

## DEPARTMENT OF STATE REVENUE

Revenue Ruling #2012-03ST  
July 27, 2012

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**ISSUES**

## Sales and Use Tax – Application of Industrial Production Exemption to Solar Energy Plant

A company ("Taxpayer") is seeking an opinion as to whether its acquisition, storage, use and/or consumption of tangible personal property which consists of or becomes part of an electricity generating solar energy plant is exempt from Indiana sales and use tax pursuant to the industrial production exemption.

Authority: [IC 6-2.5-2-1](#); [IC 6-2.5-3-2](#); [IC 6-2.5-3-4](#); [IC 6-2.5-5-3](#); [45 IAC 2.2-5-8](#)

**STATEMENT OF FACTS**

Taxpayer, which is an Indiana company that proposes to develop, construct and install a solar plant to be used to generate electricity, provides the following facts regarding its request for a revenue ruling:

[Taxpayer] will sell the electricity primarily to public utility companies which, in turn, will sell the electricity to their customers. In some instances, [Taxpayer] may sell some of the electricity produced by its solar electricity generating facility turbines to governmental units and/or to private industry.

An electricity generating solar energy plant generally entails the solar generating facility itself (which consists of foundations, posts, racks, modules, inverters, transformers, wires and related component parts), an electrical interconnection system that connects the electricity generating solar energy plant from the inverter to the electrical public utility's distribution system, and an access road used during construction and during power production for maintenance and repair activities, and fencing. A photovoltaic (PV) solar electric generating plant converts solar energy into electrical energy. PV relies upon chemical reactions to generate electricity. PV cells are small, square shaped semiconductors manufactured in thin film layers from silicon and other conductive materials. When sunlight strikes the PV cell, chemical reactions release electrons, generating electric current. The plant consists of foundations, posts, racks, modules, inverters, transformers, wires and related components.

**Foundations.** Foundations provide all-weather platform and support for electrical equipment including switchgear, inverters, transformers, disconnect switch and protective device equipment.

**Posts.** Steel H-beam posts, typically 12 to 16 feet in length are driven into the ground at 12 to 15 foot intervals. The posts provide the all-weather support platform for mounting hardware (racks) designed to support and hold the solar modules and wiring.

**Racks.** Racks provide the mounting structure for solar modules and wiring.

**Modules.** The backbone of the solar energy plant is the solar module, a packaged, connected assembly of photovoltaic cells. The cells use light energy (photons) from the sun to generate electricity through the photovoltaic effect. The cells are connected electrically to one another and to the rest of the system using conducting wires of silver, copper or other non-magnetic conductive transition metals.

**Wires.** Wires collect and transport the electrical energy from the modules to centrally located inverters. Wires also collect and transport the electricity from the inverters to the switchgear/transformer pad.

**Inverters.** The inverter converts the variable direct current (DC) output of a photovoltaic (PV) solar panel into a utility frequency alternating current (AC) that can be fed into a utility's electrical grid.

**Transformers.** The transformer steps up the voltage being supplied by the inverter to the voltage specification as required by the interconnecting utility for grid interconnection.

Related Components. Miscellaneous hardware that facilitates the transfer of electricity from modules to inverters to switchgear/transformer to primary meter.

Electrical interconnection system. Electricity moves from the switchgear/transformer through various protective devices (e.g. recloser) and a disconnect switch to the utility's primary meter. It is at the utility's primary meter where the electricity produced by the solar energy plant is delivered to the utility at the specified voltage.

Access road. Access roads are used during construction and during power production for maintenance and repair activities.

Fencing. Fencing, positioned on the perimeter of the project site provides security during construction and power production phases.

Taxpayer requests that the Department rule that its acquisition, storage, use and/or consumption of the above tangible personal property which consists of or becomes a part of an electricity generating solar energy plant, including the foundations, posts, racks, modules, inverters, transformers, wires and related component parts, an electrical interconnection system, an access road and fencing, is exempt from sales and use tax pursuant to the industrial production exemption found at [IC 6-2.5-5-3\(b\)](#) and the corresponding use tax exemption found at [IC 6-2.5-3-4\(a\)](#).

## DISCUSSION

[IC 6-2.5-2-1\(a\)](#) imposes sales tax on retail transactions made in Indiana. In a corresponding manner, [IC 6-2.5-3-2\(a\)](#) imposes use tax on the storage, use or consumption of tangible personal property in Indiana, if the property was acquired in a retail transaction as defined for sales tax purposes, regardless of the location of that transaction.

However, an exemption related to industrial production is found at [IC 6-2.5-5-3\(b\)](#), which states:

Except as provided in subsection (c), transactions involving manufacturing machinery, tools, and equipment are exempt from the state gross retail tax if the person acquiring that property acquired it for direct use in the direct production, manufacture, fabrication, assembly, extraction, mining, processing, refining, or finishing of other tangible personal property.

A further explanation of this exemption requirement is found in [45 IAC 2.2-5-8\(c\)](#), which provides that Taxpayer's machinery, tools, and equipment qualify for the exemption if they are "an essential and integral part of an integrated process which produces" the electricity sold by Taxpayer.

Supplemental to the sales tax exemption noted above is the use tax exemption found in [IC 6-2.5-3-4\(a\)](#), which provides that the storage, use, and consumption of tangible personal property in Indiana is exempt from use tax if the property was acquired in a transaction that is wholly or partially exempt from sales tax and is used, stored, or consumed for the purpose for which it was exempted.

In the instant case, as part of its electricity generating solar energy plant, Taxpayer has acquired (or will acquire) foundations, posts, racks, modules, and inverters, wires and related component parts, for direct use in the direct production of electricity. Each of these parts is an essential and integral part of an integrated process which produces (or will produce) the electricity sold by Taxpayer. Accordingly, Taxpayer's acquisition, storage, use and/or consumption of such tangible personal property falls within the ambit of the above exemption statutes and is exempt, on that basis, from Indiana sales and use tax.

Taxpayer also requests that the Department rule whether Taxpayer's acquisition, storage, use and/or consumption of tangible personal property which consists of or becomes a part of transformers, an electrical interconnection system, including wires and related components, an access road and fencing for an electricity generating solar energy plant are exempt from sales and use tax under the industrial production exemption.

[IC 6-2.5-5-3\(c\)](#) provides that the exemption found in [IC 6-2.5-5-3\(b\)](#), supra, "does not apply to transactions involving distribution equipment or transmission equipment acquired by a public utility engaged in generating electricity." Generally, electric utilities recognize three stages in providing electricity to customers: (1) production, (2) transmission, and (3) distribution. "Production" refers to the generation of electricity. "Transmission" involves the transfer of electricity from generating sources to local distribution systems. "Distribution" involves the transfer

of electricity from local distribution systems to the customer.

The Department finds that the purpose of Taxpayer's use of transformers, and an electrical interconnection system, including wires and related components, involves the economics of transmission and distribution, not production. As such Taxpayer's use of transformers is not a continuation of the industrial production process, but merely part of the transmission and distribution process. Similarly, Taxpayer's use of an access road and fencing is not for direct use in the direct production of electricity.

Based on the foregoing, the Department finds that Taxpayer's acquisition, storage, use and/or consumption of transformers, an electrical interconnection system, including wires and related components, an access road and fencing, are not for direct use in the direct production of the electricity sold by Taxpayer. Accordingly, Taxpayer's acquisition, storage, use and/or consumption of such tangible personal property does not fall within the ambit of the above exemption statutes and is not exempt, on that basis, from Indiana sales and use tax.

### **RULING**

Taxpayer's acquisition, storage, use and/or consumption of foundations, posts, racks, modules, and inverters, wires and related component parts falls within the ambit of the industrial production and use tax exemption statutes and is exempt, on that basis, from Indiana sales and use tax.

Taxpayer's acquisition, storage, use and/or consumption of transformers, an electrical interconnection system, including wires and related components, an access road and fencing does not fall within the ambit of the industrial production and use tax exemption statutes and is not exempt, on that basis, from Indiana sales and use tax.

### **CAVEAT**

This ruling is issued to the taxpayer requesting it on the assumption that the taxpayer's facts and circumstances as stated herein are correct. If the facts and circumstances given are not correct, or if they change, then the taxpayer requesting this ruling may not rely on it. However, other taxpayers with substantially identical factual situations may rely on this ruling for informational purposes in preparing returns and making tax decisions. If a taxpayer relies on this ruling and the Department discovers, upon examination, that the fact situation of the taxpayer is different in any material respect from the facts and circumstances given in this ruling, then the ruling will not afford the taxpayer any protection. It should be noted that subsequent to the publication of this ruling a change in statute, regulation, or case law could void the ruling. If this occurs, the ruling will not afford the taxpayer any protection.

*Posted: 08/29/2012 by Legislative Services Agency*  
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