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# Negotiating Solar Renewable Energy Agreements

## What You Should Know

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**I**n a push to decarbonize energy systems, climate action initiatives are evolving and intensifying both nationally and globally. Driven by clean energy initiatives and by governmental and corporate sustainability goals, New Jersey continues to act as a leader in the development of solar projects, ranking eighth nationally with a total of 3,854.20 MW of installed solar, enough to power 659,176 homes.<sup>1</sup> The installation of solar renewable energy generation systems on and around commercial and industrial buildings in New Jersey is widespread and is projected to continue to grow.<sup>2</sup> This article discusses the most com-

mon types of solar energy-related agreements and issues that arise when negotiating such agreements. It is written from the vantage point of the property owner as prospective energy purchaser and possible future owner of the solar project.

While solar energy accounts for over 6.7% of the electricity consumed in New Jersey, that amount is likely to increase dramatically, spurred on by the New Jersey Energy Master Plan's goal of generating 34% of the state's required electricity by 2050.<sup>3</sup> Moreover, generous economic incentives, including the New Jersey Board of Public Utilities' (BPU) Solar Renewable Energy Certificate Successor program,<sup>4</sup> the Federal Investment Tax Credit, and corporate clean energy sustainability goals are likely to ensure continued growth of solar development.

Clients seeking advice regarding solar agreements often do so in response to a solicitation from a solar developer seeking to construct a solar facility on the client's property. These transactions typically require the negotiation of either: (i) a power purchase agreement (PPA); (ii) an engineering, procurement and construction (EPC) contract, and/or (iii) a ground or rooftop lease.

It is important to confirm that entering into a PPA, EPC or lease will not run afoul of other agreements related to the property or its operations, including notice or other provisions of lender agreements, existing leases, or third-party energy provider agreements.

### **Solar Power Purchase Agreements (PPA)**

A solar PPA is an agreement in which a party agrees to purchase all of the electricity produced by a solar generation facility for an agreed upon price and term. Under the agreement, the seller (or power provider) of the electricity installs, owns, and operates a solar facility on the property of the buyer (or host) or on property contiguous to the buyer.<sup>5</sup> PPAs are attractive to energy buyers because

they do not require capital expenditures, provide price certainty and savings from electricity purchased from the electric utility, and the power provider remains responsible for operating and maintaining the solar facility. PPAs are particularly attractive to governmental entities because public entities are unable to take advantage of the federal tax benefits applicable to solar projects.<sup>6</sup> Under a PPA, the power provider uses the tax benefits

wear and tear. A decommissioning bond may be considered (and is sometimes required) for public projects. Because the cost of removal can be expensive, power providers may be inclined to agree on a favorable FMV price rather than incur the cost of removing a 15- to 20-year-old system.

(iii) *Obligation to Purchase Energy*: The buyer will be expected to purchase all of the energy produced by the system. The

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and effectively shares those benefits with the buyer through a reduced price for electricity.

Key terms associated with PPAs include:

(i) *Energy Price and Term*: The price is set based upon a kWh rate that may be subject to a periodic escalation rate. Both the price and the escalation rate are subject to negotiation. Be careful not to agree to an escalation rate that is excessive.

(ii) *PPA Term*: The term of PPAs generally range between 15–25 years. Because solar facilities cease earning SREC IIs after the 15th year of service, many power providers will enter into 15-year agreements. From a buyer's perspective, a 25-year agreement is a long time to commit to technology that is likely to change considerably over the next two decades. It is important to include an end-of-term purchase option for fair market value (FMV). If the buyer does not exercise the option, the power provider should be required to remove the facility *in its entirety* and restore the property to its prior condition subject to reasonable

PPA should clearly state that the obligation to purchase arises when the energy is delivered to the buyer, not when it is generated by the system. Also, this section should clarify that the system has been designed to meet the BPU's net-metering requirements. Net-metering enables the buyer to sell power to the local utility when the system is producing more electricity than is being consumed at the site. Net-metering ensures that the buyer will be able to use or sell all of the energy it purchases from the power provider. In order to qualify for net-metering, the system must be designed to not generate more energy than that used by the customer during the prior year.

(iv) *Structural Integrity and Roof Warranties*: Prior to entering into a PPA, the property owner should confirm that the structural integrity of the building and rooftop can withstand the increased load of the installed solar facility. The buyer (or property owner) should require the power provider to obtain a certification of an independent engineer that has examined the property and concluded

that the property can accommodate the solar installation. The PPA should also require the power provider to secure from all roof warrantors written confirmation that the installation of the solar facility will not void or impair existing roof warranties. When roof replacement accompanies the solar project, it is critical that the roofing contractor and solar developer coordinate and that the structural analysis confirms support for the roof and the solar project as designed before roof replacement commences.

(iv) *System Design Approval*: While the system will be owned, designed, and installed by the power provider, the layout and specific location of the system components should be an exhibit to the PPA and subject to review and approval by the buyer (or property owner). The system design should limit roof penetrations and design drawings should depict their locations. If portions of the system are to be installed on canopy structures in a parking lot, it is important to review the specific design of these structures. The property owner should ascertain that the canopies do not create unsafe conditions and that snow removal equipment will be operable under the canopies. The PPA should further clarify that the buyer's approval of the system location drawings does not constitute a determination that the system has been designed or installed consistent with industry standards, applicable law, or the requirements of the agreement.

(v) *Access to the Property*: The PPA needs to confer access rights to the power provider so it can install, operate, and maintain the solar facility. The parties should designate a laydown area during construction. The power provider may be willing to accept a license to access and occupy the property but will most likely request an easement. The issuance of a narrowly tailored nonexclusive easement, limiting the scope of the easement to areas that

are necessary to access, is acceptable. If the buyer or property owner confers an easement, it should do so contingent upon the power provider executing a discharge of easement to be held in escrow by the property owner until the termination of the PPA. If a solar facility is to be installed on a site that is not owned by the electricity buyer, the system owner will likely require a lease with the property owner.

(vi) *Minimum Production Guarantee*: A buyer should request that the solar facility produce a minimum amount of electricity annually. A reasonable minimum production guarantee is 85%–90% of the system's capacity, adjusted for weather and other actual conditions. Power providers usually resist the inclusion of a production guarantee but will often agree after negotiating the annual percentage and the methodology for measuring performance.

(vii) *Early Termination Payment*: PPAs typically include a liquidated damages provision arising from a buyer default. The provision, generally referred to as an early termination payment (ETP), is a financial sum intended to compensate the power provider for all of the lost revenue and tax benefits it would suffer in the event of a buyer default. While the ETP amount decreases annually, it remains significant, particularly during the first six years of the agreement. If a power provider requires the inclusion of an ETP provision, the buyer should attempt to negotiate a reduction in the amount and should include in the PPA a requirement that the title to the solar facility be transferred to the buyer upon payment of the ETP. When negotiating default terms in the PPA, make sure to include a provision that provides the buyer with sufficient time to remedy any defaults.

(viii) *Environmental Attributes Ownership*: Under a PPA, the power provider generally retains ownership of the environmental attributes (*i.e.*, environmental

benefits), including SREC IIs. Retaining ownership of SREC IIs enables the power provider to charge competitive kWh rates for energy. If a buyer needs to secure SREC IIs (or renewable energy certificates [RECs]) in order to meet corporate sustainability goals, it will need to negotiate with the power provider to obtain ownership of the SRECs or comparable RECs. Such a provision in a New Jersey PPA is unusual.

(ix) *Interconnection and Government Approvals*: The power provider is responsible for securing all government approvals to construct and operate the solar facility, including obtaining authority to interconnect the system to the local utility's electric grid. If a power provider is unable to secure interconnection approval, it is not required to proceed with the PPA and is not in default provided it diligently pursued the approval. The cost to obtain and complete interconnection should be the responsibility of the power provider. Power providers often seek the inclusion of a contract provision that permits the power provider to cancel the PPA if interconnection costs exceed an agreed upon cap. While securing interconnection approval is generally not difficult, capacity limitations on a local utility's system can sometimes be excessive causing the project to be uneconomic.

(x) *General Commercial Terms*: In addition to the above provisions, general commercial transaction agreement terms are in PPAs. Those terms include: maintenance requirements, assignment, insurance requirements, termination, force majeure, default provisions, indemnification, casualty loss, parties' representations and warranties, and purchase options.

### **Solar Engineering Procurement and Construction (EPC) Contracts**

A solar engineering, procurement and construction (EPC) contract is an agreement under which a solar developer designs and constructs a solar generation



facility for a contract purchaser. A solar EPC contract is comparable to a design build contract and includes provisions usually found in a commercial construction agreement. Provided a system purchaser can use the Federal Investment Tax Credit (ITC) and the purchaser has sufficient capital to acquire the system, the purchase and ownership of a solar facility is generally more economically favorable than entering into a PPA. The downside of system ownership is that the owner is responsible for the operation of the system. Such operational risk can be minimized by entering into a long-term operations and maintenance agreement with the solar developer.

**Key terms associated with a solar EPC include:**

(i) *System Pricing*: The price for the construction of a solar facility is based upon a per kW dollar amount multiplied by the system's kW capacity. The per unit price will vary based upon a number of factors including the system size, the type of panels and the type of installation. For example, a ground mounted facility is less expensive than a parking canopy structure.

(ii) *Scope of Work, System Description and Location*: Exhibits to the EPC should contain a detailed description of the required scope of work relating to the design and construction of the solar facility. The work should be performed consistent with industry standards. The Scope of Work should include a description of the component parts of the system, including identification of (1) equipment manufacturers, (2) equipment model types, and (3) equipment quantities for all component parts. Exhibits to the EPC should include system design drawings showing the specific location of system components, including the location of proposed roof penetrations and the design associated with mounting and parking lot canopy structures.

(iii) *Construction Schedule, Penalties for Delay, Change Orders*: The EPC should include a construction schedule with deadlines for the receipt of governmental and interconnection approvals. The buyer should propose the inclusion of penalties for unreasonable construction delays if the contractor does not complete the project by an agreed upon date. The penalty amount should be based upon the "lost revenue" to the buyer resulting from the delay in the generation of SREC IIs. Change order provisions should also be included in an EPC. In the event of a change order, the parties should meet and confer to determine the appropriate adjustments to the contract price, if any, arising from the modifications to the Scope of Work.

(iv) *Milestone Payments*: The EPC should include a detailed construction milestone payment schedule. The schedule should include payments commencing upon the effective date of the contract through the date that the system achieves permission to operate from the BPU and the resolution of punch-list items. While the schedule is subject to negotiation, the buyer should undertake its best efforts to ensure that the contractor has sufficient economic incentive to promptly complete construction.

(v) *SREC Program and Net-Metering Eligibility*: The EPC should require the contractor to enroll the project in the BPU's Successor REC (SUSI) program and the net-metering program. Prior to the commencement of construction, the contractor should complete the SUSI Program registration process to ensure that the system qualifies for SREC IIs upon its receipt of permission to operate. Similarly, the contractor should be required to design the system so that the customer of record qualifies for net-metering.

(vi) *Government Approvals*: The contractor should be responsible for obtaining all governmental approvals. If approvals cannot be obtained despite the contractor's diligent effort, the agree-

ment may be terminated, and any payments made by the buyer should be refunded.

(vii) *Interconnection*: Under an EPC, the contractor typically reserves the right to terminate the contract if interconnection costs imposed by the local electric utility are higher than anticipated. Alternatively, the contractor may require the buyer to pay all interconnection costs. As discussed above, while interconnection costs for on-site generation projects are generally not problematic, circumstances may cause interconnection costs to render the project uneconomic. A reasonable approach to address this issue is to agree that one of the parties will be responsible for payment of the interconnection costs up to an agreed upon cap. If the costs exceed the cap, the party responsible for payment can terminate the agreement unless the other party agrees to pay the amount in excess of the cap.

(viii) *Owner and Operating Manuals, Warranties*: The contractor should provide multiple copies of the system's owners and operating manual. Also, the EPC should require the contractor to transfer to the buyer all manufacturer warranties associated with the equipment comprising the solar facility.

(ix) *Operations and Maintenance Agreement, System Monitoring*: Because the buyer will be responsible for operating and maintaining the system, it will be necessary for the buyer to enter into an operations and maintenance agreement with a qualified contractor. The O & M form of agreement should be reviewed during the EPC negotiation process and should include a detailed maintenance schedule. The O&M Agreement may include tracking and reporting energy production to PJM (regional transmission operator) to secure the issuance of RECs.

As discussed above, EPC contracts, like PPAs, will include the standard provisions of commercial construction contracts and agreements.

## Lease of Property for the Installation of Solar

Solar developers regularly approach commercial property owners and owners of vacant land requesting that the owner lease its property for the installation of a solar facility to be used to generate energy to be sold to third parties or into the wholesale electric grid. Given the substantial number of commercial/industrial building rooftops in New Jersey, solar developers are interested in entering into rooftop leases so they can sell energy to a building tenant, an adjacent property, or in the New Jersey Community Solar (CS) program.<sup>7</sup> Also, solar developers continue to seek to lease vacant property (e.g., farmland, Brownfields, landfills, etc.) for the installation of grid supply projects.

The solar lease process generally starts with the execution of an option agreement to enter into a lease. The option agreement permits the developer to conduct due diligence on the property and to obtain the required interconnection and governmental approvals. The duration of the option agreement should depend upon the complexity of the solar project and the anticipated timeframes to obtain project approvals. For example, a solar grid supply project on farmland or a closed landfill will require more time to secure project approvals than a CS project to be installed on a commercial rooftop. To avoid uncertainty, a fully negotiated form of lease should be agreed upon at the time of executing the option agreement and should be attached as an exhibit to that agreement.

### Key terms associated with solar leases include:

(i) *Rental Payment Amount:* The annual rental amount for a solar lease is typically based upon the available square footage of a rooftop or the acreage of vacant property. The amount is subject to negotiation and is influenced by conditions associated with the project. As an alternative to paying a fixed amount based upon a per

square foot or per acre method, the rental income can be linked to the amount of electricity generated by the system multiplied by an agreed upon kWh rate. This approach, however, introduces some risk to the lessee by tying rental income to the project's performance.

(ii) *Term:* The term for solar leases is generally consistent with the expected useful life of the system—ranging from 15–25 years.

(iii) *Property Restoration and Decommissioning:* The lease should require the removal of the solar facility and restoration of the property at the end of the term. For larger scale projects, a property owner may want to request that the solar developer provide a decommissioning bond (or some other collateral) to ensure that the facility will be properly removed at the end of the term.

(iv) *Roof Warranties:* For rooftop leases, the lessor should be required to obtain a certification from all roof warrantors that the lessor's use of the rooftop will not void or impair any roof warranties.

(v) *Default Remedies:* The lessee is likely to propose a liquidated damages provision in the lease requiring the lessor to pay a substantial early termination payment (ETP) in the event of default. The lessor should resist the lessee's attempt to include such a broad liquidated damage provision in the lease. Rather, the parties should agree upon a reasonable cap on damages due to a default by the lessor.

(vi) *Non-disturbance Agreement:* The lease should require the lessor to request that any entity that has a lien on the property, agree to provide the lessee a non-disturbance agreement.

In addition to the above provisions, a lease for the installation of a solar facility should include typical provisions included in a commercial property lease, should address tax implications of the solar project and may include a number of the solar provisions reviewed in the PPA and EPC discussion.

The PPA, EPC and lease agreements

discussed are the most common, but are not the only commercial documents and agreements applicable to solar energy projects. Others may include additional energy services, such as solar plus battery storage or address broader microgrid capabilities. However, familiarity with the issues discussed herein should enable you to provide informed advice to your clients when they are interested in participating in transactions involving solar generation systems. ■

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## Endnotes

1. SEIA Solar Industry Association [seia.org/smi](http://seia.org/smi)
2. There are over 7,500 commercial and industrial solar installations in New Jersey, representing over 1,732 MWs of annual energy production. In the Matter of a Solar Successor Incentive Program Pursuant to P.L. 2018, Clean Energy Order, New Jersey Board of Public Utilities, Docket No. QO200 2018, July 28, 2021, (“SUSI Order”). [nj.gov/bpu/pdf/boardorders/2021/20210728/8A%20ORDER%20Successor%20Solar%20Incentive.pdf](http://nj.gov/bpu/pdf/boardorders/2021/20210728/8A%20ORDER%20Successor%20Solar%20Incentive.pdf)
3. See 2019 New Jersey Energy Master Plan, Pathway to 2050, released January 2020. [nj.gov/emp/docs/pdf/2020\\_NJBPU\\_EMP.pdf](http://nj.gov/emp/docs/pdf/2020_NJBPU_EMP.pdf)
4. The SUSI Program, adopted by the BPU on July 28, 2021, replaces the BPU's original SREC program that closed on May 2020. SUSI Order at p.5–6. Projects participating in the SUSI Program earn one solar renewable energy certificate II (SREC II) for each MW of renewable energy generated. SREC IIs have a dollar value administratively determined by the BPU.
5. The New Jersey Community Solar program enables a qualified solar facility to sell energy to customers at locations other than the site of the solar facility. See N.J.S.A. 48:3-87.11 and N.J.A.C. 14:8-9.