

**New York State Department of Taxation and Finance
Office of Counsel
Advisory Opinion Unit**

TSB-A-13(9)S
Sales Tax
April 11, 2013

STATE OF NEW YORK
COMMISSIONER OF TAXATION AND FINANCE

ADVISORY OPINION

PETITION NO. S100714A

Petitioner ██████████ asks whether the tangible personal property and services it purchases for the construction and installation of a solar power facility are subject to sales tax. Petitioner also asks whether various warranty plans it offers to its customer (i.e. the entity contracting with the Petitioner to construct the facility) or the services it offers the customer in respect to the operation and maintenance of the facility after it is constructed are subject to tax. If its customer opts to have Petitioner operate the facility, Petitioner also asks which exemption document it should receive from the third-party utility company that purchases the electricity for resale.

We conclude that Petitioner's solar modules and panels, the positioning racks for the solar modules/panels, inverters and associated control system equipment are generating equipment used to produce electricity for sale that is exempt from tax pursuant to sections 1115(a)(12) and 1105-B of the Tax Law. Certain other equipment used to step-up the electricity for transmission to the utility company is not eligible for the exemption from tax. Petitioner's separate charges for its warranties or maintenance services relating to the facility equipment are only exempt from tax to the extent that they relate solely to the exempt generating equipment. Petitioner's warranty plans or the maintenance and repair services it offers that do not relate solely to the exempt generating equipment are subject to tax.

The party that sells the electricity to the third-party utility company must receive a completed resale certificate from the utility purchasing the electricity indicating that the electricity is being purchased for resale.

Facts

Petitioner has contracted to construct a solar farm/facility in New York State. The facility will produce electricity that will be sold by the facility owner to a third-party utility company pursuant to a 20 year power purchase agreement. The construction of the facility will include the installation of the solar modules/panels, the foundations and racks to hold the panels, power generation monitoring systems, inverters, combiners, wiring within the system, isolation disconnects, step-up high voltage transformers, the wiring to the power grid, switchgear, ground mounting system, concrete drives and walkways within the facility, buildings, and fences. Petitioner will construct the solar farm on land leased by the owner of the facility. The term of the lease on the land will be for 20 or more years unless it is otherwise terminated, revised or extended.

The following equipment or devices are used in the solar facility:

Solar Module/Panels - A unit assembly that connects solar cells (also known as photovoltaic cells) together into one panel. Solar panels use an array of solar photovoltaic cells to convert solar energy (photons) that strike the panel into direct current (DC) electricity.

Solar Module/Panel Racks – Racks and supports made of steel hold a number of solar modules/panels in clusters which are anchored to a concrete foundation. The racks are used to position the panels fixed at the angle that will maximize production. The racks used in this facility are not designed to be repositioned remotely.

Solar Rack Foundations – The solar rack foundation is made of concrete piers and footings. The solar module and panel racks are bolted to the concrete piers and footings with anchor bolts.

Combiner Boxes – The combiner box is an electrical component for combining and housing the wiring coming from a cluster or group of solar modules/panels.

Intra-Solar Facility Electrical Collection/Processing Cables and Junction Boxes - The electrical collection system consists of electrical cables and junction boxes which transmit electricity generated by the solar panels to the substation equipment.

SCADA Control System - A supervisory control and data acquisition (SCADA) system collects data from sensors and sends it to a central computer for management and control. This control system allows the system operators to control the solar facility and to collect data on solar facility performance.

Inverters – The inverters are electrical devices that convert direct current (DC) voltage produced by the solar panels to alternating current (AC).

Substation Step-Up Transformers - Transformers are located at substation sites and are designed to increase the AC voltage of the electricity to meet the required transmission voltage levels of a public utility buyer. This step-up in voltage is necessary to connect to the larger power grid operated by the utility company purchasing the electricity.

Substation Interconnection Equipment - The electricity produced by the solar panels is delivered via the intra-solar facility electrical collection system to the system substations which will transmit the electricity to the utility. The substation transformers step up the AC current to a final saleable voltage that can be sold to the public utility buyer. The substations are the interconnection point to the public utility transmission line. Each project substation will consist of a control house, transformer(s), outdoor breakers, metering and relay equipment, high voltage bus work, steel support structures, and overhead lightning suppression conductors. All of this equipment will be anchor-bolted to concrete foundations. Fencing will be installed around the substation.

Operations and Maintenance Building - The operations and maintenance building is a small building constructed on the project site. The operations building houses the solar facility control system. The maintenance building houses spare parts, equipment, and maintenance supplies. Each building may function as an office for the solar facility operations or maintenance employees.

The Petitioner offers the following warranty plans to its customers:

System Warranty – Petitioner warrants that the overall system will be free from defects in materials and workmanship for a period of time. If any part of the operating equipment fails, such as a solar panel/module, it is replaced.

Energy Warranty – Petitioner warrants that the system will produce a guaranteed minimum amount of energy annually, as specified with its agreement with the owner. A shortfall could occur due either to an unanticipated malfunction of the equipment or from more than the anticipated number of cloudy days at the facility location. Because the owner of the facility has entered into a long term agreement with a third-party utility company to produce a specified amount of power, there is potential liability if the facility fails to meet these projections. Under this warranty, Petitioner decides how best to make up any shortfall. Petitioner could decide to add more solar capacity or replace panels that have degraded in performance; alternatively Petitioner could simply pay the owner for the shortfall in the amount of electricity produced.

Maintenance Warranty - Petitioner warrants that it will perform the required maintenance of the system as defined in the Operation and Maintenance Manual, with the exception of washing the solar panels, for a set period of time. This warranty provides for the performance of normal routine maintenance necessary to keep the system operating and functioning, and to limit outages of the system or segments of the system. Inspections of the system and its components are performed and corrective actions are taken as necessary.

Module Warranty – This warranty guarantees that the energy produced by an individual solar panel will be as specified for a given period of time. If a particular module’s production declines below a certain threshold, it will be replaced.

In addition to installing the equipment and constructing the facility, Petitioner offers its clients the option to enter into separate agreements for aspects of the facilities operation and management:

Monitoring Services – Petitioner will monitor and communicate the performance of the solar facility and its hardware for a period of time. Under this service, Petitioner will monitor the system utilizing wireless data service. Petitioner provides the connection to the on-site monitoring system. In the event that the wireless connection is not available or becomes unavailable during the term of this contract, the customer will furnish one telephone line to provide the data connection. The service continuously monitors and records the system output.

Operation Service – If selected by the customer, Petitioner agrees to operate aspects of the system, such as notifying warranty providers following an alarm from the monitoring service, reporting malfunctions under the maintenance warranty, troubleshooting the system, and other basic steps to keep the system operating. When notified by its monitoring equipment that something is wrong or underperforming, Petitioner reports the malfunction to the appropriate entity (e.g., warranty service provider) that is responsible for taking corrective action.

Analysis

Equipment and Improvements

Petitioner first asks whether the property and services it purchases to construct and install the components of the solar power facility are subject to sales tax.

Tax Law §1105(a) generally imposes sales tax on the sale of all tangible personal property unless such property is specifically exempt. Tax Law section 1115(a)(12) provides an exemption for machinery or equipment used or consumed directly and predominantly in the production of electricity for sale by generating, but not including parts with a useful life of one year or less, or tools or supplies used in connection with such machinery or equipment. Parts with a useful life of one year or less, tools, and supplies used in connection with such generating machinery and equipment are exempt pursuant to section 1105-B of the Tax Law. Section 1105-B(b) of the Tax Law also exempts receipts from the services of installing, repairing, maintaining or servicing machinery, equipment, parts, tools and supplies exempt under §1115(a)(12) of the Tax Law from the tax imposed on such services by §1105(c)(3) of the Tax Law.

In order to qualify for these exemptions, the threshold determination is whether any of the machinery or equipment installed at Petitioner’s facility is used and consumed directly and predominantly in the production of electricity for sale by generating. The determination of which pieces of machinery or equipment qualify for the exemption depends upon the specific facts of a facility's operation and must be individually assessed on its own fact pattern. *See Matter of Rochester Independent Packer, Inc. v. Heckelman*, 374 NYS2d 991 (1975); TSB-A-09(59)S.

Moreover, section 528.13(c) of the Sales and Use Tax Regulations defines “directly and predominantly” as:

- (1) Directly means the machinery or equipment must, during the production phase of a process:
 - (i) act upon or effect a change in material to form the product to be sold, or
 - (ii) have an active causal relationship in the production of the product to be sold, or
 - (iii) be used in the handling, storage, or conveyance of materials or the product to be sold, or
 - (iv) be used to place the product to be sold in the package in which it will enter the stream of commerce...

(4) Machinery or equipment is used predominantly in production, if over 50 percent of its use is directly in the production phase of a process. . .

While Petitioner's facility uses photovoltaic cells to produce electric current as opposed to utilizing a turbine (such as one turned by either steam or wind), Petitioner's facility will produce electricity that will be sold by Petitioner's customer to a third-party utility company. The facility is therefore engaged in the production of electricity for sale for the purposes of section 1115(a)(12) of the Tax Law. The receipts from the sale of machinery and equipment used directly and predominantly by Petitioner's customer to generate electricity for sale are eligible for the exemptions provided by sections 1115(a)(12) and 1105-B of the Tax Law.

Due to the nature of Petitioner's solar energy production facility, it is only necessary to determine at which point Petitioner's production process ceases. For this purpose, the facility's inverter is the last piece of equipment that effects a change to the electricity. Therefore, receipts from the sale of all those facility components necessary to collect the solar energy and which are used to combine that electricity, up to the point the inverter changes the DC current to AC current, are used directly and predominately in the production of electricity for sale. This equipment includes the solar panels, racks, combiner boxes, all wires and connections connecting these items to the inverter, and the inverter itself. Receipts from the installation of the machinery and equipment that qualify for the exemption provided in Tax Law §1115(a)(12) are similarly exempt from tax pursuant to the provisions of section 1105-B of the Tax Law.

In general, the transmission or distribution of electricity is outside the production process. *See Niagara Mohawk Power Corporation v Wanamaker*, 286 App Div 446 (4th Dep't 1955), *aff'd* 2 NY2d 764 (1956); TSB-A-90(34)S; TSB-A-05(35)S. Therefore, any interconnection equipment components, substation equipment, meters, wire, intra-solar facility electrical collection equipment, cables, junction boxes, poles, step-up transformers or other equipment used beyond the inverter, are not exempt from tax.

The SCADA equipment provides for an integrated management and control of the solar facility. To the extent the SCADA equipment is used directly and predominantly in the operation of the solar facility, it would qualify as exempt electricity generation machinery and equipment pursuant to the provisions of section 1115(a)(12) of the Tax Law, and any installation charges related to such equipment would similarly be exempt. *See* TSB-A-09(59)S; TSB-A-09(62)S.

The concrete piers and footings to which the solar racks are anchored, the concrete foundations for the substations and buildings, and the fencing around the substations when purchased in the form of the raw materials (concrete, steel rebar, connecting rods, fencing and fence posts) or on an installed basis are neither machinery nor equipment. Nor do they perform a function which has an actual causal effect on the generation of the electricity. *See Matter of Slattery Associates, Inc. v. Tully*, 79 AD2d 761 (3rd Dep't 1980) *aff'd* 54 NY2d 711 (1981). The charges for installing this property will be taxable or exempt depending on whether the installations qualify as a capital improvement. Section 1101(b)(9) of the Tax Law defines a

capital improvement as an addition or alteration to real property which: (1) substantially adds to the value of the real property, or appreciably prolongs the useful life of the real property; and (2) becomes part of the real property or is permanently affixed to the real property so that removal would cause material damage to the property or article itself; and (3) is intended to become a permanent installation. Publication 862, *Sales and Use Tax Classifications of Capital Improvements and Repairs to Real Property*, would suggest that the new installation of these features would generally qualify as capital improvements. This would include the: (i) concrete piers, footing, and foundations for the panel racks, module racks, project substations, and maintenance and operations building; (ii) roads; (iii) fencing; and (iv) the maintenance and operations building, which appear to substantially add to the value of the real property (or appreciably prolong the useful life of the real property) and are otherwise installed in a manner that permanently affixes them to the real property such that removal would cause material damage to the property or the articles themselves. See TSB-A-00(21)S.

However, Petitioner has stated that the customer is leasing the property upon which the solar facility is to be constructed. Items that are installed for a tenant, which if installed for the property owner would be a capital improvement, may qualify as a capital improvement depending on the terms of the tenant's lease. See *Matter of Flah's of Syracuse, Inc. v. James H. Tully, Jr. et al*, 89 AD2d 729 (3rd Dep't 1982).

Additions or alterations to real property for or by a tenant of the property are presumed to be temporary in nature for purposes of the definition of capital improvement set forth in section 1101(b)(9)(i) of the Tax Law, unless a contrary intention is demonstrated. Specific lease provisions that state that: 1) immediately upon installation, title to such installation vests in the lessor, and 2) the addition or alteration becomes part of and remains with the premises after the termination of the lease, may demonstrate an intention to make the installation permanent.

In the absence of a lease provision, other factors such as the nature of the installation, or written agreements other than a lease provision, may be considered in determining the intention of the parties with respect to the permanence of the installation. Factors that may indicate that a tenant installation is not intended to be permanent include a lease provision requiring that the leased premises be restored to its original condition at the termination of the lease, and the rental of the installed property by the tenant from someone other than the lessor of the premises. See *Taxable Status of Leasehold Improvements for or by Tenants*, Technical Service Bureau Memorandum, June 15, 1983, TSB-M-83(17)S.

Thus, whether the installation of property that does not qualify for the production exemption (i.e. (i) concrete piers, footing, and foundations for the panel racks, module racks, project substations, and maintenance and operations building; (ii) roads; (iii) fencing; and (iv) the maintenance and operations building) qualifies as a capital improvement depends on the terms of the customer's lease of the underlying real property, or the factors described above, and the nature of the installation. Because no copy of the lease was submitted with the petition, we cannot make a determination as to the issue of permanence.

Tangible personal property that does not qualify for the production exemption that is installed as part of a capital improvement is taxable at the time Petitioner purchases such property, unless some other exemption applies. Petitioner's charges for installing tangible personal property are exempt if the installation constitutes a capital improvement. *See* TSB-A-09(62)S; TSB-A-09(59)S. Petitioner may purchase such tangible personal property for resale if the property remains tangible personal property after installation (that is, does not constitute a capital improvement). A properly completed Contractor Exempt Purchase Certificate (ST-120.1) should be presented to the vendor in order to make an exempt purchase for resale of such property. *See* TSB-A-09(62)S; TSB-A-09(59)S.

Warranties & Monitoring Service

Petitioner also asks whether the warranty plans and the maintenance or operating services it offers to its customer with respect to the solar facility are subject to tax.

Module Warranty

An extended warranty is generally subject to tax. *See* 20 NYCRR §527.5(c). However, the basis of this conclusion is that the “charge for the warranty services are included in the original sales price of the tangible personal property sold to the consumer.” *See Pay TV of Greater New York, Inc.*, Tax Appeals Tribunal, (July 14, 1994). In other words, a warranty is provided as a constituent element of the sale of tangible personal property to which the warranty relates, and is considered to have been purchased with the initial receipt paid for that property. In this instance, the module warranty relates solely to the repair, and replacement of the solar panels, which qualify for the exemption from sales tax under section 1115(a)(12) and 1105-B of the Tax Law as machinery and equipment directly and predominantly engaged in the generation of electricity for sale. Thus, the receipts paid for module warranty are exempt from tax.

Energy Warranty

The energy warranty appears to be a guarantee as to the amount of electricity generated by the facilities rather than a warranty. Petitioner's customer has contractual obligations to meet in terms of the amount of electricity the facility will produce over a twenty year period, and the efficiency of individual solar panels can be expected to decline at varying amounts over that time period. Petitioner has a great deal of flexibility in executing its obligation pursuant to this guarantee; it may add or replace solar panels, or it may simply elect to compensate the customer for any shortfall. In the latter instance, such compensation would not be subject to tax. To the extent that Petitioner may opt to add or replace equipment to meet its obligations, the new or replaced equipment would qualify for exemption under sections 1115(a)(12) and 1105-B of the Tax Law as machinery and equipment predominantly engaged in the generation of electricity for sale. Therefore, the receipts from the sale of this guarantee are exempt from tax.

System and Maintenance Warranties

Because it appears that the system warranty and the maintenance warranty relate to the repair and replacement of both exempt property (i.e., property qualifying for the exemption from sales tax under section 1115(a)(12) and 1105-B of the Tax Law, such as, the solar panels and the inverters) and taxable property (non exempt interconnection equipment, etc.), the charges for these warranties are subject to tax.

Monitoring Service

The Monitoring Service, which monitors the customer's assets so that it may provide operational information as to the functioning of the assets (such as through efficiency reports) is not subject to tax. *See* TSB-A-10(14)S. However, if Petitioner were to offer a service that went beyond this service, and notified the customer or a repair service provider when the equipment malfunctions the service may be subject to tax pursuant to §1105(c)(8) as a taxable protective service where the assets are located in New York. *See* TSB-A-10(14)S.

Sales of Electricity

Finally, Petitioner asked about the sale of electricity by the facility operator. The entity making the sale of the electricity generated by the facility to the third-party utility company must receive a completed resale certificate (Form ST-120) from the utility purchasing the electricity indicating that the electricity is being sold to it for the purpose of resale. *See* 20 NYCRR §527.2(e). Purchases of utility services by a utility for resale as such may be made without payment of the sales tax.

DATED: April 11, 2013

/S/

DEBORAH R. LIEBMAN
Deputy Counsel

NOTE: An Advisory Opinion is issued at the request of a person or entity. It is limited to the facts set forth therein and is binding on the Department only with respect to the person or entity to whom it is issued and only if the person or entity fully and accurately describes all relevant facts. An Advisory Opinion is based on the law, regulations, and Department policies in effect as of the date the Opinion is issued or for the specific time period at issue in the Opinion. The information provided in this document does not cover every situation and is not intended to replace the law or change its meaning.