

Solar feed-in tariff 2023-24 – Method and input components

28 April 2023

This technical note provides a summary of our method for setting the solar feed-in tariff benchmarks and our input components for our benchmarks for 2023-24.

Method for setting the solar feed-in tariff benchmark

We have set the solar feed-in tariff benchmarks by:

1. Forecasting the average wholesale electricity price for 2023-24 using NSW baseload electricity futures contracts traded on the Australian Securities Exchange (ASX). We have taken a 40-day average to reflect the latest market information on forecast wholesale spot prices to establish one end of the range. We have also taken a volume weighted average of all historical trades available to establish the other end of the range to reflect retailers' actual practices in purchasing wholesale electricity to hedge wholesale spot price risk.
2. Applying a 'solar multiplier' to reflect whether wholesale prices are likely to be lower or higher than the average wholesale price at the times when solar exports occur. Recently, wholesale prices in the National Electricity Market (NEM) are lowest in the middle of the day (when solar generation is high that meets a large proportion of demand), and highest in the evening. We have calculated the ratio of the average solar-weighted price to the average time weighted price using the most recent three years of historical wholesale spot prices and net solar export data.^a

We have calculated individual solar multipliers for different network areas, and reflected the variations within our benchmark range. For 2023-24 we have not resolved issues in the Endeavour data prior to publication. However, our analysis indicates that the impact of not including Endeavour data is immaterial.

3. Increasing the value of our benchmark range by an avoided loss factor. When electricity is purchased from the NEM and flows through the transmission and distribution networks some of it will be lost. However, given that solar exports are located closer to where it will be used by other customers, less needs to be purchased by retailers to meet the same level of demand.
4. Adding the value of the NEM fees and charges that retailers avoid paying when they supply customers with other customers' solar exports because these charges are levied on retailers' net purchases.

Using this method, our final all-day solar feed-in tariff benchmark for 2023-24 is 7.7 to 9.4 c/kWh (Table 1). For more information on our method, see our [2021 Technical Paper](#).

^a For the purposes of setting our solar feed-in tariff benchmarks we are focusing on customers' net solar exports – the unused electricity that is exported to the grid. This is the volume of electricity for which customers will earn feed-in tariff revenue, depending on the retailers' specific offers.

Components of the solar feed-in tariff benchmark for 2023-24

The table below shows the components of the solar feed-in tariff benchmark range for 2023-24 compared to the previous year.

Table 1 Solar feed-in tariff benchmarks input components

| Benchmark component | 2022-23 | 2023-24 |
|--|--------------------------|-------------------------|
| Forecast wholesale electricity price range | 7.6 to 12.7 c/kWh | 11.6 to 13.6 c/kWh |
| - ASX futures baseload contracts for the 12-month period using the 40-trading day average price (including 5% adjustment to remove contract premium) | 12.7 c/kWh | 11.6 c/kWh |
| - ASX futures baseload contracts for the 12-month period using a volume-weighted average of all historical trades | 7.6 c/kWh | 13.6 c/kWh |
| Solar multiplier range | 0.76 to 0.77 | 0.62 to 0.67 |
| - Ausgrid | 0.76 | 0.62 |
| - Endeavour Energy | 0.77 | N/A |
| - Essential Energy | 0.76 | 0.65 |
| Network loss factor | 1.06 | 1.05 |
| NEM fees ^a and ancillary charges | 0.11 c/kWh | 0.11 c/kWh |
| Solar feed-in tariff benchmark range | 6.2 to 10.4 c/kWh | 7.7 to 9.4 c/kWh |

a. We based our estimate of the NEM fees for 2023-24 from [AEMO 2022-23 Budget and Fees](#), 26 May 2022. We understand the final NEM fee will be published in June 2023.

Source: Refinitiv, ASX Energy wholesale electricity futures contract for 2023-24, data inclusive to 15 March 2023; solar export and low voltage consumption data from Ausgrid and Essential Energy, January and March 2023; AEMO, volume weighted marginal loss factors, April 2023; AEMO, ancillary services payments and recovery 2020 to February 2023;