

Avoided TUOS Calculation for Embedded Generators: 2022/23

Effective date: 1 July 2022

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Evoenergy is required to pay certain embedded generators Avoided Customer Transmission Use of System (TUOS) charges in accordance with the National Electricity Rules.

Evoenergy pays TransGrid monthly TUOS payments based on their Australian Energy Regulator (AER) approved Transmission Pricing Methodology. The transmission pricing applicable at Evoenergy's connection points for 2022/23 as published by TransGrid is detailed in Table 1.

Table 1. TransGrid 2022/23 ACT transmission pricing

Customer Point	Connection	Exit (\$/day)	Demand (\$/kW/mth)
ActewAGL	Angle Crossing 11	00.00	0.00
ActewAGL	Belconnen 11	3,206.65	3.3630
ActewAGL	City East 11	3,802.90	3.9743
ActewAGL	Civic 11	3,888.04	3.6511
ActewAGL	East Lake 11	3,261.01	3.9470
ActewAGL	Gilmore 11	3,040.03	3.7473
ActewAGL	Gold Creek 11	3,206.65	3.3102
ActewAGL	Latham 11	3,665.66	3.1475
ActewAGL	Queanbeyan 66	1,039.18	5.1284
ActewAGL	Telopea Park 11	1,463.64	4.3635
ActewAGL	Tennent ZS 11	00.00	3.8427
ActewAGL	Theodore 11	3,077.71	3.6559
ActewAGL	Wanniassa 11	3,768.72	3.6655
ActewAGL	Woden 11	3,835.26	3.4403

General principles:

1. Evoenergy must be obliged to pay the generator Avoided Customer TUOS charges under the National Electricity Rules.
2. For an embedded generator the avoided TUOS payment will be calculated by reference to the published TransGrid locational pricing monthly demand charge only for the designated Evoenergy connection point.
3. Avoided TUOS payments are required to be only paid for the months where the embedded generator reduces the actual Evoenergy TUOS payments to TransGrid.
4. The avoided TUOS payments will be calculated and paid retrospectively after the end of each financial year based on the accredited settlements data.
5. The Daily Exit Charge is regarded as a fixed cost to Evoenergy and will not be considered as a component of the Avoided TUOS payment.
6. The TransGrid monthly demand charge is calculated by applying the published TransGrid Demand Charge to the monthly peak demand trading (30 min) interval at each Evoenergy connection point.
7. An embedded generator may reduce the monthly TransGrid TUOS charge for a designated Evoenergy Connection Point if its generation output is coincident with the recorded monthly peak demand trading (30 min) interval that would have been used for calculating the TransGrid monthly Demand charge.
8. The Avoided TUOS payment will be based on the calculated coincident reduction caused to the recorded monthly peak demand trading (30 min) interval at the designated Evoenergy Connection Point by the embedded generator's metered output.
9. The designated Evoenergy connection point will be either the closest connection point in the electrical network to the generator connection point or be based on system load flow studies modelling the expected energy flows.
10. The embedded generator output will be adjusted by applying the Distribution Loss Factor (applicable for the voltage at the connection point) applicable to the embedded generator's position within the Evoenergy network to their metered output. A site specific DLF may be calculated if necessary. The 2022/23 DLFs are detailed in Table 2.

Table 2. Evoenergy 2022/23 Distribution Loss factors (DLF)

ASO4 (Solar Farm, site specific)	0.9997
ASO6 (Solar Farm, site specific)	0.9985
ASO7 (Solar Farm, site specific)	0.9995

Source: Australian Energy Market Operator, Distribution Loss Factors for the 2022/23 Financial Year.

Example

Calculate the monthly Avoided TUOS for an embedded solar generator connected directly to the Evoenergy system at the Theodore 11kV bus:

- Assigned connection point = Theodore 11
- Theodore 11 gross monthly MD (excluding embedded generation output) recorded at trading interval 14:30 hours on 21 January.
- Generator DLF = 0.9997
- Embedded generation coincident output at 14:30 hours on 21 January = 10,000 kW
- This generation output has therefore reduced the actual Theodore ZS MD by 9,997 kW

This exercise is repeated for each month to summate to an annual Avoided TUOS payment.

Note: There may be months where the co-incident embedded generation output is zero at the Theodore ZS monthly peak interval maximum MD. In these months there is no avoided TUOS payment.

Disclaimer:

This document is for illustrative purposes only and will in no way form a binding agreement between Evoenergy and the reader.