

# Avoided TUOS Methodology

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Avoided TUOS charges refer to the savings which Essential Energy makes in transmission use of system (TUOS) charges payable to a Transmission Network Service Provider (TNSP) as a result of an embedded generator being connected to Essential Energy's distribution network.

Avoided TUOS payments refer to the amount paid by Essential Energy to an embedded generator for "avoided TUOS charges".

## HOW ARE AVOIDED TUOS PAYMENTS CALCULATED?

Clause 5.5(j) of the National Electricity Code (Code) allows avoided TUOS payments to be calculated on the basis of a "with and without" test.

The following methodology applies:

1. Assign the embedded generator to the transmission connection point where load will be reduced by the embedded generator's production.
2. Calculate the maximum amount of avoided TUOS payment as the sum of the avoided demand charge, calculated as

**(DEMAND at connection point without the Generator DLF adj – DEMAND at the Connection point with the Generator) x DEMAND USAGE CHARGE**

where:

**DEMAND** is the difference between the DNSP's maximum monthly demand at the embedded generator's transmission connection point with and without the embedded generator's capacity.

**DLF** is the site specific DLF for the embedded generator

**DEMAND USAGE CHARGE** is the TransGrid demand usage charge for that connection point

## WHAT ARE TRANSGRID'S CURRENT CHARGES TO ESSENTIAL ENERGY?

TransGrid's transmission charges by connection point can be found on their web-site at the following link:

<http://www.transgrid.com.au/network/tp/Pages/default.aspx>

## WHAT ARE THE CURRENT DISTRIBUTION LOSS FACTORS?

The Distribution Loss Factors for the Financial Year can be found on the Australian Energy Market Operator (AEMO) web-site at the following Link:

<http://www.aemo.com.au/Electricity/Market-Operations/Loss-Factors-and-Regional-Boundaries>

## WILL ESSENTIAL ENERGY BE PROVIDING HALF HOUR INTERVAL DATA?

Due to the confidential nature of the data, Essential Energy will not be providing embedded generators with Essential Energy's maximum monthly demand at the embedded generator's transmission connection point. Essential Energy also notes that there are many variables associated with the forecasting of future maximum demand data that can not necessarily be predicted using past data.

### EXAMPLE OF AVOIDED TUOS CALCULATION

The following example would apply to an embedded generator connected to the Tumut 66 connection point.

b) the avoided demand charge:

**(DEMAND at connection point without the Generator DLF adj – DEMAND at the Connection point with the Generator) x DEMAND USAGE CHARGE**

MAX Demand at connection point with Generator = 30,010 KW

MAX Demand at connection point without Generator (DLF adj) = 30,794 KW

DLF for embedded generator = 1.0132

TransGrid demand usage charge = 2.7251 \$/KW/mth

Avoided TUOS charge  $(30,794 - 30,010) \times 2.7251 = \$2,136.48$

