



April 7, 2010
Pennsylvania Sales and Use Tax
No. SUT-10-001
Electricity Manufacturing

ISSUES

1. Does Taxpayer qualify as a manufacturer for Pennsylvania Sales and Use tax purposes?
2. Does the purchase of machinery, equipment, parts, and supplies by Taxpayer, which are to be used in the electricity generation operation, qualify as property excluded from Pennsylvania Sales and Use Tax as directly used in the manufacturing operation?

CONCLUSIONS

1. Taxpayer qualifies as a manufacturer for Pennsylvania Sales and Use Tax purposes.
2. The purchase of machinery, equipment, parts, and supplies by Taxpayer, which are to be used in the electricity generation operation, qualify as property excluded from Pennsylvania Sales and Use Tax as equipment directly used in the manufacturing operation.

FACTS

Taxpayer is preparing to construct a solar energy facility in Pennsylvania. If the construction proceeds, Taxpayer plans to purchase the machinery, equipment, and supplies needed to convert light energy into electricity. The electricity output will be transferred to a public utility through a high voltage transmission system.

Taxpayer's facility will include photovoltaic solar panels mounted on single axis steel trackers with motors that will track the sun from east to west during the daily production period. Through the photovoltaic solar panels, light energy is converted to electricity, which is gathered from the photovoltaic panels and sent through installed wiring to combiner boxes, safety switches and circuit breakers, then channeled through underground wiring enclosed in conduit to 500kw invertors, then on to multiple 480 volt to 12kv step-up transformers mounted on concrete slabs.

The power from the 480/12kv step-up transformers then feeds the electricity through underground cable enclosed in conduit to a substation equipped with circuit breakers, switches, relays, a bus, which is a device that connects the 12kv line to the 69kv substation, and a 12kv to 69kv step-up transformer enclosed with fencing and mounted on a concrete slab. The substation will be attached to a control building that will house a data acquisition and metering system, Direct Transfer Trip, which is an electronic device that allows the utility to remotely disconnect the service from entering the transmission line in case of an emergency, SCADA which is a mandatory Data Acquisition System that is required by the utility (PPL) and the grid operator (PJM) to meter the generation of electricity in the substation prior to entering the transmission line, a dedicated phone line and TCP/IP remote connection, which is an internet data connection that sends data from the SCADA to the utility (PPL) and grid operator (PJM). The electricity enters the substation and is converted from 12kv to 69kv.

From the substation, the project's electrical output will be sent through a dead-end structure with surge suppressors and break switches to a 69kv transmission line, mounted on steel transmission poles, which will convey the electricity approximately one mile and interconnect to dual existing 69kv utility owned transmission lines. At this point, the electricity is transferred to the public utility.



Taxpayer will contract with one or more construction contractors to purchase and install materials that will be used in the project as described above.

DISCUSSION

The Pennsylvania Tax Reform Code ("Code") excludes from the definition of a taxable sale at retail the transfer of tangible personal property, including but not limited to machinery, equipment, parts and supplies used or consumed by the purchaser directly in the operations of the manufacture of tangible personal property. 72 P.S. § 7201(k)(8)(A). Section 201(m) of the Code defines "tangible personal property" to include "electricity for non-residential use." As taxpayer will engage in the business of the manufacturing of electricity for non-residential use, it may claim the manufacturing exemption on the machinery, equipment and supplies it predominantly and directly uses in its manufacturing, i.e. its generation of electricity. The Code defines "manufacture" to include every operation commencing with the first production stage and ending with the completion of personal property having the physical qualities that it has when the manufacturer transfers it to customers. 72 P.S. § 7201(c)(1).

Accordingly, taxpayer may purchase exempt from sales tax all machinery, equipment, parts and supplies starting with that used in the initial stage of the photovoltaic process, and ending at the final production stage, where the electricity is acceptable to the public utility purchaser.