



STATE OF ARKANSAS  
**Department of Finance  
and Administration**

**REVENUE LEGAL COUNSEL**

Post Office Box 1272, Room 2380  
Little Rock, Arkansas 72203-1272  
Phone: (501) 682-7030  
Fax: (501) 682-7599  
www.arkansas.gov/dfa

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RE: Sales Tax- Manufacturing  
Opinion No. 20201111

Dear [REDACTED]:

I am writing in response to your November 16, 2020 request for a Revenue Legal Opinion concerning the sales and use tax for manufacturing:

I am writing for a legal opinion for [REDACTED]. [REDACTED] is developing a local, behind the meter 13.25 Mega Watt DC solar project that will be owned upon completion. The project will be built on land owned by [REDACTED] and will utilize roughly 33,000 monocrystalline bi-facial photovoltaic panels (PV) to collect sunlight and convert it to electricity. The PV panels will be mounted on racks equipped with single axis tracking technology, which will be programmed to tilt the panels to follow the sun as it moves.

Once the sunlight hits the PV panels, the solar energy is converted into direct current (DC) electricity. The DC electricity then travels from the PV modules through wires to consolidation points called combiner boxes. The combiner boxes consolidate the current from multiple strings of DC collection wires into a single wire or cable. The DC electricity must be converted to alternating current (AC) for use by [REDACTED]'s customers. As such, the DC electricity flows through the wires into a power conversion unit called inverters. The inverter converts the DC electricity into AC electricity.

The AC electricity exiting the inverters is a relatively low voltage and must be transformed to a higher voltage for injection in the [REDACTED] distribution system. The project will have four inverters connected to four step transformers that will be interconnected to [REDACTED]'s distribution systems at four different points (roughly 2.495 MW each). Once the AC electricity is injected into the [REDACTED] lines it will be sold to retail customers.

*Project Highlights and Equipment*

- 13.25 MW DC to 9.99 MW AC

- *Roughly 33,000 monocrystalline Bi-Facial Photovoltaic Panels 26 PV panels per string*
- *Steel support piles that are embedded vertically into the ground and will elevate the racking and trackers*
- *4 Central Inverters which will set upon special dedicated concrete foundations*
- *Collection system cables, conduit, and other minor accessories to allow for the collection and transportation of the energy*
- *4 Step up Transformers which will set upon special dedicated concrete foundations*
- *Transmission Lines which leave the substation and carry the electricity to the interconnection point of the grid*
- *SCADA {Supervisory Control and Data Acquisition Software} which will be located in the Operations and Maintenance Building that allow us to operate and monitor the Solar array*
- *Switchyard and Interconnection which is the point of interconnection with the grid*

We are wanting to confirm that this project is considered manufacturing and that these items are exempt from tax. There are also additional items such as the building, roads and fencing which will be built but are not what we consider manufacturing.

In subsequent email correspondence, you confirmed that the project will result in the construction of a new facility in Arkansas. You also confirmed that [REDACTED] will place all of the electricity generated by the solar farm onto its distribution system for retail sale.

## **RESPONSE**

The following items of machinery and equipment identified in your request would qualify for the manufacturing exemption if used directly in the manufacturing process: solar panels, steel support piles, inverters, collection system-electrical cables/conduit/accessories, transformers, transmission lines, SCADA, and switchyard and interconnection.

### ***Discussion***

The Arkansas Gross Receipts (Sales) Tax is generally applicable to the sale of tangible personal property and certain enumerated services. Ark. Code Ann. § 26-52-301 (Supp. 2019). The tax is computed based on the total value of consideration paid for the taxable property or service. *Id.*; see also Ark. Code Ann. § 26-52-103(19) (Supp. 2019). When a sale of tangible personal property or the performance of such an enumerated service occurs in Arkansas, a taxable transaction occurs, and the tax should be collected and remitted. Arkansas Gross Receipts Tax Rule GR-5.

The Arkansas Compensating (Use) Tax is due on the purchase of any tangible personal property that is purchased out of state and brought into Arkansas for use, storage, consumption, or distribution. Ark. Code Ann. § 26-53-106 (Supp. 2019). “Use,” with respect to tangible personal property, means the exercise of any right or power over tangible personal property incident to the ownership or control of that tangible personal property. Ark. Code Ann. § 26-53-102(30)(A) (Supp. 2019). The compensating use tax is assessed when the transportation of the property has come to rest or when the property has become commingled with the general mass of property in the state. Ark. Code Ann. § 26-53-106(b) (Supp. 2019); *see also Martin v. Riverside Furniture Corp.*, 292 Ark. 399, 401-02, 730 S.W.2d 483, 485 (1987). Once the transportation has ceased or the property is commingled, the property is no longer in the stream of interstate commerce and is subject to the compensating use tax. *See Martin*, 292 Ark. at 402, 730 S.W.2d at 485; *see also Skelton v. Federal Express Corp.*, 259 Ark. 127, 131, 531 S.W.2d 941, 944 (1976). There is a presumption that tangible personal property shipped, mailed, expressed, transported, or brought to this state by a purchaser was purchased from a vendor for storage, use, distribution, or consumption in this state. Ark. Code Ann. § 26-53-106(d)(2) (Supp. 2019). The tax shall be paid at the rate of the location of delivery. Ark. Code Ann. § 26-52-521(b)(2) (Supp. 2019).

The purchase of machinery and equipment is a purchase of tangible personal property. Under Arkansas law, the sale or purchase of tangible personal property is generally subject to Arkansas gross receipts/sales tax or compensating use tax. Ark. Code Ann. § 26-52-301 (Supp. 2019) and Ark. Code Ann. § 26-53-106 (Supp. 2019). However, Arkansas law provides certain exemptions from this general rule:

(a) There is specifically exempted from the tax imposed by this chapter the following:

(1)(A) Gross receipts or gross proceeds derived from the sale of tangible personal property consisting of machinery and equipment used directly in producing, manufacturing, fabricating, assembling, processing, finishing, or packaging of **articles of commerce** at manufacturing or processing plants or facilities in the State of Arkansas. ...

(B) The machinery and equipment will be exempt under this subdivision (a)(1) if it is purchased and **used to create new manufacturing or processing plants or facilities within this state** or to expand existing manufacturing or processing plants or facilities within this state[.]

....

(2)(C) It is the intent of this subdivision (a)(2) to provide the exemptions in subdivision (a)(1) of this section and this subdivision (a)(2) as incentives to encourage the location of new manufacturing plants in Arkansas, the expansion of existing manufacturing plants in Arkansas, and the modernization of existing manufacturing plants in Arkansas through the replacement of old, inefficient, or technologically obsolete machinery and equipment; and

....

(c)(1)(A) It is the intent of this section to exempt only such machinery and equipment as shall be used directly in the actual manufacturing or processing operation at any time from the initial stage when actual manufacturing or processing begins through the completion of the finished article of commerce and the packaging of the finished end product.

(B) As used in this subsection, **“directly” is used to limit the exemption to only the machinery and equipment used in actual production during processing, fabricating, or assembling raw materials or semifinished materials into the form in which such personal property is to be sold in the commercial market.**

(2) For purposes of this subsection, the following definitions, specific inclusions, and specific exclusions shall apply and represent the intent of the General Assembly as to its interpretation of the term “used directly”:

(A)(i) Machinery and equipment used in actual production includes machinery and equipment that meet all other applicable requirements and which cause a recognizable and measurable mechanical, chemical, electrical, or electronic action to take place as a necessary and integral part of manufacturing, the absence of which would cause the manufacturing operation to cease.

(ii) “Directly” does not mean that the machinery and equipment must come into direct physical contact with any of the materials that become necessary and integral parts of the finished product.

(iii) Machinery and equipment which handle raw, semifinished, or finished materials or property before the manufacturing process begins are not used directly in the manufacturing process.

(iv) Machinery and equipment which are necessary for purposes of storing the finished product are not used directly in the manufacturing process.

(v) Machinery and equipment used to transport or handle a product while manufacturing is taking place are used directly;

(B) Machinery and equipment used directly in the manufacturing process includes without limitation the following:

....

(iii) Testing equipment to measure the quality of the finished product at any stage of the manufacturing process;

(iv) Computers and related peripheral equipment that directly control or measure the manufacturing process; and

(v) Machinery and equipment that produce steam, electricity, or chemical catalysts and solutions that are essential to the manufacturing process but which are consumed during the course of the manufacturing process and do not become necessary and integral parts of the finished product;

(C) Machinery and equipment “used directly” in the manufacturing process shall not include the following:

(i) Hand tools;

(ii) Machinery, equipment, and tools used in maintaining and repairing any type of machinery and equipment;

(iii) Transportation equipment, including conveyors, used solely before or after the manufacturing process has been started or completed;

(iv) Office machines and equipment including computers and related peripheral equipment not directly used in controlling or measuring the manufacturing process;

(v) Buildings;

(vi) Machinery and equipment used in administrative, accounting, sales, or other such activities of the business;

(vii) All furniture;

(viii) All other machinery and equipment not used directly in manufacturing or processing operations as defined in this section;

....

(d) The Secretary of the Department of Finance and Administration may promulgate rules and regulations for the orderly and efficient administration of this section.

Ark. Code Ann. § 26-52-402 (Supp. 2019) (emphasis added).<sup>1</sup>

The Department has promulgated the following rule to provide additional guidance:

A. The gross receipts or gross proceeds derived from sales of tangible personal property consisting of machinery and equipment used directly in producing, manufacturing, fabricating, assembling, processing, finishing, and/or packaging of **articles of commerce** at manufacturing plants or facilities in Arkansas are exempt from the tax if, and only if, the machinery and equipment is purchased and used for purposes set forth in this rule.

B. **NEW MANUFACTURING PLANTS.** The gross receipts or gross proceeds derived from the sale of machinery and equipment

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<sup>1</sup> An analogous statutory provision exempts manufacturing machinery and equipment from the Arkansas compensating use tax. Ark. Code Ann. § 26-53-114 (Supp. 2019).

purchased and used to create new manufacturing plants or facilities in Arkansas are exempt from the tax if:

1. The machinery and equipment performs one or more essential functions and is utilized directly in the manufacturing process; and
2. The machinery and equipment is utilized in actual manufacturing operations at any time from the initial stage where the raw material is first acted upon and changed in any essential respect through the completion and packaging of the article of commerce, as defined in GR-55(F)(6) of this rule; and
3. The machinery and equipment does not consist of hand tools, buildings, transportation equipment, office machines and equipment, machinery and equipment used in administrative, accounting, sales or other such activities of the business involved, or any and all other machinery and equipment not directly used in the manufacturing operation.

Arkansas Gross Receipts Tax Rule GR-55(A) and (B) (emphasis added). The rule defines “articles of commerce” as “any property to be placed on the market for retail sale to the general public and any property which becomes a recognizable integral part of a manufactured product in its finished and packaged form ready to be placed on the market for retail sale. Custom items which are produced for specific customers in response to special orders and which are not readily marketable to the general public are not articles of commerce.” *Id.* at GR-55(F)(6).

The Arkansas Supreme Court has recognized that the generation of electricity is a manufacturing process. *Morley v. Brown & Root*, 219 Ark. 82, 87, 239 S.W.2d 1012, 1015 (1951). Further, generated electricity may constitute an article of commerce if the generator places the electricity on the market for retail sale ultimately to the general public in the usual course of business. *Morley v. E.E. Barber Construction Co.*, 220 Ark. 485, 491, 248 S.W.2d 689, 692 (1952). The electricity generated by a solar farm meets this definition. *See, e.g., Heath v. Research-Cottrell, Inc.*, 258 Ark. 813, 820, 529 S.W.2d 336, 339 (1975) (“Like any other manufacturing facility, a power processing plant converts raw materials into a salable product.”). When the manufacturing facility is a solar farm, the raw material is sunlight or solar power and the salable product is marketable AC electricity.

### ***Manufacturing Machinery and Equipment Exemption for Specific Items***

You have stated that the project will result in the construction of a new facility. Therefore, the proposed solar array would qualify as a “new manufacturing plant” within the meaning of Ark. Code Ann. § 26-52-402(a)(1)(B) (Supp. 2019). The manufacturing process in this situation is the conversion of solar energy into electricity. That process begins with the harvesting of solar energy

by the solar panels, and the process ends with the delivery of marketable high voltage AC electricity to the power grid.

Generally, in order for machinery and equipment to qualify for the manufacturing exemption, the taxpayer must use the machinery and equipment “directly” in the manufacturing process. Ark. Code Ann. § 26-52-402(a)(1)(A) and (c)(1)(B) (Supp. 2017). Based on the information you have provided, the solar panels, steel support piles, inverters, collection system cables/conduit/accessories, transformers, transmission lines, and switchyard and interconnection would qualify for the manufacturing machinery and equipment exemption. The solar farm will use these items of machinery and equipment in transporting and handling the product at the various stages of the manufacturing process. Specifically, the solar farm will use these items directly in and during the process of manufacturing electricity.

In addition, you have stated that the SCADA (Supervisory Control and Data Acquisition Software) will allow [REDACTED] to operate and monitor the solar array. Based on your description, this item also may qualify for the manufacturing machinery and equipment exemption because it constitutes computers and related peripheral equipment that directly control or measure the manufacturing process. Ark. Code Ann. § 26-52-402(c)(2)(B)(iv) (Supp. 2017). However, if the function of this SCADA is to monitor and operate aspects of the solar farm that do not directly control or measure the manufacturing process – e.g., the operation of entrance gates or the testing monitoring of external factors – then the answer could be different. If you would like a final determination on this item, please provide additional information and submit a supplemental opinion request.

This opinion is based on my understanding of the facts as set out in your inquiry and as current Arkansas laws and rules govern those facts. Any changes in the facts or law could result in a different opinion. Please note that only you as the requestor may rely on this opinion and only to the extent that all material facts relative to the sale or transaction in question are contemplated by your legal opinion request and this legal opinion. Pursuant to Arkansas Gross Receipts Tax Rule GR-75(B), this opinion only will be binding on the Department for three (3) years from the date of issuance.

A copy of the Arkansas Gross Receipts Tax Rules referenced in this letter is available online at [http://www.dfa.arkansas.gov/offices/policyAndLegal/Documents/et2008\\_3.pdf](http://www.dfa.arkansas.gov/offices/policyAndLegal/Documents/et2008_3.pdf).

Sincerely,

Brad Young, Attorney  
Revenue Legal Counsel