INLAND REVENUE AUTHORITY OF SINGAPORE

## Property Tax Information for

# Investors in Green Energy Assets

This tax guide provides general information on the property tax treatment for renewable energy and low carbon emission plants and assets.

*Published on 31 December 2025*

# Contents

## What is Property Tax?

Property tax is payable on immovable properties, comprising land, buildings, physical improvements and tenements. It includes any slip, dock, wharf, pier, jetty, landing-stage, underground or overground storage facilities (such as tanks, energy storage system or similar storage vessels affixed to land). Network properties such as pipelines, cables, ducts or conduits and channels are regarded as taxable tenements.

## Who Pays Property Tax?

The owner of the property is the person liable for property tax. A lessee or grantee of a property from a state lease, state land grant, or lease of property by a public authority (e.g. JTC) for a period exceeding three years, would be deemed the owner for property tax purposes.

## How is Property Tax Computed?

Property tax is calculated by multiplying the Annual Value (AV) of the property with the prevailing tax rate for non-residential properties, currently at 10% per annum.

**Property Tax = Annual Value (AV) x 10%**

Annual Value is the estimated gross annual rent of the property if it were let out.

## How is Annual Value Determined?

### Vacant Land and Development Sites

AV is determined at 5% of the estimated freehold market value of the land. This includes firm land and foreshore land.

### Completed Renewable Energy and Low Carbon Emissions Plant and Assets

AVs of renewable energy and low carbon emissions plants and assets are typically determined based on the cost of investment. Upon the completion of the building, structures, pipelines or installations (such as fixed machinery and fixtures), the AV is typically determined at:

- 5% of the estimated freehold capital value of the property (including land, building and installations), or
- Contractor's test: Based on a rate of return on the estimated freehold capital value of the property (including land, building and installations).

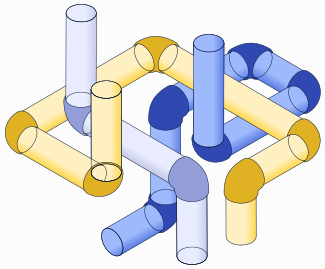
## What are Common Taxable Immovable Assets?

### Building, land and fixtures

- Building, shed and similar roofed enclosure
- Slip, dock, wharf, pier, jetty
- Storage tank, storage systems for raw or finished materials
- Includes any item / chattel / machinery that becomes fixed to land by physical attachment, weight or purpose

### Structural networks

- Pipelines, cables, ducts, conduits and similar channels for circulation, distribution or transmission of raw materials, finished articles, utilities or energy
- Includes overground, underground or undersea pipelines and cables



## Treatment of Fixed Machinery

"Fixed machinery" refers to machinery that is so affixed to the land or building that it has become a fixture. Usually large machinery held in place by building frames, bolts or resting on its weight.

| Types of Machinery | Description | Tax Treatment | Examples |
|---|---|---|---|
|  Manufacturing and processing machinery | Used directly for making, altering, repairing, ornamenting, finishing, or adapting any article for sale[1] | **Not taxable** | Production line equipment, processing machinery |
|  Service machinery | Part of building facilities or peripheral functions unrelated to direct manufacturing | **Taxable** | Lighting systems, electrical installations, HVAC systems, fire protection systems, elevators, electricity and backup generators |
|  Peripheral machinery | Not directly involved in manufacturing and processing activities | **Taxable** | Transportation and distribution systems, weighbridges, cold rooms, clean rooms, overhead cranes |

[1] *An article for sale typically refers to the product sold to consumers or businesses. In the renewable energy sector, this typically means the renewable energy generated from low carbon sources is produced for sale.*

## Examples of Renewable Energy and Low Carbon Emission Assets

**Solar Energy**


**Hydrogen Ecosystem**

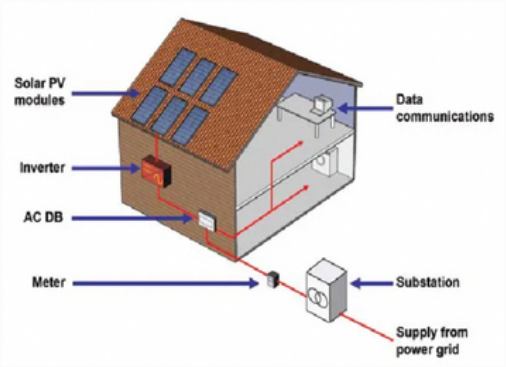
**Electricity Imports**


**Carbon Capture, Utilisation and Storage**

*Note: This is not an exhaustive list of renewable energy and low carbon emissions plants and assets.*

# Solar Energy

## Illustration




*Source: BCA handbook for PV systems*

*Close-up of solar panels. Source: EMA*

## Description

A solar PV system comprises solar panels which convert sunlight into electricity. Panels generate direct current (DC) electricity when exposed to sunlight. An inverter converts DC electricity into alternating current (AC) electricity, which goes through the building's AC distribution boards.

## Tax Treatment

All civil structures and supporting structures are taxable. E.g. buildings, solar canopies, substations, roofed enclosures, struts, anchors.

- **Supplement building electrical needs**

Entire solar panel system installed primarily to supplement building's electricity needs is taxable.

- **Commercial production**

Parts of solar panel systems, either floating (e.g., on reservoirs) or fixed on land or buildings that directly generate electricity for sale are not taxable.

**Examples of non-taxable assets:**

Solar PV modules, inverter, transformer, meter, cables and data communications.

# Hydrogen Ecosystem

## Description

Hydrogen supply chains typically involve various hydrogen carriers such as ammonia or liquefied hydrogen. New facilities may be constructed to extract hydrogen from its carriers. Ammonia cracker plants are used to extract hydrogen. Upon arrival, liquefied hydrogen is regasified.

Hydrogen can be used directly in hydrogen-ready Combined Cycle Gas Turbines (CCGTs) which combust a blend of hydrogen and natural gas to generate electricity.

## Tax Treatment

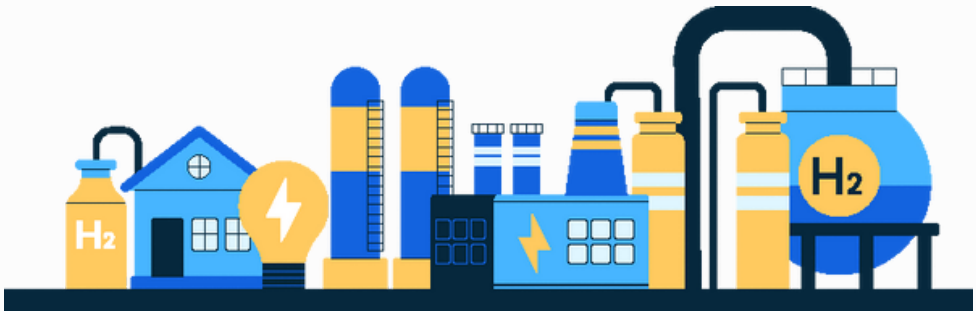
All civil structures and supporting structures are taxable. Fixed machinery are generally taxed, with exceptions below.

**Examples of taxable assets:**

- Building, land and fixtures. Buildings, sheds, roofed enclosures, warehouses, supporting structures.
- Distribution and storage. Pipelines for distribution and transmission, underground and overground storage tanks for solids, liquids or gases. Storage facilities for raw and finished materials.

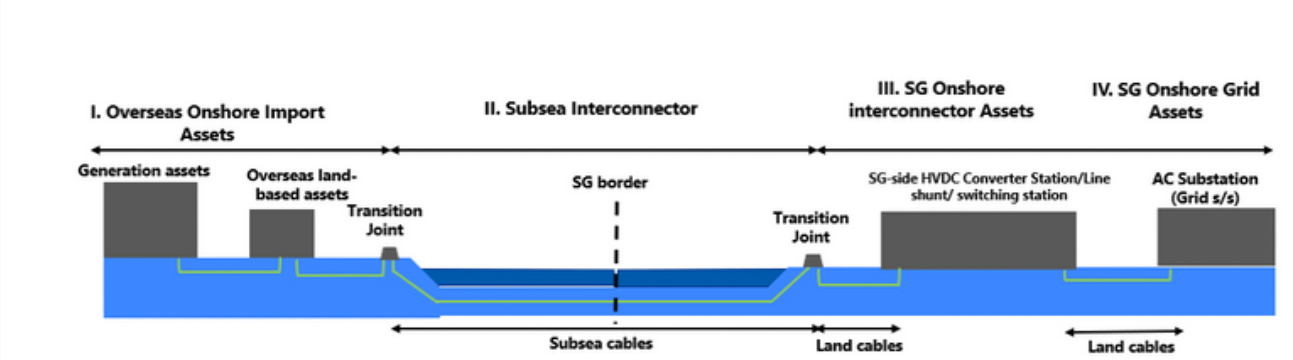
**Examples of non-taxable assets:**

- Machinery directly used for manufacturing and processing such as reactor, separator, gas turbines, heat exchangers, transformers and switchgears in power plants, where these produce an article for sale.
- Liquified hydrogen regasification machinery that directly regasifies the hydrogen for sale.



# Electricity Imports

## Illustration




*Source: EMA*

## Description

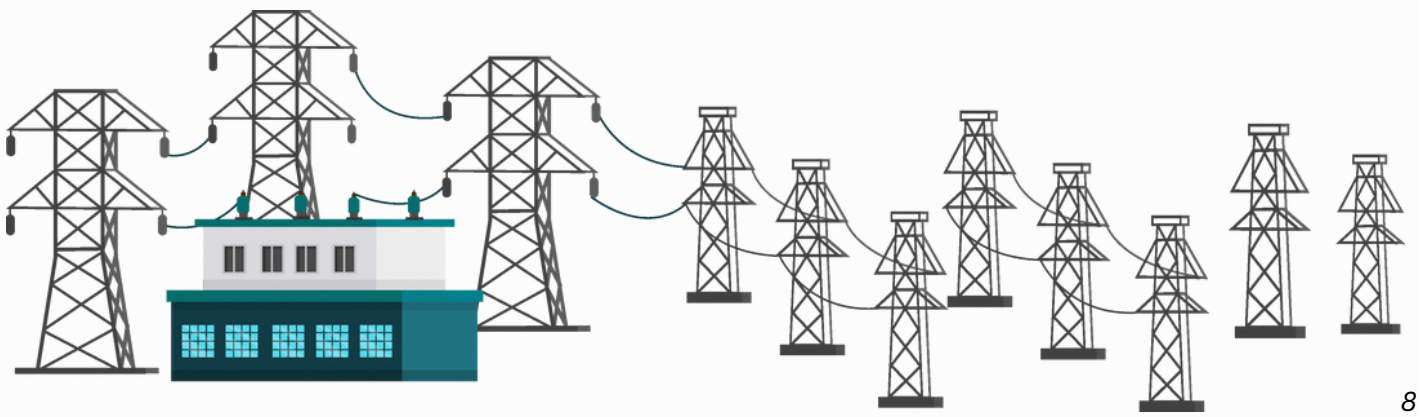
Involves connections from overseas structural assets, through subsea interconnectors to Singapore assets which can comprise subsea interconnectors, onshore interconnector assets and onshore grid assets.

## Tax Treatment

All civil structure (onshore), supporting structures and import infrastructure are taxable within the Singapore land boundary, including areas extending into the foreshore or territorial sea.

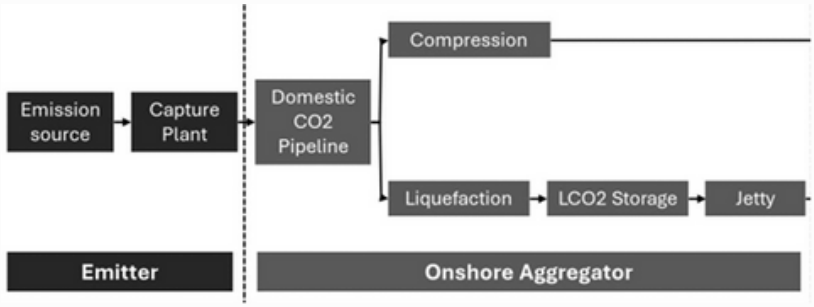
**Examples of taxable assets:**

- Onshore assets. Transition joints, onshore grid assets, land cables, HVDC converter station, line shunt, switching station, substation.
- Subsea interconnectors. Subsea cables.



# Carbon Capture, Utilisation and Storage

## Illustration




*Source: EMA*

## Description

Carbon capture equipment may be installed at the emission source (e.g. manufacturing plant or power plant), where carbon dioxide is separated from other gases and compressed for transport. The carbon dioxide ($CO^2$) can be transported via pipelines to an aggregation facility for further processing and temporary storage before export to storage sites. Alternatively, the carbon dioxide can be transported to another manufacturing plant for utilisation.

## Tax Treatment

All civil structures and supporting structures are taxable. Fixed machinery are generally taxed, with exceptions below.

**Examples of taxable assets:**

- Building, land and fixtures. Buildings and fixed machinery for carbon capture, compression, liquefaction, purification for storage only and aggregation facilities are generally taxable as these are not manufacturing machinery. $CO^2$ storage and export terminal, including jetties, will be taxable.
- Distribution and storage. Pipelines for transmission between emission sources and aggregators and from aggregators to export jetty will be taxable. Underground and overground storage tanks for solids, liquids or gases are taxable.

**Examples of non-taxable assets:**

- Any machinery directly used to process emitted carbon into an article for sale.

This Tax Guide has been developed by the **Inland Revenue Authority of Singapore (IRAS)** in partnership with the **Energy Market Authority (EMA)** and **Economic Development Board (EDB)**, who have contributed valuable insights and illustrative examples.

For enquiries on this Tax Guide, please contact the Property Tax Division at www.iras.gov.sg (select “Contact Us”).