THE GENERAL RULE
Tangible personal property is generally subject to Vermont Sales and Use Tax when incorporated into or consumed by renewable energy systems, such as solar installations and biogas generation facilities.

THE EXCEPTIONS
Vermont law offers two categories of exemptions for property incorporated into renewable energy systems. The categories are the following:
1. Facilities used to manufacture and sell electricity
2. Home and business energy generation systems.

Both categories include more than one exemption, and every exemption has its own strict rules and requirements. See the guidance in this fact sheet to determine whether an exemption is available for your purchase or project. Items that do not meet all of the requirements of an exemption are subject to taxation.

MANUFACTURING EXEMPTIONS
Manufacturing exemptions to the sales and use tax are available for some machinery, equipment, monitoring devices, and supplies purchased and used by renewable energy generation facilities. The manufacturing exemptions use the S-3M exemption certificate.

These exemptions are available for facilities that produce and sell electricity. Skip to the next section to see the exemption available for home and business systems that produce electricity for personal use.

Manufacturing Machinery and Equipment
To qualify, the item must be 1) machinery and equipment, 2) used or consumed directly in manufacture, 3) used or consumed exclusively in manufacture, 4) used to manufacture tangible personal property for sale (this includes electricity), machinery or equipment, parts, or supplies for use in the manufacturing process, and 5) used during the manufacturing process. Failing to meet one part of the test means the exemption cannot be used for that item.

1. “Machinery and equipment” means tangible personal property, capital in nature, with a useful life of one year or more, and does not include real property or supplies. Building supplies, such as concrete and lumber, are not “machinery and equipment” and are therefore taxable. (Building materials are not manufacturing supplies either if they are consumed in building the manufacturing machinery (the solar plant) rather than consumed in producing the product (the electricity)).

2. “Used or consumed directly in manufacture” means machinery or equipment is not exempt if it is only indirectly used in manufacturing electricity. Some machinery and equipment associated with an installation is not directly involved in producing electricity and is therefore taxable. For instance, equipment and machinery used entirely for safety but not production is not exempt under this exemption. Examples of taxable items include fencing, machinery used to prepare and maintain the grounds surrounding a facility, machinery used to clean an installation, and protective equipment such as scrims.

3. “Used or consumed exclusively in manufacture” means it is used directly for manufacturing 96% or more of the time the machinery or equipment is in operation.

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4. “Used to manufacture tangible personal property for sale” in this case means the manufacture of electricity, which is considered “tangible personal property” for purposes of sales and use tax. Note that electricity that is to be sold at retail is subject to sales and use tax.

5. “During the manufacturing process” starts with the first step in the production of electricity and ends when the electricity is first transmitted. This means that machinery or equipment used outside of electricity production does not qualify for the exemption.

### Manufacturing Supplies

To qualify, a material or supply must be 1) tangible personal property (this also includes electricity), 2) used in the manufacturing process, 3) have a useful life of less than one year, and 4a) become an ingredient or component part of tangible personal property for sale, or 4b) be consumed or destroyed or lose its identity in the manufacture of tangible personal property for sale.

- 1. The supplies exemption is limited to tangible personal property and electricity. Note that soaps and cleaning compounds, brushes, brooms, mops and similar items, used for general cleaning and maintenance of a renewable energy facility are not exempt from taxation.

- 2. “Used in the manufacturing process” does not include periods before or after the production of electricity. Building materials are not used in the manufacturing process and are therefore not able to use this exemption.

- 3. “Useful life” refers to the physical life expectancy as a usable item. An item that has a useful life of more than a year is not an exempt supply but may be machinery or equipment (see exemption above).

- 4. The supply must become part of the electricity for sale or be consumed or destroyed in production of electricity. It is allowable to purchase electricity tax exempt as a supply if the electricity is consumed by a renewable energy facility that produces electricity for sale.

### Monitoring Device

To qualify, a monitoring device must be 1) used during the production of electricity and 2a) used to monitor manufacturing machinery and equipment, or 2b) used to monitor the electricity produced.

Devices that are used primarily (more than 50%) to gather statistical data or provide security do not qualify for the exemption.

### Note to Contractors and Retailers Selling to Contractors

A contractor cannot use a resale exemption to purchase materials and supplies for use in erecting structures or otherwise improving, altering, or repairing real property. 32 V.S.A. § 9701(5). A permanent installation, such as a renewable energy system, is considered real property. A contractor may, however, use the exemptions described in this fact sheet if an item being purchased meets the requirements of the exemption being used. Also note that contractors are required to open Vermont Sales and Use Tax accounts if they ever conduct retail sales.

### EXEMPTIONS FOR HOME AND BUSINESS ENERGY SYSTEMS

There are three exemptions available for home and business renewable energy systems. These exemptions use the S-3E exemption certificate.

### Tangible Personal Property Incorporated into a Net Metering System

To qualify, the item must be 1) tangible personal property 2) incorporated into a 3) net-metered system, as defined by 30 V.S.A. § 8002(16).

- 1. The item must be tangible personal property. Unlike the manufacturing exemption, this exemption is not limited to machinery, equipment, supplies, and monitoring equipment.

- 2. The item must be incorporated into the system. This includes safety equipment and other items that are not directly used to produce electricity. It does not include, however, items that are not incorporated into the system, such as fences or unincorporated cleaning equipment.

- 3. The system must be a net-metered system. A net metered system must have a certificate of public good issued by the Public Utility Commission.
Tangible Personal Property Incorporated into an Off-the-Grid System

To qualify, the item must be 1) tangible personal property 2) incorporated into a home or business energy system on the premises not connected to the electric distribution system and 3) meet the requirements of a net-metered system (other than the requirement that the system be connected to the grid).

1. The item must be tangible personal property but is not limited to machinery, equipment, supplies, and monitoring equipment.

2. The item must be incorporated into the system. This includes safety equipment and other items that are not directly used to produce electricity. It does not include, however, items that are not incorporated into the system, such as fences or unincorporated cleaning equipment.

3. The system must meet the requirements for net-metering. A certificate of public good is not necessary.

A system must qualify in one of the following two ways to meet the requirements for net-metering:

- A system that:
  - is of no more than 500 kW capacity,
  - is intended primarily to offset the customer’s own electricity requirements, and
  - employs a renewable energy source.

- A system that:
  - could be a qualified micro-combined heat and power system of 20 kW or fewer that meets the definition of combined heat and power in 30 V.S.A. § 8015(b), and
  - uses any fuel source that meets air quality standards.

How does a part become incorporated into a system?

Parts and devices are exempt if they contribute to making a qualifying system function. Solar racking and mounting, inverters, cables, inverter monitors, battery banks, and modules are exempt from tax when they are part of a qualifying system.

Additionally, any equipment that is required by law to qualify for net-metering is exempt even if it does not directly contribute to making a system function. However, flashing and other construction materials used to prepare a roof or the ground for a system are taxable because they are not part of the system.

Solar Energy Water Heating System

To qualify, the system must be 1) a hot water heating system 2) that converts solar energy into thermal energy used to heat water but 3) limited to that property directly necessary for and used to capture, convert, or store solar energy for this purpose.

1. The exemption is only available for hot water heating systems.

2. The exemption is only available for a system that uses and converts solar energy. Other energy sources do not qualify.

3. The exemption is narrowly written to exclude items that do not directly capture, convert, or store solar energy. The parts of a system that are unrelated to solar energy, such as water pumps and pipes, are subject to sales tax.

For more information, see references at 32 V.S.A. §§ 9741(12) and 9741(46) and Vermont Sales and Use Tax Regulations, Reg. § 1.9741(14).

To learn more about Vermont business taxes, visit our website at www.tax.vermont.gov or contact the Department’s Business Tax Section at tax.business@vermont.gov or (802) 828-2551.