INLAND REVENUE AUTHORITY OF SINGAPORE

IRAS e-Tax Guide

GST Guide for the Market Participants in the National Electricity Market of Singapore (NEMS) (Fourth edition)

GST Guide for the Market Participants in the National Electricity Market of Singapore (NEMS)

Published by
Inland Revenue Authority of Singapore

Published on 30 Jan 2026

First edition on 9 Feb 2015
Second edition on 5 Apr 2016
Third edition on 1 Jan 2023

Table of Contents

1 Aim

1.1 This e-Tax Guide explains the GST treatment of the supply of electricity, bilateral financial contracts and price neutralisation in the National Electricity Market of Singapore (NEMS)[1]. You should read this guide if you are a market participant [i.e. Electricity Generation Company (Genco), Market Operator, Electricity Retailer, Market Support Services Licensee (MSSL)] in the NEMS.

2 At a glance

2.1 The GST treatment of the transactions in the NEMS is as follows:

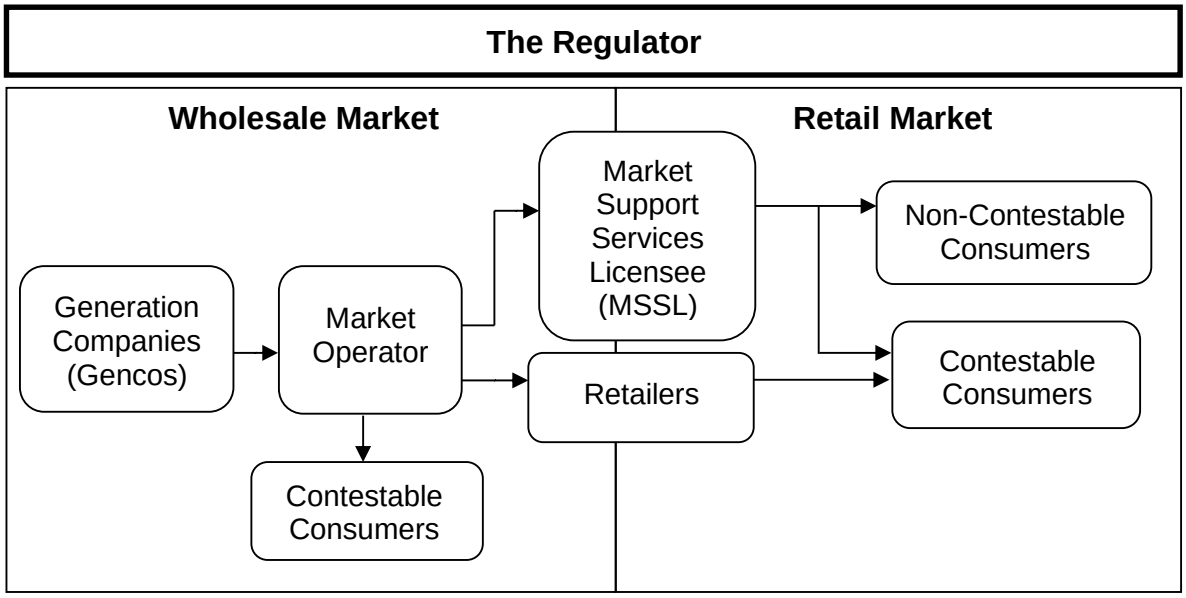
Transactions	GST Treatment
Sale of electricity	Standard-rated supply
Purchase of electricity	Taxable purchase
Bilateral financial contracts:	
Contract for Differences	
▪ Net realised gain or loss by Genco / Retailer = Hedge Quantity x (Contract Reference Price – Hedge Price)	Exempt supply
▪ Settlement through Market Operator = Hedge Quantity X Uniform Singapore Energy Price (USEP)	No supply
▪ Payment for bilateral contract outside Market Operator = Hedge Quantity X Hedge Price	No supply
Vesting Contract	
▪ Net realised gain or loss by Genco / MSSL = Hedge Quantity x (Vesting Contract Reference Price – Hedge Price)	Exempt supply
▪ Passing of vesting gains/losses by MSSL to Retailer	No supply
▪ Passing of vesting gains/losses by MSSL/Retailer to contestable consumer	Taxable supply
▪ Passing of vesting gains/losses by MSSL to non-contestable consumer	Taxable supply
▪ Passing of vesting gains/losses by Retailer to Genco (as part of the Contract for Differences between them)	Exempt supply

[1] This e-Tax Guide replaces the IRAS' e-Tax Guide on "GST Guide for the Market Participants in the National Electricity Market of Singapore ("NEMS") (Third Edition)" published on 28 Nov 2011.

Transactions	GST Treatment
Vesting Contract ▪ Settlement through Market Operator = Hedge Quantity x (Vesting Contract Reference Price – Hedge Price)	No supply
Price neutralisation for companies with embedded generator	No supply

3 Background

3.1 The NEMS started trading on 1 Jan 2003. It consists of a wholesale market and a retail market.



3.2 Electricity is traded in the wholesale market, operated by the Market Operator, through a "pool" system. Any company that intends to produce electricity (i.e. Gencos) is required to sell the electricity to the “pool” and any company that intends to purchase electricity has to buy the electricity from the “pool”.

3.3 The Market Operator buys the electricity at the nodal price and sells the electricity at the Uniform Singapore Energy Price (USEP). These prices are determined half-hourly at the wholesale market based on supply and demand.

3.4 The retail market is liberalised in phases. Contestability is granted to consumers in stages, starting with consumers with higher electricity consumption followed by those with lower electricity consumption.

4 Glossary

4.1 The Regulator

Energy Market Authority (EMA) is the regulator for the NEMS. It is responsible for ensuring the NEMS meets the needs of Singapore.

4.2 Market Operator

The Energy Market Company Pte Ltd (EMC) is the Market Operator. It operates and administers the wholesale market. All electricity is bought and sold through the Market Operator.

4.3 Generation Companies (Gencos)

Companies that have generators of significant size have to be licensed by the Regulator and must register with the Market Operator[2]. They generate electricity for injection into the power grid and they bid every half-hour to sell electricity into the wholesale market.

4.4 Market Support Services Licensee (MSSL)

MSSL provides market support services such as meter reading and meter data management. It can also purchase electricity from the Market Operator and sell it to both contestable and non-contestable consumers. Currently SP Services Ltd is the only MSSL.

4.5 Retailers

Retailers must be licensed by the Regulator and register with the Market Operator to purchase electricity in the wholesale market. They can sell electricity to contestable consumers only.

4.6 Consumers

Consumers are categorised as contestable and non-contestable, depending on their level of electricity usage. Contestable consumers can choose to purchase their electricity from MSSL, Retailers or direct from Market Operator. Non-contestable consumers have to buy electricity from the MSSL (i.e. SP Services Ltd) at regulated tariffs.

4.7 Nodal Price

This is the market price which the Gencos will receive from the Market Operator for their supply of electricity in the wholesale market. This is also known as Market Energy Price (MEP) and is determined half-hourly. Nodal prices vary at different locations of the transmission network.

4.8 Uniform Singapore Energy Price (USEP)

The Market Operator charges its sale of electricity at USEP to its buyers in the wholesale market. It is the weighted average of the nodal prices of all locations in each half-hour.

5 GST Treatment of the Supply of Electricity

5.1 The supply of electricity in Singapore is a standard-rated supply of goods. All GST-registered suppliers of electricity (e.g. the Gencos, the Market Operator and the Retailers) are required to issue tax invoices and charge GST at the prevailing rate on the supply of electricity in Singapore.

[2] The Singapore Electricity Market Rules set such requirement for facility registration.

5.2 If the GST-registered supplier has a self-billing arrangement[3] with its GST-registered customer, the customer (instead of the supplier) will prepare the tax invoice (i.e. buyer-created tax invoice) on behalf of the supplier and forward a copy to the supplier.

5.3 In any case, the supplier should account for GST on the supply of electricity in its GST returns based on the time of supply rules. The supply of electricity is treated as taking place at the earlier of the following:

a) when an invoice in respect of the supply is issued by the supplier or the customer under the self-billing arrangement; or

b) when payment in respect of the supply is received.

6 Bilateral Financial Contracts

6.1 In the NEMS, the market participants (i.e. Gencos, Retailers and MSSL) are exposed to a certain level of volatility as the prices of electricity fluctuate every half-hour. To manage the price fluctuation, they enter into bilateral financial contracts to hedge against the price volatility. There is no physical delivery of the underlying electricity between the contracting parties under the bilateral financial contracts.

6.2 The key types of bilateral financial contracts are Contracts for Differences (CfDs) and Vesting Contracts.

Contracts for Differences

6.3 Contracts for Differences (CfDs) are bilateral financial contracts between the Gencos and the Retailers. The contracting parties would agree on a hedge price and the volume of energy that it covers.

6.4 When the contract reference price[4] exceeds the hedge price, the Genco pays the Retailer the difference between the contract reference price and the hedge price.

6.5 When the contract reference price[4] is less than the hedge price, the Retailer pays the Genco the difference between the contract reference price and the hedge price.

6.6 The CfDs can be settled through the Market Operator. In its accounts, the Market Operator will reduce its amount payable or due to the contracting parties by the hedge quantity at the USEP.

Vesting Contracts

[3] For more information on self-billing, please refer to our website under *Taxes > Goods & Services Tax (GST) > Basics of GST > Invoicing, Price Display and Record Keeping > Invoicing Customers*.

[4] Contract reference price is usually the Uniform Singapore Energy Price (USEP).

6.7 Vesting Contracts are bilateral financial contracts between the Gencos and MSSL. They are imposed by the Regulator on the Gencos to foster price stability for the consumers.

6.8 Vesting Contracts are revenue neutral to the MSSL as the gains and losses associated with the contracts are passed on to non-contestable consumers, contestable consumers and Retailers.

6.9 The Retailers, upon receiving the vesting gains or losses, would decide whether or not to pass on such gains or losses to their contestable consumers. This would depend on the contractual terms in their electricity sale agreement with the contestable consumers. If the vesting gains or losses are not passed on to the contestable consumers, the Retailers may instead pass on the vesting gains or losses to their Gencos as part of the CfDs.

6.10 The settlement of Vesting Contracts in the wholesale market is through the Market Operator. In its accounts, it will reduce its amount payable or due to the contracting parties by the hedge quantity at the difference between the hedge price and the vesting contract reference price.

7 GST Treatment of Bilateral Financial Contracts

7.1 Since bilateral financial contracts are settled without physical delivery of the underlying electricity (akin to a financial hedging contract like “forward contract”), the realised gains or losses of these contracts are to be reported as exempt supply.

7.2 The realised gain or loss of a bilateral financial contract is to be computed as follows:

Type	Realised gain or loss
Contracts for Differences	Hedge quantity x (Contract Reference Price – Hedge Price)
Vesting Contracts	Hedge quantity x (Vesting Contract Reference Price – Hedge Price)

7.3 If there are two or more Contracts for Differences and/or Vesting Contracts, the realised gains and losses derived from these contracts should be aggregated. The net gain or loss is to be reported as an absolute amount in the GST return.

7.4 Only the contracting parties (i.e. Gencos, MSSL and Retailers) should report the realised gain or loss as exempt supplies in their GST returns.

7.5 The Market Operator, who is only a settlement agent and not a contractual party in the bilateral contract, is not the supplier of these exempt supplies.

Therefore, it need not report the amount it receives or pays to the market participants as its exempt supplies.

7.6 For the passing of gains and losses that arise from Vesting Contracts, the GST treatment is as follows:

From MSSL to Retailers

7.6.1 The passing of vesting gains/losses by MSSL to the Retailers does not give rise to any supply for GST purposes. Hence, the MSSL and the Retailers do not need to declare such transactions in their GST returns.

From MSSL/Retailers to consumers

7.6.2 The passing of vesting gains/losses by MSSL/Retailers to non-contestable and contestable consumers arises from the supply of electricity and is therefore part of the consideration received for the supply of electricity. Hence, this is a standard-rated supply.

From Retailers to Gencos

7.6.3 The vesting gains/losses which the Retailers receive from MSSL and pass on to the Gencos as part of their CfDs are exempt supplies. Hence, the Retailers and Gencos should report the net gains or losses as exempt supplies in their GST returns.

8 Price Neutralisation for Companies with Embedded Generator

8.1 Companies with embedded generator (EGs) of a certain capacity that are connected to the grid are required to hold a generation license and participate in the wholesale electricity market.

8.2 Although these EGs generate electricity only for their own consumption, they need to comply with the market rules. The market rules require the EGs to sell their electricity generated to the Market Operator at nodal price and buy back the electricity for their consumption from the Market Operator at USEP.

8.3 GST-registered EGs must therefore charge GST to the Market Operator for the gross amount of electricity generated. The Market Operator must also charge GST to the EGs for the gross amount of electricity consumed.

8.4 To ensure the EGs do not suffer a loss or make a gain on the same amount of electricity injected and withdrawn for their own consumption, the Market Operator will provide price neutralisation for this amount of electricity.

8.5 For example, the EG sells 1,000MW of its electricity generated to the Market Operator and purchases 1,200MW of electricity from the Market Operator. For the 1,000MW of electricity injected and withdrawn by the EG for its own consumption, the Market Operator will effect price neutralization for the difference in price by either:

a) issuing a credit note to the EG to reduce the amount payable by EG when the price of electricity injection is lower than the price of electricity withdrawn; or

b) invoicing the EG for the difference when the price of electricity injection is higher than the price of electricity withdrawn.

For the 200MW of electricity consumed in excess of its injection, the EG will pay at USEP.

8.6 The EG can also choose to purchase the electricity from the Retailers instead of solely purchasing the electricity from the Market Operator. Notwithstanding EG's purchase of electricity from the Retailers, the Market Operator will continue to provide EG with the price neutralisation.

9 GST Treatment of Price Neutralisation

9.1 In view that the price neutralisation is statutorily mandated and the price paid by the EGs to the Retailers is independent of the sale from the EGs to the Market Operator, the price neutralisation provided by the Market Operator is treated as "no supply" for GST purposes.

9.2 Hence, the Market Operator and EGs should not charge or reflect GST in their invoices, credit notes or payment vouchers issued for the price neutralisation transactions. They also do not have to declare such price neutralisation transactions in their GST returns.

10 Recovery of Input Tax

Input tax directly attributable to taxable supplies

10.1 Market participants are allowed to claim the input tax if it is incurred for the making of taxable supplies and the input tax is not disallowed under Regulation 26 and 27 of the GST (General) Regulations. The input tax claims must also be supported by valid tax invoices issued to the market participants.

Input tax directly attributable to "no supplies"

10.2 Market participants making "no supplies" arising from the passing of vesting gains/losses and the price neutralisation can claim the input tax incurred in making these "no supplies" if they are wholly carrying on a business in the making of taxable supplies.

Input tax directly attributable to exempt supplies

10.3 The input tax incurred to make exempt supplies is not claimable. However, market participants who make both taxable and exempt supplies are allowed to claim all their input tax (including input tax attributable to the making of exempt supplies) at the end of any prescribed accounting period if either one of the following conditions is satisfied:

a) The total value of all exempt supplies does not exceed an average of $40,000 per month and 5% of the total value of all taxable and exempt supplies made in that period. This is known as the De Minimis Rule under Regulation 28 of the GST (General) Regulations.

b) Only the exempt supplies listed under Regulation 33 are made and the market participant is not carrying on a business listed under Regulation 34.

10.4 The hedging of any utility price arising from the making of taxable supplies is an exempt supply under Regulation 33. This includes the CfDs and the Vesting Contracts. Hence, market participants making only exempt supplies under Regulation 33 would be able to claim the input tax attributable to such exempt supplies.

10.5 If the market participant fails the De Minimis Rule and makes both Regulation 33 and non-Regulation 33 exempt supplies, it has to apply the test in Regulation 35 and determine if the input tax incurred in the making of Regulation 33 exempt supplies can be claimed. Input tax incurred in the making of Regulation 33 exempt supplies will only be claimable if the value of non-Regulation 33 exempt supplies does not exceed 5% of the total value of all taxable and exempt supplies made in that period. Otherwise, input tax attributable to all exempt supplies will not be claimable.

Residual input tax

10.6 Input tax that cannot be directly identified as incurred in the making of either taxable supplies or exempt supplies are known as residual input tax. They have to be apportioned as follows:

a) If the market participant is not carrying on a Regulation 34 business and the Regulation 35 test[5] is satisfied

$$\text{Recoverable residual input tax} = \text{Total residual input tax} \times \frac{\text{Taxable supplies + Regulation 33 exempt supplies}}{\text{Total supplies}^{\#}}$$

b) Otherwise

$$\text{Recoverable residual input tax} = \text{Total residual input tax} \times \frac{\text{Taxable supplies}}{\text{Total supplies}^{\#}}$$

[#] The value of total supplies includes the value of taxable supplies and exempt supplies (Regulation 33 and non-Regulation 33 exempt supplies). You can deduct exempt supplies that can be treated as incidental exempt supplies under regulation 29(3) of the GST (General) Regulations from the value of total supplies.

[5] That is, the value of non-Regulation 33 exempt supplies must not exceed 5% of total value of all taxable and exempt supplies (Regulation 33 and non-Regulation 33 exempt supplies).

10.7 For more information on the input tax recovery for partially exempt businesses, please refer to the e-Tax Guide “GST: Partial Exemption and Input Tax Recovery”.

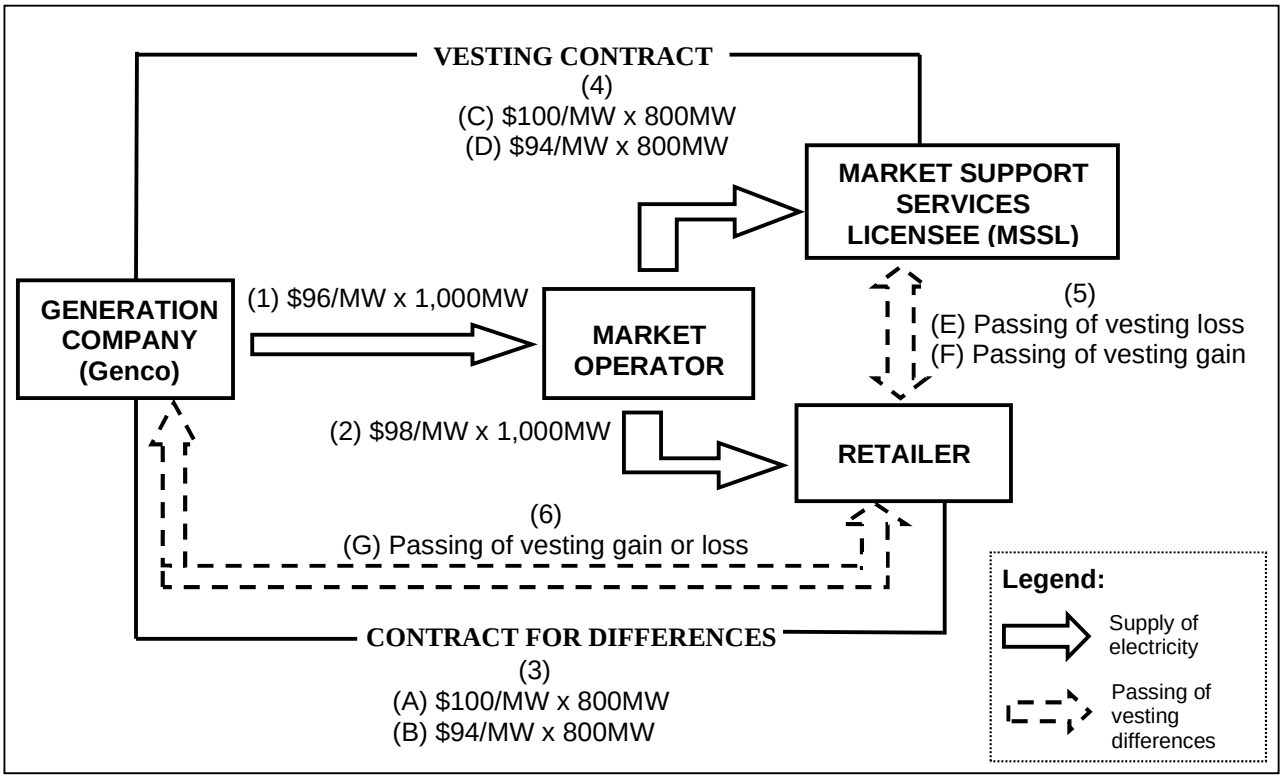
11 Contact Information

11.1 For enquiries on this e-Tax Guide, please contact the Goods and Services Tax Division at www.iras.gov.sg (select “Contact Us”).

12 Updates and amendments

	Date of amendment	Amendments made
1	5 Apr 2016	Amended the note # under paragraph 10.6
2	1 Jan 2023	Amended footnote 3. Replaced 7% GST with “prevailing GST rate” in Appendix 1 and Appendix 2.

Appendix 1: Numerical illustration of the GST treatment of the supply of electricity in the wholesale market



In this illustration:

(1) The generation company (Genco) injects 1,000MW of electricity into the transmission system. The Market Operator pays the Genco for the electricity injected at the nodal price of $96/MW.

(2) The Retailer withdraws 1,000MW of electricity from the transmission system and pays the Market Operator at the USEP of $98/MW.

<u>If the Genco has a Contract for Differences (CfD) with the Retailer</u>

(3) The Genco and the Retailer will settle the CfD through the Market Operator at the hedge quantity of 800MW and hedge price of:

- $100/MW (Scenario A)
- $94/MW (Scenario B)

Settlement through the Market Operator is at USEP. The Market Operator reduces their settlement accounts by the amount of hedge quantity at USEP. The Genco and Retailer will have a net gain or loss from the CfD based on the formula: hedge quantity x (contract reference price – hedge price).

If the Genco has a Vesting Contract with MSSL

(4) The Genco and the Market Support Services Licensee (MSSL) will settle the Vesting Contract through the Market Operator at the vested quantity of 800MW at the reference price of $97/MW and hedge price of:

- $100/MW (Scenario C)
- $94/MW (Scenario D)

The Genco and MSSL will have a net gain or loss from the Vesting Contract (i.e. Vesting Contract difference) based on the formula: hedge quantity x (vesting contract reference price – hedge price). The Market Operator will reduce their settlement accounts by the amount of hedge quantity x (vesting contract reference price – hedge price).

(5) The Vesting Contracts should be revenue neutral to the MSSL. MSSL will pass the vesting losses (Scenario E) or gains (Scenario F) to the Retailers.

(6) Upon receipt of the vesting gains or losses from MSSL, the Retailers may pass on the vesting gains or losses (Scenario G) to the Genco as part of the CfDs between them. This occurs when such passing of vesting gains or losses is not provided in the Retailers' electricity sale agreements with the contestable consumers.

The GST treatment is as follows:

<table>
<tr><th>Description</th><th>Scenario</th><th>Genco</th><th>Market Operator</th><th>Retailer / MSSL</th></tr>
<tr><td rowspan="2">Supply of electricity</td><td>Scenario 1: Genco's sale of electricity</td><td>Standard-rated supply
1,000MW x $96/MW
= $96,000

Output tax
$96,000 x Prevailing GST rate</td><td>Taxable purchase
1,000MW x $96/MW
= $96,000

Input tax
$96,000 x Prevailing GST rate</td><td></td></tr>
<tr><td>Scenario 2: Market Operator's sale of electricity</td><td></td><td>Standard-rated supply
1,000MW x $98/MW
= $98,000

Output tax
$98,000 x Prevailing GST rate</td><td>Taxable purchase (Retailer)
1,000MW x $98/MW
= $98,000

Input tax
$98,000 x Prevailing GST rate</td></tr>
<tr><td rowspan="4">Contract for Differences (CfD)</td><td rowspan="2">Scenario 3(A): where Contract Reference Price < Hedge Price</td><td>Exempt supply
800MW x
($98/MW - $100/MW)
= +$1,600 (Gain)</td><td></td><td>Exempt supply (Retailer)
800MW x
($98/MW - $100/MW)
= -$1,600 (Loss)</td></tr>
<tr><td colspan="3">No supply
Settlement of CfD between Genco and Retailer through Market Operator is not a supply. Genco's and Retailer's account in Market Operator's books will be reduced by the hedge quantity.

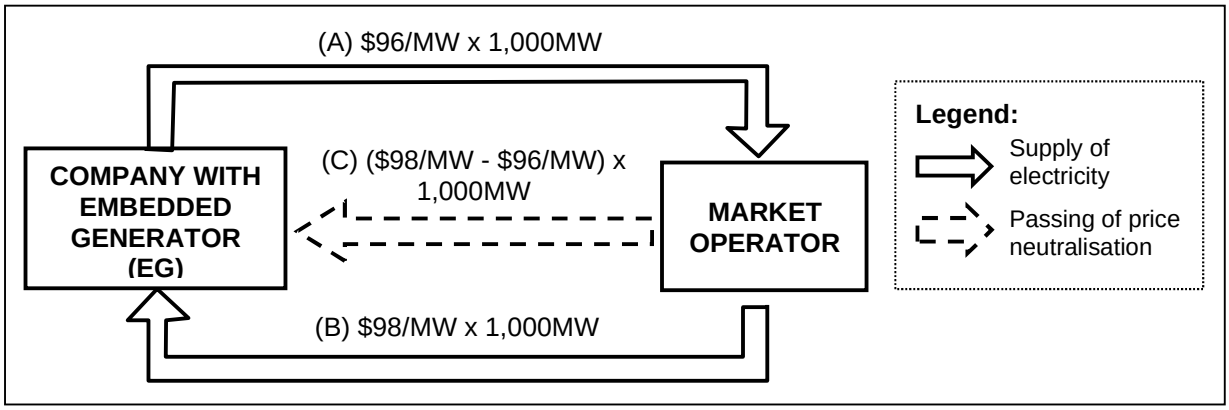
GST that is charged and accounted on the underlying electricity supplied (i.e. in scenario 1 and 2) is not affected.</td></tr>
<tr><td rowspan="2">Scenario 3(B): where Contract Reference Price > Hedge Price</td><td>Exempt supply
800MW x
($98/MW - $94/MW)
= -$3,200 (Loss)</td><td></td><td>Exempt supply (Retailer)
800MW x
($98/MW - $94/MW)
= +$3,200 (Gain)</td></tr>
<tr><td colspan="3">No supply
Settlement of CfD between Genco and Retailer through Market Operator is not a supply. Genco's and Retailer's account in Market Operator's books will be reduced by the hedge quantity.

GST that is charged and accounted on the underlying electricity supplied (i.e. in scenario 1 and 2) is not affected.</td></tr>
</table>

<table>
<tr><th>Description</th><th>Scenario</th><th>Genco</th><th>Market Operator</th><th>Retailer / MSSL</th></tr>
<tr><td rowspan="7">Vesting Contract</td><td rowspan="2">Scenario 4(C): where Vesting Contract Reference Price < Hedge Price</td><td>Exempt supply
800MW x ($97/MW - $100/MW) = +$2,400 (Gain)</td><td></td><td>Exempt supply (MSSL)
800MW x ($97/MW - $100/MW) = -$2,400 (Loss)</td></tr>
<tr><td colspan="3">No supply
Settlement of Vesting Contract difference between Genco and MSSL through Market Operator is not a supply.</td></tr>
<tr><td rowspan="2">Scenario 4(D): where Vesting Contract Reference Price > Hedge Price</td><td>Exempt supply
800MW x ($97/MW - $94/MW) = -$2,400 (Loss)</td><td></td><td>Exempt supply (MSSL)
800MW x ($97/MW - $94/MW) = +$2,400 (Gain)</td></tr>
<tr><td colspan="3">No supply
Settlement of the Vesting Contract difference between Genco and MSSL through Market Operator is not a supply.</td></tr>
<tr><td>Scenario 5(E): Passing of Vesting Loss</td><td></td><td></td><td rowspan="2">Passing of vesting gain or loss from MSSL to Retailer is not a supply.</td></tr>
<tr><td>Scenario 5(F): Passing of Vesting Gain</td><td></td><td></td></tr>
<tr><td>Scenario 6(G): Passing of Vesting Gain or Loss</td><td>Exempt supply</td><td></td><td>Exempt supply</td></tr>
</table>

Appendix 2: Numerical illustration of price neutralisation for company with embedded generator

Illustration 1: Purchase of electricity from Market Operator



In this illustration:

(A) The company with embedded generator (EG) injects 1,000MW of electricity into the transmission system. The Market Operator pays the EG for the electricity injected at the nodal price of $96/MW.

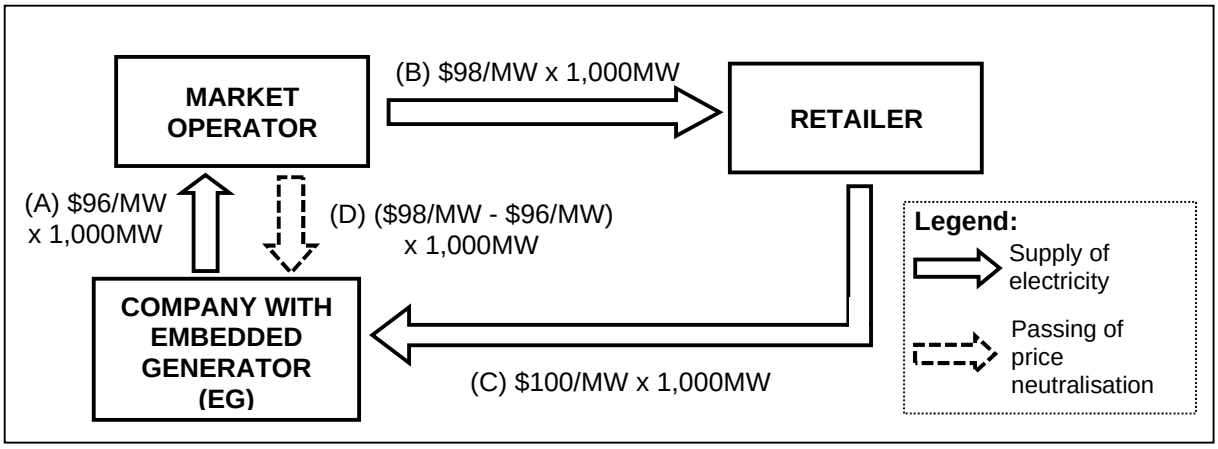
(B) The EG withdraws 1,000MW of electricity from the transmission system for its own consumption. The Market Operator charges the EG for the electricity withdrawn at the USEP of $98/MW.

(C) To achieve price neutrality on EG's supply of electricity to the Market Operator, the Market Operator will have to provide price neutralisation based on the formula: Injection Quantity x (USEP – Nodal Price).

The GST treatment is as follows:

Description	Scenario	EG	Market Operator
Price Neutralisation	Scenario (A): EG's sale of electricity	Standard-rated supply 1,000MW x $96/MW = $96,000 Output tax $96,000 x Prevailing GST rate	Taxable purchase 1,000MW x $96/MW = $96,000 Input tax $96,000 x Prevailing GST rate
	Scenario (B): Market Operator's sale of electricity	Taxable purchase 1,000MW x $98/MW = $98,000 Input tax $98,000 x Prevailing GST rate	Standard-rated supply 1,000MW x $98/MW = $98,000 Output tax $98,000 x Prevailing GST rate
	Scenario (C): Price Neutralisation	No supply Market Operator issues credit note of $2,000 (= 1,000MW x ($98/MW - $96/MW)) to EG. No GST is to be charged for this price neutralisation provided to EG.	

Illustration 2: Purchase of electricity from Retailer



In this illustration:

(A) The company with embedded generator (EG) injects 1,000MW of electricity into the transmission system. The Market Operator pays the EG for the electricity injected at the nodal price of $96/MW.

(B) The Retailer withdraws 1,000MW of electricity from the transmission system and pays the Market Operator at the USEP of $98/MW.

(C) The Retailer supplies electricity to the EG for 1,000MW at $100/MW.

(D) To achieve price neutrality on EG's supply of electricity to the Market Operator, the Market Operator will have to provide price neutralisation based on the formula: Injection Quantity x (USEP – Nodal Price).

The GST treatment is as follows:

Description	Scenario	EG	Market Operator	Retailer
Price Neutralisation	Scenario (A): EG's sale of electricity	Standard-rated supply 1,000MW x $96/MW = $96,000 Output tax $96,000 x Prevailing GST rate	Taxable purchase 1,000MW x $96/MW = $96,000 Input tax $96,000 x Prevailing GST rate	
	Scenario (B): Market Operator's sale of electricity		Standard-rated supply 1,000MW x $98/MW = $98,000 Output tax $98,000 x Prevailing GST rate	Taxable purchase 1,000MW x $98/MW = $98,000 Input tax $98,000 x Prevailing GST rate
	Scenario (C): Retailer's sale of electricity to EG	Taxable purchase 1,000MW x $100/MW = $100,000 Input tax $100,000 x Prevailing GST rate		Standard-rated supply 1,000MW x $100/MW = $100,000 Output tax $100,000 x Prevailing GST rate
	Scenario (D): Price Neutralisation	No supply Price neutralization of $2,000 (= 1,000MW x ($98/MW - $96/MW)) provided by the Market Operator to EG has no GST impact.		