
<tr>
<td>HS</td>
<td>SA Base Load Strip Options</td>
</tr>
</tbody>
</table>

Note: a June “M” expiry denotes a Financial Year strip Option and a December “Z” expiry denotes a Calendar Year Strip Option

Price Quotation
Prices are quoted in Australian dollars per Megawatt hour

Minimum Price Movement
The minimum price fluctuation is $0.01 per MWh

Trading Hours
10:00am – 4:00pm

Exercise Prices
Set at intervals of $1.00 per MWh. New option exercise prices created as the underlying futures contract price moves.

Contract Expiry
Options will cease trading at 12:00pm on the Last Trading Day. The Last Trading Day shall be the day 6 weeks prior to the day immediately preceding the commencement of the first Contract Quarter for the underlying strip. If this day is not a business day or is recognised in the underlying regions as a Public Holiday then the following business day will be the expiry day.

Settlement Method
All in-the-money options will be automatically exercised.

Unless otherwise directed by a Deny Automatic Exercise Request, all in-the-money Options will be exercised. A deny exercise request needs to be lodged with ASX 24 Clearing no later than 12:30pm on the day of expiry.

Options may be exercised on any business day up to and including the day of expiry. Buyers may exercise in, at and out-of-the-money option positions held, by lodging a notice of manual exercise with ASX Clear (Futures) no later than 12:30pm on the day of expiry.

Formula For Determining Futures Quarterly Prices Resulting From Strip Option Exercise

Upon exercise, the holder will receive four quarterly futures positions at prices equivalent to the option strike price, after applying the current curve ratio determined from the previous business day’s settlement price of the four quarterly futures contracts underlying the relevant Strip Futures Product, as outline below:

\[ FP = \frac{A \times B}{C} \]

- **FP** = Price allocated to each futures contract in the strip resulting from exercised Strip Option
- **A** = The previous day’s Daily Settlement Price for the Contract Quarter for each individual futures contract in the strip
- **B** = Exercise Price
- **C** = Previous Day’s Implied Strip Price, calculated as follows:

\[ \text{Implied Strip Price} = \frac{F}{G} \]

- **F** = \( a + b + c + d \)
  - **a** = Q1 previous day’s Daily Settlement Price x MWh for Q1
  - **b** = Q2 previous day’s Daily Settlement Price x MWh for Q2
  - **c** = Q3 previous day’s Daily Settlement Price x MWh for Q3
  - **d** = Q4 previous day’s Daily Settlement Price x MWh for Q4
- **G** = Total number of MWh of all four Futures Contracts in the strip

The underlying electricity futures contract with the longest dated expiry will be further adjusted up or down in increments of $0.01/MWh to the extent that such adjustment will achieve a more accurate implied Exercise Price, as calculated to 4 decimal places.

Reference Price for Option Exercise
The previous day’s Daily Settlement Price of the underlying Calendar Year Base Load Strip Futures Product.
Financial Year Base Load Strip Options

Underlying Commodity
A strip of four Quarterly Base Load Futures Contracts.

An equivalent of 1 Megawatt of electrical energy per hour on a base load profile for the respective States (NSW, QLD, VIC and SA) over the duration of a Financial Year.

Contract Years
Options available on 3 Financial Year Strip Futures Products up to three years ahead.

Commodity Code
- HN NSW Base Load Options
- HV VIC Base Load Options
- HQ QLD Base Load Options
- HS SA Base Load Options

Note: a June “M” expiry denotes a Financial Year strip Option and a December “Z” expiry denotes a Calendar Year Strip Option

Price Quotation
Prices are quoted in Australian dollars per Megawatt hour

Minimum Price Movement
The minimum price fluctuation is $0.01 per MWh

Trading Hours
10:00am – 4:00pm

Exercise Prices
Set at intervals of $1.00 per MWh. New option exercise prices created as the underlying futures contract price moves.

Contract Expiry
Options will cease trading at 12:00pm on the Last Trading Day. The Last Trading Day shall be the day 6 weeks prior to the day immediately preceding the commencement of the first Contract quarter for the underlying strip. If this day is not a business day or is recognised in the underlying regions as a Public Holiday then the following business day will be the expiry day.

Settlement Method
All in-the-money options will be automatically exercised.

Unless otherwise directed by a Deny Automatic Exercise Request, all in-the-money Options will be exercised. A deny exercise request needs to be lodged with ASX 24 Clearing no later than 12:30pm on the day of expiry.

Options may be exercised on any business day up to and including the day of expiry. Buyers may exercise in, at and out-of-the-money option positions held, by lodging a notice of manual exercise with ASX Clear (Futures) no later than 12:30pm on the day of expiry.

Formula For Determining Futures Quarterly Prices Resulting From Strip Option Exercise

Upon exercise, the holder will receive four quarterly futures positions at prices equivalent to the option strike price, after applying the current curve ratio determined from the previous business day’s settlement price of the 4 quarterly futures contracts underlying the relevant Strip Futures Product, as outline below:

\[ FP = \frac{A \times B}{C} \]

- \( FP \) = Price allocated to each futures contract in the strip resulting from exercised Strip Option
- \( A \) = the previous day’s Daily Settlement Price for the Contract Quarter for each individual futures contract in the strip
- \( B \) = Exercise Price
- \( C \) = Previous Day’s Implied Strip Price, calculated as follows:

Implied Strip Price = \( \frac{F}{G} \)

- \( F \) = \( a + b + c + d \)
- \( a \) = Q3 previous day’s Daily Settlement Price x MWh for Q3
- \( b \) = Q4 previous day’s Daily Settlement Price x MWh for Q4
- \( c \) = Q1 previous day’s Daily Settlement Price x MWh for Q1
- \( d \) = Q2 previous day’s Daily Settlement Price x MWh for Q2
- \( G \) = Total number of MWh of all four Futures Contracts in the strip

The underlying electricity futures contract with the longest dated expiry will be further adjusted up or down in increments of $0.01/MWh to the extent that such adjustment will achieve a more accurate implied Exercise Price, as calculated to 4 decimal places.

Reference Price for Option Exercise
The previous day’s Daily Settlement Price of the underlying Financial Year Base Load Strip Futures Product.
**Average Rate Base Load Quarterly Options**

**Underlying Commodity**
A Quarterly Base Load Futures Contract.

1 Megawatt of electrical energy per hour on a base load profile for the respective States (NSW, QLD, VIC and SA) over the duration of a Calendar Quarter.

**Contract Quarters**
March, June, September, December, up to 8 calendar quarters ahead.

**Commodity Code**
- BN: NSW Base Load Options
- BV: VIC Base Load Options
- BQ: QLD Base Load Options
- BS: SA Base Load Options

**Price Quotation**
Prices are quoted in Australian dollars per Megawatt hour.

**Minimum Price Movement**
The minimum price fluctuation is $0.01 per MWh.

**Trading Hours**
10:00am – 4:00pm

**Exercise Prices**
Set at intervals of $1.00 per MWh. New option exercise prices created as the underlying futures contract price moves.

**Contract Expiry**
Options will cease trading at 4:00pm on the Last Trading Day of the underlying Calendar Quarter.

**Declaration Date**
The day and time at which the final Settlement Price of the underlying Base Load Calendar Quarter Electricity Futures Contract is declared.

**Reference Price for Option Exercise**
In accordance with the final Settlement Price of the underlying futures contract as determined on the Third Business Day after the Final Trading Day.

**Method of Option Exercise**
On the Third Business Day after the Final Trading Day all in-the-money options are automatically exercised into the underlying futures contract and cash settled. Deny Automatic Exercise Requests are not permitted. Exercise Requests for out-of-the-money options and/or at-the-money options are not permitted.
Further information

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