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LETTER RULING NO. 2011-03
[REDACTED TEXT]
[REDACTED TEXT]
[REDACTED TEXT]
[REDACTED TEXT]

February 11, 2011

RE: RENEWABLE ENERGY TECHNOLOGIES INCOME TAX CREDIT; ANALYSIS OF A SYSTEM

Dear [REDACTED TEXT]:

This responds to your letter dated [REDACTED TEXT] (the "Ruling Request"), wherein [REDACTED TEXT] (together with its affiliates that are disregarded entities for income tax purposes, the "Taxpayer") requested confirmation regarding application of the Renewable Energy Technologies Income Tax Credit ("RETITC") under Section 235-12.5, Hawaii Revised Statutes ("HRS"), as further discussed below. Taxpayer is a limited liability company taxed as a partnership. One or more of Taxpayer's members are entities that are disregarded for income tax purposes; the members' shares of the RETITC will flow through to the ultimate owners of those entities.

QUESTIONS PRESENTED

There are two questions presented in your Ruling Request, which are as follows:

(1) Whether each assembly of equipment, as described ("PV System"), comprising the photovoltaic project ("Project") installed and placed in service by the Taxpayer or its affiliates characterized as disregarded entities for income tax purposes, qualifies as a "solar energy system" within the meaning of HRS § 235-12.5; and

(2) Whether the Taxpayer's members are entitled to claim the RETITC for each PV System that is installed and placed in service as part of the Project.

SHORT ANSWER

Based on the facts set forth in this letter:

(1) Each PV System qualifies as a "solar energy system" for purposes of the RETITC under HRS § 235-12.5; and

(2) Taxpayer's members are eligible to claim their distributive shares of the RETITC for each PV System that is installed and placed in service as part of the Project, subject to the $500,000 Commercial Property Cap for each PV System.[1]

FACTS REPRESENTED BY THE TAXPAYER

Taxpayer is a limited liability company taxed as a partnership for income tax purposes. [REDACTED TEXT] ("Affiliate") is a limited liability company that is wholly owned by the Taxpayer. Affiliate is a disregarded entity for income tax purposes. Affiliate will install and place in service the photovoltaic project described below (the "Project") on leased land in [REDACTED TEXT], Hawaii.

The Project consists of [REDACTED TEXT] independent assemblies of equipment (each, a "PV System" and together, the "PV Systems") which convert solar energy to electricity. Each PV System has a nominal rated output of [REDACTED TEXT] and consists of the following principal components:

1. Multiple independent interconnected strings of photovoltaic panels, which convert solar energy into direct current ("DC") electrical energy;

2. A central inverter rated at [REDACTED TEXT] ("Inverter"), which converts the DC electrical energy produced by the photovoltaic panels into alternating current ("AC") at an output voltage of approximately [REDACTED TEXT] (there are no micro-inverters, as described in TIR 2010-02, being utilized in the Project);

3. A step-up transformer, which increases the output voltage from the PV System's Inverter from [REDACTED TEXT] to approximately [REDACTED TEXT]; and

4. Associated cabling, switchgear, mounting, and monitoring equipment.[2]

The balance of the Project ("BOP") includes the various components not specifically described above but necessary for the photovoltaic project. The main components of the BOP include the following: (i) [REDACTED TEXT] switchgear, (ii) low voltage electrical grid for powering auxiliary services, (iii) cabling and (iv) energy metering equipment. The cost of each PV System includes an allocable portion of the cost of the BOP.

Each PV System is separately and independently connected to the Project's electrical sub-grid and is capable of producing usable electrical energy if any of the other PV Systems fails or is

[1] The RETITC flows through to the owners/investors of a disregarded entity that is a member of Taxpayer.

[2] The photovoltaic panel mounts may be fixed or may move to track the changing angle of the sun. If tracking mounts are used, the number of panels may differ from the number of panels under the fixed mount alternative, but the rated output of PV Systems under either alternative would be substantially the same. Likewise, the total number of PV systems will be the same under either alternative.

disconnected from the sub-grid for maintenance or other reasons. A diagram of the Project is incorporated by this reference and attached as Exhibit A.

Affiliate has entered into a Power Purchase Agreement with [REDACTED TEXT] ("Utility"), pursuant to which Utility has agreed to purchase all of the electric power produced by the Project. Electrical power from the PV Systems does not service any particular property, but is entirely directed into Utility's power grid, through the Project's sub-grid. The amount of electrical power sold to the Utility will be measured by a meter located between the Project's electrical sub-grid and Project's connection to the Utility's power grid.

Pursuant to a Power Purchase Agreement entered into with Utility, the Project must supply [REDACTED TEXT] of electricity. To satisfy the [REDACTED TEXT] output requirement, Affiliate will install [REDACTED TEXT] PV Systems of [REDACTED TEXT] each. Each PV System is design-limited to a rated output of approximately [REDACTED TEXT] for technical engineering reasons, thus the Project's system design totals [REDACTED TEXT] of power being comprised of [REDACTED TEXT] systems. Because the combined output of all of the PV Systems that will serve the Utility's power grid will exceed [REDACTED TEXT] percent [REDACTED TEXT] of the total power to be handled by that portion of the grid, each of the PV Systems must be independent and separately connected and controlled so that the potential for grid instability can be minimized. By limiting the output of the PV Systems to [REDACTED TEXT], the failure of an inverter or transformer will result in lower grid instability than would occur if larger units were used. Further, by limiting the output of the PV Systems to [REDACTED TEXT], Affiliate also retains the flexibility to take one or more of the PV Systems offline for purposes of maintenance or repair while maximizing the electrical power available to the Utility from the other PV Systems. The failure of a single PV System's transformer or inverter will only reduce the Project's output by approximately [REDACTED TEXT]. If larger inverters or transformers were used, a failure of one of those components would have a greater impact on the Project's performance, resulting in a larger decrease in the Project's output. Detection of under-performance at the DC side of the PV Systems (upstream from the corresponding inverters) is simpler to locate and correct than with larger inverters, since the monitoring system will be connected to respective independent inverters. Also, separate and independent PV Systems can be connected to the grid and fully operative even before installation of other remaining PV Systems is completed, thus maximizing the energy yield to the grid during the construction period.

The Taxpayer will claim the RETITC relating the PV Systems and allocate the RETITC to the Taxpayer's members. The Utility is not party to the credit claim that is the basis of this ruling request.

Taxpayer has represented that the business purpose for the transaction is that Taxpayer intends to earn a profit by selling electricity to Utility pursuant to the Power Purchase Agreement.

LAW AND ANALYSIS

A RETITC may be claimed for each eligible renewable energy technology system that is installed and placed into service in the State by a taxpayer during the taxable year. HRS § 235-12.5(a).

A. Each PV System Installed as Part of the Project Constitutes a Separate Solar Energy System for purposes of the RETITC under HRS § 235-12.5.

As defined in HRS § 235-12.5(c), a "solar energy system" is any identifiable facility, equipment, apparatus, or the like that converts solar energy to useful thermal or electrical energy for heating, cooling, or reducing the use of other types of energy that are dependent upon fossil fuel for their generation. A single renewable energy technology system exists when all the components necessary for the conversion of insolation into useful electrical energy are present. TIR 2007-02, at 4. For purposes of HRS § 235-12.5, a "system" consists of a photovoltaic panel/array, an inverter, and associated attachment and connection equipment sufficient to make a connection to the project site's electrical system. *See* TIR 2007-02.

TIR 2010-02 provides additional guidance on the Department's determination of a "system" for purposes of HRS § 235-12.5. Under TIR 2010-02, a "system" is not determined by the number of inverters; but rather the number of separate and independent connections to the site's electrical system. The Department recognized, however, that more than one system may exist at a property site where there is a legitimate, nontax reason for a particular multi-system design. Multiple system designs include separate and independent electrical connections at the project site by means of independent circuit breakers. TIR 2010-02 and TIR 2010-03 provide examples of non-tax design motivations, including utility interconnection requirements and maximizing production of renewable energy, among others. *See* TIR 2010-02, p. 5; TIR 2010-03, p. 4.

Each PV System is design-limited to a rated output of approximately [REDACTED TEXT] for technical engineering reasons. Because the combined output of all of the PV Systems that will serve the Utility's power grid will exceed [REDACTED TEXT] percent [REDACTED TEXT] of the total power to be handled by that portion of the grid, each of the PV Systems must be independent and separately connected and controlled so that the potential for grid instability can be minimized. By limiting the output of the PV Systems to [REDACTED TEXT], the failure of an inverter or transformer will result in lower grid instability than would occur if larger units were used. Furthermore, by limiting the output of the PV Systems to [REDACTED TEXT], Affiliate also retains the flexibility to take one or more of the PV Systems offline for purposes of maintenance or repair while maximizing the electrical power available to the Utility from the other PV Systems. The failure of a single PV System's transformer or inverter will only reduce the Project's output by approximately [REDACTED TEXT]. If larger inverters or transformers were used, a failure of one of those components would have a greater impact on the Project's performance, resulting in a larger decrease in the Project's output. Detection of under-performance at the DC side of the PV Systems (upstream from the corresponding inverters) is simpler to locate and correct than with larger inverters, since the monitoring system will be connected to respective independent inverters. Also, separate and independent PV Systems can be connected to the grid and fully operative even before

installation of other remaining PV Systems is completed, thus maximizing the energy yield to the grid during the construction period. In accordance with TIR 2010-02, Taxpayer has provided a statement by a licensed electrical engineer, signed under penalties of perjury, in support of the foregoing. The engineer's statement is incorporated by this reference and attached as Exhibit B. Pursuant to TIR 2010-02, based upon the findings of the electrical engineer discussed above, there is a legitimate nontax reason for the separate connection of each PV System to the Project's sub-grid.

As stated above, each of the PV Systems will consist of a separate array of photovoltaic panels, inverter, step-up transformer and associated equipment. The cost of each PV System includes an allocable portion of the cost of the BOP. Each PV System will be connected to the Project's sub-grid and will be capable of operating and providing electrical power separately and independently of any other PV System(s) connected to the Project's electrical sub-grid. Because each of the PV Systems is separate and independent of the others and is separately connected to the Project's sub-grid, each PV System comprises a separate "renewable energy technology system" for purposes of the RETITC.

B. Taxpayer's members are eligible to claim the RETITC for each PV System that is installed and placed in service as part of the Project, subject to the Commercial Property Cap for each PV System.

The RETITC may be claimed for each eligible renewable energy technology system that is installed and placed into service by the taxpayer. HRS § 235-12.5(b). The amount of RETITC allowable for each PV System is subject to a cap, and the applicable cap amount depends on the type of property being served by each System. HRS § 235-12.5(b). The cap for solar-energy electrical systems for commercial property is $500,000 per system. HRS § 235-12.5(b)(2)(C).

If a taxpayer installs and places into service a renewable energy technology system that does not service any particular property, but is entirely directed into the energy grid of the local electricity provider, then the system is servicing commercial property only. *See* TIR 2007-02, at p. 11, Ex. 20. Because the electrical energy from each PV System feeds into the Project's sub-grid which is connected to the Utility's power grid and does not provide electrical power to any other property, each of the PV Systems is a commercial system entitled to the $500,000 per system cap under HRS § 235-12.5(b)(2)(C).

As Affiliate is a disregarded entity and the Taxpayer is taxed as a partnership, the cost of each PV System for which the RETITC is computed shall be determined at the Taxpayer level and the RETITC is passed through to the Taxpayer's members. *See* HRS § 235-12.5(a); *see also* 26 USC § 704(b); Treas. Reg. § 1.704-1(b)(4)(ii). The RETITC flows through to the owners/investors of a disregarded entity that is a member of Taxpayer.

CONCLUSIONS

Based upon the foregoing discussion:

1. Each PV System installed and placed in service as part of the Project constitutes a Solar Energy System for purposes of the RETITC under HRS § 235-12.5 because

each system is separately and independently connected to the utility grid for nontax reasons; and

2. Taxpayer's members are eligible to claim their distributive shares of the RETITC for each PV System that is installed and placed in service as part of the Project, subject to the $500,000 commercial property cap for each PV System.

This ruling is applicable only to the Taxpayer and shall not be applied retroactively. It may not be used or cited as precedent by any other taxpayer.

The conclusions reached in this letter are based on our understanding of the facts that you have represented. If it is later determined that our understanding of these facts is not correct, the facts are incomplete, or the facts later change in any material respect, the conclusion in this letter will be modified accordingly. This ruling also may be subject to change due to future amendments to laws, rules, or official Department positions.

The Taxpayer has reviewed and agreed that the redacted version of this ruling attached as Exhibit C will be available for public inspection and copying.

If you have any further questions regarding this matter, please call me at 808-587-1569. Additional information on Hawaii's taxes is available at the Department's website at www.state.hi.us/tax.

Sincerely,

JOSEPH B. TICHY
Administrative Rules Specialist

cc: [REDACTED TEXT]