

Producer Guidelines under the Extended Producer Responsibility (EPR) Scheme for E-Waste

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1 Introduction to the Producer guidelines

1.1 Purpose

This document is aligned with and serves as a guidance to the Resource Sustainability Act (RSA) and its subsidiary legislations.

This document provides guidance on:

- ❖ The implementation of the Extended Producer Responsibility (EPR) scheme for e-waste
- ❖ Product definitions for the regulated products
- ❖ Identifying if a company is a Producer of regulated products
- ❖ Understanding the responsibilities of a Producer of regulated products
- ❖ Useful links

2 Implementation of the EPR scheme for e-waste

2.1 Overview

The Ministry of Sustainability and the Environment (MSE) and the National Environment Agency (NEA) implemented a regulated e-waste management system on 1 July 2021. The system is built around the EPR approach where Producers of regulated products are made physically and/or financially responsible for the collection and proper treatment of their end-of-life or unwanted regulated products.

The RSA was gazetted on 4 October 2019 to give legislative effect to the e-waste management system. Under the EPR scheme, one Producer Responsibility Scheme (PRS) Operator was appointed by NEA to maximise economies of scale given Singapore's small market. On 11 February 2021, ALBA E-Waste Smart Recycling Pte Ltd was awarded the tender for the licence to operate the PRS for a period of 5 years, from 1 July 2021 to 30 June 2026.

2.2 Stakeholders under the EPR scheme for e-waste

The following stakeholders play important roles to ensure the success of the EPR scheme:

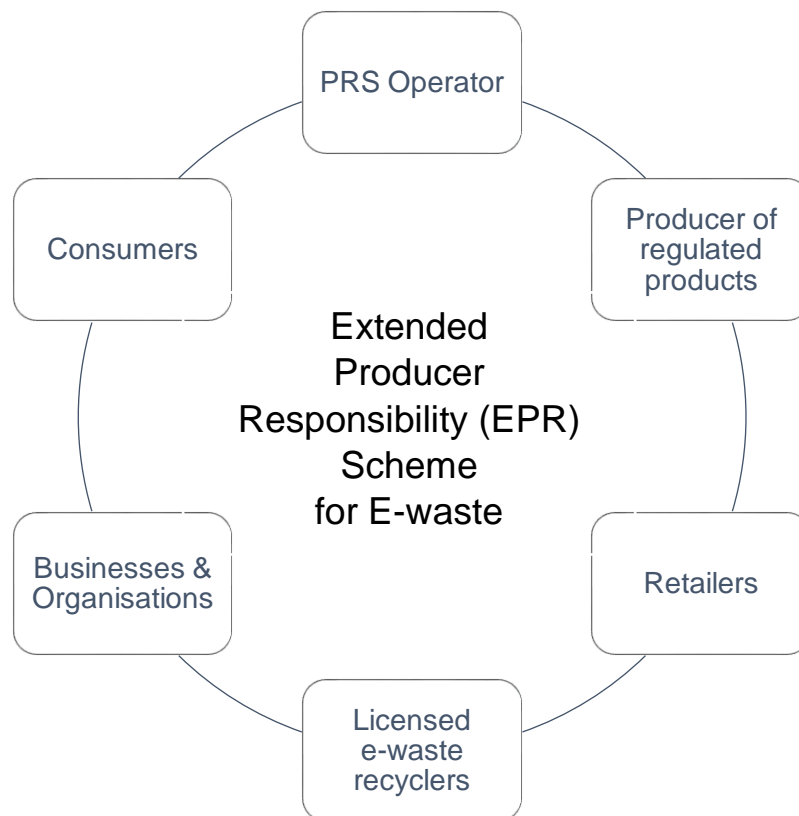


Figure 1: EPR Stakeholders

3 Regulated Products

3.1 Types of regulated product

These regulated products are distinguished into regulated consumer products and regulated non-consumer products.



Table 1: Regulated Products

Regulated Product Category		Regulated Product Types
ICT Equipment		Printer
		Computer
		Desktop Monitor
		Laptop
		Tablet
		Router
		Modem
		Wireless Access Point
		Set-top Box
		Switches
		Network Hub
Large Appliances	Large Household Appliances	Refrigerator
		Air-conditioner
		Television
		Washing Machine
		Dryer
	Electric Mobility Devices	Personal Mobility Devices
		Electric Mobility Scooter
Battery	Power Assisted Bicycle	
	Portable Battery	
	Industrial Battery	
Lamp	Electric/Hybrid Vehicle Battery	
	Lamps/Tubes/Bulbs	
Solar PV Panel	Solar PV Panel	

Note: Regulated products are distinguished into consumer or non-consumer products based on its definition rather than the type of transaction (e.g. B2B or B2C) or who the regulated products are supplied to. You may refer to the product definitions at <https://go.gov.sg/prod-def-sl> or by scanning the QR code below



3.2 Distinguishing criteria between consumer and non-consumer products

The sections below contain the distinguishing criteria for the various regulated product types to assist Producers in identifying if a regulated product is a consumer or non-consumer product. Please write to NEA at e-waste@nea.gov.sg if you require clarification on distinguishing between a consumer or non-consumer product.

3.2.1 ICT Equipment

Table 2: ICT Equipment

Regulated Product	Consumer	Non-Consumer
Printer	Weight of 20 kg or less	Weight of more than 20 kg
Computer & laptop	All other computer or laptop	<ul style="list-style-type: none"> i. Built-in smart card reader ii. Thin-client computer or laptop
Tablet	All tablets	-
Server	-	All servers
Desktop Monitor	All desktop monitors	-
Mobile Phone	All mobile phones	-
Router	All other routers	EMC Class A routers
Switches	EMC Class B switches	EMC Class A switches
Network Hub	8 or fewer ports	More than 8 ports
Wireless Access Point	-	All wireless access points
Modem	All modems	-
Set-top Box	All set-top boxes	-

3.2.2 Large Appliances

Table 3: Large Appliances

Regulated Product	Consumer	Non-Consumer
Television	All large appliances	-
Air-Conditioner		
Washing Machine		
Dryer		
Refrigerator		
Electric Mobility Device		

3.2.3 Battery

Table 4: Battery

Regulated Product	Consumer	Non-Consumer
Portable Battery	All portable battery	-
Industrial Battery	-	All industrial battery
Electric Vehicle Battery	Electric vehicle battery designed to be used with a motor vehicle mentioned in rule 19 (a), (b), (c), (d), or (e) of the Road Traffic (Motor, Vehicle, Driving Licences) Rules	Electric vehicle battery designed to be used with a motor vehicle mentioned in rule 19 (f), (g), or (h) of the Road Traffic (Motor, Vehicle, Driving Licences) Rules

3.2.4 Lamp

Table 5: Lamp

Regulated Product	Consumer	Non-Consumer
Lamp	<p>Consumer lamp means a specified single-phase lamp that is —</p> <ul style="list-style-type: none"> a. an incandescent lamp with an Edison screw or a bayonet lamp cap, of 25W or above but not exceeding 100W; b. a compact fluorescent lamp with integrated ballast, with an Edison screw or a bayonet lamp cap, of up to 80W; c. a compact fluorescent lamp without integrated ballast, with a G24d lamp cap, of up to 80W; d. a linear, double-capped, fluorescent lamp with a tube diameter of 16 mm (T5) or 26 mm (T8) and with a length of 0.5 m and above but not exceeding 1.5 m, of up to 80W; e. a circular fluorescent lamp with a tube diameter of 16 mm (T5) or 29 mm (T9) and with a lamp diameter of 8 inches and above but not exceeding 16 inches, of up to 80W; f. an LED lamp, with an Edison screw or a bayonet lamp cap, of up to 80W; or g. an LED lamp designed as a direct replacement for a lamp described in paragraph (c) or (d) without requiring any internal modification of the luminaires, of up to 80W; 	<p>A specified single-phase lamp that is an incandescent lamp with a power rating of above 100W</p>

3.2.5 Solar Photovoltaic (PV) Panel

Table 6: Solar PV Panel

Regulated Product	Consumer	Non-Consumer
Solar PV Panel	-	All solar PV panels

3.3 Peripheral Item

Pursuant to the Resource Sustainability (Prescribed Regulated Products) Regulations 2019, regulation 6(b), the determination of the weight of the regulated product supplied has to include “any cable, adaptor, remote control, keyboard, mouse or other similar peripheral item, other than a portable battery, that is supplied in connection with the regulated product.”

The following criteria must be fulfilled for an item to be considered a “peripheral item”:

1. The item is supplied under the same transaction as the regulated product;
2. The item is intended for use with and designed for compatibility with the regulated product and is not meant to be used as a standalone product;
3. The item is designed to be connected to the regulated product; and
4. The item is designed to enable or facilitate the use of one or more functions of the regulated product.

4 Are you a Producer of a regulated product?

4.1 Definition of a Producer of a regulated product

Pursuant to regulation 7(2) of the RSA, a person is considered to be the Producer of a regulated product if the person –

- a) Carries on a business of supplying the regulated products in Singapore; and
- b) In furtherance of that business –
 - i. Imports the regulated product into Singapore;
 - ii. Manufactures the regulated product in Singapore; or
 - iii. Engages another person to manufacture the regulated product in Singapore or otherwise causes such manufacture

A manufacturer of a regulated product is not the producer of the regulated product if the manufacturer manufactures the regulated product for or on behalf of a Singapore-connected person.

Note: Supplying in Singapore's Free Trade Zone (FTZ) or a foreign ship docked in Singapore's water are considered supplying in Singapore.

4.2 Definition of 'supply'

Pursuant to regulation 7(1) of the RSA, 'supply', in relation to any regulated product, includes –

- a) the supply of the regulated product by way of sale (including by barter or exchange) or hire-purchase;
- b) the supply of the regulated product by retail or by wholesale;
- c) the supply of the regulated product in connection with any agreement; and
- d) the offer to supply the regulated product or exposure of the regulated product for supply.

For example, your company is a producer if your company has supplied a regulated product through a warranty agreement established with your customer, in which a new regulated product is supplied in replacement of the existing unwanted or damaged regulated product. Your company is not a producer if your company is supplying a regulated product via a lease or a loan agreement.

Note: To view the RSA, please access <https://go.gov.sg/rsa> or scan the QR code below:



4.3 List of scenarios to identify if you are a Producer

The following scenarios, which are non-exhaustive, serve to guide companies in identifying if they are a Producer based on their current supply chain arrangement. Please write to NEA at e-waste@nea.gov.sg for clarification on scenarios that are not stated here, and we will assess it on a case-by-case basis.

Table 7: List of scenarios

Scenario	Origin of regulated product	Importer on Record	Sold to	Are you a Producer (Y/N)	Remarks
1	Purchased Locally	-	-	No	Supplying regulated products bought locally does not make you a Producer. The Producer will be the entity that you have purchased from.
2	Imported	You	Local	Yes	Regulated products are imported and supplied in Singapore
3		You	Overseas (via Export)	No	Regulated products are not supplied in Singapore
4		3 rd Party Logistic Partner	Local	Yes	If your company engages a 3 rd party logistic partner to import on your behalf, your company has caused the import and is a Producer
5		Your client	Local	No	Regulated products are not imported by your company
6		You	Own Use	No	Regulated products are not supplied in Singapore
7		You	Rent/Lease	No	As regulated product still belongs to your company, your company is not considered a producer until it is sold
8		Manufactured in Singapore	-	Local	Yes
9	Overseas (via Export)			No	Only regulated products supplied in Singapore are covered under the RSA
10	Manufactured via a third party or Original Equipment Manufacturer in Singapore on your behalf	-	Local	Yes	"Manufacturing" includes putting together a regulated product from its various components which may be imported from overseas.
11			Overseas (via Export)	No	

4.4 Declaration guidelines

All Producers of regulated products are to submit your supply declarations for the amount of regulated products imported or manufactured in Singapore, and subsequently supplied in Singapore for the previous calendar year.

Declarations are to be done at <https://go.gov.sg/rsa-reg> through the Waste and Resource Management System (WRMS) and the guidelines for declaration can be found at <https://go.gov.sg/producer-wrms>. WRMS declaration window opens on 1 January and closes on 31 March to allow Producers to submit your declarations. No declarations will be accepted from 1 April onwards.

If a Producer wishes to amend your declaration, please do so within the declaration window (i.e. 1 January – 31 March). Requests for amendment past the window will be considered on a case-by-case basis, and the Producer will be required to write to NEA at e-waste@nea.gov.sg with the following information:

1. Company Name (UEN)
2. Reason for Late Amendment
3. Nature of the Amendment and the Amendment(s)
4. Supporting Documents

4.5 Guidelines for exclusion of certain regulated products during declaration

The following scenario in section 4.5.1 allows a producer to exclude certain regulated products from the annual declaration. The NEA does not require producers to submit report of these regulated products. Notwithstanding, producers are required to keep supporting documents pertaining to these regulated products supplied pursuant to regulation 18(2) of the RSA during audits. These documents are to be kept by the Producer for a period of 5 years and submitted to the NEA as this information is relevant to the monitoring and evaluation of compliance to the RSA. You may write to the NEA at e-waste@nea.gov.sg with your request, details of the exemption and supporting documents for our assessment and consideration. Note that the list of exempted scenarios is not exhaustive.

4.5.1 Regulated product supplied to replace a component of a system

Regulated products that are imported or manufactured, and subsequently supplied as standalone to replace physically-integrated component of a system (e.g., iPad physically-integrated into a navigation system) is considered as a form of supply of a regulated product. Companies doing so are required to register with the NEA.

However, these regulated products do not need to be declared. Note that 4.5.1 does not apply to batteries.

Please write to NEA at e-waste@nea.gov.sg for clarification on scenarios that are not stated here, and we will assess it on a case-by-case basis.

5 Roles and Responsibilities of a Producer

A Producer of regulated products can be further classified as:

1. Producer of regulated consumer product;
2. Producer of regulated non-consumer product; or
3. Producer of both regulated consumer and regulated non-consumer products

A Producer is obligated to perform the following responsibilities shown in the table below:

Table 8: Roles and responsibilities of a Producer

Roles and Responsibilities	Producer of regulated consumer product	Producer of regulated non-consumer product
	Join the PRS if Producer supplies more than the prescribed threshold and finance the PRS Operator	Collect regulated non-consumer products supplied by the Producer, if requested by the person (i.e. client) and send the products for proper treatment at licensed e-waste recyclers. Records of the collection and where the e-waste was sent to needs to be kept and submitted to the NEA on an annual basis
Register with the NEA as a Producer on the Waste and Resource Management System (WRMS)		
Declare the amount (in kg) of regulated products supplied to the NEA annually on the WRMS during the 1Q of each calendar year		

A Producer of regulated consumer product is not allowed to supply any regulated products in Singapore if the Producer is not a member of the PRS despite exceeding the prescribed threshold.

E.g. Producer 'A' imported and supplied 12 tonnes of consumer computer in 2020 and is required to join the PRS in 2021. If Producer 'A' does not join the PRS in 2021, Producer 'A' is not allowed to supply any of the regulated products in Singapore, and not only consumer computer.

A Producer of regulated consumer product that exceeded the prescribed threshold is required to pay membership, and recycling and collection fees for all the regulated consumer products the Producer supplied.

E.g. Producer 'A' imported and supplied the following in 2020:

- a. 12 tonnes of consumer computer;
- b. 0.1 tonnes of desktop monitor; and
- c. 0.05 tonnes of mobile telephone

Producer 'A' collectively supplied 12.15 tonnes of ICT equipment and has exceeded the prescribed threshold of 10 tonnes for ICT equipment. Producer 'A' is required to pay the membership fee as well as recycling and collection fee for consumer

computer, desktop monitor and mobile telephones, all of which will be apportioned based on the Producer's market share for each of the regulated product type.

The prescribed thresholds for regulated consumer products are as shown:

Table 9: Prescribed threshold for regulated consumer products

Regulated Consumer Products	Prescribed Threshold
Printer with a weight of 20 kg or less	10 tonnes
Consumer computer	
Desktop Monitor	
Mobile Telephone	
Router that is not a specified router	8 tonnes
Modem	0.2 tonnes
Set-top box	0.9 tonnes
EMC Class B network switch	2.5 tonnes*
Network hub with 8 or fewer ports	1 tonne*
Refrigerator	100 tonnes
Air-Conditioner	
Washing Machine	
Dryer	
Television	
Electric Mobility Device	0
Portable battery	3 tonnes
Consumer electric vehicle battery	5 tonnes
Consumer lamp	3 tonnes

*Prescribed thresholds for EMC Class B network switch and network hub with 8 or fewer ports pending revision to cover at least 90% of these products supplied, by weight. The revised thresholds will be effected from 1 July 2023.

The prescribed thresholds are set to cover at least 90% of the EEE, by weight, supplied in Singapore and not over-burden the smaller Producers. The prescribed thresholds will ensure fairness and a level playing amongst the large Producers that are required to join the PRS.

6 Market Share Information

6.1 Computation of market share

The market share of a Producer supplying a regulated consumer product for a particular compliance year is computed via the following formula:

Compliance year from 1 Jul 2021 to 30 Jun 2022:

Market Share =

$$\frac{\text{Weight of regulated consumer product supplied by Obligated Producer in 2021}}{\text{Total weight of regulated consumer product supplied by Obligated Producers in 2021}} \times 100\%$$

Compliance year from 1 Jul 2022 to 30 Jun 2023:

Market Share =

$$\frac{\left(\frac{\text{Weight of regulated consumer product supplied by Obligated Producer in 2022+2023}}{2}\right)}{\left(\frac{\text{Total weight of regulated consumer product supplied by Obligated Producers in 2022+2023}}{2}\right)} \times 100\%$$

Compliance year from 1 July 2023 to 30 Jun 2024:

Market Share =

$$\frac{\left(\frac{\text{Weight of regulated consumer product supplied by Obligated Producer in 2022 + 2023 + 2024}}{3}\right)}{\left(\frac{\text{Total weight of regulated consumer product supplied by Obligated Producers in 2022 + 2023 + 2024}}{3}\right)} \times 100\%$$

In general, the formula for compliance year of 2023 onwards, e.g. compliance year from 1 July of Year X to 30 Jun Year X+1 (where X is 2023 onwards), can be generalised as the following:

Market Share =

$$\frac{\left(\frac{\text{Weight of regulated consumer product supplied by Obligated Producer in Year X-1 + Year X-2 + Year X-3}}{3}\right)}{\left(\frac{\text{Total weight of regulated consumer product supplied by Obligated Producers in Year X-1 + Year X-2 + Year X-3}}{3}\right)} \times 100\%$$

The general formula applies when the average weight of regulated consumer product supplied by the Obligated Producer in the past 3 calendar year (i.e. the numerator of the general formula) exceeds the prescribed threshold for the regulated product category, e.g. 3,000 kg for portable batteries.

Note: Market share is computed using only the supply data from Producers required to join the PRS.

If the numerator of the general formula is below the prescribed threshold, then the formula does not apply, and the market share of the producer is 0%.

6.2 Producer stops supplying a type of regulated consumer product (but continues to supply other regulated products)

A large Producer of regulated consumer product that stops supplying a type of regulated consumer product completely, but continues to supply other regulated products in Singapore, will need to continue paying its obligated producer fees. Such payment for the said product that the Producer has exited market for will continue until its market share reaches zero or the Producer's average supply in the relevant periods falls below the prescribed threshold, whichever comes first. Please see below for an example.

Assume total weight of a regulated consumer product supplied every year remains constant at 100,000 kg and that the prescribed threshold to join the PRS for the regulated consumer product is 10,000 kg.

Producer 'A' joins the PRS with a market share of 40% in the 1st compliance year (e.g. 1 Jul 2021 to 30 Jun 2022), i.e. 'A' supplied 40,000 kg of regulated consumer product in the calendar year preceding the 1st compliance year.

If 'A' exits the market in the 2nd compliance year (e.g. 1 Jul 2022 to 30 Jun 2023), its market share for 'A' for the regulated consumer product for the 2nd compliance year is calculated as such:

Market Share of 'A' in the 2nd compliance year =

$$\frac{\left(\frac{40,000+0}{2}\right)}{\left(\frac{100,000+100,000}{2}\right)} \times 100\% = 20\%$$

Therefore, 'A' has supplied an average of 20,000 kg of regulated consumer product which is above the threshold of 10,000 kg and is still required to pay 20% of the producer fees for the regulated consumer product in the 2nd compliance year despite having exited the market.

In the 3rd compliance year (1 Jul 2023 to 30 Jun 2024), market share of 'A' for the regulated consumer product is as follow:

Market Share of 'A' in the 3rd compliance year =

$$\frac{\left(\frac{40,000+0+0}{3}\right)}{\left(\frac{100,000+100,000+100,000}{3}\right)} \times 100\% = 13.33\%$$

Therefore, 'A' has supplied an average of 13,333 kg of regulated consumer product which is above the threshold of 10,000 kg and is still required to pay 13.33% of the producer fees in the 3rd compliance year despite having exited the market in the 2nd compliance year.

In the 4th compliance year (1 Jul 2024 to 30 Jun 2025), market share of 'A' for the regulated consumer product is as follow:

Market Share of 'A' in the 4th compliance year =

$$\frac{\left(\frac{0+0+0}{3}\right)}{\left(\frac{100,000+100,000+100,000}{3}\right)} \times 100\% = 0\%$$

Therefore, 'A' has supplied an average of 0 kg of regulated consumer product which is below the threshold of 10,000 kg and is no longer required to pay any producer fees in the 4th compliance year and so on.

6.3 Producer exits the market or declares bankruptcy

A large Producer of regulated product that exits the market completely (i.e. stops the supply of all regulated consumer products in Singapore) or declares bankruptcy will not need to be a member of the PRS. Upon termination of the membership agreement, the Producer shall remain liable (i.e. including pro-rated Membership Fees, Collection and Recycling Fees, and/or interest) to pay to the PRS Operator sums due to the PRS Operator notwithstanding the termination of this Agreement and regardless of whether the termination of this Agreement precedes the Due Date of such sums.

7 Useful links

- Resource Sustainability Act

<https://go.gov.sg/rsa>

- E-waste EPR webpage

<https://go.gov.sg/e-waste>

- Product Definitions

<https://go.gov.sg/prod-def-sl>

- Guide to register as a Producer and submit declaration on WRMS portal

<https://go.gov.sg/wrms-t8-guide>

- Past Producer Briefing Presentation deck

<https://go.gov.sg/producer-wrms>

8 Revisions

- 23 December 2021
 - Section 3.3
Added in the criteria to be fulfilled for an item to be considered a “peripheral item” under regulation 6(b) of Resource Sustainability (Prescribed Regulated Products) Regulations 2019.

- 1 March 2022
 - Section 4.5.1
Amended the declaration exemption scenarios for ships docked in Singapore’s water.

 - Section 4.5.2
Edits for clarity

- 3 March 2023
 - Section 4.5
Removed exemption scenario for regulated products supplied to foreign ships docked in Singapore’s water and regulated products re-exported by producer’s client(s).

 - Section 5
Prescribed thresholds in table 5 amended to reflect the ongoing revision to be made for EMC Class B network switch and network hub with 8 or fewer ports