LEX HELIUS: THE LAW OF SOLAR ENERGY
—Power Purchase Agreements:
Utility-Scale Projects—

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I. The Basics. In response to state mandated renewable portfolio standards (“RPS”) utilities have been issuing requests for proposals (“RFPs”) for a number of solar generation installations in the 100 MW and larger range. Many of these proposals and bilateral negotiations have resulted in the highly publicized execution of power purchase agreements (“PPAs”) between the power purchaser utility and its selected third-party developer. Although most of these projects are currently in the environmental, regulatory, and interconnection agreement phases of pre-development, the number of signed PPAs that have been publicly announced and the number of RFPs that are outstanding indicate that utility-scale solar generation is becoming a viable part of the renewable energy market space. This is a different situation from what existed as recently as early 2008. The acceptable technology for these larger solar installations is varied. Some are concentrated solar thermal using reflected solar energy to heat a medium that drives a steam turbine generation unit and some are pure solar photovoltaic (“PV”). In addition, there are a variety of approaches being utilized within each of these broader technological alternatives, including concentrated PV technologies. However, some of the naming difficulties relating to just exactly what size of projected output constitutes “utility scale” remains. Should its use be restricted to installations of 100 MW or larger? Should it be applied to smaller but still significant installations of greater than 1 MW? Should it be applied to any installation that is not a “behind the meter” distributed generation installation? Rather than try to resolve this confusion in terminology, we will simply use the term “utility scale” to mean any installation that is intended to sell its output to a utility customer (a sale for resale) rather than a direct end user (essentially, a retail sale) of such output.

A. The Parties.

1. The Seller. The seller will usually be the developer of a solar facility that will generate energy (“output”) and environmental attributes (“RECs”). In a tax equity financed project, the developer will sell a substantial interest in the installation to an investor or utility before the installation being placed in service so that the developer can use the funds paid by the investor or the federal investment tax credits, federal accelerated depreciation and any available state level tax benefits to recoup all or a portion of its development costs. The current availability of a cash grant in lieu of federal investment tax credits changes this calculation somewhat, and adds the complication of attempting to sell the rights to accelerated depreciation and state level tax benefits without any accompanying federal investment tax credit. As the market for tax credits has shrunk substantially over the past 12 months, it appears that more projects are looking at using debt financing as a critical component of the financing package. RECs continue to be a significant potential revenue stream for utility-scale projects. Many utilities purchasing the output of a facility want the RECs to be included as part of the purchase. This presents the developer with the opportunity to price RECs into a package that may have a higher price than the electricity sale alone. However, each PPA, whether for electricity alone or electricity combined with RECs, is going to be an individually negotiated contract between the seller and the purchaser. In addition, regulatory issues such as whether a specific utility has any remaining authority to enter into above market rate PPAs is going to have to be included in the seller’s calculation of project viability.

2. The Buyer. The buyer will typically be a utility that will purchase the solar power project’s output to serve its load, with or without RECs included. The utility will likely be motivated by a state level RPS or other regulatory policy that encourages the development of solar power and other forms of renewable energy. In a state that permits direct access, it is possible that one or more of the buyers could be a retail purchaser, such as a manufacturing facility that wishes to hold itself out as a green company, even though the solar facility is not located on the customer’s premises. In states or geographic areas within a state that do not allow direct access, a utility-scale project developer is unlikely to be dealing with a universe of potential purchasers outside of regulated public utilities or governmental utilities.
3. **Credit Support Provider.** The developer of a utility-scale facility will require access to a substantial amount of capital that will not be available for application to direct project costs. This capital, either in the form of cash, a letter of credit, or a guarantee from an entity deemed sufficiently creditworthy, will be needed to fund the security deposits typically required in a utility-scale PPA. The utility buyer will want this security to provide a source of damages in the event the installation experiences unexcused delays in construction, produces output in a lesser amount than contemplated by the PPA or otherwise experiences problems during construction. After the installation goes into commercial operation, the utility purchaser will want some portion or all of this security deposit maintained as a source of payment for any cover or other damages caused by the utility's need to make market purchases to cover any shortfalls in delivery from the installation. Consequently, a utility-scale project developer is likely to have a substantial amount or cash or other financial resources tied up in a relatively unproductive manner for the term of the PPA. The ability to obtain and provide this security to the utility power purchaser is a fundamental element of most utility-scale PPAs.

B. **Regulatory Concerns.** The regulatory issues arising from a utility-scale solar installation are complex and detailed. Rather than attempt to summarize such issues in this general background article, we will simply note that any developer or owner interested in a utility-scale solar project should make a point of contacting experienced utility regulatory counsel early in the process. Regulatory proceedings frequently take more time than the parties anticipate, and development schedules need to take these time and cost factors into account.

II. **Typical Terms of a Utility-Scale PPA.**

A. **Project Financing.** If the solar power facility is financed with limited recourse financing, the term of the PPA should be sufficient to amortize the project debt. Capital costs per megawatt hour ("MWh") of energy produced may be relatively high for solar power facilities as opposed to facilities that can be operated at will or during longer peak periods because they produce energy only when there is sunlight. To produce the revenues needed to amortize the project debt, the term of the PPA for large projects usually must be in the range of 20 years. If the term of the PPA is 20 years, lenders will generally be willing to amortize the debt over a 15- to 17-year period. In utility-scale project financings, the debt amortization period generally needs to be shorter than the PPA term to allow work-out time in case the project encounters financial difficulties in later years. Generally, only the base term of the PPA is taken into account because the lender has no assurance that the purchaser will elect to continue the PPA into a renewal term.

B. **Useful Life.** Because the purchaser under a utility-scale PPA effectively pays for the entire capital cost of the project (plus a profit to the owner), the purchaser of electricity from a large project may want the PPA to capture the entire value of the project by covering the entire economic life of the facilities. In that case, the PPA term may have a base term with one or more extension options. Because the entire capital cost of the solar power facility generally will be amortized over the base term of the PPA, it is possible to eliminate the cost elements that relate to the project debt from the power price during the renewal terms, making it less than the power price during the base term. The project owner thus preserves its return on the project but does not get a windfall return during the renewal terms.

C. **Effective Date.** A utility-scale PPA will be binding on the date it is signed (the "effective date"). This ensures that the purchaser will buy the output once the project is built and that the project owner will build the project and not sell its output to anyone other than the purchaser.
D. Commercial Operation Date. The term of the utility-scale PPA usually begins on the effective date, but the length of the term is often defined by reference to a “commercial operation date.” For example, the term might end on the 20th anniversary of the January 1 next following the commercial operation date. Thus if the term were 20 years and commercial operation began on November 1, 2009, the term would end on January 1, 2030. In distributed generation solar PPAs, the term frequently begins on the commercial operation date and extends for a specified number of years.

“Commercial operation date” can be defined as the date on which all solar energy generation equipment and all other portions of the project necessary to put it into operation have been tested and commissioned and are both legally authorized and able to operate and deliver energy to the transmission system in accordance with prudent utility practices. In the case of a distributed generation installation that will not be utilizing significant interconnection and transmission, the commercial operation date can effectively be the date on which the installation is “finished” except for relatively minor punch-list items. A different approach to defining the commercial operation date may be appropriate with a utility-scale project.

“Commercial operation date” can be defined in a manner that allows the project owner to achieve commercial operation for one or more portions of the installation even if it has not installed all of the solar energy generation equipment called for by the PPA. For example, the PPA may call for an installed capacity of 15 MW, but the commercial operation date may occur as each 3 MW or 5 MW of capacity have achieved commercial operation (i.e., when each designated portion of the project has been “substantially completed”). Consequently, if the necessary interconnection and transmission is installed before the full capacity of the project is completed, it is possible to have multiple commercial operation dates. This raises several potential issues between the developer or project owner and the power purchaser. For example, if the power purchaser wants only a single commercial operation date for the PPA, there may be output available from the project before that date. In some instances, this may be designated as “test period production,” which can be sold to the power purchaser at a price different from the stipulated contract price under the PPA. However, due to the timing of when tax benefits from a solar project become available, in a tax equity financing structure the developer or project owner may want to have the project reach sequential commercial operation dates faster, making the tax credit and benefits available earlier in the tax year, which potentially increases their value.

E. Termination Before the Commercial Operation Date. Both distributed generation and utility-scale PPAs usually include “off-ramp” provisions that enable one or both of the parties to terminate the PPA if certain events occur or fail to occur. Although the exact list of designated off-ramps will differ between distributed generation and utility-scale projects, common reasons for early termination of a utility-scale PPA may include (1) failure of a public utility commission to approve a PPA if the buyer is a regulated public utility; (2) inability to obtain an interconnection agreement or needed transmission rights; (3) inability to obtain leases, rights-of-way, or other land rights required to build the project; (4) inability to obtain permits required to build or operate the project; (5) inability to obtain an authorization to sell power at market-based rates; (6) failure of the project to reach a certain minimum size by a certain date; (7) failure of the project to achieve commercial operation by a certain date; and (8) inability to obtain certain subsidies and REC sales necessary to enhance the economic viability of the project. Termination rights require careful negotiation to make sure that all possibilities have been considered. A party is usually required to use diligent or reasonable efforts to satisfy the conditions set forth in the PPA before it can invoke the failure to satisfy such a condition as a reason to terminate the PPA (e.g., the seller could not assert the inability to obtain a permit as a basis for terminating the PPA unless the seller had used diligent efforts to obtain the permit).
III. Purchase and Sale of Electricity.

A. Delivery Point and Transmission Provider Rules. The PPA will require the sale of energy to occur at a specified delivery point. For larger-scale projects, if the energy is to be delivered from the installation in a “busbar” sale, the delivery point will usually be the high side of the transformer at the project’s substation. In a busbar transaction, the buyer provides the transmission required to transmit the energy from the plant to the point where the buyer intends to use it (or to deliver it to another party in a resale transaction). The PPA may also require the seller to deliver energy to a specific point some distance from the plant, in which case the seller will be responsible for securing the required transmission to the delivery point, and the buyer will be responsible for obtaining the transmission required to take the energy from the delivery point. Transmission ancillary services can be fairly costly and should be specifically allocated in the agreement. Title and risk of loss pass from seller to buyer at the delivery point. Utility-scale PPAs will typically include provisions dealing with the need to comply with the rules and regulations of the transmission provider, and to respond to curtailment and other requirements of the transmission provider, which may adversely affect the delivery of electricity from the facility. These are complex rules and should be specifically discussed by the developer with its attorney due to geographic variations in these rules and regulations.

B. Pricing of Electricity.

1. Contract Rate. Price is usually the most important part of the PPA. The price may be flat, escalate over time, or contain other features. An escalating price is often tied to a “contract year” that begins at a specified point after the commercial operation date is achieved, thus encouraging the seller to lock in the initial price and the escalation rate by achieving commercial operation as soon as possible.

2. Test Energy Rate. Because a solar energy facility may have some generating facilities come online in stages, the PPA may require the purchaser to buy power from the solar energy facilities as they are installed, connected, and made operational, even though the project as a whole has not achieved its commercial operation date. To encourage the seller to achieve commercial operation as soon as possible, such energy might be sold at a test energy rate, which is often lower than the contract rate that will be paid once the commercial operation date is reached.

3. Excess Rate. A PPA often requires the seller to specify how many MWh the plant is expected to produce each year. This output estimate may form the basis of an output guaranty or a mechanical availability guaranty. To encourage the seller to make an accurate estimate of expected output, the seller may be paid less than the contract rate for each MWh of energy in excess of, for example, 110 percent of the estimated annual output. Because utility-scale PPAs factor in a number of considerations other than the straightforward “we produce it, you buy it” structure of a distributed generation solar PV PPA, output estimates and benchmarks are likely to play a larger role in the negotiation and pricing of a utility-scale solar PPA.

C. Environmental Attributes. Environmental attributes are credits, benefits, emissions reductions, environmental air-quality credits and emissions-reduction credits, offsets, and allowances resulting from the avoidance of emission of a gas, chemical, or other substance that would otherwise have resulted from generation of an equivalent amount of energy from a nonrenewable source. These environmental attributes will attach and be available to the solar power project during the term of the PPA, together with the right to report those credits. Environmental attributes are sometimes called “green tags,” “green tag reporting rights,” or “renewable-energy credits.” The PPA usually makes clear that tax credits and any solar power financial incentives...
(such as rebates or grants) are not part of the environmental attributes, and thus are not being conveyed to the purchaser.

The PPA should clearly state whether energy is being sold with or without the environmental attributes. If environmental attributes are being sold, the seller will usually warrant title to the attributes but will not warrant the current or future use, character, or value of the attributes, or whether and to what extent they will be recognized by law. In effect, the purchaser assumes the risk that the law or the market might change in a way that reduces the value of the environmental attributes.

D. Allocation of Taxes and Other Charges. The PPA should specify who pays any sales, excise, or other taxes arising from the transaction. Although most states do not tax wholesale energy sales, the parties may wish to consider allocating tax liability resulting from future legislation.

IV. Permitting and Development.

A. Commitment to Develop. The PPA will make the project owner responsible for developing and constructing the project. The seller usually prefers a PPA that requires it to sell the project’s output only if the project is actually built. A buyer tends to view such a PPA as a put and will usually insist that the seller commit in some fashion to develop the project, including the making of certain security deposits as described above. Many tense negotiations revolve around what the seller will or will not be required to do to develop the project, as well as off-ramps each party has if the project does not achieve certain stated milestones.

B. Status Reports. The buyer is typically interested in ensuring development of the utility-scale project because it needs to know when the energy will be delivered onto its system or when it will need to take a hedge position to cover the renewable source electricity it may not be receiving from this particular project. As a result, the PPA usually requires the seller to deliver regular reports to the buyer about the status of permitting and construction.

C. Milestones and Delay Damages. The PPA for a utility-scale project is very likely to include a schedule of certain project milestones (e.g., the date by which the seller must secure project financing, the date by which the solar energy technology must be ordered, the date by which all permits and the interconnection agreement must be in place, and the commercial operation date). If the seller fails to achieve a milestone, the buyer may have a right to terminate the PPA, collect delay damages, or require the seller to post additional credit support. The seller will therefore want to limit the number of milestones and bargain for some flexibility, especially in cases in which a delay in achieving an interim milestone is not likely to delay a project’s completion date. Sellers sometimes prefer PPAs that provide that the buyer’s only remedy if the seller fails to meet a project milestone is to terminate the PPA without recovering damages. Buyers are concerned that this gives the seller a right that resembles a put and strongly prefer to require the seller to suffer some consequences if project milestones are missed. Hence, again, the security deposits described above. Many interesting negotiations revolve around off-ramps the seller will have versus damages it will pay to the buyer if it fails to build the project in accordance with the PPA. A common middle ground is for the seller to agree to pay delay damages up to an agreed-on cap, which defines the limits of the seller’s exposure if the project is not built but gives the seller an incentive to use diligent efforts to finish the project on time.

V. Interconnection and Transmission. The PPA usually requires the seller to bear the cost of interconnection (including any network upgrades required by the new project) and all costs of transmitting the energy to the delivery point. If the seller is the project owner (as opposed to a marketer), it will also be responsible for negotiating the interconnection agreement with the transmission provider. However, different
requirements, dictated by the interconnecting utility’s rules and applicable state law, may apply. The buyer will
be responsible for arranging and paying for transmission from the delivery point to the buyer’s ultimate point of
integration into the buyer’s distribution system. (For further reading on interconnection and transmission-related
issues, see Chapter Five, Regulatory and Transmission-Related Issues.)

VI. Performance Incentives. A seller of output from a utility-scale solar project will usually prefer to enter
into an “as-delivered” PPA. This means the seller is obligated to deliver only what the project actually produces.
A buyer under a utility-scale PPA, however, will often require the seller to warrant or guaranty that the project
will meet certain performance standards. Such guaranties usually enable the buyer to recover all or part of its
incremental cost of purchasing replacement power in the market to the extent that the project fails to perform as
expected. Performance guaranties enable the buyer to plan around the facility’s expected output and strongly
courage the seller to maintain a reliable and productive project. Of course, even without performance
guaranties, the PPA should address the consequences of the buyer causing or allowing shading of the solar power
facilities, as well as other events that might give rise to the need to relocate the facilities to maintain the expected
level of output. It can be anticipated that the siting of a utility-scale solar installation will pay far more attention
to these shading and interference issues in the early design phases than is usually found in distributed generation
installation in which the siting options may be more limited.

A. Output Guaranties. As mentioned above, in a larger utility-scale project, the PPA may include
an output guaranty to the buyer. An output guaranty requires the seller to pay the buyer if the project’s output
over a specified period fails to meet a specified level. The period may be biannual, annual, or seasonal. The PPA
usually allows the owner to operate the project for one or two years before the output test is applied, enabling the
owner to fix any problems with the project. The owner should offer such a guaranty only if very confident about
any meteorological data relied on, equipment reliability, and capacity factor. In particular, the seller should do
the research necessary to determine whether the site is likely to encounter significant year-to-year variations in
solar access, or whether the pattern will tend to average to a particular level over a historically significant period
of years.

Although some solar panel manufacturers have offered output warranties in the past, it is uncertain whether this
will continue and if it does, for how long and for what coverage periods. The more common warranty is an
“availability warranty,” as discussed below. The concentrated solar market, which does not use solar panels to
generate electricity, will require a different analysis. The installation contractor is expected to provide or obtain
for pass-through equipment warranties on items such as wiring, racking, or step-up transformers, and the other
equipment necessary for the installation. In the case of solar PV distributed generation systems, the solar panel
manufacturer and the inverter manufacturer are expected to provide separate reliability warranties on their
equipment, which the installation contractor may be responsible for administering as part of its overall
installation reliability warranty. In some instances, the installation contractor will request that the project
developer separately purchase these items so that these warranties run directly to and are administered by the
project developer. Outside of instances in which the panel manufacturer may warranty output at a specific level,
the project owner will be expected to assume the risk that weather and other climate conditions at the project will
produce enough energy to meet the project’s revenue and performance requirements.

B. Availability Guaranties. The owner of a solar power facility may be more willing to offer the
purchaser a mechanical availability guaranty than an output guaranty. Such an availability guaranty requires the
solar power technology in the project to be available a certain percentage of the time, after excluding hours lost to
force majeure and a certain amount of scheduled maintenance. Mechanical availability percentages may decline
over the life of the project to reflect degradation. Due to the relatively new status of utility-scale concentrated
solar projects, there remains some fair question as to what the actual degradation experience of these projects will prove to be, even with proper and regular maintenance.

Solar power technology manufacturers may provide availability warranties that support the project owner’s mechanical availability guaranties for the first few years of the project. Such warranties may last only a few years. Thus the seller will be on its own if it chooses to give a mechanical availability guaranty that covers the period after a manufacturer’s warranty expires.

C. **Power Curve Warranties.** The seller might also ask the solar power technology manufacturer to warrant the ability of the power technology to produce a specified output at specified levels of sunlight. This is different from warranting that an actual level of output will be produced. Instead, it is a warranty that it is “possible to” produce at certain specified levels given the sun’s cooperation. The power curve represents a calculation of the amount of energy that the solar power technology is rated to produce at different conditions. Power curve warranties are intended to compensate the project owner for lost revenues resulting from inefficient technology operation, i.e., the failure of solar power technology to operate within a certain percentage of the power curve. Power curve warranties are not typically passed through to buyers under PPAs. Instead, the funds received under such a warranty may be used by the seller to pay damages required to be paid to the buyer under an output guarantee. In the absence of such a guarantee the seller will keep these payments to offset reduced revenues from actual power sales.

D. **Liquidated Damages.** If the utility-scale PPA includes one or more of the guaranties discussed above, the PPA usually provides a mechanism for determining the damages suffered by the buyer if the benchmarks set forth in the guaranty are not met. First, the parties determine the relevant shortfall (for example, if in output, the shortfall as stated in MWh) relative to the performance that was guarantied. Second, the shortfall will usually be multiplied by a price (per MWh or otherwise) determined by reference to an agreed-on index to arrive at a monetary value of required compensation. Because market indexes cover only power prices and do not include the value of environmental attributes, the PPA may include an adjustment to account for the assumed value of the environmental attributes or may use a firm price index as a proxy for the value of the energy plus the environmental attributes. The amount of liquidated damages is usually determined once per year. The seller would pay the liquidated damages to the buyer or credit the damages against amounts owed by the buyer under the PPA. The seller may also seek to cap liquidated damages on an annual or aggregate basis to mitigate its financial risk of providing these guaranties.

E. **Termination Rights.** To protect against chronic problems at an unreliable utility-scale solar power facility, the PPA usually allows the buyer to terminate the PPA if the output or mechanical availability of the project is below a stated minimum for a certain number of years. Although this termination right may be present in a distributed generation solar PV PPA, it is less common.

VII. Curtailment and Force Majeure.

A. **Curtailment.** Both utility-scale and distributed generation PPAs often describe circumstances in which either party has a right to either curtail output or refuse to accept deliveries, as appropriate. For example, the seller may have a right to curtail output if the plant is affected by an emergency condition. The PPA may permit the buyer to curtail accepting deliveries for convenience or due to immediate threats to safety or the integrity of the site location, in which case the PPA usually requires the buyer to pay the purchase price for the curtailed generation and the after-tax value of any subsidy or REC revenues that may be lost due to the curtailment. In a utility-scale PPA, facility curtailments caused by transmission congestion or conditions beyond
the point of delivery are often handled in the same manner, though the topic of curtailment is frequently a difficult issue in utility-scale PPA negotiations.

B. **Force Majeure.** If energy is curtailed at a party’s discretion or because the party is at fault, the PPA usually requires the curtailing party to pay damages to the other. If curtailment is caused by an event beyond a party’s control, the party’s duty to perform under the PPA may be excused. For example, if a disaster disables the transformer at the delivery point, the seller would be excused from delivering energy, and the buyer would be excused from taking and paying for energy, until the transformer is repaired. The party responsible for maintaining the transformer would, of course, be required to use diligent efforts to make repairs.

Parties often heavily negotiate force majeure provisions. Good provisions should carefully distinguish between events that constitute excuses (which relieve the affected party from its duty to perform) and those that are risks (which are simply allocated to a party). The ability to buy energy and environmental attributes at a lower price or sell them at a higher price is generally not a force majeure event. Moreover, a party’s inability to pay should not constitute a force majeure event under the PPA. A well-drafted force majeure clause will usually list a number of items that both parties agree are force majeure events, as well as items that the parties agree are *not* force majeure events.

VIII. **Operation and Metering.**

A. **Operation and Maintenance.** The PPA generally outlines the seller’s responsibility to operate and maintain the project in accordance with prudent operating practices. Such duties typically include regular inspection and repair, as well as completion of scheduled maintenance. If the project is located on the buyer’s premises, the PPA should provide for access to and security of the project. In larger-scale projects, operation and maintenance is more likely to be carried out by employees or affiliates of the project developer than to be subcontracted out. This is a point that also distinguishes larger utility-scale solar generation projects from smaller distributed generation projects, and that usually has a direct interaction with the types of warranties the project developer will seek from the installation contractor.

B. **Metering.** The metering provision is one of the most important in the PPA because it is used to determine the quantity of output for which the seller will be paid. The PPA usually requires one party (typically the seller) to install and maintain a meter. The other party typically has the right to install a check meter. If the seller’s meter is out of service or generating inaccurate readings, the PPA should specify how the parties will determine the project’s output. Tests should be conducted regularly to verify accuracy of the seller’s meters. The PPA usually states how often such tests will occur, at whose expense, and what form of notice will be given to each party. The PPA should specify how much variance in the meter’s accuracy will be permitted and how repair or replacement of defective meters will be handled. A utility-scale PPA or a distributed generation PPA with a utility may require the seller to provide the buyer with real-time output data, which will significantly increase the cost of the metering equipment required to be provided by the seller.

IX. **Billing and Payment.**

A. **Billing and Payment.** The PPA typically determines how invoices are prepared, when they are issued, and how quickly they are paid. The billing provision often states that an invoice is final if not challenged within a period of time. The PPA usually sets forth procedures for raising and resolving billing disputes, and the interest rate and penalties that apply to late payments.
B. **Right to Audit.** The buyer will typically have the right, on reasonable notice, to access those records of the seller necessary to audit the reports and data that the seller is required to provide to the buyer under the PPA.

X. **Defaults and Remedies.** The PPA will usually list events that constitute defaults. These may include:

- failure by any party to pay an amount when due;
- other types of material defaults, such as the seller’s failure to use commercially reasonable efforts to achieve a material project milestone;
- the bankruptcy, reorganization, liquidation, or other similar proceeding of any party; and
- a material default by a party’s guarantor.

The default clause should specify how long the defaulting party has to cure a default. If the default is not cured within the agreed-on period, the nondefaulting party usually has the right to terminate the agreement and pursue its remedies at law or in equity, to suspend performance of its obligations, or to seek specific performance and injunctive relief. The remedies clause may also limit remedies or place a cap on a party’s damages—for example, in some PPAs, the buyer’s only remedy for the seller’s failure to achieve a given milestone is to terminate the PPA without seeking damages.

XI. **Project Lenders and Equity Investors.** Even if the project is expected to be financed off a developer’s balance sheet, the terms of the PPA will usually take into account the possibility that the PPA will be assigned to a lender as collateral for project debt. The PPA will therefore contain provisions authorizing the seller to assign the PPA as collateral, requiring the buyer to provide consents, estoppels, or other documents needed in connection with financing, and giving the lender various protections (including additional time to cure defaults). The PPA may also include provisions to address the concerns of future equity investors (especially, if available, tax equity).

XII. **Boilerplate and Examples.** The PPA will also address boilerplate matters, such as confidentiality, representations and warranties, the right to pledge the PPA to project lenders, governing law, the limitation of consequential damages, dispute resolution, consent to jurisdiction, and waiver of jury trials. If the transaction between the parties involves complex calculations, the PPA should also include a number of carefully considered examples that illustrate how those calculations will work in certain scenarios.