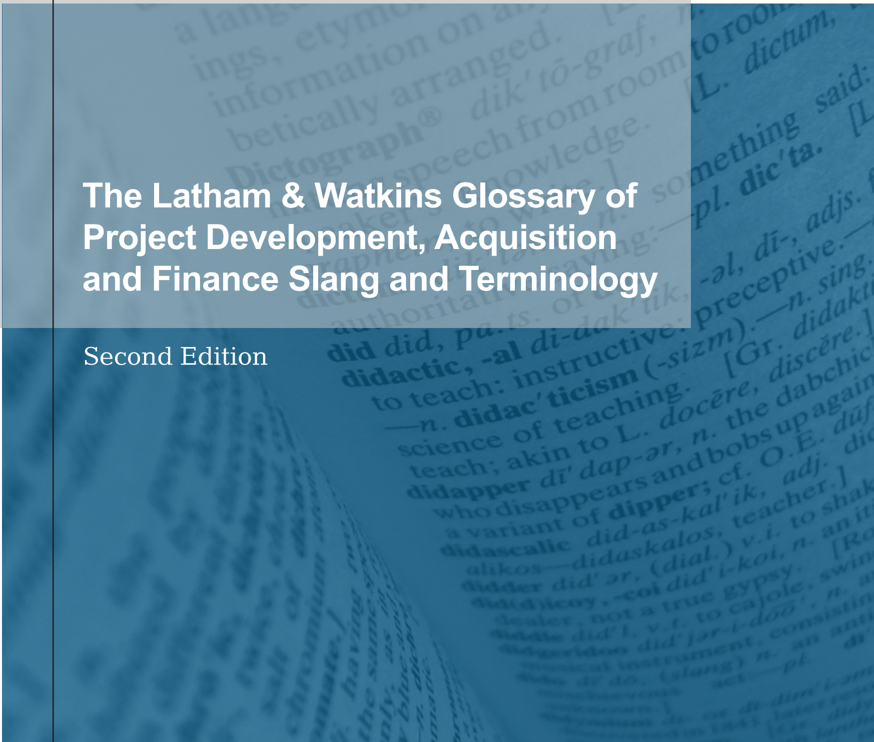
LATHAM & WATKINS LLP

The BOOK *of* JARGON®

Project Finance



The Latham & Watkins Glossary of Project Development, Acquisition and Finance Slang and Terminology

Second Edition

The purpose of this publication is to assist the newest members of the project finance community in learning to talk the talk of project finance. It is intended to be a "Berlitz Course" for recent law school and business school graduates seeking initiation into the industry, and a desktop reference for not-so-recent graduates. In this book, you will find the key to the secret verbal handshakes that make up the code of the project finance community.

We love this stuff.

The PF Book of Jargon is one of a series of practice area-specific Books of Jargon published by Latham & Watkins. Latham's first book in the series was The Corporate and Bank Finance Book of Jargon, *from which we have liberally plagiarized, adapting many terms to the project finance context. Subsequent Books of Jargon have been published on European Capital Markets and Bank Finance and Global Restructuring.*

*For those who obsess about consistency (*i.e.*, at least all of the lawyer readers), use of italics herein might seem to follow strange rules or no rules. Typically, terms from the book are italicized the first time they are used in a paragraph, other than their own paragraph. Latham does not italicize very common terms or those that are self-explanatory (which we nevertheless do explain). Aside from that, there is always the stray true inconsistency.*

The definitions contained in this book are designed to provide an introduction to the applicable terms. The included terms raise complex legal issues about which specific legal advice will be required. The terms are also subject to change as applicable laws and customary practice evolve. As a general matter, The Project Finance Book of Jargon *is drafted from a US-practice perspective.*

The information contained in this book should not be construed as legal advice.

If you have suggestions for additional terms or expanded or clarified definitions for the current terms, please send an email to pfglossary@lw.com.

1C/2C/3C Resources: Also known as "contingent resources," these are those quantities of oil or gas estimated, as of a given date, to be potentially recoverable using established technology or technology under development, but that are not currently considered to be commercially recoverable due to one or more contingencies (note the difference here between contingent resources and *Proven*, *Possible* and *Probable Reserves*, where a market is more likely to exist). These contingencies may include factors such as economic, legal, environmental, political and regulatory matters, or a lack of markets. It is also appropriate to classify as contingent resources the estimated discovered recoverable quantities of oil or gas associated with a project in the early evaluation stage. **1C Resources** are classified as "low estimate" — the lowest level of certainty for predicting the level of oil or gas resources. **2C Resources** are classified as "best estimate." **3C Resources** are classified as "high estimate," or the highest level of certainty for predicting the level of oil or gas resources.

10b-5 Rep: Same as a Rule 10b-5 Representation.

122 Endorsement: An *Endorsement* to *Title Insurance* for construction loans, issued at the time of borrowings that occur after the initial closing. This endorsement does not "date down" or otherwise modify the effective date of the Title Insurance, but rather describes any additional encumbrances against the property, insures the Lenders that no other encumbrances have been recorded, and insures the priority of the Lender's existing liens and new advances over any subsequent encumbrances. Even though this Endorsement is sometimes called a "datedown," it is distinguished from a *Datedown Endorsement* which changes the date of the policy to the date of the endorsement.

363 Sale: Named after a section of the Bankruptcy Code, an auction-like procedure for a bankrupt entity to sell assets, subject to approval by the judge. Often there is a *Stalking Horse Bidder* who has already arranged to purchase the assets. If the *Stalking Horse Bidder* is outbid (which does happen), he gets a breakup fee for his trouble.

Acceleration: The end of the line under an Indenture or Credit Agreement. The definitions of *Default* and *Event of Default* describe how we get there. Following an Event of Default, the Bondholders (under an Indenture) or Lenders (under a Credit Agreement) have the right to "accelerate" the due date of their debts; in other words, they have the right to declare their Notes or loans immediately due and payable. Bankruptcy and insolvency Events of Default usually automatically lead to Acceleration because otherwise Acceleration would be prohibited under the *Automatic Stay*.

Access: The right to enter and exit a property from a public right of way (a road). Access rights will often require zoning approvals, curb cuts, easements or use agreements with adjoining landowners. A *Title Insurance Policy* may insure "access" with regard to an insured property if an Access *Endorsement* is included. If you do not have Access, you are "landlocked" and your property is worth very little.

Accordion: A feature in a Credit Agreement that allows the Borrower to increase the maximum commitment amount under a *Revolver* or to incur additional term loan debt under circumstances specified in the Credit Agreement. The Accordion, however, is not pre-committed financing, and may involve bringing another Lender into the facility. It is really just an advance agreement to share Collateral with additional Lenders in the future if the Borrower can find them on the agreed terms. Also known as an Incremental Facility. You would not see an Accordion in a Project Financing absent a change in the economics, such as would result from expansion of the Project's *Capacity*.

Account Control Agreement: This is how Lenders in a secured financing *Perfect* their *Security Interest* in a Borrower's deposit accounts and securities accounts. It is an agreement among the Borrower, the Collateral Agent and the bank or securities intermediary where the Borrower holds its deposit or securities account. Absent an *Event of Default*, the Borrower usually retains full access to the account. Upon an Event of Default, however, the Collateral Agent may notify the deposit bank or securities intermediary to transfer control over the account to the Collateral Agent by no longer accepting instructions from the Borrower. A Security Interest in a securities account is typically Perfected either by means of an Account Control Agreement or by filing a *Financing Statement*, although a Security Interest Perfected by means of *Control* has *Priority* over a Security Interest Perfected by filing a Financing Statement. A Security Interest in a deposit account, by contrast, can be Perfected only by means of an Account Control Agreement or another method of Control, not by filing a Financing Statement.

Account Party: The party that asks that a *Letter of Credit* be issued, and who is responsible for repaying the *Issuing Bank* when the Letter of Credit is *Drawn* by the *Beneficiary*.

Additional Insured / Additional Named Insured: Lenders worry that a plaintiff may sue them if their Borrower harms the plaintiff, because the banks have deep pockets. So they have the Borrower add the Lenders, or at least the *Collateral Agent* and *Administrative Agent*, on the Borrower's liability policies as Additional Insureds. The Additional Insureds have the right to be defended by the insurer, and to have any valid and covered claims paid, up to the policy limit. This is done through an Endorsement issued by the *Insurance Broker*, who makes sure the insurer's records show all the Additional Insureds. The cost is nominal.

Administrative Agent / Admin Agent: The bank that serves as the principal Agent administering the credit facilities documented in the Credit Agreement. The Administrative Agent is responsible for processing interest payments to Lenders, posting notices delivered by the Borrower, and acting as the primary representative of the Lenders in dealings with the Borrower. The *Trustee* performs an analogous role in Bond land, except that the Administrative Agent is often accorded more discretion over minor *Covenants* than is a Trustee.

Administrative Agent Fee: The annual fee paid to the Administrative Agent for administering a Credit Agreement.

Aero-derivative: Combustion gas turbines that are based upon aircraft engine designs. These are very responsive and so are used in *Peaker* plants and are very compatible with *Automatic Generation Control*. Compare *Frame Unit*.

Affiliate: Defined slightly differently in different types of agreements, but generally refers to a subsidiary, corporation, partnership or other person controlling, controlled by or under common control with another entity.

Affirmative Covenant: Contractual provisions in an Indenture or a Credit Agreement that itemize certain actions the Issuer or Borrower must take to be in compliance. Think of these as the "Thou Shalt" Covenants. Many Affirmative Covenants are boilerplate in nature, covering such things as a promise by the Borrower to pay interest and fees, maintain insurance, pay taxes and provide quarterly operating reports. In a secured deal, the Affirmative Covenants regarding delivery and maintenance of Collateral will be more highly negotiated. Compare *Negative Covenant*.

AFUDC: Allowance for Funds Used During Construction. The FERC and state regulatory accounting procedure that allows interest paid on borrowed funds and a rate of return on equity funds to be added to the construction cost of a project for purposes of rate recovery (*i.e.*, including those amounts in rates charged to ratepayers).

AGC: Automatic Generation Control.

ALTA: The American Land Title Association, a national trade association of the title industry, which produces survey standards, forms of title insurance policies and endorsements, and other real estate guidelines which have become industry standard. Typically used as an adjective and never spelled-out, as in *ALTA Survey*.

ALTA Survey: A survey performed by a licensed land surveyor that meets the requirements specified by ALTA for the *Title Insurance* to cover title defects that would be revealed by a survey. The *Title Insurer* will examine the ALTA Survey to avoid issuing title coverage that might lead to a claim — such as an *Encroachment*.

Ammonia Slip: Ammonia used in an *SCR* unit that ends up as part of the exhaust gases, as opposed to reacting with the exhaust gas to reduce nitrogen oxides.

Amortization: The required periodic repayment in installments of the principal of a term loan prior to its final maturity. Corporate bonds and *Revolvers* generally do not amortize, but bonds issued to finance an individual project do typically amortize.

Ancillary Services: Services that an electric generating facility can provide to the *Grid* besides *Capacity* and energy, or that a customer consumes from the Grid besides energy, that are required for the electric distribution system to operate properly. For example, if a particular generator is on *AGC* and is an extremely responsive technology (*e.g.*, an *Aero-derivative* turbine), it might be able to stabilize the voltage on the system by quickly changing output. As power markets have shifted away from single-source providers (utilities) and have become more sophisticated, it was thought important to pay for and charge for Ancillary Services so that the price signals would ensure a balanced supply and demand.

Applicable Margin: Same as *Margin*, except that it might change depending on predetermined rules. The Applicable Margin might increase when the Borrower is downgraded or is on the weak side of performing its *Financial Covenants*, on the principle that higher risk should equal higher reward for the Lenders. The Applicable Margin is the Lender's profit, which it is paid in consideration of taking on the risk of the loan.

Arbitration: A means of dispute resolution often perceived as less cumbersome and more expeditious than litigation. In Arbitration, the rules of evidence are considerably more lax, there is no risk of a "wild jury verdict" (as there is no jury per se, other than the arbitrators, who are sort of professional jurors) and since the process is private, the parties do not have to wait on the public court system. The agreement should specify that the arbitration is binding; otherwise, the losing party could simply re-litigate in the public court system. Some perceive that arbitrators tend to "split the baby," leaving both sides somewhat unhappy instead of one side very unhappy.

ARRA: The American Recovery and Reinvestment Act of 2009, a federal law passed in February 2009 that included billions of dollars of benefits to the renewable energy industry.

Arrangement Fee: The fee paid to the *Lead Arranger* for pulling a deal together and doing most of the work by negotiating the basic deal terms as reflected in the *Term Sheet* and either offering an *Underwriting* or putting together a *Club Deal*.

Arranger or *Lead Arranger:* The bank that "arranges" a credit facility by negotiating original terms with the Borrower and *Syndicating* the facility to a larger group of Lenders. The Arranger generally has no ongoing obligations under a Credit Agreement after the closing date in its capacity as Arranger, but often serves as Administrative Agent and/or Collateral Agent.

Array: The arrangement of Wind Turbines in a *Windfarm*. All Windfarm sites have a direction from which the wind blows a large part of the time (see also Wind Rose). The Array will be situated such that each *String* is perpendicular to this prevailing wind direction and far enough away from the upwind Strings to minimize *Wake* turbulence, which pummels your *WTGs*, increasing operating costs.

Article 9: The part of the *UCC* that governs the validity and *Perfection* of *Security Interests* in most personal property secured deals. In California, Article 9 is called "Division 9" — they just *have* to be special.

As-Built Survey: A type of *ALTA Survey* that is performed after a project is finished, showing all of the improvements. You need one of these because projects almost never get built exactly as shown in the original drawings — the As-Built Survey becomes a historical document showing where everything is (including underground piping) while the construction is still fresh in everybody's mind.

Associated Gas: A natural gas which is found in association with crude oil, either dissolved in the oil or as a cap of free gas above the oil. As with *Condensate*, a market exists for Associated Gas.

Attainment: See *NAAQS*.

Auction Rate Securities: A long-term security, often a municipal bond, that has interest that re-sets on very short terms, usually seven, 28 or 35 days. At the end of that period, the interest rate is re-set through a *Dutch Auction*. The holder can, at the end of any interest period, put the bond back to the issuer (*i.e.*, cause the issuer to buy the bond). The bond is then quickly *Remarketed*. *Variable Rate Debt Obligations* are similar but have a bank facility to ensure purchase of the Bonds if they are not successfully Remarketed.

Automatic Generation Control / AGC: Technology which allows an Offtaker of a power plant to control remotely and electronically basic operations of the facility, such as starting, stopping and output level. The term also refers to the related contract right, as in "we gave the utility AGC on that peaker."

Automatic Stay: The rule deriving from Bankruptcy Code Section 362 that prohibits creditors from taking any but very limited actions against a bankrupt debtor or its property without permission from the court. For example, the Lender may not *Accelerate* a loan (though the loan may *Accelerate* automatically if the Credit Agreement so provides), demand payment, foreclose on *Collateral* or exercise *Setoff* rights. The Automatic Stay does not prevent draws on a *Letter of Credit* for which the bankrupt debt is the *Account Party*, thanks to the *Independence Principle*.

Aux Boiler: Auxiliary boilers at a *Cogeneration* plant which produce steam independent of the gas turbine/*HRSG*. The capabilities and costs of running Aux Boilers is often a material issue in steam purchase agreements, as the *Thermal Host* does not want to rely exclusively on availability of the power plant to support its operations.

Availability (Factor): The percentage of time a project (often a power generation facility) is in a state where it is ready to run at full-output, *even if it is not actually running*. Availability Factor is used by Offtakers to determine whether they are getting their money's worth when they are paying for *Capacity*. For example, a utility might pay a project owner a capacity component under its PPA for merely having the facility ready to fire up and run at full capacity at any time within 5-10 minutes (*e.g.*, on a hot summer Phoenix afternoon when everybody gets home at the same time and turns on their TV, computer and air conditioner). Even if the utility rarely *Dispatches* that facility, they need to know they can if they need to.

Availability Guaranty: A guaranty by a *WTG* manufacturer (or other main facility component manufacturer) that its machine will have a minimum *Availability* over a stated term (say, five years). These are most helpful when a particular technology has had reliability issues. These are also least helpful when a particular technology has had reliability issues, because the manufacturer may not be around to honor the guaranty.

Avian Mortality: Scientific term for bird deaths (they run into *WTGs* while flying). In some areas, Avian Mortality is a serious impediment to windfarm development. Often, the concern centers on large birds of prey (raptors). Because raptors evolved with the assumption they could fly around unimpeded while focusing on the ground looking for prey, they often run into WTGs without knowing what hit them. Among the early mitigants, developers started using tubular towers instead of lattice towers, which discourages perching on the lattice. Recently, many projects are required to shut down when radar arrays and annual migratory pattern studies reveal that birds will be passing by. Though not as regal as raptors, bats are also considered worth protecting from turbine strikes.

Avoided Cost: The rate at which QFs that are utilizing a PURPA Put may charge utilities for energy. Under *PURPA*, utilities were required to pay power sellers what the utility theoretically would have paid to build a new power plant (the cost of which was theoretically avoided). Avoided Cost is determined by the respective state utilities commissions, and may or may not include a capacity charge component.

AWEA: American Wind Energy Association. AWEA is the primary advocacy organization for the wind industry in the United States.

BACT: Best Available Control Technology. A determination made by the permitting agency when an air permit is issued for a new industrial facility that meets certain emission size thresholds. BACT is required for a particular *Criteria Pollutant* when the source is in an *Attainment* area (compare *LAER*). Essentially, it requires new facilities to use the "best" technology available, as determined by the agency (and EPA) from time-to-time. This requirement can also be imposed when a facility undergoes major modifications.

Balance of Plant / BOP: In a fossil-fuel-fired power production facility, the entire facility minus the *Turbine Island* equipment; and in a *Windfarm*, the entire facility minus the *WTGs*.

Balloon Payment: Same as *Bullet Maturity*.

Bank Book: The *Confidential Information Memorandum* (or *CIM*) used to *Syndicate* bank loans.

Bankruptcy Remote Vehicle: A subsidiary that is set up within a corporate group in a way so as to prevent the insolvency of the parent company from affecting the subsidiary through *Substantive Consolidation*. A Bankruptcy Remote Vehicle is created for a limited corporate purpose. A typical example would be when a Bankruptcy Remote Vehicle is set up to acquire or operate a particularly risky asset or make investments. Also known as a Special Purpose Vehicle (SPV) or Special Purpose Entity (SPE). SPEs are often established by non-investment-grade-rated parents who want the debt issued by the SPE subsidiary (to finance a particular project) rated investment grade. See also *Separateness*, which is a necessary part of every Bankruptcy Remote Vehicle.

Bargain Purchase Option: An option given to the Lessee to purchase the leased asset at a price that is less than the expected *Fair Market Value* such that, at the inception of the Lease, it is reasonable to assume that the Lessee will definitely purchase the leased asset on the option date. Purchase options for one dollar or other nominal consideration are clearly Bargain Purchase Options. In *True Lease* transactions, forward-looking appraisals are often used to support the parties' position that a Purchase Option is not a Bargain Purchase Option.

Barrel: In the United States, the "standard" barrel of 42 US gallons is the unit typically used to measure oil quantities. Elsewhere, oil is commonly measured in cubic meters or metric tons (what they call in the United States a "tonne," or 1000 kilograms).

Barrel of Oil Equivalent / BOE: A unit of energy based on the approximate energy released by burning one *Barrel* of *Crude Oil*. This is a method for equating oil, gas and natural gas liquids.

Baseball Arbitration: A method to motivate disputing parties to be reasonable in their settlement demands, so-named because it is often used in contract negotiations between baseball team owners and players. Both parties present their offer to the arbitrator and the arbitrator is required to choose between the two offers, rather than seeking or crafting a compromise. Since extreme offers are more likely to be rejected, any party taking an extreme position is more likely to end up worse off than if it had been more moderate.

Baseload: A power generation technology that by its nature you don't want to turn off and on any more than necessary, such as nuclear and coal. So-named because Baseload plants are built to serve the minimum load, *i.e.,* the minimum that is needed on that grid, day and night, all year-round. To the extent a Baseload facility has *Capacity* in excess of the base load, it is a good candidate to serve *Pumped Storage* projects, since the excess *Capacity* is essentially valueless. See also *Load Stack*.

Base Rate: A rate of interest that gets reset as often as daily (but only theoretically — usually it changes just a few times a year). It used to be called the "Prime Rate," which implied a rate offered by money center banks to their best (prime) customers. But some Borrowers complained that those best customers got better rates than the published prime rate, so the term switched to Base Rate, which just became an *Index* like any other. Changes in the Base Rate are highly correlated to changes in the *Federal Funds Rate*.

Basic (or Base) Term: The term of a Lease from the closing date (or if there is an *Interim Term* from the end of the Interim Term) to the scheduled end of the Lease (not including any renewals).

Basis Point / bp: One one-hundredth of a percentage point (*e.g.,* 50 Basis Points equals 0.50 percent).

Basket: An exception contained in a *Negative Covenant* (usually expressed as a dollar amount). For example, a Negative Covenant may be: "Borrower shall not issue additional debt;" a Basket would be: "except for unsecured debt in an amount not to exceed US$10 million."

BCF: A billion standard cubic feet, a unit of measurement used to measure natural gas or other gases.

BCFD: A billion cubic feet per day, a unit of measurement of rate of delivery (or entitlement to, or obligation of, delivery) of natural gas or other gas.

Beneficiary: Term Used to denote someone who benefits from a contractual relationship without actually being party to the contract. In the context of issuance of a *Letter of Credit*, the contractual relationship is the *Reimbursement Agreement* between the Account Party and the *Issuing Bank*. The Beneficiary is given the Letter of Credit, which is the sole document that spells out the Beneficiary's rights.

Best Efforts Syndication: A *Syndication* where the *Arranger* commits to provide less than the entire amount of the loans (or even none of them), but agrees to use its "commercially reasonable" efforts (not "best" efforts, notwithstanding the name) to find Lenders to provide the loan. Traditionally used for risky Borrowers, complex transactions or Syndications in bad markets.

Bilateral: Meaning "between two parties," the term is often used to distinguish between two-party (Bilateral) contracts and other types of economic relationships. For example, in the United States, *RPS* statutes encourage individually negotiated Bilateral contracts between utilities and generators, as opposed to the European approach, where all renewable generators are compensated the same under a *Feed-In Tariff*, which does not need a contract at all.

Bilateral Investment Treaty / BIT: An agreement between two nations setting forth the terms and conditions that will apply to private investments made by nationals of one of the nations in the other nation. The idea is to encourage such investment by providing, most significantly, that if an *Expropriation* occurs of investment property, remedy can be had by the investor against the country, which effected the Expropriation.

Binary: A technology used in geothermal power production wherein *Brine* is pumped up and run through a heat exchanger which imparts the Brine's heat to a gas that vaporizes at a temperature lower than does water (*e.g.,* isobutane or isopentane). That gas then turns a turbine, and on the other side of the turbine the gas is condensed and runs through the process again. Some geothermal fields' fluid is so hot it can directly run a steam turbine; this is called *Flash* technology.

Remember, there are only 10 kinds of people in the world—those who understand binary and those who don't.

Biofuel: Liquid fuel derived from recently grown plants (as opposed to ancient plants that made the oil in the ground).

Biomass: Wood waste, rice hulls, walnut or almond shells, anything that has *Btus* whose destiny is to be consumed in a Biomass Facility rather than being landfilled, used in animal feed or otherwise recycled.

Biomass Facility: A power production facility that burns *Biomass.* Biomass Facilities are particularly susceptible to shortage of *Feedstock* since Biomass as a fuel is not part of an organized transportation infrastructure (unlike natural gas or oil). Generally, Biomass is trucked to the Biomass Facility and therefore must be of sufficient proximity that the cost of labor and diesel does not exceed the fuel value.

BI Insurance: Business Interruption Insurance.

BIT: Bilateral Investment Treaty.

Black Liquor: A byproduct of paper production, a kind of black, soupy/ syrupy liquid, Black Liquor is combusted in Cogeneration facilities at paper mills along with Hog Fuel, to create steam and electricity that are consumed in the mill.

Black Start Capability: The ability to start up a power production facility without power from an outside source. These are used when the entire grid has gone down, since the vast majority of power plants need outside power to start up. Once the Black Start plant is up, the rest of the system can be restored. These facilities are rarely (if ever) *IPPs*, since utilities do not want to have to rely on outside help in blackout situations.

Blade or *Turbine Blade:* A component of a *WTG* that captures the energy of the wind by converting lift into rotation. Basically, each Blade is like an airplane wing; when the wind rushes by, the Blade moves (lifts) in the direction of the top of the "wing." See also *Swept Area*. A Blade Set is a set (usually three) that the manufacturer wants to all go on one WTG since they have been balanced to work together.

BLM: The Bureau of Land Management of the US Department of the Interior. The BLM grants and administers site leases and rights of way for many of the geothermal, wind and solar facilities. It controls two-thirds of the land in Nevada and vast swaths in other Western states.

Blowdown: The initiation of gas production from a natural gas well. Commencement of Blowdown operations is the first stage in the production process. Blowdown also refers to mineral and chemical-laden water that is removed from an evaporative condenser system of an electric generating facility so that the recirculating water in the system maintains a proper level of dissolved solids. Because water that evaporates from the system is pure, what remains for recirculation would become more and more briny unless Blowdown were removed and replaced with new water.

BOE: Barrel of Oil Equivalent.

Boilerplate: The parts of a contract, usually found near the end, that vary little among contracts of the same type.

Bond: Debt instruments that represent a fixed principal amount of money and a fixed (or floating) interest rate. Also known as Notes or Debentures, though a Bond would generally refer to a longer-tenor instrument and a Note to a shorter tenor instrument (10 years or less). These are almost always issued pursuant to an agreement known as an *Indenture*.

Bone Dry Ton / BDT: A ton of *Biomass* at zero moisture content. Once different types of Biomass are made "apples to apples" by removing moisture, their relative heating value (*Btu* content) can be compared, so Biomass facilities can compare the economics of various *Feedstocks*.

B-O-O: Build-Own-Operate. A type of *Concession* granted by a governmental entity, whereby the developer is entitled to build, own and operate a project in the applicable jurisdiction. Under the concession agreement, the developer will be paid to operate the project during the term. At the end of the term, the developer will retain ownership of the project. See also *B-O-T*.

BOP: Balance of Plant.

B-O-T: Build-Own-Transfer. A type of *Concession* granted by a governmental entity, whereby the developer is entitled to build, own and operate a project in the applicable jurisdiction. At the end of the Concession term, the developer will transfer ownership of the Project to the government. See also *B-O-O*.

bps: Shorthand for Basis Points; pronounced "bips."

Breakage Costs: The losses, costs and expenses incurred by a Lender as a result of a Borrower's (i) failure to borrow, convert or continue a *LIBOR* Loan after giving notice requesting the same; (ii) failure to make a prepayment of LIBOR Loans after giving notice thereof; or (iii) making of a prepayment of LIBOR Loans on a day that is not the last day of the applicable *Interest Period*. The Lender borrows money from somebody else before on-lending it to the Borrower (see *Match Funding*), and the

Lender at that time agrees to pay *its* lender a certain rate of interest for the applicable Interest Period. When the Borrower prepays the loan prior to the end of that Interest Period, the Lender will from that point no longer earn interest from the Borrower; therefore the Lender repays *its* lender to stop accruing interest on that side. If rates have gone down since the beginning of the Interest Period, the Lender's lender will have to redeploy the repaid funds at a lower rate, thereby losing the benefit of its bargain for the balance of the Interest Period. It is this loss that is the basis for Breakage Costs. (If interest rates have gone up since the beginning of the Interest Period, there are no Breakage Costs since the Lender's lender is happy to be able to reinvest the repaid funds at a higher rate.) Credit Agreements make clear that Breakage Costs are payable even if a Lender does not Match Fund.

Brine: Geothermal fluid that is not at the boiling point. Since it is hot, it has particular capacity to dissolve minerals, and so often has a high mineral content.

Broken Priority: Occurs when a developer begins construction on a property prior to recording a deed of trust or mortgage in favor of its lender. In many jurisdictions, the priority of the *Mechanics' Lien* claims relate back to the date on which work first commenced on the project in general (as opposed to the date when the applicable mechanic or materialman actually began providing labor or materials). If the date of the commencement of work is prior to the date that that the lender's lien is recorded against the property, all mechanic's and materialmen's liens arising at any time during the development of the project may have priority over the Lender's lien.

Brownfield: Describes a facility being constructed on a site that has previously been used for anything other than environmentally harmless uses (such as farming or residential). Compare *Greenfield*.

Btu: British thermal unit, a measurement of heating value. The amount of energy it takes to heat a pound of water from 60 to 61 degrees F. at sea level.

Bullet (Maturity): When the entire principal of a Bond or term loan is due and payable on the *Maturity Date* (*i.e.*, there is little or no *Amortization* prior to maturity). Same as *Balloon Payment*.

Business Interruption Insurance / BI Insurance: Insurance which is designed to pay a project's fixed operating costs (salaries, overhead, debt service, land rent, etc.) for a period of time after a casualty, to allow the owner to make a property insurance claim, order new equipment and restore the facility to operating condition so as to start making money again. Business Interruption Insurance does not begin paying until after the deductible period, measured in days (usually 30 or 45).

Business MAC: Definitions vary, but this is a reference to the *Conditions Precedent* in a *Commitment Letter*, merger agreement or Credit Agreement that there has been no *Material Adverse Change* in the operations, business or prospects of the Borrower or the target company. This should not be confused with a *Market MAC*, which deals with Material Adverse Changes in market conditions. See also *Material Adverse Change*.

Cap: In interest rate hedging, an agreement by a Borrower's counterparty to pay the Borrower any amount by which the chosen *Index* (*e.g.*, three month *LIBOR* as published by the British Bankers Association (BBA)) exceeds the negotiated cap amount, multiplied by the agreed *Notional Amount*. For example, if your Borrower has a four percent Cap on a three month BBA LIBOR for a US$100 million notional amount, each three months during the term of the Cap, the Cap counterparty will pay your Borrower the amount by which three month BBA LIBOR exceeds four percent, multiplied by US$100 million. The price of a Cap is usually paid by a Borrower as a lump-sum at inception.

Capacity: The theoretical maximum production capacity of an output facility. Offtakers sometimes pay for Capacity apart from actual output (see *Demand Charge*). This is important for facility owners because they have to pay fixed costs (mainly debt service) regardless of whether their facility is in operation. This is important for Offtakers because they might be subject to rules or contractual obligations which require them to have available Capacity even if it is never used. For electric utilities, this is called *Reserve Margin*.

Capacity Charge: In contrast to a *Demand Charge*, this is what customers of a commodity delivery system, such as a pipeline or power distribution system, pay to the service provider as a function of the customer's actual level of usage of the system.

Capacity Factor: A percentage equal to a facility's actual output over a period (usually a year) divided by its *Capacity* over that period.

Cap and Trade: See discussion under *Emission Allowances*.

Capital Lease: A lease that meets at least one of the criteria outlined in paragraph seven of FASB 13 and, therefore, must be treated essentially as a loan for book accounting purposes. The four criteria are:

- Title passes automatically at the end of the lease term
- Lease contains a *Bargain Purchase Option*
- Lease term is greater than 75 percent of *Estimated Useful Life* of the leased asset
- Present Value of lease payments is greater than 90 percent of the leased asset's *Fair Market Value*

A Capital Lease is treated by the Lessee as both the borrowing of funds and the acquisition of an asset to be depreciated; the Lease is recorded on the Lessee's balance sheet as an asset and corresponding liability (lease payable). Periodic Lessee expenses consist of interest on the debt and depreciation of asset.

Capped Fair Market Value Lease: A *Fair Market Value Lease* with a predetermined ceiling to limit *Fair Market Value* exposure at the end of the Lease term.

Carbon Capture and Storage: The extraction of carbon dioxide from the exhaust stream of a power plant or other emitter and the injection of the carbon dioxide underground or into another storage facility.

Cash Grant: Under *ARRA*, projects that qualify for *PTCs* or *ETCs* may be eligible for cash grants equal to 30 percent of the tax basis of tangible personal property used in the project. Cash Grants are only available for qualifying projects placed into service in 2009 or 2010 (or after 2010 in the case of certain long-term construction projects commenced in 2009 or 2010). Cash Grant recipients may not claim either the PTC or ETC.

Cash Sweep: Taking all *Excess Cash Flow* and applying it to the mandatory prepayment of debt. Cash Sweeps usually apply when something bad has happened or is projected to happen, so as to reduce the Lenders' exposure as quickly as possible. Sometimes they happen by design, where a loan is intended to be relatively short-term and is expected to be refinanced. But see also *Good Times Sweep*, which applies only when a project is doing particularly well.

Cash Trap: When things are bad, but perhaps not bad enough to call for a *Cash Sweep*, Lenders may use a Cash Trap. *Excess Cash Flow* is held in an account while the parties wait and see whether things improve. Sometimes the Credit Agreement calls for this money to be "aged" a certain period of time and then applied to *Mandatory Prepayment*. See *Distribution Suspense Account*. Sometimes, when a Cash Trap is used, the Borrower is given the option of having the trapped funds applied to the debt, which saves the Borrower from *Negative Arbitrage*.

Casualty Value: Same as *Termination Value*.

CCS: *Carbon Capture and Storage*.

CDS: *Credit Default Swap*.

Cellulosic Ethanol: Ethanol derived from non-food plants. Scientists are looking for the right combination of a *Feedstock* high in sugar content (but not so high as a food product such as corn or sugar cane), and a means of separating the sugar from the plant so it can be distilled. Cellulosic Ethanol is viewed as the most viable ethanol for the future, since the Feedstock will be inexpensive and its use will not compete with human food consumption.

CEMS: Continuous Emissions Monitoring System. CEMS are imposed as a permit condition in most major industrial facilities. These devices continuously monitor emissions and generate continuous electronic (and in some cases paper) records of emissions of specific pollutants over time. These results are typically reported to the permitting agencies and are also often reviewed by the project sponsor and *Independent Engineer* for compliance evaluation and audit purposes.

CERCLA: Federal environmental statute often referred to as "Superfund." CERCLA imposes liability for the costs of responding to and remediation of a *Release* of *Hazardous Materials* into the environment. Liability can be imposed on current owners and operators of a facility even if they did not cause the Release. CERCLA also grants the EPA authority to investigate and remediate sites or to order responsible parties to conduct investigation or remediation. The Superfund statute is the leading reason to conduct environmental diligence before becoming involved with a site.

CFB Boiler: Circulating Fluidized Bed Boiler.

Change of Control: A material change in the ownership of a company or the makeup of its board of directors. Definitions vary in *Indentures* and Credit Agreements. In Credit Agreements, a Change of Control may result in an *Event of Default* and in Indentures, may result in a *Put Right.*

Change Order: An agreement during construction between a facility owner and the contractor, that the contractor should do something different than was originally contemplated by the construction contract. The Change Order process is typically initiated by the contractor when some circumstance or assumption has changed, and the owner agreed to take the risk surrounding that change. For instance, a contractor might agree to guarantee completion by March 15, provided there are no more than five days of inclement weather preventing crews from working. Once the inclement weather days exceed five, the contractor will seek a day-for-day extension of the guaranteed completion date, through the Change Order process.

Charterparty Contract: A contract by which a shipowner lets out the entire ship to another person (the "charterer") for the transportation of a cargo (such as *Crude Oil* or *LNG*).

CIM: Confidential Information Memorandum. Same as *Bank Book*.

Circulating Fluidized Bed Boiler / CFB Boiler: A technology used to reduce sulfur dioxide emissions resulting from combustion of coal. The coal is fed into a giant boiler with pulverized limestone and combusted while air is blown up from the bottom of the boiler, making the whole thing look like a roiling fluid. The sulfur and limestone combine in a chemical reaction to create a powder called calcium sulfate.

Class: Lenders holding a particular "class" or *Tranche* of loans.

Class Voting: Type of voting where one or more *Classes* under a Credit Agreement vote separately and the affirmative vote of a majority of *each* Class is required for an amendment, waiver or other action to pass. Class Voting on all matters would be unusual because it would give each Class a veto right, even over matters of little legitimate interest to them. Class Voting is appropriate where one Class of Lenders will particularly care about the issue and might otherwise be outvoted by the majority. For example, if you had a credit facility with one Class of Lenders with a short

Tenor and one with a longer Tenor, and the Borrower requested a waiver of a covenant to maintain reserves for major maintenance expenditures, you might see Class voting, since the long-term Lenders would be much more concerned about such an issue.

Class 3, 4, 5, etc. Wind Resource: Classification of wind resource areas based on average meters per second wind speed over the course of a year, or average *Wind Power Densit*y, measured in Watts of energy per square meter, at 50 meter height. Higher is better and seven is the highest. Class 2B or 3 is considered the lowest where a commercially viable *Windfarm* can be sited. Different *WTG* models or *Turbine Blades* are specified for different Class sites.

Clawback: If a creditor receives assets or payments from a debtor during the 90 day period (or one year period in the case of insiders) prior to the date the debtor files a bankruptcy petition (see *Preference*) or obtains a *Fraudulent Transfer* from the debtor prior to the bankruptcy petition, a bankruptcy court can require that such creditor return those assets or payments that are determined to be preferential transfers or Fraudulent Transfers. This is known as the bankruptcy court exercising its "clawback powers." The creditor may be able to assert a defense against a Preference, by demonstrating that it gave "new value" to the debtor in exchange for the assets or payments received or that the debtor made the payment in the ordinary course of business.

Clean Air Act: The major US federal statute governing air pollution control, both for stationary sources (*e.g.,* power plants) and vehicles. This law was substantially overhauled in 1990, and the 1990 amendments gave rise to the permitting requirements for new industrial facilities that are currently in place. The US Supreme Court recently ruled in *Massachusetts v. EPA* that certain *Greenhouse Gases* are "pollutants" under the vehicle provisions of the Clean Air Act; it is likely that this interpretation will soon be extended to the stationary source program. This means that *GHG* emission controls could be imposed under the Clean Air Act for new or modified sources, without the need for further legislation.

Cleanup: A period of time during each 12 month period, usually 10-30 days, when a *Revolver* which is intended to be used solely for working capital must be paid down to zero. This is to prevent the Borrower from in effect using the Revolver as a term loan.

Clear Market Provision: Found in the text of the *Commitment Letter*, an agreement by the Issuer/Borrower not to (and sometimes not to allow its affiliates to) issue new debt, equity, preferred stock or other securities during *Syndication*. The purpose is to protect the Lenders from having to compete for the same pool of investors as the Issuer/Borrower other financings.

Closing Checklist: The document which lists every piece of paper that needs to be executed and delivered as a *Closing Condition*.

Closing Conditions: A type of *Conditions Precedent*, namely those applicable at the time of closing of a transaction.

Closing Conditions Memo / Letter / CP Memo: A memo required by some banks in connection with the closing of a credit facility. The CP Memo is prepared by counsel to the *Administrative Agent*. It confirms the satisfaction of certain mechanical Closing Conditions set forth in the Credit Agreement that require delivery of specified legal documents and points out whether any items have been deferred for delivery after closing.

Closing Dinner: Your reward. A dinner organized by the bankers to celebrate the closing of the transaction. The better the deal, the better the wine (or, for some of us, the better the wine, the better the deal).

Closing Instruction Letter: An agreement among the *Title Insurer* and the other key parties to the transaction (typically the Administrative Agent or Collateral Agent and Borrower, or the purchaser and seller) with respect to the delivery and disposition of closing documents and payments, and binding the Title Insurer to issue the final *Title Insurance Policy* in the form of the *Pro Forma Title Policy* (which is customarily attached as an exhibit to the Closing Instruction Letter). The actual Title Insurance Policy is typically issued subsequent to the closing of the transaction and the recording of documents in the public records. Also sometimes referred to as a "closing escrow agreement" or "title instruction letter."

Club (Deal): A loan transaction which is in effect pre-*Syndicated* to a relatively large group of banks because nobody is willing to Underwrite the transaction for fear of not being able to Syndicate it after closing. Nevertheless, sometimes a *Secondary Syndication* occurs, the goal of which is for the initial Club to sell down to their respective *Target Holds*.

Coal Seam Methane: Natural gas generated from within a coal deposit.

COD: Commercial Operation(s) Date.

Cogeneration: The use of a single energy input to create both electricity and thermal output which will be used for something else, like heating, an industrial process or more electricity production (as to which, see *Combined Cycle*).

Coinsurance: Because title insurance companies are generally viewed as thinly capitalized (*i.e.*, unlikely to be able to honor a claim for the full policy amount on a large policy), some lenders require the title insurer to obtain Coinsurance, which is a risk-sharing agreement between the *Title Insurer* and one or more other Title Insurers.

Collateral: The assets of a Borrower made subject to a *Security Interest*.

Collateral Agent: In a secured debt financing, the Agent to whom, on behalf of all the *Secured Parties*, all *Security Interests in Collateral* will be granted.

Collection System: At a *Windfarm*, the electrical cables that run from each *WTG* to the interconnection point with the utility.

Combined Cycle: An efficient fossil-fired electrical generating system which captures heat which otherwise would have been exhausted to the atmosphere after fuel is combusted in a gas turbine, and uses that heat to create steam which will run a steam turbine. A type of *Cogeneration*.

Combined Operating License / COL: A COL from the Nuclear Regulatory Commission authorizes the construction and operation of a nuclear power plant, conditioned on the successful performance of inspections, tests, analyses and verification of acceptance criteria.

Commercial Letter of Credit: Same as *Trade Letter of Credit*.

Commercial Operation(s) Date / COD: The date upon which an Offtaker agrees a facility is ready to deliver its output, and the Offtaker is willing to pay for the *Capacity* and output. Prior to COD, often the Offtaker will pay for test power generated during testing, but at a reduced rate.

Commissioning: The process whereby a manufacturer and others oversee and sign off on equipment being placed in commercial operation.

Commitment Fee: In bank lending in the context of bank construction loans and revolving loans, this refers to a fee that is paid based on the average *unused* commitment, usually payable quarterly following execution of the Credit Agreement. In acquisition finance, Commitment Fee has a completely different meaning, referring to a one-time fee payable to *Underwriters* at closing, based on the principal amount they have committed to the deal in the *Commitment Letter*.

Commitment Letter: The letter by which financial institutions commit to provide loans. In the acquisition finance context, these loans generally consist of a senior secured term loan facility and one or more bridge loan facilities to "bridge" any notes offering expected to be part of the permanent financing — meaning that the bridge loans are committed financing that will be available if the company is unable to issue the notes successfully in time to fund the acquisition closing. The Commitment Letter consists of the text of the letter, along with annexes and exhibits that lay out the terms of the facilities and the Conditions Precedent to funding.

Commitment Papers: A catch-all term referring to the *Commitment Letter* and Fee Letter (and the related annexes and exhibits).

Completion Bond: An agreement by a bonding company (a type of insurance company) that if its customer, a contractor, does not complete work under a specified contract, the bonding company will pay to have it completed. These are designed to protect against contractors going belly-up during construction. Completion Bonds are not viewed as particularly comforting, since they are issued by insurance companies, and insurance companies tend to like to collect premiums and resist paying claims.

Concentrating Photovoltaics / CPV: These are systems that use large lenses or mirrors to focus sunlight on a small area of *Photovoltaic* cells. The idea is that the PV cells part of the system is expensive and the concentrating part is relatively inexpensive, making the cost per kWh lower than using pure PV. Also referred to as Concentrating Solar.

Concession: An agreement by a host country setting out the rules under which a foreign entity is allowed to operate, and granting the foreign entity rights. For example, a telephone company might be given a concession to operate exclusively (or with limited competition) a cellphone business in an area, in exchange for the company's agreement to invest a certain amount in capital equipment over time. The parties will agree on *Tariffs*, profit repatriation rights, tax rates, extension terms, ownership rights at end of term, etc.

Condemnation: The process by which a government (federal or state or subdivision of the state) or a public utility takes private property for public use (*e.g.*, to build a transmission line) in exchange for just compensation. Also called "taking," or *Eminent Domain*.

Condensate: Hydrocarbons that are gaseous while in the *Reservoir*, but condense to form a liquid as they rise to the surface where the pressure is much lower. They are separated from the primary product (crude oil or natural gas) and sold separately. As Condensates are a by-product, output is dictated by production of the primary product and not price for the Condensate.

In any power generation technology that uses a steam turbine, Condensate is the water that forms when steam loses pressure and temperature. Only water can be put into a boiler; so to recycle steam after it runs through the steam turbine, it must first be reduced to Condensate, either through air cooling (those giant hourglass-shaped structures at nuclear power plants are air-cooled condensers) or water cooling.

Conditions Precedent: The things that must happen, including delivery of documents, representations and warranties being true, and sufficient funds being on-hand to close a transaction or to be entitled to draw under a *Revolver* or construction loan facility. The accent is on the second syllable: "prə-see-dent." There can also be Conditions Precedent to other events, such as availability of a particular *Tranche* of debt or to *Term-Conversion*.

Conditions Subsequent: Term mainly used by lawyers, meaning something that must occur at a point *after* your contract has been signed (acquisition agreement, Credit Agreement, EPC Contract, whatever) before one of the parties is required to do something (*e.g.*, signing a contract to buy a '65 Mustang for US$1,000, subject to the Condition Subsequent of the seller getting her husband to sign over the pink slip before the buyer has to pay the money).

Confidential Information Memorandum / CIM: The marketing book used to Syndicate credit facilities. Also refers to a marketing book used in a mergers and acquisitions or auction context. Often referred to as the CIM, or the *Bank Book*.

Confirmation: The document that evidences a "Transaction" under an *ISDA Master*. It is called a Confirmation because typically the Transaction is effected over the telephone, even for very large Transactions, and then one party follows up with the Confirmation.

Confirming Bank: Used where the *Issuing Bank* of a *Trade Letter of Credit* does not have a branch easily accessible by the Beneficiary. A bank accessible by the *Beneficiary* allows the Beneficiary to *Draw* the *Letter of Credit* on the Confirming Bank, which in turn seeks reimbursement from the *Issuing Bank*.

Consent (to Assignment): In *Project Finance*, because the Lenders rely on the value of contracts as much as on other assets, they want to ensure that the important contracts of their Borrower cannot be terminated by the Borrower's counterparties. Consents give the Lenders the right to receive notice of the Borrower's default under the contract, the right to cure that default within a cure period which is usually longer than that afforded to the Borrower under the contract, and the right to consent to amendments to the contract, among other things. Even though the term is supremely non-descriptive, in *Project Finance*, people always know what you mean when you say "the Consent with [insert name of Borrower's counterparty]." Also called a *Direct Agreement*.

Sometimes, the Consent is used as a vehicle to amend the contract. Often, the Borrower and its counterparty have just finished spending months hotly negotiating the contract, and are sick of the contract and each other. When the Lender comes along and finds a perceived defect, the last thing the contracting parties want to do is formally amend the contract, but they might allow the amendment through the Consent.

Contiguity: Parcels of land right next to each other without the slightest gap between them. Contiguity is critical when assembling property interests to create a project site or a route for pipelines and transmission lines. Imagine a transmission line with a foot of conductor missing somewhere — those electrons cannot be trained to jump. Where needed, *Title Insurance* includes an *Endorsement* insuring Contiguity.

Contingency: Extra money in a construction budget which at the time of closing is not earmarked for any particular use. History has shown that almost every project needs Contingency. Depending on the stage of development and construction, the complexity of the technology, the owner having locked in fixed prices for its *Project Costs,* the number of contractors available to blame each other for oversights, and the experience level of the contractors, Contingency might be anywhere between five percent and 15 percent. Developers do not want Contingency to be too high, since it consists of (expensive and rare) equity and debt.

Contingency can also mean planning for an outage of a facility connected to the electric grid. The reliability of the electrical grid is based upon single-contingency (one bad thing) or double-contingency (two bad things interacting with each other) planning.

Contract for Differences: Where a particular market system wishes to ensure that a supplier is present in the market, the system will provide assurances to that supplier, through a Contract for Differences, that its output will garner a minimum price, or "strike price." In exchange, the supplier agrees to refund any excess of its sale price over the strike price. The supplier sells into the market and receives whatever proceeds result from the market price, and the Contract for Differences takes care of truing up to the strike price.

Control: In the *UCC* context, Control is a means of establishing *Perfection* over certain asset classes, such as securities accounts, deposit accounts and securities. In the securities and contractual context, Control has a range of definitions, factoring in various degrees shareholdings, management roles, shareholder agreements, directorships and the degree to which others have any of these things. One definition is "the possession, direct or indirect, of the power to direct or cause the direction of management and policies of a person, whether through the ownership of voting securities, by contract or otherwise."

In the marital context, Control is your spouse saying you can't go to the *Closing Dinner*.

Conversion Services: Services provided by a generation owner/operator to a *Toller* under a *Tolling Agreement* to convert fuel (supplied by the Toller) into electric capacity and energy (delivered to the Toller). The flip side of *Tolling Service* provided by a Toller.

Cost-Plus: A pricing mechanism in construction contracts whereby the contractor passes through all costs to the owner, and is paid a fixed percentage of those costs as its profit. Because the contractor is economically motivated to increase costs, in order to increase its own profits, these arrangements are always "open-book," meaning the owner is involved in deciding which subcontractors and suppliers will be used.

Cost Segregation (Cost Seg) Analysis: The analysis which segregates costs into those which are eligible for tax benefits (such as personal property or qualified energy property) versus those which are not (such as real property or raw land).

Covenant: An agreement to do something *(Affirmative Covenants)*, not to do something *(Negative Covenants)*, or to maintain something (like a financial ratio) in a certain state or better *(Maintenance Covenants)*.

CPs: Conditions Precedent.

Crack Spread: Refers to the difference measured in dollars between gross proceeds for selling refinery products such as gasoline and aviation fuel on the spot market and the gross cost of crude oil. All other costs of production must be paid from the Crack Spread.

Cracking: Junior lawyers and bankers exhibit signs of this toward the end of a deal. Also, a complex process involving high pressures and temperatures in which heavy, complex hydrocarbon molecules are broken down into smaller, lighter molecules. In an oil refinery, *LPG*, gasoline, diesel and other products are produced by Cracking crude oil into shorter chemical chains.

CREBs: Clean Renewable Energy Bonds. CREBs are a type of tax credit bond that may be issued by tax-exempt electricity producers (*e.g.*, public power providers, electric cooperatives and state, local and tribal governments) to finance qualified renewable energy facilities. CREBs accrue tax credits quarterly in lieu of interest payments. Holders must include the accrued tax credits in income as interest, and can then use the credits to offset their regular and alternative minimum tax liability. The total principal amount of CREBs that may be issued is capped at US$2.4 billion, of which one-third must be allocated to qualifying projects of governmental bodies, one-third to qualifying projects of public power providers, and one-third to qualifying projects of electric cooperatives.

Credit Agreement: The main agreement governing terms and conditions under which credit facilities are provided by Lenders to Borrowers, including construction loans, term loans, revolving loans and *Letters of Credit*. Sometimes called a *Financing Agreement* or, mainly outside the United States, a *Facilities Agreement*.

Credit Bid: Both verb and noun, a *Secured Party* may bid up to the amount of its promissory note at a *Foreclosure* sale of the assets constituting collateral for its loan or in a bankruptcy of its Borrower.

Credit Default Swap / CDS: A contract, using *ISDA* form documentation, whereby one party agrees to pay the other party if certain catastrophic events (such as bankruptcy or payment default) occur under a debt undertaking (loan, bond or note) of an obligor.

Credit Enhancement: The improvement of the credit quality of a company or its securities by employing resources, financial instruments or the credit of another entity to support such credit quality. Common methods of Credit Enhancement include Guarantees, *Letters of Credit*, surety bonds, reserve accounts and cash collateral accounts.

Credit Support Annex / CSA: A preprinted form published by *ISDA* which has rules by which parties to ISDA transactions provide collateral to each other securing their respective obligations in the event of default and termination. Paragraph 13 of the CSA is the part of the form used for customization, similar to the *ISDA Schedule* being used to customize the *ISDA Master*.

Creeping Expropriation: An *Expropriation* that is implemented gradually through a series of actions that individually would not constitute an *Expropriation*. For example, the gradual imposition of fees and taxes on a project that, when viewed as a whole, deprive the project of substantial value. The term is used in the context of claims under *PRI* policies and *Bilateral Investment Treaties*.

Criteria Pollutants: Under the Clean Air Act, a series of pollutants were specifically identified as target pollutants that create smog, acid rain and other problems, for which criteria would be developed (also called National Ambient Air Quality Standards, or NAAQS), toward which the United States would strive to clean up all of its air basins to meet the NAAQS for the Criteria Pollutants. These pollutants are ground level ozone (O3), nitrogen oxides (NOX), sulfur oxides (SOX — principally sulfur dioxide as SO2), carbon monoxide (CO), particulate matter (PM) and lead (Pb). All air basins in the United States have NAAQS for each criteria pollutant, although lead is no longer a factor since the United States switched to unleaded fuels.

Critical Path (Item): In every construction project where multiple teams are working on different aspects of the project on different paths, at any given time there is one Critical Path. It is the thing that must be completed on time, or the entire project is guaranteed to be delayed. Once that Item is completed, or perhaps when another path has experienced a schedule adjustment, the Critical Path will shift to being something else and the Eye of Mordor will shift to focus on the new Critical Path.

Crossing Permit: A right to cross public property (such as a road, channel or levee) for the purpose of constructing, operating or maintaining transmission lines or other improvements. This is also the term used by railroads for their permission to cross over or under their tracks. Being a "permit," it is revocable, unlike other kinds of interests in real property such as a *Fee*, a *Leasehold* or an *Easement*.

This makes lawyers lose sleep, however, no railroad will give anything more solid than a Crossing Permit, so we live with it.

Crude Oil: Unrefined petroleum or liquid petroleum. Found underground, it is extracted and refined into a number of different products. Crude Oil low in sulfur is referred to as "sweet;" and high-sulfur crude is "sour."

Crush Spread: Similar in concept to *Spark Spread*, the difference between gross proceeds for a unit of ethanol on the spot market and the gross cost of acquiring the corn necessary to distill and process the ethanol, having made stated assumptions about the efficiency of the conversion technology. All other costs of production must be paid from the Crush Spread.

CSA: *Credit Support Annex*.

Culm: A byproduct of coal mining, essentially what is sometimes known as "high-Btu dirt," the material that is not commercially marketable. Kept in huge piles in coal-producing regions or sometimes used to backfill depleted coal mines, CULM is also used as *Feedstock* in waste coal facilities.

Cultural Resource Survey: A field assessment performed by a qualified archaeologist, who examines a particular site or linear route for evidence of cultural resource artifacts. These can include Native American artifacts, burial sites, former habitations, and more recent matters of cultural significance, such as former slave quarters or early historic and pioneer artifacts and dwellings. The field work is usually preceded by a literature and library search. During the fieldwork, the artifacts and sites are carefully catalogued and preserved as appropriate, and depending on the results, project siting may be altered. There are various federal and state statutes governing these matters, and the cultural resource results are typically reported to and reviewed by the relevant State Historic Preservation Officer (SHPO).

Cure: Coming into compliance with a *Covenant* or otherwise eliminating a *Default* or *Event of Default*. The Credit Agreement might provide that a certain Default only becomes an Event of Default after it has been in effect for a certain period (the "cure period" or "grace period"). Ideally, the Borrower would Cure within that period. If the Cure is effected after an Event of Default has occurred (*i.e.*, after the cure period has expired), is that good enough? How about after *Acceleration*? Ask your lawyer.

In a *Leveraged Lease*, the right of the Lessor (and any Owner Participant) to cure Lessee defaults (when no Lessor defaults exist) to prevent the lenders from exercising remedies under either the security agreement with the Lessor or the Lease that has been assigned to the lenders.

Currency Swap: A contract documented under an *ISDA Master* whereby two parties allocate the risk as to changes in the value of one currency relative to the value of another. For example, if one agrees in June to buy a flat in Paris for one million Euros next December, when the buyer has a CD for US$1.25 million maturing, the buyer might enter into a Currency Swap whereby the buyer's counterparty agrees to pay the buyer in December the amount by which one million Euros costs more than US$1.25 million. (If USD is worth more in December relative to Euros, the buyer pays the counterparty.)

Curtailment: An instruction by an Offtaker to an owner to curtail output of a facility, or a restriction on usage of a pipeline or transmission line by the operator when demand exceeds *Capacity* — the dropped customers are usually referred to as having *Interruptible* service.

Cut-In Wind Speed: Wind speed at which a *WTG* begins to produce electricity because wind speed is sufficient to overcome inertia and internal friction inherent in the mechanics.

Cut-Out Wind Speed: Wind speed so high that a *WTG* is programmed to shut itself down so as not to be damaged.

DACA: Deposit Account Control Agreement. See *Account Control Agreement*.

Dark Spread: Same as *Spark Spread* except where coal is the fuel rather than natural gas.

Datedown Endorsement: An *Endorsement* to *Title Insurance* which brings the date of the policy forward to the date of the Endorsement. This Endorsement describes any encumbrances or other matters affecting title to the property that have been recorded against the property since the date of the initial title policy, and insures that there are no additional encumbrances since the date of the initial title policy that take priority over your *Mortgage* or *Deed of Trust.* This Endorsement is customarily obtained in connection with a *Term-Conversion* or a loan modification transaction and is typically simply an expansion of the coverage provided in a *122 Endorsement*.

DDGS: Dried Distiller Grain Solids.

Deal Creep: No, this is not a person (though if it were, on any given deal we would all know who it is). This is the process whereby over the course of negotiating a transaction, a deal term incrementally and imperceptibly becomes more and more burdensome on one of the parties, who finally wakes up and says they would never have agreed to the term if it had been proposed at the outset. Because each evolutionary step is usually justifiable, claiming Deal Creep does not always succeed in having the term scaled back.

Debottlenecking: Increasing production capacity of existing facilities through the modification of existing equipment to remove throughput restrictions. Debottlenecking generally increases capacity for a fraction of the cost of building new facilities.

Debt Service Coverage Ratio / DSCR: Revenue from a project remaining to pay debt service after payment of operating costs. Though some have tried, in *Project Finance* this is generally not calculated on an accrual basis, but rather a cash basis. It is calculated periodically looking back one year. Occasionally, people try to use a projected DSCR as the basis for a distribution condition. But this can get messy since if you use the closing date financial model, the assumptions may have been proven wrong, and trying to agree on new assumptions could be a battle. Instead of projected DSCRs, people often use the *Distribution Suspense Account* approach.

Debt Service Reserve / DSR: Cash collateral held by Lenders to pay debt service in case there is a hiccup in revenue. This is almost always sized at six months' debt service.

Deed in Lieu of Foreclosure / Deed in Lieu: An agreement by an owner to "hand the keys" to the Lender instead of making the Lender go through the hassle of *Foreclosure*. This is a fairly common approach in downside cases, indicating that not all *Acceleration* scenarios are contentious between Borrower and Lenders. Often the Sponsor has other relationships with some or all of the Lenders, which it wishes to preserve to the extent possible under the circumstances. Sometimes, the owner is given a nominal payment to cough up the Deed in Lieu, perhaps payment of its legal fees.

Deed of Trust: The document which creates a *Lien* on real property to secure debt of the borrower. Like a *Security Agreement*, but for real property. The law of the jurisdiction where the property is located will dictate whether a *Mortgage* or a *Deed of Trust* is the appropriate instrument, but they are functionally equivalent.

Default: The beginning of trouble. *Indentures* and Credit Agreements generally have three stages of trouble: the Default, the *Event of Default* and *Acceleration*. At stage one, the Default, the Issuer or Borrower has violated some provision of the Indenture or Credit Agreement. Left uncured for a specified period of time, together (in some cases) with notice from the *Administrative Agent* or *Trustee*, a Default will mature into an Event of Default (and the story continues in that definition).

Defaulting Lender: Credit Agreements used to only contain terms that fretted about a borrower's financial distress. Now they include long passages on which rights the so-called Defaulting Lenders give up when they fail to fund loans pursuant to their commitment.

Defeased Lease: A lease transaction in which all of the rent and purchase option (if exercised) obligations of the Lessee have been fully economically (and sometimes legally) defeased by the Lessee or one of its affiliates depositing funds with one or more other parties who agree to make the Lessee's rental and/or purchase option payments when due.

Deficiency: The difference between how much a *Secured Party* is owed and how much it realizes upon disposing of its *Collateral* in *Foreclosure.*

Delay LDs: Liquidated Damages payable for late completion of contract performance. The contractual manifestation of "time is money." A project owner enters into a web of contracts, with many parties relying on timely and quality performance by the others. Delay LDs are ideally sized to compensate the owner for all of its costs incurred as a result of the delay, including increased *IDC*, lost revenue and Liquidates Damages payable by the owner to others.

Demand Charges: Commodity customers typically vary in their usage of the commodity delivery system, be it a pipeline or a power distribution system. But the system owner has to size the system such that all *Firm* customers can draw their Firm capacity at once. Once the system is sized that way, the capital costs and maintenance costs are recovered from all of the Firm customers through a Demand Charge, based on the respective customers' maximum Firm capacity (*i.e.,* theoretical peak usage, rather than actual usage). Think of it as a payment to the service provider "just for being there." Actual usage of the system gives rise to a *Capacity Charge*.

Demand-Side Management / DSM: The concept that it can be considerably less expensive to maintain *Reserve Margin* by reducing demand than by increasing *Capacity*. Since historically utilities were rewarded for spending money (their regulated rate of return being calculated off of invested capital), the incentives were not there for a utility to do the societally efficient thing by reducing demand. Demand Side Management includes concepts of both motivating electricity consumers to reduce demand and seeing that utilities are also fairly compensated for singing from that same songbook.

Denatured Ethanol: Potable *Ethanol* made inconsumable through addition of a poisonous denaturant, which would typically be unleaded gasoline. Denaturing avoids alcohol tax.

It is called denaturing because it is just not natural to ruin perfectly good alcohol.

Deposit Account Control Agreement: See *Account Control Agreement.*

Depositary/Depository Bank: A bank that agrees to hold a Borrower's accounts in a *Project Financing* and to administer them in accordance with instructions that leave no discretion to the Depositary.

Development Well: A well drilled in a proved production area to extract *Hydrocarbons*.

DGS: Distiller Grain Solubles.

Direct Agreement: Same as *Consent (to Assignment)*. This term is commonly used outside the United States. It is more descriptive than "Consent," and because there can be other types of consent in a deal, less confusing.

Dirty Hedge: Same as *Imperfect Hedge*.

Dispatch: The ability by an Offtaker of a power plant to instruct the owner/operator to start, stop, or increase or decrease output of a power plant. This may be through oral instructions or electronically through *Automatic Generation Control (AGC).*

Dispatchability: The susceptibility of a given power source to being Dispatched. For example, wind power is highly non-Dispatchable and hydropower is highly Dispatchable.

Distiller Grain Solubles / DGS: A by-product of the use of grains (usually corn) in the production of Ethanol. DGS has a high content of protein and sugar. It is mainly used as feed. If it is to be shipped more than 50 miles or stored, it is typically dried to avoid spoilage.

Distributed Generation: The concept that it is not necessary to have large power stations transmitting large distances on large transmission lines to large load centers (aka cities). Load can be satisfied also by small generation sources at or near load centers. Residential or commercial rooftop photovoltaic installations are the best example, but there are many others. Distributed Generation is not so much a policy as a vague goal; and the jury is still out whether the typically high costs of Distributed Generation are too much to pay for the benefits.

Distribution Suspense Account: Some Credit Agreements allow dividends (aka distributions) only when certain financial performance conditions have been satisfied, such as a minimum historical *Debt Service Coverage Ratio*. If the DSCR is above 1.0x, but below the distribution condition level (perhaps 1.15x), sometimes amounts that would otherwise have been distributed are held in a Distribution Suspense Account to see what happens over the next few quarters (usually one or two years). If the DSCR distribution condition is met during the relevant period, the funds in the Distribution Suspense Account are released. If it is not, they are often applied to prepay debt (which eventually bolsters DSCRs).

Documentary Conditions: In the context of a *Draw* of a *Letter of Credit,* these are the documents that must be presented to the *Issuing Bank* by the *Beneficiary*. For a *Trade Letter of Credit*, this would typically include a certificate by an officer of the Beneficiary stating that the goods which are the subject of the underlying contract have been shipped in full conformance to the contract, and a bill of lading from the shipping company (a document indicating the goods have been accepted for shipment). For a *Standby Letter of Credit*, this would typically include a certification by an officer of the Beneficiary stating that the *Account Party* is in default of some underlying obligation and owes money to the Beneficiary.

Downstream: Downstream refers to the refining, marketing and distribution of *Crude Oil* and its resulting products. See also *Upstream*.

Draw: Used as a verb, making a claim against a *Letter of Credit* or borrowing under a credit facility. Used as a noun, the proceeds of such a claim or loan. A Draw of a Letter of Credit is made by presenting a *Sight Draft*, the Letter of Credit and any *Documentary Conditions*.

Dried Distiller Grain Solids: Dried DGS that will be shipped or stored rather than sold for use near the *Ethanol* plant.

Dry Closing: A lending transaction in which all of the documents are executed and delivered but no money flows, pending satisfaction of one or more *Conditions Subsequent*, at which point the *Financial Closing* occurs (the loans are made) Thankfully, an initial closing where money does flow is not called a Wet Closing.

Dry Steam Geothermal Resource: Geothermal steam which can be expanded directly through a steam turbine.

DSCR: Debt Service Coverage Ratio.

DSM: Demand-Side Management.

DSR: Debt Service Reserve.

Dutch Auction: An auction style used where the market demand will result in multiple sellers or multiple buyers. In a sale auction, the lowest bidder's sale offer is accepted, and each succeeding next lowest bidder's sale offer is accepted, until all buyers have what they need. The price of the last accepted offer is given to all sellers. In a situation with multiple buyers, the highest buy offer is accepted, then the next-highest, etc., with all buyers ultimately paying the bid price of the last buy offer accepted.

In each case, the last offer accepted is called the "Market Clearing Price." This approach encourages the sellers to bid as low as possible or the buyers to bid as high as possible, since they know they will not be punished economically for bidding aggressively.

E&P [Company]: Exploration and production, used to denote a type of oil company only involved in the *Upstream* part of the business.

Early Buyout Option / EBO: An option of the Lessee to purchase the leased asset and terminate the Lease prior to the end of the *Basic Term* of the Lease. In a *Tax Lease*, any Early Buyout Option should be for a price that is supported by a forward-looking appraisal. Early Buyout Options put pressure on Tax Lease treatment and should be reviewed by tax experts.

Early Site Permit: Nuclear power plant developers can apply to the Nuclear Regulatory Commission (NRC) for an Early Site Permit to have a physical site approved by the NRC for one or more nuclear power facilities prior to expending substantial resources in development activities that may ultimately prove unviable.

Easement: A right to use another person's property for a stated purpose such as for vehicular travel, pipeline or transmission lines or temporarily for construction. In *Windfarm* developments, sometimes the developer's rights to the project site itself take the form of Easements. Easement agreements may also restrict the property owner from using its property in specified ways (like putting somebody else's *WTGs* in front of mine!).

ECA: Export Credit Agency.

ECCA: Equity Capital Contribution Agreement. The usual name for an agreement by a *Tax Equity Investor* to invest in a project once *COD* is achieved.

EEI Master Power Purchase and Sale Agreement: A *Master Agreement* in the form published by the Edison Electric Institute and used by parties to sell and buy physical power. Elections are made on a cover sheet, and additional provisions can be added as "Other Changes."

EIA: Energy Information Administration (USEIA). This is the independent statistical agency within the US Department of Energy, which provides data, forecasts and analyses to promote sound policy-making, efficient markets, and public understanding regarding energy and its interaction with the economy and the environment.

EIR: Environmental Impact Report.

EIS: Environmental Impact Statement.

Eminent Domain: The inherent power of a governmental entity to effect a *Condemnation.*

Emission Allowances: A regulatory authorization to emit a specified quantity of air pollutant (*e.g.*, ton of sulfur dioxide or nitrogen oxides) pursuant to an emission trading (or "cap and trade") program. Most such programs require an affected source to hold a number of allowances equivalent to the number of tons emitted of the regulated pollutant. Common examples of "cap and trade" programs are the federal Acid Rain Program, the NOx Budget Program, the Northeast States' Regional Greenhouse Gas Initiative (RGGI), and greenhouse gas credits in the EU. These can be (and often are) bought and sold on various exchanges.

Emission Offsets: Emission reductions required to be obtained by a new source to offset increases in emissions as a condition to commencing operation of a major source subject to the Clean Air Act. These requirements can be met with Emission Allowances (if available), or by creating new allowances at the new source or at other sources. Companies often get very creative in getting offsets, including replacing old vehicles or converting commercial vehicles to alternative fuels. All offsets need to be approved by the regulatory agencies.

Encroachment: When a party's improvements are located on (or hanging over) another person's adjacent property without the right to be there. A typical encroachment would be a fence being built on the wrong side of the property line. *Title Companies* will provide insurance over Encroachments in the *Title Insurance Policy*, provided they have reviewed an *ALTA Survey*. But in a construction financing, the Lender gets this insurance at closing; since nothing has been built, Encroachment coverage is meaningless (since there are no improvements). This is where a *Datedown Endorsement* comes in, which is obtained after the Title Insurer has reviewed an *As-Built Survey*.

Encumbrance: Another word for *Lien*, typically used in the real estate context. Like a Lien, an Encumbrance does not have to be consensual. For example, an easement of a utility to run power lines over your property would be considered an Encumbrance.

Endorsement: A supplement to an insurance policy agreed to by the issuer of the insurance. You could have an Endorsement to either a title policy or a liability, property, workman's comp, business interruption or other type of insurance policy. In *Title Insurance*, there is great variety in the nature, scope, cost and negotiability of endorsement coverages from jurisdiction to jurisdiction. Examples of title Endorsements include usury, same-as-survey, *Contiguity* and Access.

Energy Tax Credit / ETC: ETCs are one-time investment tax credits equal to 30 percent of the cost of qualifying property. Types of qualifying property include solar, gas microturbine, cogeneration or fuel cell equipment, among others, as well as tangible personal property used in PTC-qualifying facilities that elect ETC treatment in lieu of PTCs, as permitted by the *ARRA*. The ETC is claimed in the tax year the qualifying property is placed in service and is subject to recapture (in declining amounts) in the event the property is sold within five years of the placed-in-service date. Owners claiming the ETC must reduce their depreciable basis in the qualifying property by 50 percent of the credit amount. Like

PTCs, ETCs are non-refundable, meaning they can only be used to offset tax liability.

Enhanced Oil Recovery / EOR: Method of injecting CO_2 in oilfields to push/pump out more oil than would otherwise be recoverable.

Environmental Assessment: A short, initial evaluation of environmental impacts of a proposed project or action to determine if preparation of a full Environmental Impact Statement is required. These are typically prepared under NEPA.

Environmental Attributes: An aspect, claim, characteristic or benefit associated with the generation of a quantity of electricity by a renewable energy generation facility, other than the electric energy produced, that is capable of being measured, verified or calculated. An Environmental Attribute may include one or more of the following identified with a particular MWh of generation by a renewable energy generation facility: the use of a particular renewable energy source, avoided NO_x, SO_x, CO_2 or greenhouse gas emissions, avoided water use (but not water rights or other rights or credits obtained pursuant to requirements of applicable law in order to site and develop the renewable energy generation facility itself) or as otherwise defined under an applicable regulatory program. Environmental Attributes *do not* include production or investment tax credits or other direct third-party subsidies for generation of electricity by any specified renewable energy generation facility.

Environmental Impact Report / EIR: The California name for an Environmental Impact Statement under its *NEPA*-type statute, the California Environmental Quality Act (or CEQA).

Environmental Impact Statement / EIS: A comprehensive document that evaluates the environmental impacts of a proposed project or action, including an evaluation of the reasonable alternatives to the project and an assessment of available methods to mitigate the project's impact. The scope of an EIS can be quite broad, extending beyond considerations of air and water pollution to include noise, visibility and traffic as well as socioeconomic and cultural impacts. An EIS can be required under *NEPA*, where a project involves a "major action" by a federal agency, or under various state "baby-NEPA" statutes, such as the California Environmental Quality Act (CEQA) or the New York State Environmental Quality Review Act (SEQRA).

Environmental Site Assessment / ESA: An evaluation of the current environmental condition of a property, typically limited to the presence of contamination caused by current or historical operations. A standard Phase I ESA will not cover some environmental concerns that may be significant to particular projects, *e.g.*, asbestos, mold, endangered species or regulatory compliance. See *Phase I ESA* and *Phase II ESA*.

EOR: Enhanced Oil Recovery.

EPA: The Environmental Protection Agency.

EPC: Engineering, Procurement and Construction (Contract). Sometimes called a "turnkey" contract, because the contractor performs virtually all construction-related work on a facility, the owner only having to wait to have the keys turned over at completion. These are often fixed-price contracts. If fixed-price, the contractor takes the risk for many unknown costs, and the owner is made to pay a premium for the certainty. In practice, contractors succeed in pushing many of the unknowns off onto the owner, which are later reflected in multiple *Change Orders* affecting the fixed price.

Equator Principles: A set of policies voluntarily adopted by a group of financial institutions establishing standards and practices for evaluation of environmental and social impacts of projects in the context of project finance transactions. Participating financial institutions agree not to provide loans to non-complying projects. Compliance with the Equator Principles can involve, depending upon the project's location, preparation of an environmental impact report (called a "Social and Environmental Assessment"), public notice and consultation, implementation of mitigation and monitoring programs, and entering into related loan covenants. (For more information, visit www.equator-principles.com).

Equity: An owner's money invested in a project or financing. It is an abbreviation of "equity of redemption," an ancient doctrine which prohibited a secured lender from effecting a strict foreclosure on collateral (*i.e.*, keeping it) when the borrower had made a substantial reduction of the debt, since this would leave the lender with both the collateral and the debt repayment to-date. The borrower was provided the just outcome (equity) of being allowed to sell the property to pay off the debt (redemption), and keep the difference (now called the Equity). Equity also refers to the owner of an asset, as in "that Credit Agreement allows distributions to Equity if debt service coverage ratios are above 1.4x."

Equity Free Cash: Same as Free Cash.

Equity Squeeze: The result obtained in a *Leveraged Lease* if there is an *Event of Default* by the Lessee under the Lease, but no Lessor Event of Default under the Lessor's credit documents. The Lessor's lenders would be entitled to foreclose on the Lessor's interest in the Lease and leased asset, but leave the Lease in place even though the Lessee precipitated the exercise of remedies, thereby squeezing out the Lessor (the Equity) who did nothing "wrong." Lessors negotiate *Squeeze Protection* so that their investment is not lost in a situation where the lenders are not willing to exercise remedies against the Lessee.

Erection: The sequence of installing a *WTG*, consisting of hoisting the first *Tower* section, bolting it to a foundation, hoisting subsequent Tower sections and welding them to the others, hoisting the *Nacelle* and attaching it to the Tower, then attaching each of the *Blades* to the *Hub*. To see the whole process, go to http://tinyurl.com/ntwg8m. To watch a rather untidy reversal of the process, go to http://tinyurl.com/387dnp.

ERU: Emission Reduction Unit. This refers to the reduction of greenhouse gases, particularly under the mechanisms set forth in the Kyoto Protocol to help countries with binding greenhouse gas emissions targets meet their obligations. It represents the equivalent of reducing 1,000 kg of CO2 emissions.

ESA: Environmental Site Assessment. See also *Phase I ESA* and *Phase II ESA.*

Estimated Useful Life: The period during which a leased asset is expected to be useful in trade or business.

- Used for purposes of calculating the maximum allowable term of a *Tax Lease*
- Used for determining whether or not a Lease is a *Capital Lease*
- Used to determine the method of depreciation for a *Capital Lease* asset
- May or may not be the same as the life used for income tax purposes

Estoppel / Estoppel Certificate: Estoppel is when somebody does or fails to do a thing, such that a court will view that person as not fairly entitled to make a claim later. For example, if I help your son hang a rope swing on my tree and he falls off and breaks his arm, I can't argue that he was trespassing — I am "estopped" from making that argument. When a Lender lends to a lessee, the lessor is usually asked for an Estoppel Certificate, wherein the lessor acknowledges the rent amount, that the rent is current and that the lessee is not otherwise in default. If it turns out the lessee was in fact in default when the Estoppel Certificate was given, the lessor is estopped (prevented) from evicting the lessee, based on the Estoppel Certificate. Used in *Leasehold Loan* situations.

ETC: Energy Tax Credit.

Ethanol: A type of alcohol. See also *Denatured Ethanol*.

EUR: Also known as "estimated ultimate recovery," EUR is used to refer to the total expected recoverable volume of oil, gas and natural gas liquids production from a well, lease, or field under present economic and engineering conditions; synonymous with total recovery that includes produced reserves, *Proven Reserves* and *Probable Reserves*. EUR figures are an important part of the due diligence done by lenders to determine the amount of debt that an oil and gas project can sustain.

Eurodollar: Although this is technically a reference to the market for dollar-denominated loans outside the United States, it is most often used interchangeably with the term LIBOR to refer to an interest rate index determined in London based on a polling of major banks by the British Bankers Association. See *LIBOR*.

Eurodollar Disaster Clause: There is a historically little-used provision in most sophisticated Credit Agreements to the effect that Lenders do not have to offer Eurodollar loans if a specified percentage of the Lenders declare that "the rates of interest for such Eurodollar loans do not adequately and fairly reflect the cost to such Lenders of making or maintaining such loans." It was probably originally designed for a situation (which has never arisen) where for some reason the Lenders don't like the Eurodollar rate. Recently, there has been talk of invoking it in situations in which the Eurodollar market doesn't like the Lenders, insofar as some of them are not able to borrow on an interbank basis at the published Eurodollar rate. For the Eurodollar Disaster Clause to be invoked, Lenders would have to admit they were in this awkward position, which has not much happened as of this writing.

Event of Default: If you are experiencing one of these, things are not going well. As discussed in *Default, Indentures* and Credit Agreements basically have three stages of trouble: the *Default*, the *Event of Default* and *Acceleration*. At stage two, the Event of Default, the Default has matured into an Event of Default because the Issuer or Borrower has failed to cure the Default (and in some cases a Lender or Bondholder has provided a required notice) within the Cure Period. Certain Default events such as bankruptcy Defaults are automatic Events of Default. So what happens now? Also See *Acceleration*.

Event of Loss: In leasing land, an event that harms the leased asset in a manner sufficient to cause a termination of the Lease as to that asset and a requirement that the Lessee pay the Termination Value for the asset. Insurance coverage amounts should be sized to cover the Termination Values that become due upon an Event of Loss. In other financings, the credit documents will dictate whether insurance proceeds received following an Event of Loss are applied to repair the facility or to repay debt. Also called a *Casualty Event*.

EWG: Exempt Wholesale Generator.

Excess Cash Flow: What is leftover at the "bottom of the *Waterfall," i.e.,* after paying operating costs and debt service, and funding all reserve accounts. Excess Cash Flow is either dividended to the Sponsor, or subjected to a *Cash Sweep* or *Cash Trap*.

Excluded Payment or Excepted Payment: In a *Leveraged Lease*, payment obligations of the Lessee owed to the Lessor or the Owner Participant that are not assigned to the lenders as collateral.

Exempt Wholesale Generator / EWG: Anyone engaged exclusively in the business of owning and operating eligible facilities and selling electric energy at wholesale. EWGs are exempt from most *PUHCA* regulation and are eligible for certain blanket authorizations under the Federal Power Act.

Exploration Drilling / Exploratory Drilling: Drilling carried out to determine whether *Hydrocarbons* are present in a particular area. Exploration Drilling may not always result in the discovery of recoverable *Reserves*.

Exploration Phase: The phase of operations which covers the search for oil or gas by carrying out detailed geological and geophysical surveys followed up where appropriate by *Exploratory Drilling*.

Exploration Well: A well in an unproven (speculative) area, also sometimes referred to as a "wildcat well:"

In West Texas in the 1920s, wildcats were abundant, and those wildcats unlucky enough to be shot were hung from oil derricks. Not much has changed in West Texas — currently most-popular bumper sticker: "If you can't shoot 'em, why do they call it 'Tourist Season'?"

Export Credit Agency: Private or governmental institutions established by nations to assist contractors and suppliers of those nations in exporting their products and services. Typically, ECAs provide financing for the development of projects in other nations so long as such projects use a prescribed amount of goods and services from contractors and suppliers located in the ECA's nation. The financing can be provided as either loans or loan guarantees. The United States' ECA is Export-Import Bank of the United States (Ex-Im Bank).

Expropriation: A government or governmental entity unilaterally taking a project or interests in a project held by a private investor. The taking could be implemented by assuming some ownership of the project or by taking an action or issuing an order that deprives the project of certain rights, thereby diminishing its value (*e.g.*, an indefinite order prohibiting a power plant from being operated). This is one of the risks covered by *Political Risk Insurance* and is one of the main subjects of *Bilateral Investment Treaties*.

Facilities Agreement: Same as *Credit Agreement*; this term is mainly used outside the United States.

Facilities Study: A Facilities Study is a detailed transmission study undertaken by a transmission owner or operator (in an organized market, the *ISO/RTO*; outside of an organized market, the transmission owner) to determine what additional facilities are needed in order to accommodate a request for transmission service or interconnection service (particularly for new interconnecting generation facilities). A Facilities Study usually follows a *System Impact Study* and is more detailed than a System Impact Study. The Facilities Study identifies the cost estimates of the additional facilities and determines the allocation of those costs to the customer(s) seeking such service.

Factored Fired Hours / FFH: Fired hours is the number of hours a gas turbine has run since its last major overhaul. More hours, of course, means more wear on the turbine. But starts and stops create a lot more wear on a turbine than merely running it. Factored Fired Hours is a calculated number intended to reflect cumulative wear on a gas turbine taking into account both fired hours and starts and stops (including the abruptness of the start or stop). FFH is used in determining when turbines should be overhauled and factors into compensation under many *LTSAs.*

Fair Market Value / FMV: The price for which property can be sold (or, as applicable, the rent for which it can be leased) in an "arms length" transaction; that is, between informed, unrelated and willing parties, each of which is acting rationally and in its own best interest.

Fair Market Value Lease: A Lease which includes an option for the Lessee to either renew the Lease at a *Fair Market Value* renewal or purchase the leased asset for its Fair Market Value at the end of the Lease term. Though often referred to as *Tax Leases*, not all Fair Market Value Leases qualify as Tax Leases.

Farm-In: An arrangement under which one oil or gas company "buys in" or acquires an interest in a lease or concession owned by a third party in respect to which oil or gas has been discovered or is being produced. Often, farm-ins are negotiated to assist the original owner with development costs and to secure for the buyer a source of crude oil or natural gas. See also *Farm-Out*.

Farm-Out: An arrangement under which the owner or lessee of oil or gas rights assigns a working interest to an oil or gas company, part of the consideration for which is specified exploration and/or development activities. The owner retains an overriding royalty or other type of economic interest in the mineral production. The arrangement from the viewpoint of the oil or gas company is termed a *Farm-In*.

FASB 13 / Financial Accounting Standards Board 13: Statement number 13 of the Financial Accounting Standards Board, which establishes standards for Lessees' and Lessors' accounting and reporting for leases. This includes the characterization of a lease as an *Operating Lease* or *Capital Lease* for Lessee's purposes. A company's assets, liabilities and net income will differ depending on how it chooses to structure its leases. The provisions of FASB 13 derive from the view that a Lease that transfers substantially all of the benefits and risks of ownership should be accounted for as the acquisition of an asset and the incurrence of an obligation by the Lessee (a Capital Lease) and a sale or financing by the Lessor. Other Leases should be accounted for as the rental of property (Operating Leases).

FCPA: The Foreign Corrupt Practices Act prohibits US companies from bribing foreign governmental officials in exchange for contracts, *Concessions* or other benefits conferred by the foreign government. It can give rise to personal criminal liability on the part of company officers committing prohibited acts.

Feathering: A method of controlling torque on a wind turbine rotor by decreasing the area of *Blade* surface exposed to the wind.

Federal Funds: Immediately available funds (*i.e.,* a wire transfer that lands in the recipient's account on the day it is sent).

Fee Letter: The part of the *Commitment Papers* package that sets forth the fees and contains the *Market Flex* provisions (if any). This letter outlines certain fees to be paid in connection with the various credit facilities contemplated by the *Commitment Letter*. This is a separate letter from the Commitment Letter and, in an acquisition financing, is often not shared with the target (among others).

Fee / Fee Title: Outright ownership, almost always used in reference to land. Compare to a *Leasehold* or an option.

FEED: Front-End Engineering and Design, typically the minimum necessary engineering work required to determine whether a project or product is likely to be economically feasible.

Feed In Tariff: The approach taken by many European countries, as well as other nations around the world, to encourage renewable energy production, it is a published rate which will be paid for renewable energy generated by anybody, without the need of a negotiated contract (subject to transmission and other system constraints).

Feedstock: Any raw material that is a basic (or *the* basic) input in a manufacturing process, *e.g.*, crude oil to a refinery or wood waste to a biomass power production facility.

FERC: Federal Energy Regulatory Commission, which has authority in the United States over wholesale sales of power and the provision of transmission service, as well as the interstate transportation of natural gas, the interstate transportation of oil and the certification of hydroelectric facilities.

Financial Closing: Some financing transactions have the parties execute and deliver all of the documents so as to get that part out of the way (and stop the interminable negotiation) even though the Lenders are not prepared to make loans at that time for whatever reason. When the conditions to making loans are later satisfied, the Financial Closing occurs, meaning the Lenders make their loans. See also *Dry Closing*.

Financial Covenant: *Covenants* contained in a Credit Agreement requiring the Borrower to meet certain tests, such as EBITDA relative to indebtedness. Breach of the Financial Covenant leads to an *Event of Default*. However, *Project Finance* Credit Agreements typically do not contain Financial Covenants since declaring an Event of Default based on Financial Covenant breach would not motivate the borrower to repay the *Limited Recourse* debt. PF Credit Agreements include other protections, like *Cash Sweeps* and reserve accounts.

Financial (or Finance) Lease: Technically, a lease as defined in section 103 of Article 2A of the UCC which will achieve certain legal benefits for the Lessor. The term is often used generically to mean a full-payout, *Triple Net Lease* transaction in which the Lessor is a supplier of money and financing, rather than a supplier of the leased asset. The term generally should not be used as its meaning is imprecise.

Financial Power Swap: An arrangement entered into by a company to *Hedge* its exposure to power prices. A generator with a Financial Power

Swap sells its output into the *Spot Market* and receives the *Spot Price*. If the Spot Price exceeds a fixed price per MWh in the Financial Power Swap, the generator pays the excess to its swap counterparty; if the Spot Price is lower than the fixed price, the counterparty pays the generator. This effectively converts the power sale into a fixed price sale.

Financing Agreement: Same as *Credit Agreement*.

Financing Statement: The first thing to know is that these are not the Financial Statements. The purpose of Financing Statements is to *Perfect* a *Security Interest* in many classes of personal property. A Financing Statement is used in a secured financing and is a simple document that contains the name and address of each of the debtors and the *Secured Party* and contains a brief description of the Collateral. The Financing Statement serves as public notice of the Security Interest. To be effective, the Financing Statement must be completed properly (particular attention must be paid to the exact legal name of the debtor) and be filed in the proper filing office, usually the Secretary of State. It is always advisable to file a Financing Statement as soon as possible, but in any event, within 10 days of the closing date, in order to avoid *Preference* concerns if the debtor were to file for bankruptcy.

Firm: Power or pipeline system capacity that, by contract, cannot be curtailed by the supplier or pipeline operator regardless of needs or demands of other customers. Compare *Interruptible*.

Fitch: Fitch Ratings, a subsidiary of Fimelac, S.A. Fitch is a *Ratings Agency*.

Fixed Price Purchase Option: An option given to the Lessee to purchase the leased asset from the Lessor on the option date for a predetermined price.

Fixture: Goods that are so related to (affixed to) real property that an interest in them arises under real property law. The furnace that heats a building is an example of a Fixture.

Fixture Filing: A filing in the county real estate records that shows the *Secured Party's* Lien in *Fixtures*. The filing can be in the form of a *UCC-1* or it can be included as part of the *Mortgage* or *Deed of Trust*. There is no advantage to having a Fixture Filing separate from the Mortgage.

Flex: Another name for *Market Flex* which comes in flavors *Structure Flex* and *Pricing Flex*.

Flip Structure: The partnership "flip" structure allows developers to monetize tax credits and depreciation currently by passing the tax benefits on to *Tax Equity Investors* in exchange for cash payments. The "flip" is the point in time when the Tax Equity Investors have earned an agreed after-tax return on the investment, taking into account cash flow, tax savings from tax credits and tax losses, and tax cost of pass-through income. Before the flip, all cash goes to the Tax Equity Investors and after the flip almost all cash goes to the other owners. The IRS has published "safe harbor" rules for Flip Structures which, if followed, keep Tax Equity Investors from being treated as Lenders (not able to use the tax benefits) rather than owners.

Float: Soft drink with ice cream floating in it, often with whipped cream and a bright red cherry on top. In the construction world, the period of time between when a builder expects to finish a facility and the date upon which the owner has agreed with the Offtaker it will be finished. To the extent the builder's guaranteed completion date is later than the expected completion date, the builder is said to "own the float." The owner, of course, wants to own as much of the Float as possible (*i.e.,* have the builder guarantee to complete as close as possible after the expected completion date), since any delay-based *Change Orders* may extend the guaranteed completion date.

Flood Certificate: A certificate issued by a firm that specializes in this analysis, that describes whether a property is located in a flood zone, as delineated by the Federal Emergency Management Agency. Banks are typically required to obtain Flood Certificates prior to lending money secured by improved real property.

Flow-Down Terms: When an owner has a contract with a prime contractor who will be using subcontractors, and the owner wants to make sure each subcontract includes certain owner-protection terms, the owner enumerates those Flow-Down Terms in the prime contract. For example, an obligation to provide certain levels and types of insurance and to comply with the owner's drug and alcohol policy.

FMV: Fair Market Value.

FOB: This term is more often used improperly than not, as in "The price is US$100, FOB Wichita" supposedly meaning the seller of merchandise will get it to Wichita and charge the buyer US$100 total for the merchandise and the shipping costs. It actually is supposed to be used only when shipment is by water, and the seller's only responsibility is to clear any export restrictions and load it on the boat at the designated port, as in "FOB Singapore," from which point the buyer is responsible for shipping costs and risk of loss. See "Incoterms 2000, ICC [International Chamber of Commerce] Official Rules for the Interpretation of Trade Terms." There is no good ICC term for what people usually mean by FOB, so it's best to just say what you mean, as in "the price is US$100. Seller will arrange export and import documentation and duties and arrange and pay for shipping to Wichita."

FONSI: Finding of No Significant Impact. A determination issued by a federal agency under *NEPA* concluding, after reviewing the *Environmental Assessment* for a particular project, that the project will not create any significant impacts on the environment, either with or in some cases without mitigation measures. A project that receives a FONSI is not required to prepare an *Environmental Impact Statement*.

Forced Outage: A generation, transmission or distribution outage that results from emergency conditions or failure of facilities. The other type of outage is a planned outage.

Force Majeure: Literally, an overpowering force. Also known as an Act of God, though many Force Majeure events have nothing to do with God (at least directly … well, I suppose you never really know…). Typical Force Majeure would include hurricane, war, earthquake, terrorism, and other similar occurrences beyond the control of the party claiming Force Majeure, but would not include things that result in an inability to pay money. A Force Majeure event can excuse a party from performance under a contract. The party claiming Force Majeure has to have done everything reasonably possible before and after the event to avoid the effects. Unlike other *Boilerplate*, sometimes the way Force Majeure is drafted has a real effect on the outcome of a contract dispute. In an actual case a few years ago, lightning struck a power plant, delaying *COD*. The owner, of course, argued that the lightning strike was Force Majeure, which would cause an extension of its completion *Milestone*. The utility argued in effect that the *lightning strike was not an Act of God* (because its effects could have been avoided had there been proper grounding equipment installed). Now you see why we lawyers tell our kids that we are firemen.

Foreclosure: In both the real and personal property contexts, the act by a *Secured Party* of following certain legally prescribed procedures to realize upon its *Collateral*, usually by advertising the Collateral is for sale and selling it in an auction process for cash. A Foreclosure by a senior Secured Party entirely wipes out any junior liens as well as, of course, the owner's interests. A Foreclosure by a junior Secured Party also wipes out the owner's interests (and those of any even more junior Secured Parties), but leaves intact any senior Security Interests. (Some of these outcomes can be altered through an *Intercreditor Agreement*.) It is rare for anybody other than the Secured Party to bid at a Foreclosure, simply because you are bidding on the value of the property in excess of the debt (*i.e.*, the *Equity*). If there were any such value, most often the owner would not have let the property go into Foreclosure in the first place. Also, typically bidders must bid cash or cash equivalents, except that the foreclosing Secured Party may *Credit Bid*.

Foreign Exchange Risk: The risk that the value of a particular currency will fluctuate relative to another currency. The risk arises when somebody earns revenue in one currency but has obligations payable in another. For example, Icelanders are paid their wages in local currency, the Krona. During boom times, many built new homes, taking out mortgages in Euros. On January 1, 2008, it took 92 Krona to buy a Euro. On January 1, 2009, it took 173.

Foreign Tax Credit: The credit that a US person or entity may claim against his, her or its US federal income tax liability as a direct result of the payment of foreign income taxes by that person or entity.

FPA: Federal Power Act, which, among other things, regulates the rates, terms and conditions pursuant to which public utilities may sell electric energy or capacity or provide transmission service.

Fracking: Method of using high pressure fluid injection to fracture rock deep in the earth and release natural gas that is trapped in the rock formation.

Fracturing: The characteristic of subsurface rock in geothermal fields which allows incursion of water, which is the medium for extracting the energy (in the form of *Brine* or steam). Fracturing is also relevant to *Hydrocarbon* extraction.

Frame Unit: Combustion turbines that are not *Aero-derivative* units.

Fraudulent Transfer: A transfer made by a party (a) that was made with actual intent to hinder, delay or defraud that party's creditors or (b) in which the party making the transfer received less than reasonably equivalent value in exchange and (i) was insolvent, (ii) had unreasonably small capital or (iii) intended to incur debts beyond its ability to pay them. A Fraudulent Transfer is subject to *Clawback* from the transferee under state Fraudulent Transfer laws and, if the transferor is in bankruptcy, under the Bankruptcy Code, provided that the statute of limitations has not expired. The statute of limitations is two years for actions under the Bankruptcy Code and is typically four years under state law.

Free Cash: In a *Leveraged Lease*, the excess of a rent payment over the debt service scheduled to be due at the time. In the rest of the universe, there is no such thing.

Fronting Fee: A percentage of the average *Stated Amount* of a *Letter of Credit* periodically paid by the *Account Party* to the *Issuing Bank* in consideration of the Issuing Bank administering the Letter of Credit and taking the risk that if the Account Party does not reimburse a *Draw*, neither will the other banks in the syndicate who have agreed to do so. So it is basically a payment for taking interbank risk. Consequently, historically, if there were only one bank providing the credit facility, there would be no Fronting Fee; however, this is no longer universally the case.

Full Payout Lease: A Lease in which the total of the Lease payments pays back to the Lessor the entire cost of the leased asset including financing, overhead and a reasonable rate of return, with little or no dependence on a *Residual Value*.

Funds Flow Memorandum: The closing document that tells everybody in detail where the money is going. In more complex transactions, the memorandum is often executed or initialed by the Issuer/Borrower, particularly when the funding bank is directed to apply the funds in some manner on the Issuer's/Borrower's behalf. Unlike other PF documents which take twice as long to prepare as you thought they would, this one takes four times as long, so start at least a week before closing.

Gap (Title) Coverage: Gap coverage is *Title Insurance* coverage whereby the title company insures the risk associated with the recording of any encumbrance against the real property security after the closing of a transaction and prior to the date the Lender's *Mortgage* or *Deed of Trust* is recorded in the public records.

Gas-to-Liquid / GTL: A technology used to convert natural gas or other gaseous *Hydrocarbons* into liquids such as gasoline or diesel fuel, thus making it easier to transport. The liquid is usually converted back to natural gas (a process known as "regasification") for consumption.

GHG: Greenhouse Gas(es).

GL Certificate: Germanischer Lloyd (GL) is a German company that evaluates *WTG* designs for robustness and will issue a certificate for the model, giving owners and lenders some level of comfort. A GL Certificate is typically not issued until the model has experienced a significant level of run-time.

Good Standing (Certificate): Good Standing refers to whether a particular statutorily created company, such as a corporation, limited liability company or limited partnership, has paid the annual registration fees due to its state of formation, and whether any type of company (statutorily created or not) has paid applicable annual fees to any states in which fees must be paid for the company to do business in that state. For a fee (naturally), states will issue a certificate of Good Standing, and those certificates are included in the closing conditions. Lack of Good Standing can affect a company's ability to enforce contracts in that state, and in some cases can have other adverse consequences.

Good Times Sweep: Commodity prices experience wide fluctuations over time (*e.g.,* crude oil's price went from US$30/barrel in 2003 to US$60 in 2006 to US$140 in 2008 and back down to US$70 in 2009). Lenders to commodity producers realize this, but do not insist that lending be based on the most pessimistic price assumptions. In return for this concession, it is agreed that when prices are high, some of the *Excess Cash* will be applied to repay debt. This is the Good Times Sweep, and it applies to many *Merchant Facility* financings. The difference from a *Cash Sweep* is that the Good Times Sweep only applies to a portion of the Excess Cash (*e.g.,* the amount which exceeds a 2.0x *DSCR*).

Gray Market: The market for "previously owned," but not necessarily "used" equipment. In other words, you are buying from another buyer who, for whatever reason, needs to sell the equipment (well, OK, it's not really "whatever reason," it is because they planned to grow way faster than reality would allow, they bought too many units and the manufacturer won't take them back except for half what was originally paid). Depending on whether the item is an "orphan" or a common model, and how long the manufacturer's backlog is, Gray Market prices can be fairly robust.

Green Bank: There is a Congressional proposal to establish a "Clean Energy Deployment Administration" or "Green Bank" with the exclusive mission of providing a comprehensive range of financial support (*e.g.*, direct loans (including junior/mezzanine debt) and loan guarantees) to qualified transmission, clean energy and energy efficiency projects in the United States. The proposal would structure Green Bank as an independent tax-exempt, wholly owned corporation of the United States with a 20 year charter, that would be governed by a Board of Directors including the Secretaries of Energy, Treasury, Interior and Agriculture, and four other members appointed by the President. The proposal would provide the Green Bank with an initial authorized capitalization of US$7.5 billion. Latham attorneys have been involved in development of the Green Bank, and are on its steering committee.

Greenfield: Adjective describing a facility being built on land that has not been used for anything that might have resulted in contamination. Compare *Brownfield.*

Greenhouse Gases: Any of the gases (such as carbon dioxide) created or released as a result of industrial processes that would cause a greenhouse effect on the earth.

Green Tags: Another term for a *REC*; also, a type of *Environmental Attribute*.

Grid: The whole interlocking system of electricity delivery, from generator to customer. There generally are considered three main parts of the Grid: generation (creation of the power), transmission (high voltage) and distribution (low voltage transmission from a substation to the customers — the power lines in the neighborhood). Transmission and distribution are natural monopolies, and generation is not.

Grid Pricing: When the *Applicable Margin* changes as a function of the creditworthiness of the Borrower, as measured by a credit rating, leverage ratio or other metric.

Ground Lease: A lease of undeveloped or minimally developed land.

GTL: *Gas-to-Liquid.*

Haircut: Usually refers to a discount off of *Par* in selling a loan.

Hazardous Materials / Hazardous Substances: A broad category of substances that have the potential for causing injury or damage to human health, animals or the environment, often including items that are deemed to be toxic, radioactive, flammable or explosive, or are generally treated as a "pollutant" or "contaminant" under environmental law.

HazMat: *A Hazardous Material.*

Head: Measured in vertical distance (feet or meters), the amount of water pressure available to turn a water turbine. Though generally, of course, more head is good for a water turbine, not all hydroelectric facilities are designed for "high-head." Some facilities (picture larger buckets on slower-turning rotors) are designed for greater volume and "low-head" and some, with a great vertical distance between the Penstock's intake and the generation facility, for lower volume and "high-head."

Head Lease: A Lease from the owner of an asset to another party when the other party will sublease the asset back to the owner or to a third party.

Heat Rate: The number of *Btus* of a particular fuel it takes to generate one kWh of electricity. Low is good, indicating a more efficient process. So for example, you would expect a *Combined Cycle* facility to have a lower heat rate than a Simple Cycle facility, or a Combined Cycle facility running in Simple Cycle mode (*i.e.,* without the *Heat Recovery Steam Generator* and *Steam Turbine Generator* running).

Heat Recovery Steam Generator / HRSG (sometimes referred to as a "hersig"): The machine in a *Combined Cycle* power production facility that captures the waste heat from exhaust gases coming out of a gas turbine, heats water with that and additional fuel, and sends the resulting steam along to the steam turbine.

Hedge: An investment or strategy that attempts to reduce the impact of economic exposure in an area by taking an offsetting position. This could take the form of, among many other approaches, selling forward, selling short, buying or selling puts or calls, or entering into a swap. For example, if you have milestone payments payable in Euros and you have budgeted to pay them in USD, you might enter into a foreign exchange hedge which pays you if the value of USD deteriorates versus Euros. (And if USD appreciates, you give up the gain.) See also *Imperfect Hedge*.

Hedge Provider: A counterparty willing to execute a *Financial Power Swap, Interest Rate Swap, Currency Swap* or other type of *Hedge*, thereby assuming the price risk associated with the subject of the Hedge. A Hedge Provider that provides expensive quotes is called a Hedgehog (not really, but it should be).

Heliostat: Mirror used in *Solar Thermal* facilities to focus the sun's rays on a central collector.

Hell or *High Water Clause:* A provision in a *Triple Net Lease* that provides that the Lessee must pay all amounts owing under the Lease and related documents regardless of any defenses the Lessee may have available to it, including defenses as against the Lessor, the lender or the manufacturer of the leased asset. Hell or High Water Clauses are critical in *Leveraged Leases* or in lease securitizations since the lenders or holders or purchasers in the lease securitization will want a guaranteed cash flow regardless of equipment failures or other claims that a Lessee might otherwise have against a Lessor. The Lessee retains its right to pursue claims against the equipment manufacturer or other appropriate parties.

Hog Fuel: The parts of a tree that cannot be used to make paper products or lumber, such as bark, leaves and small limbs. Virtually all mills that use virgin timber burn Hog Fuel in an onsite *Cogeneration Facility*, which creates steam used in mill processes, as well as electricity for the mill. The Cogeneration Facility also consumes *Black Liquor*.

Hold: Same as *Target Hold.*

Horizontal Axis: Used with reference to *WTGs*, means that the main drive shaft is parallel to the ground. Most WTGs are Horizontal Axis. Compare *Vertical Axis*.

HRSG: Heat Recovery Steam Generator.

Hub: The center of a wind turbine rotor, where the blades are attached to the main drive shaft.

HVDC: High Voltage Direct Current, a power transmission technology that uses direct current rather than the more common alternating current ("AC"). It is useful for transmitting bulk power long distances when there are few or no taps between the end points. Line losses and cost of conductor are lower than with AC systems.

Hydrocarbon: A molecule containing hydrogen and carbon. — umm … sorry, you knew that. Hydrocarbons can exist in solid, liquid or gaseous form and the term is often used as a catch-all to refer to oil, gas and *Condensate*.

ICC Arbitration: Arbitration conducted under the rules of the International Chamber of Commerce. Private parties in cross-border transactions might pre-agree to this in their contract.

IDC: Interest during construction. IDC is a line-item in a construction budget, one of many *Project Costs*.

IE: Independent Engineer.

Imperfect Hedge: A *Hedge* which would tend to result in economic benefit to offset an underlying risk sought to be hedged, but which might not do so dollar-for-dollar. For instance, Southwest Airlines kept making money during the oil price spike of 2007/08 even though the price of aviation fuel spiked. They had not entered into long-term contracts for aviation fuel because there is no such contract available; but they had bought futures in heating oil, whose price correlates highly with that of aviation fuel. Later, they sold the futures contracts at great profit and used the proceeds to offset high fuel costs. Also called Dirty Hedge.

Impoundment: A water storage structure or area used by a hydroelectric facility. As opposed to a *Run of the River* hydroelectric facility, an Impoundment allows the operator to generate at Peak times.

Improvement: A building or other structure permanently constructed on a site. An Improvement is real property rather than personal property, so a *Lien* is granted by a *Mortgage* or *Deed of Trust* rather than by a

Security Agreement. The term can be a misnomer, as a building is an Improvement even if it is non-functional, hazardous or just plain ugly.

In and Out Costs: The costs of accessing and removing a piece of equipment that is under warranty. If In and Out Costs are not covered in the warranty, an owner can have the benefit of the manufacturer's obligation to repair or replace the part, but be stuck with an enormous bill to access the part. Also called *Open and Close Costs*.

In the Money: Used in the context of valuing a contract at a specified moment, when it is the type of contract which by its nature has a value that might fluctuate. At that specified moment, being In the Money means that if you offered somebody in the business of entering into contracts of that nature the opportunity to substitute themselves into your position under the contract, they would pay you for the privilege. When your counterparty is in default under the contract, it sounds like it would be a good thing for you to be In the Money, but it's not. This is because if the contract is terminated due to the default, you have to go collect its termination value, the amount by which you are In the Money.

Incumbency Certificate: Incumbency is the state of being in office. So an Incumbency Certificate is a certificate by the company secretary that thus and such persons hold thus and such offices in the company. Contract counterparties then look at the board resolutions, which authorize certain officers to take actions on behalf of the company (like sign a Credit Agreement). If the person who signs has the title stated in Incumbency Certificate and the person of that title is authorized by the resolutions to bind the company, that closes the loop.

Incurrence Covenant: A covenant that only applies upon a borrower taking a certain action, such as borrowing money or paying a dividend. For example, a borrower might have a leverage covenant that prohibits it from ever having debt that exceeds 3-times earnings. If the covenant only applies when the borrower incurs new debt, it is an Incurrence Covenant (and thus, in this example, would not apply if earnings dropped). If it applies at all times, it is a *Maintenance Covenant*.

Independence Principle: The principle whereby the *Beneficiary* of a *Letter of Credit* may effect a *Draw* without the *Account Party* being able to argue that the draw is improper, and if the Account Party is in bankruptcy, without violating the *Automatic Stay*. So what's independent of what? The Letter of Credit is viewed as an obligation of the *Issuing Bank* to the *Beneficiary*, *independent* of the Account Party's reimbursement obligation to the Issuing Bank and *independent* of any underlying dispute between the Account Party and the Beneficiary. That is really the whole point of Letters of Credit.

Independent Director: One of the elements of Separateness used to create a *Bankruptcy Remote Vehicle.* As a corporate law matter, directors have a fiduciary duty to their company, a kind of very strict obligation to look out for the company. Normally, a parent company appoints officers of the parent to be directors of subsidiaries. But now having two roles, how is the parent officer/subsidiary director supposed to look out for the subsidiary if the interests of the subsidiary conflict with those of the parent? The Independent Director is a person appointed to be a director of the subsidiary who is not an officer of or in any other way beholden to the parent. It is thought he/she is more likely to honor fiduciary duties. One of those duties is to not authorize the filing of a voluntary bankruptcy petition if the subsidiary is still viable. So in creating a Bankruptcy Remote Vehicle, the Lender to the subsidiary has the parent agree to always appoint an Independent Director and the charter documents require unanimity of directors before a bankruptcy filing can be made. In the days leading up to the bankruptcy filing of real estate developer/owner General Growth Properties, the parent company replaced Independent Directors at several supposedly Bankruptcy Remote Vehicle subsidiaries, in breach of the covenant that required the Bankruptcy Remote Vehicles to maintain Independent Directors. Stay tuned.

The term Independent Director is also used in the context of public companies, where it means a director who is neither a major shareholder, influenced by a major shareholder or an officer of the company. In this context, Independent Directors are thought to give the company a fresh and unbiased perspective on major business decisions and company direction.

Independent Engineer: The engineering company that works for the Lenders in a financing which calls for such expertise.

Independent System Operator / ISO: A non-profit organization, that operates and controls, but does not own, an electric transmission system. An ISO is subject to FERC's jurisdiction over "public utilities" and provides non-discriminatory access to the transmission grid, manages congestion and maintains reliability. Sometimes, it also operates centralized wholesale power markets, such as day-ahead and real time markets for energy sales. Similar to a *Regional Transmission Operator.*

Indenture: A contract between the Issuer and the Trustee (who acts as a sort of Bondholder representative) pursuant to which Bonds are issued.

In a *Leveraged Lease*, the agreement between an indenture trustee and the Lessor pursuant to which the Lessor grants to the indenture trustee on behalf of the lenders the assignment of the Lease and the lien on the leased asset. The document will also set forth the other intercreditor arrangements between the Lessor and the Indenture Trustee.

Index: In the context of interest rates, a reference rate such as *LIBOR* or *Base Rate*. May also refer to an index of prices, such as the Consumer Price Index or the Henry Hub Spot Price for Natural Gas.

Injection Well: In geothermal facilities, resource (either steam or *Brine*) is extracted from *Production Wells*, much of the heat is spent in the power production process, and the cooled liquid is left. This liquid is pumped back into the ground through Injection Wells, ideally in a manner such that the cooler fluid does not migrate back to the production zone, but creates pressure that supports the production zone.

Insolation: The amount of solar radiation reaching a surface (typically, the Earth) over a period of time, often measured as kWh per square meter per day. This is used to determine the best sites for *Photovoltaic* projects.

Intake Structure: The part of a *Run of the River* hydroelectric facility where water is diverted from the river into the Penstock.

Integrated Resource Plan: A projection of a utility's load growth and how future load will be satisfied, taking into account the various types of generation technology involved and policy goals. For example, if a particular utility has a lot of windpower resource, it will have to plan how to keep its system stable under all different kinds of wind conditions. Utilities have to prepare these every few years to be approved by their public service commission.

Interconnection Agreement: Agreement between a generator and a transmission owner or operator that provides for interconnection service (*i.e.*, the ability to inject electric energy into the transmission grid), including the design, construction, installation and operation of interconnection facilities.

Interconnection Points: The physical locations at which a facility connects to third-party facilities for supply in or delivery out (*e.g.*, electricity, fuel, water, telephone or steam).

Intercreditor Agent: In financings involving a number of different types of Lenders, such as syndicates of banks, export credit agencies and/or multi-lateral institutions, a financial institution is often selected by the Lenders to act on behalf of the Lenders as their agent to monitor the project and administer any voting required in respect of decisions to be made by the Lenders or their agents under the financing documents. The Intercreditor Agent represents the Lenders as a group, and is usually appointed via an *Intercreditor Agreement*.

Intercreditor Agreement: An agreement that sets forth the rules of engagement between two or more groups of Lenders with respect to shared *Collateral* or other intercreditor relationship matters. Think of this as a prenuptial agreement between two classes of creditors. Apart from addressing the obvious point that the first lien Lenders get paid out first from Collateral proceeds and the second lien Lenders get paid out second in first lien/second lien deals, Intercreditor Agreements also lay out a number of important provisions regarding the right of each Lender group to take action with respect to the Collateral generally.

Interest Period: The period of time under a variable-rate Indenture or Credit Agreement during which a given interest rate applies (the "variable" applies between Interest Periods, not within an Interest Period). In most (but not all) *Indentures*, there are two Interest Periods per year. In Credit Agreements, the number of Interest Periods per year can vary widely, especially if the Borrower chooses to have LIBOR Loans (which may bear Interest based upon 1-, 3-, 6-, 9- or 12-month LIBOR).

Interest Rate Swap: An arrangement entered into by a company to *Hedge* its exposure when it has borrowed money at an interest rate that can fluctuate. The borrower (often called Party B) agrees to pay its counterparty (often called Party A) periodically a fixed percentage rate (Fixed Rate) multiplied by the size of the Swap (the *Notional Amount*, which is equal to the amount of borrowed money or a portion thereof); and Party A agrees to pay Party B periodically an indexed interest rate (typically the same index as was used for the borrowing, *e.g.*, three month LIBOR) multiplied by the same Notional Amount. On the periodic payment dates, either Party A's payment or Party B's payment will be larger, so the payments are netted and only the larger payment (minus the smaller payment) is made. Between payments made or received under the Interest Rate Swap and interest payments on its loans, the Borrower ends up paying all-in the aforementioned Fixed Rate on the Notional Amount.

Interim Rent: Any rent payable for the *Interim Term* which is usually calculated on the basis of a specified interest rate applying to *Lessor's Cost*.

Interim Term: The period in some Leases from the closing until the commencement of the *Basic Term*.

Intermittency (Variability): The extent to which a power source by its nature stops producing or becomes unavailable. For example, every solar facility will be intermittent (until they figure out how to capture starlight).

Interruptible: Power or pipeline capacity that, by contract, the supplier or pipeline operator is allowed to curtail if the needs of customers who have contracted *Firm* would otherwise exceed the supplier's resources or pipeline capacity.

Inverter: The equipment that converts the direct current (DC) generated by *Photovoltaic* cells into alternating current (AC) usable in the Grid.

Investment Grade: A rating of Baa3 or better by Moody's, BBB- or better by S&P or BBB- or better by Fitch.

Investment Tax Credit / ITC: A credit against taxes owed by a taxpayer who purchases certain kinds of property that for policy reasons the government wants us to buy. For example, ITC is (currently) available for the purchase of wind energy facilities. ITC is subject to *Recapture* (you have to pay back the benefit) if the applicable property is taken out of service before the end of a specified period of time.

Investor-Owned Utility / IOU: A public utility that is not owned by a governmental entity, which typically owns electric transmission and/or distribution facilities.

IOU: Investor Owned Utility.

IPP: Independent Power Producer (*i.e.*, one that is not, and is not owned by, an investor-owned utility).

IRP: Integrated Resource Plan.

ISDA: International Swaps and Derivatives Association, Inc. (fka International Swap Dealers Association, Inc.)

ISDA Master: A Master Agreement in the form published by ISDA. This is a form agreement used by parties to swaps and other *Hedges*, that was designed by ISDA to be a balanced and easily administered agreement. The idea was to make it so palatable to all that there would be few non-standard provisions required by any market player. The second-generation ISDA Master was published in 1992 and the third generation was published in 2002. However, the 1992 form is more commonly used than the new form. The *ISDA Schedule* is *part of* an ISDA Master — there is no such thing as an ISDA Master *without* an ISDA Schedule. Any two entities in the world that may want to enter into Hedges across from each other are supposed to have just one ISDA Master between them, which by itself has no economic effect until they enter into one or more "Transactions," which incorporate by reference their ISDA Master.

ISDA Schedule: The part of an ISDA Master agreement that includes the specific choices/elections made by the counterparties, as well as notice information and any exceptions and addenda the parties wish to make to the preprinted form.

ISO: Independent System Operator.

Issuing Bank: The financial institution that issues *Letters of Credit* under the Credit Agreement. Also called LC Issuer, LC Bank or other variations.

ITC: Investment Tax Credit.

JLA: Joint Lead Arranger.

Joint Lead Arranger / JLA: In transactions with more than one *Arranger*, where no particular one of them lays sufficient claim to be the *Lead Arranger*, they all get the JLA designation. In practice, even in these cases, it is rare for a deal to not have one particularly prominent arranger. Even if the title is shared for reasons of comity, the real lead is usually compensated somewhat better than the rest for its efforts.

Judgment Currency: In Credit Agreements with a foreign Borrower or where there are one or more *Tranches* in different currencies, there are typically provisions that allow for the original currency of the loans to be converted into an alternative currency for the purpose of obtaining judgment in any court. This alternative currency is the Judgment Currency. The Judgment Currency provisions exist because, although Credit Agreements generally provide for payments in a specified currency, it is important to have a conversion mechanism to deal with the possibility that a judgment may nevertheless be awarded in an alternative currency.

KGRA: Known Geothermal Resource Area, a term used originally in *BLM* regulations on procedures for leasing BLM land to geothermal developers. "An area in which the geology, nearby discoveries, competitive interests, or other indicia would, in the opinion of the Secretary, engender a belief in men [sic — or women?] who are experienced in the subject matter that the prospects for extraction of geothermal steam or associated geothermal resources are good enough to warrant expenditures of money for that purpose." The term is also used now outside the BLM context.

KYC: "Know-Your-Customer;" refers to a policy implemented to conform to a customer identification program mandated under the USA PATRIOT Act. KYC policies have become increasingly important globally to prevent identity theft, fraud, money laundering and terrorist financing.

kWh: kiloWatt-hour, or one kiloWatt generated for one hour. The "W" is capitalized because Watt was originally a person — until he was transformed into pure energy in *Star Trek: The Wrath of Khan*.

LAER: Lowest Achievable Emission Rate. A very strict standard of pollution control under the Clean Air Act that reflects the strictest pollution control available. LAER is required for a particular Criteria Pollutant when the source is in a *Non-Attainment* area (compare *BACT*). Differs from BACT in that it is emissions-limit-based, so no economic criteria can be used to justify an alternate, less-stringent control technology.

Land Man: The person responsible for aggregating land rights for a project which will require multiple parcels, such as some *Windfarms*. Always very affable and low-key, so as to sign the landowner up before he gets greedy. Having the necessary qualities, many a Land Man is a woman.

Also refers to the individual who checks title to land where an *E&P Company* is interested in buying an interest in a field or drilling a well.

Large Generator Interconnection Agreement / LGIA: An *Interconnection Agreement* based on a standard, FERC pre-approved form, between a generator and a transmission owner and/or operator, and regulated by FERC.

Lateral: An "offshoot" from a main supply line that is dedicated to a particular facility. For example, Lateral railroads, electrical transmission lines or pipelines.

Lattice Tower: Early-generation WTGs used towers made of latticed steel members because they were less expensive than tubular towers. However, Lattice Towers encouraged perching by birds, resulting in higher *Avian Mortality*. Between that and their sheer ugliness, they are no longer used on utility-scale WTGs.

LC Fee: A fee paid periodically (usually quarterly) in arrears by an *Account Party* to the Lenders which participate in a *Letter of Credit* facility, calculated as a percentage of the average *Stated Amount* of the letter of credit during the period.

LC Loan: The conversion of the reimbursement obligation resulting from a *Draw* upon a letter of credit into a loan. Of course, a reimbursement obligation and a loan are both debt obligations of the borrower, but existence of an LC Loan implies that the debt need not be repaid immediately.

LDC: Local distribution company, typically referring to the local natural gas utility.

LDs: Liquidated Damages.

Lead Arranger: In a transaction with more than one Arranger, the primary or original Arranger engaged by a Borrower or Sponsor in connection with structuring the financing. See also *Joint Lead Arranger*.

League Table: League tables are annual lists kept by certain institutions and publications, such as Thompson Financial and Bloomberg, that keep track of deal volume and deal size by banks and law firms. League Table credit refers to receiving credit for a specific deal for purposes of determining the rankings.

Lease / Leasehold: An agreement pursuant to which an asset is provided by one party, the Lessor, to another party, the Lessee, for a fixed period of time in exchange for compensation. A Leasehold is the right created by a Lease of real property.

Lease Intended as Security: A Lease that constitutes a *Lease Purchase* or is otherwise characterized as a secured loan. Because the Lessee in a Lease Purchase is generally considered the "owner" of the leased property, the Lessor's retention of title is viewed as a security interest, and the transaction is treated as a secured loan. Equipment financings are often documented as leases even though the characteristics of the transaction mean that they are Leases Intended as Security (*i.e.,* secured loans).

Leasehold Loan: A secured loan in which the Borrower leases rather than owns all or a significant portion of the property on which is located the revenue-generating means of repaying the loan. The Lender takes the Leasehold as security for the loan, as well as any *Improvements* and personal property, and obtains one or more *SNDAs* and *Estoppel Certificates* and records a *Leasehold Mortgage*.

Leasehold Mortgage / Leasehold Deed of Trust: A *Mortgage* or *Deed of Trust* encumbering a leasehold interest in property. Because the Leasehold Mortgage is of necessity recorded after the lease, it is by law junior to the rights of the Lessor. This means that if the Lessee defaults under the Lease, the Lessor can terminate the Lease and *wipe out* the

Leasehold Mortgage. This is a disastrous result for the Lender, which it avoids by using both a *Lessor's Estoppel* and, when the Lessor has its own Lender, a *Subordination and Nondisturbance Agreement*.

Lease Purchase: *Full Payout, Net Leases,* often with a term equal to the *Estimated Useful Life* of the leased asset. Because many Lease Purchases include a *Bargain Purchase Option* for the Lessee to purchase the leased asset for US$1 at the expiration of the Lease, these Leases are often referred to as dollar buyout or buck-out leases. Lease Purchases are generally considered to be *Capital Leases* from an accounting perspective and non-Tax Leases from a tax perspective due to their Bargain Purchase Option and length of Lease term.

Lease Schedule: A schedule to a *Master Lease* describing the leased asset, rentals and other terms applicable to the leased asset.

Left Side: Placement of a bank on the top of the left side of the list of banks providing a financing in a *CIM* or other marketing materials for the issue, signifying the role of *Lead Arranger*.

Lessor's Cost: The price paid by the Lessor at the closing to acquire the leased asset. Usually Lessor's Cost includes some *Soft Costs*. When rent or *Termination Values* are provided in percentage form, they are usually a percentage of Lessor's Cost.

Lessor's Estoppel: See *Estoppel/Estoppel Certificate*.

Lessor's Lien: A category of liens on the leased asset for which the Lessor (and any Owner Participant) is responsible and for which the Lessee is not responsible. Lessors are generally required to remove Lessor's Liens, except the lien of the lenders in a *Leveraged Lease*.

Letter of Credit / LC / LOC: Many revolving credit facilities provide that all or a portion of the facility may be used in the form of Letters of Credit. A Letter of Credit essentially acts as a guarantee by the *Issuing Bank* under the revolving facility that kicks in if the Borrower (the *Account Party*) does not meet an obligation to a third party (the *Beneficiary*). A Borrower may post a Letter of Credit in favor of a third party as a guarantee to that third party that it will pay out on an obligation if needed, or will fulfill a governmental requirement, etc. If the third party requires payment, the *Issuing Bank* must pay under the LC, and can look to the other revolving Lenders for reimbursement as if the payout were a revolving loan made by all the revolving Lenders as a group. The two main types of Letters of Credit are *Commercial Letters of Credit (Trade Letters of Credit)* and *Standby Letters of Credit*.

Leveraged Lease: A lease transaction in which the Lessor has borrowed a portion of the acquisition cost of the leased asset on a non-recourse basis and the lender obtains an assignment of the Lease and a mortgage or security interest in the leased asset as *Collateral* for the debt. The rent under the Lease is always sufficient to pay in full the debt service under the loan.

LFG: Landfill gas. The natural decomposition of organic matter creates methane and other combustible gases, which are collected using a simple system of pumps, pipes, filters and separators, and often used to fuel a small gas turbine.

LGIA: Large Generator Interconnection Agreement.

LIBOR: The London Interbank Offered Rate, which refers to the rate at which major financial institutions can (usually) borrow from each other in the London interbank market (not limited to London, which is why a more proper term is the synonym Eurodollar). Most credit facilities have interest rates that are set at certain margins above LIBOR. See *Applicable Margin.*

Lien: Depends on the context. Often used interchangeably with *Security Interest;* however, Lien is a broader term and includes non-consensual encumbrances on property such as tax Liens or Liens in favor of warehousemen or carriers as well as consensual Security Interests.

Lien Waiver: A document by which a subcontractor or supplier waives all of its rights to place a *Mechanics'/Materialmen's Lien* on a project for any work done or materials provided prior to the date of the waiver. This is the way for the Lender, owner and Title Insurer providing a *122 Endorsement* or *Datedown Endorsement* to know that payments made to the prime contractor have actually been paid to subcontractors. The subcontractor doesn't care whether the prime contractor has been paid, only whether he or she has; and the subcontractor is entitled to put a lien on the facility if he or she has not. So if the prime contractor is paid and *spends the money somewhere other than paying off his or her subcontractors,* the owner can be forced to pay off the subcontractor to have the lien released, otherwise known as *paying for the same thing twice*. In some jurisdictions, there are statutory forms that need to be used for a Lien Waiver to be enforceable.

Limitation of Liability / LOL: A cap on the damages one party to a contract could have to pay to the other party. The Limitation of Liability can apply to *Liquidated Damages* or any other kind of contract breach damages, or both. Usually, the cap is a fraction of the contract price, or a (higher) fraction of the profit under the contract of the party limiting its liability.

Limited Notice to Proceed: See discussion under *Notice to Proceed*.

Limited Recourse Financing: A type of financing in which the Lender has no ability to make claims against the *Sponsor* in excess of the value of the Collateral if such Collateral is insufficient to repay the debt. Sometimes called "Non-Recourse" even though the Lender does have recourse to the Collateral.

Limited Use Property: A term utilized in the IRS leasing guidelines to refer to property subject to a Lease which at the end of the Lease term could only reasonably be expected to be usable by the Lessee.

Liquefied Natural Gas / LNG: As its name suggests, LNG is natural gas in liquid form, converted into this state only temporarily so as to store or transport it more easily. The chemistry behind the liquefaction process is complex. Dust, acid gases, helium, water and heavy hydrocarbons are removed from the natural gas, before the gas is condensed at a very high pressure and low temperature (-260ºF / -163ºC).

Liquefied Petroleum Gas / LPG: Gas mainly composed of propane and butane, which has been liquefied at low temperature and moderate pressure. The gas is obtainable from refinery gases or after the crude oil cracking process. Released to atmospheric pressure, it converts into gas and can be used industrially or domestically. LPG is also called "bottle gas," we think because after changing out a tank of it on your BBQ, you need to go grab a tall, cold "bottle."

Liquidated Damages: An acknowledgment by parties to a contract that, even though they might be difficult to calculate with precision, if one party doesn't meet a contractual undertaking in some specified way, the other party will suffer damages, and that therefore the breaching party will pay the damaged party money pursuant to a formula. Use of the formula saves a lot of effort over calculating actual damages. For Liquidated Damages to be enforceable, there are two requirements: (we are not making this up): (i) actual damages must be difficult or impossible to calculate and (ii) the formula used must be a reasonable approximation of actual damages. In *Project Financing*, the two most common Liquidated Damages are *Performance LDs* and *Delay LDs*.

LLCR: Loan Life Cover Ratio.

LNG: Liquefied Natural Gas.

LNTP: See discussion under *Notice to Proceed*.

Load Curve / Load Graph: The actual or projected electric load within a utility's service territory over the course of a day. The projections are used for scheduling in the day-ahead market. It is interesting to see the peak in the evening when everybody gets home and turns everything on. (See the real-time California version at: caiso.com/outlook/SystemStatus.html).

Load Factor: The ratio of the average load supplied during a period to the peak or maximum load in that period, expressed as a percentage. Utilities are generally interested in increasing Load Factors on their systems.

Load Stack: Electrical grid system operators have to figure out how to satisfy system load over the course of a day, in a way that is reliable, economical and somewhat flexible. The Load Stack is a chart that shows their decisions as to which system resources will be used to satisfy system load over the day. Load/Capacity is on the vertical axis and time of day on the horizontal axis. *Baseload* units are on the bottom shown each in their own color, and other units are stacked on top successively. The Load Stack has to be above the projected Load Curve for each moment in the day. As you get to the top, these are the resources that would be shut off (or never turned on) if system demand were lower than projected.

Loan Certificates: The evidence of indebtedness issued by the Lessor in a *Leveraged Lease* to the lenders, and a synonym for notes.

Loan Life Cover Ratio / LLCR: A financial ratio commonly used in project financing, this is the ratio of (a) the project's discounted cash flow available for debt service from the date on which it is measured up to the final maturity date of the loans, to (b) the total amount of the project's debt on specified dates. It is calculated by dividing the net present value of the project's cash flow (after deducting operating expenses and any other amounts payable in a higher priority to the debt, such as project taxes) to the total amount of debt owed by the project. The LLCR gives lenders an estimate of the ability of the project to repay its outstanding debt.

Loan Participants: The Lenders in a Leveraged Lease.

LOL: Limitation of Liability.

Loss Payee: Under a property insurance policy, the person or persons to whom the insurance company writes the check for proceeds of a claim. Secured lenders want to be a Loss Payee because the casualty has turned their *Collateral* into money, and so they want to ensure the money is either used to purchase replacement Collateral or to repay debt.

Low Floater: A Variable Rate Debt Obligation, Auction Rate Security or other debt instrument, usually a municipal bond, that has a long Tenor but whose interest rate resets frequently (like once a week).

Low Flow Line of Credit: A debt service reserve line of credit offered by Lenders financing *Run of the River* hydroelectric facilities to allow the owner to cover debt service in low water years. Expanding the concept to cover windpower facilities during low wind years, the "Low Blow Line of Credit" was discontinued when lenders realized being repaid was more important than offering cleverly named credit facilities.

LTM: Last twelve months. Used to describe the measurement period for *Financial Covenants.* Same as TTM (trailing twelve months).

LSTA: The Loan Syndication and Trading Association, a non-profit organization dedicated to promoting the development of a fair, efficient, liquid and professional trading market for corporate loans originated by commercial banks and other similar private debt. A number of standard forms, market practice documents and publications can be found at http://www.lsta.org. The English equivalent is called "LMA," for Loan Markets Association.

LTSA: Long Term Service Agreement. Just what it sounds like. It is usually (but not always) provided by the manufacturer of the equipment which is the subject of the LTSA. It is purportedly very profitable for the manufacturers, but also provides certainty to owners as to their costs.

MAC: Material Adverse Change.

MACT: See *NESHAPs.*

MAE: Material Adverse Effect.

MAE Qualifier: This is an exception to what would otherwise be an absolute assertion or representation, for example: "I have not been drinking, except to such extent as would not be likely to have a Material Adverse Effect on my drafting." See *Material Adverse Change* and *Material Adverse Effect.*

Maintenance Covenant: A contractual provision in a Credit Agreement that requires a Borrower to maintain a certain state of affairs, for example, to meet or exceed various financial performance measures. *Financial Covenants* are one category of Maintenance Covenants.

Make-Whole (Payment): A payment made to a Lender who has lent at a fixed-rate of interest when its loan is prepaid, to compensate it for the interest foregone by having to reinvest the prepayment proceeds at a lower interest rate. Usually calculated by discounting foregone interest payments over what would have been the remaining term at a discount rate equal to yield on a US Treasury security having a maturity equal to the weighted remaining average life of the prepaid loan, plus 0.50 percent. The discount rate used in this calculation is sometimes negotiable.

Makeup Well: The power generation capacity of a geothermal power facility is a function of both its equipment and its *Production Wells* (and also its *Injection Wells,* which could otherwise create a bottleneck). Production Well temperature and/or flow can degrade over time, resulting in non-optimal use of the equipment capacity. A Makeup Well is a new Production Well that allows the wellfield capacity to meet or exceed the power generation equipment capacity.

Mandatory Prepayment: Provisions in a Credit Agreement that require the prepayment of term loans (and sometimes the prepayment and/or permanent reduction of commitments under a Revolving Facility) with certain cash of the Borrower. In *Project Finance*, it generally includes one or more of the following: *Cash Sweep*, asset sale prepayment, insurance proceeds prepayment and eminent domain prepayment.

Margin: The difference between a lender's cost of funding (*e.g.*, issuing CDs, borrowing on the Eurodollar market, or taking savings account or checking account deposits) and the interest rate it charges on a loan. Also known as Spread.

Margin (as in On the Margin): A type of technology which, at a particular point during the day, is going to be *Dispatched* off the *Load Stack* to meet load increases or decreases. For example, a *Peaker*.

Margining: Demanding credit support from a counterparty based on *Mark-to-Market Exposure*. If a company is *In the Money, a Credit Support Annex* would allow the company to demand credit support from its counterparty. Mark-to-Market Exposure is often calculated on a daily basis. If the company's exposure increases, the *Out of the Money* party may be required to post additional credit support. If the company's exposure decreases, it may have to return some or all of the credit support. Similarly, if the company becomes Out of the Money, it may have to post credit support to the counterparty, and so on.

Market Flex: A powerful provision included in the *Fee Letter* portion of the *Commitment Papers* that allows the *Arranger* to change the terms, conditions, pricing and/or structure of the facilities provided in the *Commitment Letter* if the Arranger determines that the changes are advisable to ensure the *Successful Syndication* of the facilities the Arranger has agreed to provide to the Borrower. The exact terms of Market Flex will be heavily negotiated and sometimes include limitations (called Closed Flex). See also *Pricing Flex* and *Structure Flex*. Market Flex is included in the Fee Letter because potential syndicate banks do not see the Fee Letter. If everybody knew Market Flex were part of the deal, of course the market would demand better terms.

Market MAC: This is a reference to a *Condition Precedent* to a Lender's commitment and funding obligations that there shall not have been any disruption or adverse change to the financial, banking or capital markets generally, or the particular market in which the applicable debt is being *Syndicated*, specifically. Compare *Business MAC.*

Mark-to-Market: An accounting requirement to write assets down (and in some cases up) to update the value of a financial instrument to its current market price. This is required by GAAP for certain assets in certain industries. Also used as a means of determining the value of a *Hedge* for purposes of exchange of collateral under a *Credit Support Annex.*

Master Lease: A continuing lease arrangement whereby additional assets can be added from time to time merely by describing the assets in a new Lease Schedule executed by the parties. The original lease contract terms and conditions apply to all subsequent Lease Schedules.

Match Funding: Occurs when a Lender does not have funds of its own to lend to a Borrower because it does not have a customer deposit base (savings accounts, checking accounts, certificates of deposit), and so borrows funds from other Lenders to on-lend. If these other Lenders are not willing to lend at a rate close to the *Index* used in the Credit Agreement, the Match Funding Lender will have a hard time staying in business.

Material Adverse Change: Just like it sounds, this phrase refers to a "material adverse change" in something — generally either the business (see *Business MAC*) or the market (see *Market MAC*). This term is used in two general contexts: either (i) as a Condition Precedent (for instance, a seller would not have to close on an acquisition if there had been a Material Adverse Change to the business) or (ii) as a qualifier to a *Representation and Warranty* (for instance, the environmental representation is limited to instances where violations of the representation could (or would) lead to a Material Adverse Change). However, when used as a qualifier to a Representation and Warranty, most agreements use the term Material Adverse Effect. See *MAE Qualifier.*

Material Adverse Effect: Just like it sounds, this refers to a material adverse effect and is just another way of expressing the concepts embedded in the phrase *Material Adverse Change.*

Maturity / Maturity Date: The date on which a Bond or amounts outstanding under a Credit Facility must be repaid in full.

Maximum Achievable Control Technology: See discussion under *NESHAPs.*

Mechanical Completion: The point during construction of a facility where everything is screwed together and is functioning as designed, but has not yet been completely fine-tuned to maximize performance, hasn't been tested and commissioned, and doesn't have its *Punchlist* completed.

Mechanics' Lien / Materialmen's Liens: A contractor who does work on a project (and a materialman who provides material to a project) has a statutory right to place a lien on the property that incorporates his work or materials, in order to enforce his right to payment. Mechanics' liens may, in certain situations, prime (be senior to) a Lender's lien. Also see *Broken Priority.*

Mediation: A type of dispute resolution approach which involves bringing the parties to agreement through discussion, and efforts by a neutral mediator to have each side understand the other's view. If successful, Mediation results in an agreement by the parties (as opposed to a ruling by the Mediator); and if not successful, it results in a more adversarial dispute resolution approach, such as *Arbitration* or litigation.

MegaWatt / MW: A standard measurement of electric *Capacity,* 1,000 kiloWatts or 1 million Watts.

MegaWatt-hour / MWh: A standard measurement for electric energy, 1,000 kiloWatts per hour.

Merchant Facility: A facility that does not have a contract for its output, other than perhaps a relatively short-term contract. It used to be these facilities were financed on the basis of a *Power Market Study* showing that there would be sufficient demand in the area that proceeds from merchant (*i.e.,* short-term) sales would eventually be able to repay the debt. Consultants providing the Power Market Studies amazingly never lost any money on these deals, but many banks did.

Met Tower: Meteorological tower. Towers placed on or near potential *Windfarms* that measure wind data for the site to determine whether it is suitable for a project. Developers and Lenders usually require two years of data, preferably measured at or near the hub height of the *WTGs* that are proposed to be used, before investing more in a Windfarm than the costs of data collection.

Milestone: A clearly distinguishable event in the course of performance of a contract that either entitles the performing party to a carrot (a payment) or relieves it of being whacked by a stick (like *Liquidated Damages* or contract termination).

Mini-Perm: In the context of a construction financing, a type of short-term loan, typically three to five years, used by a Borrower to pay off construction financing or initial acquisition financing during the period a project is being completed or becoming stabilized as an income-producing asset. Borrowers enter into Mini-Perms during this phase because long-term financing is not yet available because the project has an insufficient operating history. Mini-Perms typically have *Balloon Payments* at the end of their terms that are intended to be refinanced by long-term financing.

Moody's: Moody's Investors Service, Inc., a subsidiary of Moody's Corporation. Moody's is one of the two most powerful *Ratings Agencies. S&P* is the other big one.

Mortgage: A document by which a Borrower grants a Lender or a group of lenders a lien on real property to secure the Borrower's loan obligations. The law of the jurisdiction where the property is located will dictate whether a *Mortgage* or a *Deed of Trust* is the appropriate instrument, but they are functionally equivalent.

Mortgage-Style: An *Amortization* technique whereby all payments of principal + interest are equal. The earlier payments are attributable mainly to interest and the later mainly to principal.

Mortgagee Protective Provisions: Provisions within a *Project Document* providing for notice and cure rights of a *Secured Party* to protect such Secured Party in the event the Borrower defaults under the Project Document. The Secured Party is a *Third Party Beneficiary* of the Mortgagee Protective Provisions.

MOU: Memorandum of understanding, a sometimes non-binding term sheet embodying the basic terms of a transaction and a path toward achieving a definitive agreement.

MSW: Municipal Solid Waste.

MTA / MTPA: Millions of tonnes per annum, a unit of measurement used to measure the amount of oil or gas that a project is able to produce and sell.

Multilateral: Something established by, or serving, multiple countries, *e.g.*, Multilateral Investment Treaty (vs. *Bilateral Investment Treaty*) or Multilateral Credit Agencies. For example, Corporación Andina de Fomento (Andean Development Bank) is a Multilateral Credit Agency serving the Andean countries.

Municipal Solid Waste / MSW: Trash from residences and businesses that is used in a *Trash to Cash* project. It is turned into *Refuse-Derived Fuel.*

Mutatis Mutandis: Sequel to *Night of the Living Dead*. Also, borrowing all or a distinct portion of one contract for use in another, without repeating the words, where you know some provisions of the former contract will have to be tweaked to have them make sense in the latter, but it is clear that none of the substantive terms need to be renegotiated. Typically used only when the latter contract may not ever be used, so it is not worth drafting in full. Usage would be like "the Parties hereby incorporate by reference Article 8 of their Former Contract, *mutatis mutandis*." This simple latin phrase saved the ancient Romans thousands in chiseling costs.

Mute Point: This is included as a public service announcement for the benefit of all those who are bothered when somebody refers to a "Mute Point." There is no such term. It is "*Moot* Point."

MW: MegaWatt.

MWh: MegaWatt-hour.

NAAQS: National Ambient Air Quality Standards.

Nacelle: The box-like enclosure that goes on top of a *WTG* tower that holds the gearbox and generator.

NAESB Base Contract for Sale and Purchase of Natural Gas: A *Master Agreement* in the form published by NAESB and used by parties to sell and buy physical natural gas. Elections are made on a cover sheet, and additional provisions can be added as "Special Provisions."

Nameplate Capacity: The *Capacity* of a facility or machine as stated by the manufacturer, though typically "pushing" the machine in one way or another can result in greater output. Nameplate Capacity is sometimes called nominal capacity.

National Ambient Air Quality Standards / NAAQS: The *EPA* sets NAAQS for each Criteria Pollutant, which apply throughout the United States. Each air basin is monitored for the Criteria Pollutants, and is classified as in "attainment" or "non-attainment" for each Criteria Pollutant. In some cases, such as ozone, basins are further classified as areas of "moderate," "severe" or "extreme" non-attainment. Many air basins are in attainment for some Criteria Pollutants and non-attainment for others. For non-attainment areas and *Criteria Pollutants, Emission Offsets* and credits along with technology and emission rate requirements are imposed on proposed new or modified pollutant sources. See *BACT* and *LAER*.

Native Load: The maximum demand for power by the customers of a utility in its service area, used in reference to how much power must be imported or can be exported to other systems.

NDA: Non-Disclosure Agreement.

NDSA: Nondisturbance and Subordination Agreement.

Negative Arbitrage: The difference between the interest rate on a Tranche of debt and the rate earned on any cash collateral securing the debt. This is one reason why *Bonds* are generally not favored for construction financing — the Issuer has to take down the whole Bond issuance on Day 1 and so starts paying interest on the whole issuance even though much of the money will not be needed for months or years. In the meantime, the Issuer suffers the Negative Arbitrage.

Negative Covenant: A contractual provision in an Indenture or a Credit Agreement that prohibits the Issuer or Borrower from engaging in specified activities, such as making investments, incurring new debt or *Liens*, selling assets or making acquisitions. Think of these as the "Thou Shalt Not" Covenants. Negative Covenants are usually highly structured and customized to an Issuer's or Borrower's specific condition. Compare *Affirmative Covenant*.

Negative Pledge: A *Covenant* not to grant a *Lien* on particular property to any other person (or sometimes, not to do so without also giving an "equal and ratable" Lien on that property to the beneficiary of the Covenant).

NegaWatt: Cutesy term used in *Demand-Side Management* discussions to denote load which would have existed but for the DSM efforts.

NEPA: National Environmental Policy Act. NEPA requires that before approving any "major federal action," the federal agency conduct an assessment of the environmental impacts of a specific project and reflect consideration of the analysis in the agency's record of decision. This usually takes the form of an initial *Environmental Assessment*, in which the project is initially analyzed to see if it will present significant environmental impacts. If not, the agency typically issues a *FONSI* and the process is concluded. If significant impacts are likely to occur, the agency then proceeds to prepare an *EIS*, a draft of which is circulated for public comment (and often is the subject of one or more public hearings). Once the final EIS is completed, the agency can proceed to a final decision on the project or approval. There are particular procedures to follow when multiple federal agencies are involved. In some cases, such as in California, where a project is subject both to state and federal EIS-type requirements, the state and federal agencies will prepare what's known as a "joint document," on which all federal and state agencies rely. The adequacy of an EIS (or EA) can be challenged in federal district court under the federal Administrative Procedure Act following agency approval.

NESHAPs: National Emission Standards for Hazardous Air Pollutants, also known as maximum achievable control technology (MACT) standards. Under the *Clean Air Act*, the *EPA* is required to adopt NESHAPs for designated categories of sources that emit large quantities of specified Hazardous Air Pollutants. Normally, NESHAP compliance is evaluated by the *Independent Engineer*.

Net Lease: A Lease in which all of the risks and costs relating to the leased asset during the Lease term are borne by the Lessee, such as risk and cost of loss, taxes, insurance and maintenance. Also known as a *Triple Net Lease* (referring to taxes, insurance and maintenance).

Net Metering: A particular electricity tariff which allows the customer to reduce the number of kWh it pays the utility for by the number of kWh generated by the customer. If the customer generates more than it consumes, it is not entitled to a payment from the utility. Net Metering is particularly useful for solar installations where the customer has elected *Time of Use (TOU) Metering*, because the customer receives credit for the value of the kWh its generates under the TOU tariff, and that value is much higher during solar production hours.

Net Payment: Where a contract has each party owing money to the other on a particular payment date, Net Payment allows only one party to pay money on that date, the one that owes more, after subtracting the amount owed to it.

Net Proceeds: What is leftover from the sale of an asset after subtracting the costs associated with the sale (such as taxes, marketing costs or brokerage fees). If assets sales are subject to *Mandatory Prepayment*, this is the amount that needs to be prepaid.

NGA: Natural Gas Act, under which FERC regulates the transportation of natural gas.

NIMBY: Acronym for “Not In My Backyard,” but it is a reference to the person who makes the statement, or sometimes to the attitude of that person. Often implies a certain level of hypocrisy, as a “green” who nominally supports windpower or recycling but won't agree to bear any of the related inconveniences.

No-Hazard Determination: A No-Hazard Determination is issued by the Federal Aviation Administration for buildings and other structures based on a certain height/slope relationship to airports, and reflects a judgment that the particular structure does not pose a hazard to air navigation.

Non-Attainment: See *NAAQS*.

Non-Disclosure Agreement / NDA: Also known as a Confidentiality Agreement, it is the document binding those to whom confidential information is conveyed not to disclose it to persons other than those closely involved with the transaction.

Nondisturbance and Subordination Agreement: Also called a Nondisturbance Agreement, an NDSA, a Subordination and Nondisturbance Agreement, an SNDA, or other variations, sometimes with "Attornment" thrown in somewhere. When a Borrower has site access through a Leasehold, the lease has usually been entered into and recorded against the land after the lessor has put a *Mortgage* on the property; and therefore the lessor's lender is senior to the lease (as well as the *Leasehold Mortgage*). If the lessor defaults on its loan, its lender could *Foreclose*, which would cause the lease (and the Leasehold Mortgage) to be wiped out. The NDSA has (i) the lessor's lender agree that if it forecloses, it will leave the lease in place, (ii) the lessee agree that the lease is subordinate to the loan made to the lessor, and (iii) the lessee agree that if the lessor's lender forecloses, the lessee will recognize the lender as the landlord (this is "Attornment").

Non-Recourse Financing: A type of financing in which the Lender has no ability to make claims against the *Sponsor* in excess of the value of the Collateral if such *Collateral* is insufficient to repay the debt. Should really be called "Limited-Recourse Financing" since the Lender does have recourse to the Collateral.

Non-Severable Modifications: Modifications made by the Lessee to the leased asset during the Lease term to which the Lessor will obtain title without additional payment by the Lessor, usually defined as modifications which are required by law or which are not readily removable without causing material damage to the leased asset.

Notice to Proceed: Often, a construction contract is signed before the owner is ready to have the contractor commence work, usually because the owner has not closed its financing and so does not have the pile of money needed for the contractor to order supplies and otherwise mobilize. When the owner is ready, it issues the Notice to Proceed. Sometimes a construction contract contemplates a limited scope prior to the Notice to Proceed; to start the limited scope, the owner would issue a "Limited Notice to Proceed" and the Notice to Proceed would probably then instead be called a "Full Notice to Proceed."

Notional Quantity or *Notional Amount: Hedges*, including *Interest Rates Swaps, Currency Swaps, Financial Power Swaps* and other financially settled hedges, are settled by the payment of money from one counterparty to the other, depending on which way value of the underlying hedged item has moved. The Notional Quantity or Notional Amount is essentially the size of the *Hedge*. For example, if you buy an Interest Rate Cap which provides you will be paid if 12 month *LIBOR* rises above five percent, if the Notional Amount of the cap is US$100 million and interest rates are at 6.25 percent on the payment date, you will be paid US$1.25 million. It is called "notional" because there is never an actual exchange under the *Hedge* of the Notional Amount — it is just used as a multiplier to determine the financial settlement.

NPDES: National Pollution Discharge Elimination System, the permit program established under the federal Clean Water Act for regulation of discharges of pollutants to streams and other waterbodies. Typically implemented by state environmental agencies under delegations of authority from the EPA or through permit programs established by local or regional sewer authorities. Also covers storm water runoff. Discharges to sewer systems, in contrast, are typically regulated by the local publicly owned treatment works, usually a city or county entity.

NREL: National Renewable Energy Laboratory. This is the primary lab of the US government conducting research on renewable energy and energy efficiency.

NSPS: New Source Performance Standards. Under the *Clean Air Act*, the *EPA* is directed to adopt emission standards for categories of sources that are deemed to cause or contribute significantly to air pollution. The emission standards can be applied to new or modified pollutant sources. Compliance with the NSPS are typically permit conditions in power and other industrial projects, and the *Independent Engineer* usually evaluates this aspect of a facility's performance and design.

NTP: *Notice to Proceed.*

Off-Balance Sheet Financing: A Lease that qualifies as an *Operating Lease* for the Lessee's financial accounting purposes. Such Leases are referred to as Off-Balance Sheet Financing due to their exclusion from the balance sheet asset and debt presentation, except for that portion of the payments that is due in the current fiscal period. Full disclosure of such transactions is typically made in the auditor's notes to the financial statements. Periodic payments are recorded as expense items on the Lessee's income statement.

Off-Peak: Point in time where load distribution or electricity consumption is at a minimum. The reference can be to a block of time during the day or during the year. Opposite of *Peak*.

Offtaker: The purchaser under a *PPA* or other commodity contract.

OGIP and OOIP: Also known as "original gas-in-place" and "original oil-in-place," these refer to the total volume of *Hydrocarbons* stored in a reservoir prior to production. Unlike Reserves, this includes oil and gas deposits that cannot be economically recovered using current technology.

One Action Rule or *One Form of Action Rule:* A rule of law in some jurisdictions (California and other Western states) that forces a lender to bring only one court action or proceeding against a Borrower when the debt is secured by real property. The One Action Rule can be a trap for the unwary. In one shocking California case, a bank exercised its statutory right to set off amounts in its defaulted borrower's bank account against the debt, and *that* was ruled the one action, precluding the bank from foreclosing on the real property security. Yikes. Consult your lawyer.

On-Peak: Same as *Peak.*

Open Access: Principle that owners and operators of the transmission grid must provide access (both transmission and interconnection) to unaffiliated companies on a nondiscriminatory basis. Open Access does not necessarily provide access to the transmission grid in a particular manner or timeframe or at a particular cost.

Open and Close Costs: Same as *In and Out Costs.*

Operating Lease: A lease which is treated as a *True Lease* (as opposed to a loan) for book accounting purposes. As defined in FASB 13, an operating lease must have all of the following characteristics:

- Lease term is less than 75 percent of *Estimated Useful Life* of the leased asset
- *Present Value* of Lease payments is less than 90 percent of the leased asset's *Fair Market Value*
- Lease cannot contain a *Bargain Purchase Option*
- Ownership is retained by the Lessor during and after the Lease term

An Operating Lease is accounted for by the Lessee without showing an asset (for the leased asset) or a liability (for the lease payment obligations) on its balance sheet. Periodic payments are accounted for by the Lessee as operating expenses of the period.

Org ID Number: A company's organizational identification number. Not to be confused with *Tax Payer ID Number*, the Org ID Number is a unique number assigned to a registered organization by its jurisdiction of organization.

Out of the Money: Opposite of *In the Money.*

Overriding Royalty: The right to receive a percentage of (i) the revenues deriving from production of electricity from a geothermal power plant or (ii) production or revenues deriving from the production or sale of *Hydrocarbons*, in each case without netting against those revenues any costs of development, production or maintenance.

Owner Participant: In a Lease that uses an *Owner Trustee*, the beneficiary of the owner trust and the party that therefore has the beneficial ownership interest in the asset and makes the equity investment in the leased asset.

Owner Trust Agreement: An agreement between the *Owner Trustee* and the *Owner Participant* creating the trust that will own the leased asset and incur any loan in a *Leveraged Lease*, and setting forth the relationship between the trustee and its beneficiary.

Owner Trustee: In many lease transactions, the entity with the economic ownership interest in the asset will arrange for that asset to be held in a trust, the trustee of which is usually a bank. This Owner Trustee will then lease the asset to the Lessee and incur the loans from any lenders. Owner

Trustees are often used in larger transactions to ease handling of funds, facilitate transfers of equity interests, protect *Owner Participants* from third-party liability based on strict liability in tort, and/or provide some protection to the other parties upon an Owner Participant bankruptcy.

P99, P50, etc.: Used in wind resource studies, the number of kilowatt-hours that *WTGs* of a certain nameplate rating placed at specified places will generate, at a probability of 99 percent (or 50 percent, etc.). In other words, for a P99 probability, there would only be a one percent chance that WTGs placed in those spots would generate less than the stated number of kWh. Lenders and other investors use these for various purposes, a main one being to determine the amount of debt a project can support. It is important to distinguish between P99 over one year or over a longer period. Because there do occur low wind years, and the wind consultant is saying there is no more than a one percent chance of actual output coming in below his/her P99 number, a "one year P99" will be somewhat lower than a "10 year P99."

In the oil and gas arena, P50 is used to refer to *Proven and Probable Reserves*, whereas P90 is used to refer to *Proven Reserves.*

Par: In Bond parlance, Par Value is the stated value or face value of a Bond. So if a US$1,000 Bond is redeemed at Par, it is redeemed for the full US$1,000 (plus accrued Interest up to the redemption date). Bonds are said to be redeemed "above Par" or "below Par" if redeemed for more or less (as applicable) than their Par Value.

Parasitic Load: The power that a generating station itself consumes in the process of generation, and which therefore cannot *normally* be sold to the Offtaker. However, if a utility is trying to maximize the number of RECs it is receiving from a seller, it might purchase the plant's gross output, and sell the plant an amount of energy equal to the Parasitic Load.

Participation: A contract between a Lender and another financial player where the latter is given all of the benefits and burdens of being a Lender under a particular credit facility, other than actually being a party to the Credit Agreement.

Participation Agreement: An agreement used almost universally in *Leveraged Leases*, and occasionally in *Single Investor Leases*, to which all the financing parties, their trustees and, perhaps, credit enhancement parties are signatory. It is the "road map" which sets forth the financing commitments of the financing parties, conditions to closing, representations of the parties, usually the general indemnities by the lessee and various other covenants for the benefit of the other parties to the lease transaction.

PATRIOT Act Provisions: Provisions in credit documents notifying the Borrower (and potentially others) that pursuant to the USA PATRIOT Act, each Lender may be required to obtain, verify and record certain information.

Pay-In-Kind / PIK: Another term for capitalized interest. Instead of paying cash interest, the Borrower increases the principal amount payable to the Lender by that amount, which in turn earns interest in subsequent periods.

Payment In Lieu of Taxes (PILOT) Agreement: Sometimes a project whose benefits will largely flow to a private owner happens to be nominally owned by a governmental entity, such as a city. This can be for a variety of reasons. One of the often unintended and unneeded consequences of the governmental ownership is that the project is exempt from local property taxes. If you are the private sponsor of one of these projects, to keep the local taxing authorities from making your life miserable during the permitting or operation phase, you enter into a Payment In Lieu of Taxes Agreement wherein you contractually agree to pay some or all of what you would have paid in taxes if you directly owned the project as a taxable entity.

PCBs: Polychlorinated Biphenyls. A compound that was widely used as a dielectric fluid in transformers and other electrical equipment due to its non-flammability, chemical stability, high boiling point and insulating properties. Although still present in some older equipment, production of PCBs was banned in 1979 due to its adverse health impacts.

Peak: Period of time where load distribution or electricity consumption is at a maximum. The reference can be to a block of time during the day or during the year. Same as *On Peak* and opposite of *Off-Peak.*

Peak Load / Peak Demand: Used both by reference to a day or a year, the maximum draw on a power system's resources, in Megawatts. Even though yearly Peak Load may only last an hour or two (perhaps during a heat wave), the system has to include sufficient generating resources to accommodate the usage. To see an illustration of real-time actual versus projected daily *Peak Load*, go to http://tinyurl.com/3wcj6 at around 6:00 p.m. Pacific time.

Peaker / Peaking Unit: A power plant with a very high *Ramp Rate* that is turned on only during *Peak Load*. Peakers typically have a relatively high *Heat Rate* and relatively low capital cost relative to *Capacity*.

Peak Shaving: When a utility charges a business customer a much higher rate during *On-Peak* periods of the day, it may be more economical for the customer to self-generate using its own small on site generator. This is Peak Shaving. See illustration at http://tinyurl.com/n49efg.

Penstock: The pipe used to transport water for a hydroelectric generation facility from the *Intake Structure* to the turbine.

Perfection: What a holder of a *Security Interest* (*i.e.,* the Lenders) has to do to make that Security Interest enforceable against third parties. A Security Interest that is valid and enforceable but has not been Perfected is enforceable against the debtor but not third parties and most notably not against the trustee in the debtor's bankruptcy. There are five basic methods of Perfection under Article 9: filing of a *Financing Statement, Control,* possession (either directly or through a third party), temporary perfection and automatic perfection. The easiest and most common method of Perfection is the filing of a Financing Statement. Filing a Financing Statement is sufficient to Perfect a Security Interest in most (but not all) *UCC Collateral.*

Perfection Certificate: This is how a Lender finds out what assets a company has and where to find them. It is a certificate signed by the authorized officers of the Borrower and each other grantor under the *Security Agreement*, which sets forth certain information regarding the Borrower, the other grantors and their respective assets.

Performance LDs: Liquidated Damages payable by an equipment manufacturer if the equipment does not meet contractually guaranteed performance levels. For example, most gas turbines have a guaranteed *Heat Rate* and output. If the Heat Rate tests out higher than was guaranteed, the owner will perpetually have higher fuel costs than it initially assumed. Performance LDs have the manufacturer compensate the owner for the loss on a present-value basis. Similarly, if output is less than guaranteed, the owner has paid an amount for equipment which it has assumed would generate a certain revenue over time; and so the manufacturer makes up the difference.

Performance Tests: Pretty much what it sounds like, tests which measure equipment and facility performance in its "new and clean" state.

Permit to Operate / PTO: The permit issued to a stationary source of air emissions, typically an industrial or energy facility, after construction has been completed and all emissions tests have been passed and certified to the agency. The PTO is typically valid for a fixed term, after which it is subject to renewal. Under Title V of the federal *Clean Air Act*, a federal Title V Permit to Operate is also issued to certain facilities.

Permitted Liens: In secured loan transactions, there is always a *Negative Covenant* prohibiting the Borrower from incurring or suffering any *Liens*. But "Lien" is defined so broadly that even normally operating companies with *no* consensual liens outstanding would get tripped up by the covenant. Thus, Permitted Liens are an exception to the covenant. They are those types of Liens that would normally not bother a senior secured Lender, such as easements on the Borrower's land, *Mechanics Liens* while the work is still in progress, in some cases existing consensual liens (*i.e.*, Liens to other secured creditors), and other negotiated exceptions.

Petroleum Coke / Pet Coke: A solid black obsidian-looking residue resulting from the refining process. As with many substances in the oil and gas sphere, even though it is a byproduct, there is a market for Pet Coke. It is used in a variety of industries, including as *Feedstock* in furnaces for the steel and aluminum industries, for heating purposes and for the production of electrodes.

Phase I ESA: Sometimes simply referred to as a "Phase I." An initial *Environmental Site Assessment* prepared to identify the likely presence of site contamination based on a review of available documentation regarding site usage and history, interviews with knowledgeable site personnel and a visual inspection of the property. Issues identified as material potential concerns will be noted as Recognized Environmental Conditions (RECs) or Areas of Concern (AOCs). A Phase I ESA does not involve the collection or laboratory analysis of soil, groundwater, building materials or other environmental media. The scope of the traditional Phase I ESA, as defined by the ASTM "Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process," may not cover all relevant aspects of environmental liability or compliance (*e.g.*, excluded topics include indoor air pollution, permit compliance, asbestos and third-party disposal site liability). In almost all circumstances, a lender or purchaser will require a satisfactory Phase I ESA prior to closing a finance or purchase transaction involving US real property, dated within 6 months of the closing. While they are not typically expensive, they can take a few weeks to complete so this diligence item should not be left to the last minute.

Phase II ESA: Sometimes simply referred to as a "Phase II." Typically performed after completion of a *Phase I ESA*, a Phase II involves the collection and laboratory evaluation of samples of the site's soil, groundwater, building materials or other environmental media, to confirm whether or not contamination above applicable regulatory criteria is actually present. The location and extent of sampling will depend upon the nature of the site and the objective of the investigation. Depending on the results obtained, further sampling events (sometimes referred to as a "Phase II A, or Phase III") may be needed to delineate the extent of contamination. Once you get to this point, you typically have a serious issue that warrants involving environmental professionals in your project if not already part of the team.

Photovoltaic: Technology that converts sunlight directly into DC electricity. It then needs an *Inverter* to be converted to AC usable in the grid.

Piercing the Corporate Veil or *Piercing:* When a creditor of a corporate, LLC or LP subsidiary finds out that the subsidiary does not have sufficient funds to pay the creditor, it might try to Pierce the Corporate Veil. Piercing means showing that (i) the parent company/shareholder did not respect necessary statutory formalities such as conducting shareholder and board meetings periodically, (ii) the subsidiary was not sufficiently capitalized in light of its expected business and (iii) there was intermingling of assets between parent/shareholder and the subsidiary, among other somewhat squishy factors. If a Piercing argument succeeds, the creditor can reach assets of the parent/shareholder to satisfy the debt of the subsidiary.

Pig: A cylindrical device that is inserted into a pipeline to clean the pipeline wall or monitor the internal condition of the pipeline. Sometimes called a "go-devil." Many rookie pipeline workers believe that Pig performance can be improved through application of lipstick, but we have heard it isn't so.

PILOT Agreement: Payment In Lieu of Taxes Agreement.

PIK: Pay-In-Kind.

Placed In Service (Date): Tax term for the moment a particular asset becomes eligible for tax benefits, such as *Production Tax Credit*, depreciation, *Cash Grant*, etc.

Pledge Agreement: How Lenders take the shares of a Borrower or its subsidiaries as *Collateral*. This is an agreement that creates a *Security Interest* in equity interests owned by a Pledgor in favor of the applicable *Secured Parties*. In many instances, the pledge of equity interests is included in the *Security Agreement* and a separate Pledge Agreement will not be required. "Pledge" is used to connote a possessory security interest. So "you can hold on to my cow till I pay you back the five guineas I borrowed" would be a pledge. But as things go electronic and intangible (*e.g.,* DTC ownership), the concept of a physical pledge is losing significance.

PM10 / PM_{10}: Particulate matter (in the air) of 10 micrometers or less. One type of *Criteria Pollutant*.

POD: Point of Delivery.

Point of Delivery / POD: The place where commodities or other goods change hands between seller and buyer (or shipper and transporter).

Political Risk Insurance / PRI: An insurance policy that covers a Sponsor's equity investment in a project or a lenders' loans or other financing provided to the project against political risk, such as the risk of *Expropriation*.

Possible Reserves: Often referred to as "P3", these are reserves which analysis of geological and engineering data suggest are less likely to be recoverable than *Probable Reserves* (and of course also less than *Proven Reserves*). There should be at least a 10 percent probability that the quantities recovered will equal or exceed the sum of the estimated Proven Reserves plus Probable Reserves plus Possible Reserves.

Potentially Responsible Party / PRP: A person or entity that could be held liable for site contamination pursuant to *CERCLA* (or similar state statutes). Under CERCLA, PRPs can include the current owner or operator of a site, former owners or operators, and other parties that transported or arranged for transportation to the site. Although most state site remediation statutes impose liability on a similar group of PRPs, the exact scope of the term may vary. The term can apply to either onsite or offsite liabilities of a particular enterprise.

Power Curve: A curve provided by a *WTG* manufacturer showing the expected output of its WTG over the full range of windspeeds. Every specimen of a given model of WTG should be able to meet this Power Curve, wherever it is located. For this reason, Power Curve testing is often not performed at a *Windfarm* if the WTG model has been well-tested elsewhere. When Power Curve testing is required, it may take several days or weeks (or more) to finish, since the wind gods do not deliver each required speed on demand. The manufacturer will often guaranty a certain percentage of the Power Curve, perhaps 98 percent.

Power Market Study: A study performed by consultants who analyze the power supply and demand in the market area for a *Merchant Facility* sought to be financed, projecting out at least as long as the life of the loan. This is supposed to help Lenders determine whether their loans will be repaid.

Power of Attorney: An instrument permitting an individual to serve as the attorney or authorized agent of the grantor.

Power Pool: Two or more interconnection power systems planned and operated to supply power in the most reliable and economic manner.

Power Purchase Agreement / PPA: Contract between a power generator and one who is seeking to purchase electricity. The PPA defined all of the commercial terms for the sale of electricity between the two parties.

Power Tower: The focal point for some types of *Solar Thermal* plants, where *Heliostats* direct the sun's rays, where light is converted to heat and imparted to a fluid which is piped back down to run a steam turbine on the ground.

PPA: Power Purchase Agreement.

PPSA: The Personal Property Security Act, the Canadian equivalent of *UCC* Article 9.

Precautionary Filing: The financing statement filing made pursuant to section 9-408 of the *UCC* perfecting the security interest of the Lessor in the leased asset in the event the Lease is considered a security agreement under section 1 201(37) of the UCC. Actual UCC filings should be made against the Lessee in all *Lease Purchases* or other leases that are not *True Leases* for commercial law purposes since the Lessee owns the leased equipment subject to the Lessor's security interest. Precautionary Filings should be made against the Lessee in all leases that are intended to be *True Leases* for commercial law purposes in case, upon bankruptcy of the Lessee or otherwise, the lease is determined not to be a True Lease for commercial law purposes.

Preference: Transfers made during the 90 days preceding a bankruptcy filing (or one year for transfers to insiders, in each case the "Preference Period") (i) to a creditor; (ii) on account of an antecedent debt owed by the transferor before the transfer is made; (iii) while the transferor was insolvent; and (iv) that enable the creditor to receive more than it would have received in a Chapter 7 liquidation case under the Bankruptcy Code. Preferential transfers are subject to *Clawback*, but creditors may avail themselves of certain defenses to a Clawback action such as the "ordinary course of business defense" and the "new value defense." One rationale behind Preference rules is that they prevent creditors from making a mad grab for assets when they learn that the debtor is becoming insolvent and prevent debtors from favoring some creditors over others as bankruptcy nears.

Preliminary Title Report / PTR: A report by a title company identifying the owner of the property and the interests therein, including easements, encumbrances and other property rights which affect the property. This document does not itself provide insurance coverage or commit the title company to provide coverage. It is used as a tool early in the financing process to learn what title issues need to be cleaned up, *e.g.,* releasing an old mortgage that was paid off but the release was never recorded.

Prepayment Premium: Seen in term loan facilities, this is a fee paid by the Borrower for prepaying the loans. The fee is expressed as a percentage of the amount of the loans being prepaid. Typically, prepayment fees will be set on a sliding scale, for instance, two percent in year one and one percent in year two. The fee may be applied to all prepayments of term loans or only those made from a refinancing or at the discretion of the Borrower.

Present Value: The discounted value of a payment or stream of payments to be received in the future, taking into consideration an agreed "discount rate." Another way of looking at this is, if you started with the Present Value and used the discount rate as an interest rate earned by the Present Value, you would end up with exactly the "payment or stream of payments" mentioned in the first sentence.

PRI: Political Risk Insurance.

Pricing Flex: A *Flex* provision that allows the Arranger to change the pricing of the facilities. Pricing Flex refers to the changes that the Arranger may make to the interest rates if needed to facilitate the *Successful Syndication* of the credit facilities. Pricing Flex sometimes includes limitations (*e.g.,* that the rate may not be increased by more than two percent). See also *Market Flex* and *Structure Flex.*

Primary Obligor: When a guaranty is in place, this refers to the person whose obligations are being guaranteed.

Primavera: This a computer program that tracks project tasks in a very sophisticated way, including analyzing *Critical Path*.

Private Lender: See *Public/Private Information Undertaking*.

Privatization: A process by which a project (*e.g.,* an airport) or an industry sector (*e.g.,* oil exploration and production) that was previously owned and/or operated by the government or a governmental entity is either sold to private investors or becomes operated by private investors pursuant to a *Concession* or similar agreement. The idea is that not only does the government receive proceeds from sale of the asset, perhaps allowing it to pay down debt, but also the privatized business should be more efficiently run than before.

Probable Reserves: Often referred to as "P2", these are reserves which analysis of geological and engineering data suggest are *more likely than not* to be recoverable. There should be at least a fifty percent probability that the quantities recovered will equal or exceed the sum of the estimated *Proven Reserves* plus *Probable Reserves.*

Production Tax Credit / PTC: A federal tax credit per unit of production (2.2¢/kWh for 2012 (or 1.1¢/kWh for certain qualifying facilities), and adjusted annually for inflation) allowed to a qualifying energy facility that produces and sells energy from certain renewable resources to an unrelated person. Qualifying energy facilities include wind, geothermal and biomass facilities, among others, that are located in the United States or a United States possession. PTCs generally may be claimed over a 10 year period from the placed-in-service date of the facility. There is a scale-back in PTCs for projects that receive tax-exempt financing or other governmental energy subsidies. PTCs are not "refundable," meaning they can only be used to offset tax liability. See *Tax Equity Investor*.

Production Well: In a geothermal wellfield, one of the wells from which is taken the *Brine* or steam. Compare *Injection Well*.

Pro Forma Title Policy: The negotiated Title Policy to be issued upon satisfaction of all title company conditions. This document does not itself provide coverage or commit a title company to provide such coverage but the pro forma can serve as a basis for interim title coverage pursuant to the *Closing Instruction Letter* until the Title Policy is issued.

Project Costs: Term universally used in *Project Finance* to denote *all* of the costs of the project that are allowed under the "Use of Proceeds" covenant of the Credit Agreement. In other words, development costs, land acquisition, equipment, consultant fees, construction, legal fees, startup costs, initial fuel fill, initial reserves, etc.

Project Documents: This term is almost universally used in *Project Finance* to denote all contracts to which the Borrower is a party *other than* those related to the financing itself (which are usually called Credit Documents, Loan Documents or Financing Documents).

Project Finance / PF: A type of *Limited Recourse Financing* whereby debt is incurred by a project developer (known as the project company, which is formed by a Sponsor), and in combination with equity contributed by the Sponsor is used to finance the development and construction of a capital-intensive project, such as a power plant or toll road, typically by means of construction loans that later convert to term loans upon completion of the project. A primary feature of Project Finance is that the Lenders advance debt on the basis of their evaluation of the projected revenue-generating capability of the project, rather than the credit quality of the project Sponsor. The equity of the project company and the project assets, including the *Project Documents* and other cash flows, are pledged as *Collateral* for the debt.

Proved Undeveloped Reserves / PUDs: Oil and gas reserves that exist but for which actual development has not commenced. US domestic oil and gas lenders will often not attribute much value to PUDs.

Proven Reserves: Sometimes called "proved reserves" or "P1", these are reserves that are known to exist and to be exploitable to a reasonable degree of certainty — from known stores, under current economic conditions and using current technology. Investment in (and exploitation of) such reserves is commonplace. The concept of Proven Reserves should provide a near-certain indicator (around 90 percent) of how to target investment in oil and gas. However, the exact definition of Proven Reserves varies from company to company and from country to country. Perhaps unsurprisingly, the numbers disclosed by national governments are often manipulated. See also *Probable Reserves* (P2) and *Possible Reserves* (P3).

PRP: Potentially Responsible Party.

Has the advantage of sounding like "perp," as used on *Law & Order*; in both cases, it's maybe "the guy who did it."

Prudency Review: To be allowed to pass along costs to customers (aka, to *Rate Base* the cost), the *PSC* has to conclude that the utility acted prudently and reasonably in incurring the cost. A Prudency Review is a formal process to determine whether the utility met the standard.

Prudent Industry Practices: Standardized definition that sets forth the standard of care by an operator of a particular facility. The idea is not to impose a performance standard higher than is generally accepted in the industry. Sometimes a geographic region is specified which, depending on the region, may raise or lower the bar. In the electricity industry, the term used is sometimes "Prudent Utility Practices," but this can be dangerous because some utilities might have higher operating standards than independent power producers.

PSC: Public Service Commission. Used in some states in lieu of *Public Utility Commission.*

PSD: Prevention of Significant Deterioration, a program established under the federal *Clean Air Act* that imposes permitting and emission control requirements on new major sources and major modifications at existing sources of air pollution that are located in areas that otherwise meet applicable national ambient air quality standards. PSD permits generally require that a source install emission control equipment that meets a *Best Available Control Technology* standard and require an evaluation of the source's impact on air quality and certain other environmental resources.

PTC: Production Tax Credit.

PTO: Permit to Operate.

PTR: Preliminary Title Report.

Public Lender: See *Public/Private Information Undertaking.*

Public/Private Information Undertaking: A provision in the *Commitment Letter* that provides that the company will make two versions of the *Bank Book*, one for *Public Lenders* and one for *Private Lenders*. The public book will generally be the same as the private book, but will have been scrubbed of any material non-public information about the Borrower, Sponsor or target, as applicable. Note that projections are almost always considered to be material non-public information. Note also that even deals for private companies will include Public Lenders and, therefore, will require two versions of the Bank Book.

PUC: A state public utility commission (sometimes referred to as a public service commission or a department of public utilities (or service)), which is typically responsible for authorizing regulated utility expenses and rates, and often regulates siting of new facilities.

PUDs: Proved Undeveloped Reserves.

PUHCA: Public Utility Holding Company Act of 2005, which replaced the Public Utility Holding Company Act of 1935. New PUHCA provides for federal and state access to books and records of electric and gas utility holding companies (and their affiliates).

Pumped Storage: A project that moves water from a reservoir at low elevation to an *Impoundment* at higher elevation during *Off-Peak* periods (when power is very inexpensive), and then back down through a *Penstock* and water turbine and into the reservoir during *Peak* periods (when power is expensive). This is the only utility-scale means of (basically) storing electricity. It sounds like, and is, a great idea. Unfortunately, Pumped Storage facilities are rare due to siting impediments. Pumped storage can also be used in reference to air pumped into enormous underground caverns during Off-Peak periods and released through turbines during Peak periods.

Punchlist or *Punch List:* The part of the construction work on a project that remains after *Substantial Completion*, consisting of tasks which if they were never completed would not interfere with the project basically running as intended. For example, painting and landscaping. This is not to say the owner doesn't care if the Punchlist is ever completed, he does. Often, the owner is entitled to hold back 2x the cost of completing the Punchlist and only release those funds as each item is crossed off.

PURPA: The Public Utility Regulatory Policies Act of 1978. Thanks to the *PURPA Put*, this statute is the grand-daddy of the *Project Finance* business in the United States.

PURPA Put: The mandatory purchase by electric utilities of power from a *QF* required under PURPA, which led to long-term *Power Purchase*

Agreements between utilities and QFs. The Environmental Policy Act of 2005 and new regulations by FERC have eliminated the PURPA Put in organized electric energy markets.

Put Right: The right to make somebody else buy something you have for a predetermined price. In Bond land, a Put Right which allows the bondholder to have the Issuer buy back the Bond at Par with a modest premium might come about upon the occurrence of certain events, such as a *Change of Control*.

PV: Photovoltaic.

QA / QC: Quality Assurance / Quality Control. These are procedures implemented by an owner well prior to its contractor or supplier delivering products or services, to make sure the owner will receive what it has contracted for. Quality Assurance means the owner is entitled to investigate "back" in the supply chain, at the supplier's factory or even earlier, to, well, assure quality. Quality Control is procedures to check whether a finished product meets specifications.

QECB: Qualified Energy Conservation Bonds.

QF: Qualifying Facility.

Qualifying Advanced Energy Project Credits: One-time, non-refundable investment tax credits available for tangible personal property (*e.g.,* equipment, but not buildings) for projects that re equip, expand or establish a manufacturing facility for the production of qualifying renewable energy assets such as solar property, energy storage systems for use with electric or hybrid-electric motor vehicles, energy grids and new qualified plug-in electric drive motor vehicles. The credit is claimed in the tax year the property is placed in service and is subject to recapture (in declining amounts) in the event of a disposal within five years of the placed-in-service date. Owners claiming the credit must reduce their depreciable basis in the property by 50 percent of the credit amount. The total amount of credits available for all qualifying projects is capped at US$2.3 billion.

Qualified Energy Conservation Bonds / QECBs: A type of tax credit bond that may be issued by state and local governments to finance a wide range of qualifying conservation purposes (*e.g.,* implementing green communities, developing renewable energy production, qualifying energy conservation research and mass commuting facilities). QECBs accrue tax credits quarterly in lieu of interest payments. Holders must include the accrued tax credits in income as interest, and can then use the credits to offset their regular and alternative minimum tax liability. The total principal amount of QECBs that may be issued is capped at US$3.2 billion, which must be allocated among states and large local governments based on population. At least 70 percent of the allocation of the bonds cannot be considered "private activity bonds."

Qualifying Facility / QF: Under PURPA, an electric cogeneration facility or small (80 MW or less) power production facility using a primary fuel source of biomass, waste, renewable resources or geothermal resources. You have to be a QF to benefit from the *PURPA Put*.

Queue Sitting: Taking up space in a generation interconnection queue without any real intent to build a new generation facility. Typically, the goal of a Queue Sitter is to be bought out by real generation projects whose spot in the queue is after that of the Queue Sitter.

Radial Line: A transmission line that connects generation or load to a transmission system that is not "looped", or fully integrated with the transmission grid.

Ramp Rate: The speed at which a particular facility can reach its rated output (*e.g.*, 5 MW/minute). This is mainly important for facilities that are expected to be *Dispatched* over the course of a day. Sometimes, there is a different Ramp Rate depending on the mode the equipment is in, such as "Cold" or "Warm Standby" and the Offtaker might pay the owner to keep the equipment in the more-available mode.

Rate Base: The value of invested capital upon which a utility is entitled to earn its regulated rate of return. Also used as a verb, as in "the PUC allowed that utility to rate base the costs of failed renewable Project X because the developer and its technology at the time of contracting seemed reliable."

Rate Case: A proceeding by a public utility before the *PSC* (or *PUC*) wherein the utility argues that the Ratepayers should be obligated to pay a particular cost incurred by the utility in the form of electricity rates (or water or other rates, depending on the type of utility).

Rated Wind Speed: Wind speed at which a *WTG* starts to produce its rated (nameplate) power. *Power Curves* will become almost flat after this speed, (*i.e.*, even higher wind will not create greater output).

Ratepayers: Utility customers.

Ratings Agency: See *Fitch, Moody's* and *S&P*. Ratings Agencies rate companies, securities and loans on a risk spectrum. The ratings directly impact the cost of borrowing.

RCRA: The Resource Conservation and Recovery Act. RCRA generally regulates the handling and disposal of hazardous wastes through the imposition of permit obligations for hazardous waste treatment, storage and disposal facilities and detailed regulations on storage, labeling and recordkeeping for generators of hazardous waste. Other provisions of RCRA establish standards for *Underground Storage Tanks* and impose remediation (or corrective action) requirements for hazardous waste disposal locations.

RDF: Refuse-Derived Fuel.

Reactive Power: The most common term in the industry as to which nobody has a clue what it means. Thomas Edison himself could not define it. In the last 30 years, no lawyer or banker has ever had to know what it means, and neither will you. If this proves incorrect, you may apply for a full refund for the purchase price of this complementary book.

REC: Renewable Energy Credit or Renewable Energy Certificate. An REC is a regulatory product created by states that represents the *Environmental Attributes* of one MWh of electric energy produced by a renewable generator. An REC is distinct from the underlying renewable electric energy from which it is derived. An REC can be used or traded (purchased and sold) to meet a state's *RPS*. State and federal environmental authorities are looking at ways to use enforcement mechanisms to make sure that RECs are real and are not oversold. In addition, federal renewable energy standards have been proposed and if enacted, may have significant impacts on current state programs.

Recapture: ITCs and *Cash Grants* are provided to taxpayers expected to hold the qualifying property or their investment in the qualifying property (through an entity taxed as a partnership) for a 5 year period. Recapture refers to a sale of qualifying property or a sufficiently large sale, disposition or dilution in the ownership of an investment in qualifying property within the 5 year period requiring the owner to increase its taxes for *ITCs* and repay the US Treasury for Cash Grants to reflect the change in ownership. The recapture percentage begins at 100 percent (for transfers in the first year) and decreases in equal 20 percent increments over the 5 year recapture period. There is a *de minimis* (not big enough to be worth fussing about) rule — a *Tax Equity Investor* can transfer up to one-third of its equity interest without triggering Recapture.

Receptor (Noise or *Odor):* Scientific term for an ear or a nose in range of a God-awful noisy or stinky facility, not counting those ears or noses paid to be there. So a private residence near a composting facility might be "the nearest odor Receptor" for study and permitting purposes.

Refuse-Derived Fuel / RDF: After *Municipal Solid Waste* is run through Rube Goldberg-like processes to remove recyclables and non-combustibles, this is what you actually put in the boiler at a *Trash-to-Cash* facility.

Regional Transmission Operator / RTO: A non-profit organization that operates and controls, but does not own, a transmission system, and administers centralized wholesale power markets, similar to an *Independent System Operator*. FERC regulates RTOs and they must have certain functions and characteristics not required of ISOs to attain RTO status; for example, unlike an ISO, an RTO must meet FERC requirements of having adequate geographic "scope." The terms ISO and RTO are often used interchangeably in the industry and by FERC, and some regional operators that have kept "ISO" in their name, like the ISO-NE, technically have RTO status at FERC.

Reg-Out (Clause): A provision in a *PPA* which allows the utility Offtaker to terminate the PPA if the *PUC* does not permit the utility to pass through PPA costs to *Ratepayers*.

Reimbursement Agreement: An agreement between an *Issuing Bank* and its *Account Party* under which the Account Party agrees to reimburse the Issuing Bank for any *Draws* of outstanding *Letters of Credit*. It is only called a Reimbursement Agreement if there are no other credit facilities involved; otherwise it is called a Credit Agreement or Financing Agreement.

Reinsurance: Reinsurance is a way for insurance underwriters to spread around risk of a claim, by laying off some of it to a type of "wholesale" insurer called a reinsurer. See also *Coinsurance*.

Release: A broadly defined term that, under *CERCLA*, includes the spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping or disposing into the environment (including the abandonment or discarding of barrels, containers and other closed receptacles containing any hazardous substance or pollutant or contaminant). Although not universally adopted, in some jurisdictions, the migration of contamination through soil or groundwater is also considered a "release."

Reliability: This refers to how certain a *Grid* operator can be about the future output of a power source. Somewhat counterintuitively, a wind farm is highly Reliable because there are multiple *WTGs*, and so even if a few are broken, the rest will generate, and over time the wind can be counted on to blow. However, *Windfarms* are also highly *Intermittent*.

Remarketing: When a *Variable Rate Debt Obligation* or *Auction Rate Security* reaches the end of an interest period and the holder no longer wants the bond, the process of finding another buyer.

Remedial Plan: Usually refers to what an owner has to do when its project is behind schedule in terms of achieving project completion. The owner may have covenanted to create a Remedial Plan to show how the schedule will be made up sufficiently to stay out of danger of [insert nasty consequence of completing late, such as losing an offtake agreement or a material permit]. Can also refer to a strategy for addressing the removal or containment of site contamination so as to render the site safe for future use or to prevent further potential injury to human health or the environment.

Remediation: Process by which contamination at a site is addressed in order to make the site safe for future use or to prevent further potential injury to human health or the environment. Remediation can often be defined to include the investigation of a site and the development of a remedial plan. Remediation is often preceded by several rounds of site investigation and analysis.

Renewable Electricity Standard / RES: As of this writing, the federal equivalent of the *Renewable Portfolio Standard*. One hurdle is that not all states have much in the way of renewable energy resources.

Renewable Energy: Energy created by technology which takes advantage of energy renewed by nature, such as biomass, hydroelectric, wind, geothermal, solar thermal, photovoltaic, wave motion and tidal motion.

Renewable Energy Credit / Renewable Energy Certificate: See *REC*.

Renewable Portfolio Standard / RPS: State law mandates placed upon utilities to acquire not less than a specified percentage of their electricity from renewable resources by a certain date. These laws are all over the map, so to speak, in terms of whether the power must come from within the state, whether having a contract is sufficient to establish compliance (even if the technology is not proven to be viable), whether there are earmarks (sub-minimums) for certain technologies, the penalties for non-compliance, whether existing renewable generation counts, what counts as being renewable, etc. Approximately 30 states have passed RPSs.

REO: Real estate owned. Property that a lender purchased at its own foreclosure sale. REO is then held until the market improves, or fixed up and then sold.

Repatriation Risk: Risk that a foreign nation will restrict or limit the ability of investors to return the proceeds of their investment in that foreign nation back to the investor's country. The risk is rooted in exchange controls. When you make money in the foreign currency and want to repatriate it, you have to exchange it for your currency. Some countries impose restrictions on foreign exchange if it is perceived as deflating the value of their currency.

Repowering: Refers to re-using the original site of a power plant of whatever technology for a new power project, salvaging as much of the infrastructure as possible. Even though Repowering requires new permits, they are vastly easier to obtain than for a new project, since the Repowering is invariably better for *Ratepayers*, *NIMBYs*, the jobs market, the tax base, birds, investors, neighbors and puppies, than the existing facility.

Representation and Warranty: An assertion of fact in a contract (such as a merger agreement or Credit Agreement). Representations and Warranties are the means by which one party to a contract tells the other party that something is true as of a particular date.

Request for Proposal / RFP: A somewhat open-ended solicitation made to a large group, asking for ideas for how to solve the requestor's problem. Unlike an "offer" to enter into a contract, it cannot be "accepted" to result in a contract. If a RFP response is of interest, the requestor will invite the proposer to contract discussions.

Required Lenders: The Lenders holding more than 50 percent (rarely, 66.6 percent) of the aggregate principal amount of outstanding loans and unfunded commitments under a Credit Agreement. Usually required for approval of amendments and waivers under a Credit Agreement, although certain Amendments require a 100 percent vote. See also *Class Voting* and *Supermajority Voting*.

Requirements Contract: A contract under which a supplier agrees to sell at a set price all quantities of a particular product that the buyer needs over the duration of the contract, and the buyer agrees to purchase the products exclusively from that supplier.

RES: Renewable Electricity Standard.

Reserve Margin: The amount of *Capacity* required to be available to an electric utility beyond its peak load, in case peak load is underestimated or normal supplies are unavailable due to a *Forced Outage*.

Reserves: The estimated quantities of oil or gas that are claimed to be recoverable under existing economic and operating conditions. This is a much vaguer figure than *Proven Reserves*, but still provides some indication of the quantity of economically recoverable oil or gas.

Reservoir: Porous, permeable rock formations where oil and gas have accumulated. It has a "cap" of less permeable rock that prevents its escape.

Residual Value: The value of a leased asset at the end of a Lease. Since the leased asset reverts to the Lessor at the Lease term, the Lessor uses Residual Value (in addition to *Lessor's Cost* and the Lessor's desired rate of return on investment) to determine rent. The higher the assumed Residual Value, the lower the rent.

Resiliency: Because wind power is generated by large numbers of small generators (the individual *WTGs*), individual failures do not have large impacts on power grids. This feature of wind power is referred to as Resiliency.

Retainage: A means of keeping a contractor's attention until the job is finished, Retainage is a withholding of a percentage (usually 5-10 percent) of each progress payment under a contract until the contract is fully performed. Under many contracts, the contractor's profit margin is not much higher than the Retainage, so it is a powerful tool to hold back that much money.

Revenue Decoupling: A ratemaking mechanism that is intended to remove a utility's disincentive to promote customer efforts to reduce energy consumption or demand or install distributed generation. Certain disbursements to the states of certain funds that were made available under *ARRA* are contingent on the states pursuing Revenue Decoupling mechanisms. See also *Demand Side Management*.

Revolving Facility or *Revolver:* A credit facility structured as a line of credit that can be borrowed, repaid and reborrowed at any time prior to maturity, at the Borrower's discretion. A Revolving Facility can also often be used for the issuance of *Letters of Credit*.

RFP: Request for Proposal.

Right of Way / ROW: A right to cross another person's property for a specified purpose.

Right-Way Risk: When an entity is party to a hedging contract and there is a strong correlation between an event that affects the party's creditworthiness and the party's exposure under the hedge contract, if you are the party's counterparty, it is worth examining whether the risk you are taking is Right-Way Risk or *Wrong-Way Risk.* If the event makes your counterparty more creditworthy while they would potentially owe you more under the contract, that is Right-Way Risk, and the opposite is Wrong-Way Risk. For example, say you have contracted to buy power from GenCo. The higher the cost of power, the more GenCo owes you if they breach their contract with you, *i.e.,* the more you are *In the Money*. If you have taken a lien in the generating asset to secure GenCo's obligations to you, you have taken Right-Way Risk — the more you are exposed to a potential GenCo default due to high energy prices, the higher presumably is the value of your collateral. See *Wrong-Way Risk* for an example of one of those.

Riparian Rights: The right of owners of land located on the banks of waterways to (i) the use of the water flowing through the property, (ii) the soil under the waterway and (iii) accretions of soil along the banks of the waterway.

RMU: Removal Unit. Under the Kyoto Protocol, credit arising from emissions reductions created by countries by means of projects that reduce emissions (land-use change and forestry). RMUs are only traded at the country level, and can be used toward fulfilling national obligations as of 2008.

Root: The part of a turbine Blade at the base, where it is connected to the *Hub*.

Rotor: The part of a *WTG* consisting of the *Hub* and *Blades.*

ROW: Right of Way.

Royalty: Income from production of oil and gas, geothermal or windpower facilities that is earned by the holder of the *Royalty Interest*.

Royalty Interest: Ownership of a percentage of production or production revenues. The owner of this share of production does not bear any of the cost of exploration, drilling, producing, operating, marketing or any other expense associated with drilling and producing an oil and gas well. In the *Windfarm* context, the Royalty Interest would typically be a percentage of gross revenue, payable to the landowner.

RPS: Renewable Portfolio Standard.

RTO: Regional Transmission Operator.

Rule 10b-5 Representation: Also known as a 10b-5 Rep, this term is generally used as shorthand for a *Representation and Warranty* by an Issuer, target or Borrower that the diligence information provided is complete and correct in all material respects and does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements contained therein not misleading. This language is based on the SEC's Rule 10b-5 issued under the Securities Exchange Act of 1934.

Runaway Turbine: WTGs are designed to shut down when wind speeds exceed a rated maximum specified by the manufacturer and programmed into the control software. Shutdown is accomplished through *Feathering* the *Blade* and applying a brake to the *Rotor*. If these systems fail, you have a Runaway Turbine. (To see one fail catastrophically, go to http://tinyurl.com/387dnp.) Once WTGs reach the age of 14 or 15, they might Runaway if they don't feel sufficiently loved.

Run of the River: A hydroelectric facility that does not use an *Impoundment* of any sort. It just diverts water from a river (never all of it) at an *Intake Structure*, runs it through a *Penstock* and then a water turbine, and then returns it to the same river.

Running With the Land: Refers to covenants that pass with the transfer of land (*i.e.,* they are binding on all owners, as opposed to being only enforceable against the owner who initially agreed to them).

S&P: Standard & Poor's, a division of The McGraw-Hill Companies, Inc. S&P is one of the two most powerful *Rating Agencies*, along with *Moody's*. *Fitch* is a third Rating Agency.

Sale-Leaseback: A transaction where a company sells an asset (usually to a financial services company of some kind) and then immediately leases back that same asset. Companies engage in Sale-Leasebacks for a variety of reasons including to raise cash, get assets off their balance sheets and shift the market risk on the underlying asset. Sale-Leasebacks are very similar economically to secured debt, and are therefore treated very similarly under *Indentures* and Credit Agreements.

SCADA: Supervisory Control and Data Acquisition. Basically, remote-control and monitoring of a power plant or pipeline. It is particularly useful in the context of Windfarms, which are all in a sense remote. Even the old first and second generation WTGs in the late 1980s used SCADA, which allowed remote operators to measure windspeed, rotor speed, output, gearbox oil temperature, etc., clear faults, and shut down turbines or feather their blades.

SCR: Selective catalytic reduction, a technology which reduces nitrogen oxide emissions.

Secondary Syndication: The further syndication that occurs after the lead Lenders have each already achieved their *Target Hold*.

Secured Parties: Those who hold a given Security Interest. Generally defined to include the Lenders, the Administrative Agent, the Collateral Agent, the Issuing Bank and sometimes Hedge counterparties, this group will incorporate all parties in favor of whom a grant of security over assets has been made.

Securities Account Control Agreement: See *Account Control Agreement.*

Security Agreement: The document by which a Borrower grants a Security Interest in personal property *Collateral.*

Security Interest: A right held by a *Secured Party* to realize upon *Collateral* if the debtor fails to meet payment or performance obligations and an *Event of Default* occurs as a result. The Secured Party sells the Collateral pursuant to statutory procedures and applies the proceeds of sale against the debt. If the proceeds exceed the amount of the debt, the Secured Party has to give the leftover to junior Secured Parties until they are paid, and then to the debtor.

Separateness: Various techniques and principles used to create *Bankruptcy Remote Vehicles*, such as observing all separate entity formalities such as having board meetings and keeping separate books and records, stationery and bank accounts, and having independent directors, among other things. This is *all* intended for *one purpose*, to avoid *Substantive Consolidation* of a Bankruptcy Remote Vehicle in its parent's bankruptcy.

Serial Defect: A manufacturing or design defect found in all of a given model or batch of machines. Outside the context of *Wind Turbine Generators*, the difference between a Serial Defect and any other defect is meaningless: if the machine is still under warranty, you call the manufacturer and they come out and fix it and its "serial" nature is irrelevant (unless you own more of them). But with WTGs, some *TSAs* provide that if the defect is shown to be a Serial Defect, the manufacturer will remedy the Serial Defect on *all* of the turbines, *not just the ones that have already broken*. This is a potentially a huge economic difference to the owner, since remediation can be scheduled during *Off-Peak* periods.

Setback: A statute or regulation that creates a zone where improvements may not be built. Examples of setback zones include a restriction on building any improvements within a certain number of feet from a property line or roadway, or a restriction that no wind turbines may be built within certain distances from other improvements. The *BLM* prohibits placement of turbines within 1.5x the height of the turbine from BLM's property line.

Setoff: Setoff can be a statutory right banks have to take money from the account of a depositor if the depositor is also a borrower from that bank and is in default on the loan. It can also be a contractual right agreed by the parties to allow a party which owes money to the other party under the contract to subtract anything the other party owes it first, before making payment. This latter usage of the term would be the same as *Net Payment*.

Settlement Amount: Depending on the context, either the amount due at the end of each specified interval under a Swap or the amount determined to be due following an *Event of Default* and termination under a Swap.

Severable Modifications: Modifications made by the Lessee to the leased asset during the Lease term to which the Lessee will retain title, usually defined as modifications that are not required by law and are readily removable without causing material damage to the leased asset.

SGIA: *Small Generator Interconnection Agreement.*

Shoulder Period: The period during which Load is transitioning between *Peak* and *Off-Peak* periods. A Shoulder Period might be used in a *TOU Metering* tariff or in a *PPA* to set pricing for certain months/seasons.

Sight Draft: Written demand for immediate payment submitted by the *Beneficiary* of a *Letter of Credit* when effecting a *Draw*.

SILO: Term used by *EPC* Contractors to refer to areas in which the scope is too narrow and which will require a *Change Order* (price increase).

Simple Cycle: A combustion turbine that is designed to cycle (start and stop) on short notice. Compare *Combined Cycle*. Simple Cycle facilities have higher heat rates than Combined Cycle plants, but are easier and faster to build and have a lower capital cost.

Single Investor Lease: A Lease that is not a *Leveraged Lease*.

SIP: State Implementation Plan. Each state is required under the Clean Air Act to put together an "implementation plan," which sets out how the state intends to achieve compliance with the *NAAQS*. *EPA* then approves (or disapproves) the SIP, modifications to it, or portions of it, as the case may be. Each new air permit must be issued in compliance with the SIP. When a SIP is not approved, the EPA technically has the authority to "drop down" through unapproved parts of the SIP and exercise federal enforcement jurisdiction. As a practical matter, SIPs typically consist of the combined air quality regulations and rules promulgated by the relevant state air quality agency, or the local air districts in each state.

Site Control: A stage in project development when the owner either has all of the land rights it will need or has options on the rights. In the interconnection process, the generator must show a transmission owner or operator that the generator has Site Control and is not merely *Queue Sitting*.

Skim: The difference between what a *Sponsor* has agreed to pay an *Arranger* as an *Upfront Fee* and what the Arranger agrees to pass along to the other Lenders during the *Syndication*. Occasionally (but rarely), Skim applies to the interest rate payable under a credit facility. Skim is usually attributable to the Lead Arranger having invested considerably more time and energy into a transaction than the other Lenders, or to some set of the Lenders having provided an *Underwriting*.

Slug: A large quantity of gas or liquid that exits a pipeline (see *Slugcatcher*). Slugs exiting the pipeline can overload the gas or liquid handling capacity of a plant at the pipeline outlet, as they are often produced at a much larger rate than the equipment is designed for.

Slugcatcher: Units in which *Slugs* at the outlet of a pipeline are collected or "caught." Slugcatchers can be used continuously or on-demand. A Slugcatcher permanently connected to the pipeline will buffer all production, including the Slugs, before it is sent to gas and liquid handling facilities.

Small Generator Interconnection Agreement / SGIA: An *Interconnection Agreement* often based on a standard, *FERC* pre-approved form, between a generator and a transmission owner and/or operator, and typically regulated by FERC. The SGIA is more streamlined than the *LGIA*.

Smart Grid: A combination of technologies, many not yet developed, whose broad function is to make the electricity grid more interactive and whose broad purpose is to reduce the need to build additional power plants and to reduce electricity consumption. For example, there might be an ability by the utility to curtail non-essential load (such as air conditioners) by sending a signal wirelessly or through the electric distribution lines.

SNDA: Subordination and Nondisturbance Agreement.

Soft Costs: In a lease transaction, costs beyond the simple cost of the equipment, such as sales tax, installation or delivery charges, software, etc. These can usually be included in the financing, up to a limit imposed by the Lessor (perhaps 10-20 percent of the equipment cost).

Solar Thermal: Technology which converts the sun's rays to heat by concentrating them using lenses or mirrors (*Heliostats* or reflective parabolic troughs or some variation). The heat is absorbed by a fluid, at which point relatively conventional generation technology converts that heat to electricity the same way it would geothermal *Brine*.

Solid Waste Disposal Facility: The federal income tax law significantly circumscribes what types of facilities can qualify for tax-exempt financing when the ultimate borrower is a taxpaying business. Solid Waste Disposal Facilities owned by taxpaying businesses can be financed with tax exempt bonds; however, there are stringent requirements (including obtaining an allocation of the applicable state volume cap). A Solid Waste Disposal Facility collects, stores, treats, processes or disposes of "solid waste," which is garbage, refuse and other discarded solid materials resulting from industrial, commercial and agricultural operations, and from community activities. Solid waste must have no value, but a facility which disposes of solid waste by converting or otherwise recycling it into material which is not waste qualifies as a solid waste disposal facility if solid waste constitutes at least 65 percent (by weight or volume) of the total materials introduced into the process.

Sovereign Immunity: The immunity provided to foreign nations under the Foreign Sovereign Immunity Act and various judicial doctrines whereby foreign governments are immune from the jurisdiction of federal and state courts.

Spark Spread: Refers to the difference measured in dollars between gross proceeds for selling a MWh (or kWh) on the spot market and the gross cost of acquiring the natural gas fuel necessary to generate the power, having made stated assumptions about the efficiency of the conversion technology (*i.e.*, the *Heat Rate*). All other costs of generation must be paid from the Spark Spread.

Special Purpose Entity / SPE / Special Purpose Vehicle / SPV: Same as *Bankruptcy Remote Vehicle*.

Spinning Reserve: The circumspectness of political handlers after their boss has made a gaffe, measured in microns. Also, the difference between a generating unit's full capacity and its current output, which is available for an almost instantaneous increase in output. Utilities are required to maintain a certain amount of Spinning Reserves to meet load changes.

Sponsor: Use of this term implies that a financing or acquisition transaction is using an *SPE* as the Borrower or acquiror. The Sponsor is the ultimate owner of the SPE, and is the name that would be recognizable.

Spot Market: A market in which commodities are purchased and sold for cash and delivered "on the spot" or very soon after the sale. Also called a "cash market." A sale on the Spot Market is known as a "spot sale." A company sells commodities on a "contracted" basis rather than a "spot" basis if it enters into a contract to sell the commodities over a period of time at a specified price or pursuant to a specified price generating formula.

Spot Price: The price paid to the seller of a commodity in a *Spot Market*, which price may fluctuate hourly or even minute-to-minute, depending on the structure of the Spot Market.

Spread: Sometimes used as a synonym of *Margin*. Other times it means the difference between an offered sale (or purchase) price and what the purchaser (or seller) is willing to pay (accept).

Spudding In: Nothing to do with potatoes, this term refers to the very beginning of drilling operations of a new well.

Squeeze Protection: A clause in the *Security Agreement* stating that the Lenders cannot engage in an *Equity Squeeze*, with the common exception that an Equity Squeeze is permitted after a "stand-still" period if remedies against the Lessee are stayed because the Lessee is in bankruptcy or the exercise of such remedies is otherwise prohibited by law.

Stalking Horse Bidder: The entity in a *363 Sale* that enters into an asset purchase agreement with the bankrupt entity prior to the auction, creating the "offer to beat." This is thought to be the only context in the entire animal kingdom where horses stalk.

Standby Letter of Credit: A *Letter of Credit* which is not expected to be drawn unless the Account Party fails in performance of some duty to the *Beneficiary*. For example, a *Windfarm* developer might covenant with its site lessor to restore the site upon decommissioning the Windfarm after 25 years. To "secure" that obligation, the developer maintains a Standby Letter of Credit for the benefit of the lessor, sized to cover the expected restoration costs. Only if the developer does not perform may the Standby Letter of Credit be drawn.

Standstill: Where a creditor is legally and contractually entitled to exercise remedies against its Borrower due to an *Event of Default*, but an *Intercreditor Agreement* or some other arrangement prohibits it from doing so. Often the Standstill expires after a time (perhaps 180 days). When the Standstill applies to the senior creditor, it is usually to give the junior creditor time to remedy the default to keep from being wiped out in a Foreclosure by the senior. When the Standstill applies to the junior creditor, it is because the senior creditor does not want its Borrower distracted from fixing a problem by the possibility of a Foreclosure or other action by the junior.

Staple Financing: A financing package being offered up by the investment bank that is acting as the sell-side advisor in connection with the auctioning of a target company or asset. Called "staple" because the financing package (the *Commitment Papers*) is "stapled" to the bid materials that are sent out to potential buyers. Staple Financings are a useful way for the investment bank acting as the advisor to a company that is putting itself on the auction block to also be involved in the financing of the acquisition by the buyer.

Stated Amount: The face amount of a *Letter of Credit, i.e.*, the amount that is available to the *Beneficiary to Draw*.

Steam Host: A *Thermal Host* that purchases steam (as opposed to other types of thermal energy) from a generation owner.

Steam Turbine Generator: A steam turbine linked to an electrical generator on the same main central shaft. All solid fuel (coal, biomass, *RDF*, waste coal) and nuclear generation facilities use these as part of their *Turbine Island* equipment.

Step-In Rights: Contractual rights granted to a party to take over operation of a facility if the owner fails in some way in its contract performance. These are rights apart from rights to appoint a receiver that are often held by *Secured Parties* to protect their Collateral pending exercise of further remedies.

STG: Steam Turbine Generator.

Stimulus Bill: The American Recovery and Reinvestment Act of 2009, a federal law passed in February 2009 that included billions of dollars of benefits to the renewable energy industry.

Stipulated Loss Value: See *Termination Value*.

Stranded Cost: When the electricity sector was deregulated in some US jurisdictions, utilities lost their monopoly status as generators. (While transmission and distribution are "natural monopolies," generation is not—this was the point of the deregulation.) The utilities had assumed they would recover all of their capital costs over time through their rates. But with deregulation, some customers could choose to purchase power from more competitive (cheaper) sources, leaving fewer ratepaying customers to pay for the non-competitive equipment, the Stranded Costs. To gain utilities' and customers' political buy-in to deregulation, legislators devised various ways to allocate the Stranded Costs fairly.

String: A row of *WTGs*, sometimes within an *Array*.

Structural Subordination: Non-contractual *Subordination* created where debt is issued by a holding company or other parent entity, with no guarantee from the operating subsidiary that is the Issuer/Borrower under other indebtedness. The parent debt is effectively *Subordinated* to the debt held closer to the operating assets since all the operating subsidiary's debt gets paid in full in a bankruptcy before anything is dividended up to the holding company. Similarly, if the subsidiary's debt is in default, dividends to the parent will be blocked. See also *Subordination*.

Structure Flex: The changes that the *Arranger* may make to the structure (*i.e.*, the type of debt offered, or the location of the Borrower within the credit group) of the credit facilities provided for in the *Commitment Letter* if needed to facilitate the *Successful Syndication* of the credit facilities. Structure Flex is considered more draconian than Pricing Flex because changing the structure may have broader ripple effects than just paying more money. However, sometimes changing the structure can avoid having to invoke Pricing Flex. For example, if it can be used to avoid *Structural Subordination*.

Stuffee: A bank that is not particularly discriminating in the loans it will purchase on the secondary market. Sometimes used to refer to a bank that might be discriminating but which does not have its own loan origination capabilities.

Subdivision: A legally valid division of property into two or more separate parcels pursuant to locally prescribed restrictions, approvals and procedures. In some jurisdictions, subject to certain exemptions, a party cannot transfer, lease or finance a property unless it has been legally subdivided. The restrictions are designed to keep people from dividing up land in ways that cannot be discerned from review of the public records, so as to minimize title disputes.

Subordination: Subordination always involves at least two *Classes* of creditors (senior and junior) with a negotiated set of relative rights vis-à-vis a particular Borrower and pool of *Collateral*. The term "subordinated" by itself is not sufficient to describe the junior creditor's rights, since there are so many types of subordination. This is all spelled out in the *Intercreditor Agreement* or an article of a subordinated debt *Indenture*.

Subordination and Nondisturbance Agreement or *Subordination, Nondisturbance and Attornment Agreement:* Same as *Nondisturbance* and *Subordination Agreement*.

Subrogation: Not the same as subordination, or anything like it. This term is *only* used in situations where there has been a payment made under a guaranty or under an insurance policy. If you are the guarantor or insurer, Subrogation is your legal right to go after the entity that caused you to have to pay, and recover the amount of the payment. In the guaranty context, that would be the *Primary Obligor*. This is why guaranties often have the guarantor waive Subrogation until the beneficiary of the guaranty is no longer a creditor of the Primary Obligor (since the beneficiary doesn't want a new co-creditor). In the insurance context, the entity that caused you to have to pay is whoever *broke the thing* in the case of property insurance or *injured the person* in the case of liability insurance. For instance, if your neighbor's dead tree falls on your house, your insurance company pays you, and is then Subrogated to your rights against the neighbor, so can sue the neighbor for negligence. In contracts where your counterparty agrees to provide and pay for property or liability insurance covering the subject of the contract, you want the counterparty's insurer to waive Subrogation against you. Otherwise, what is the benefit of the insurance if you can be sued for allegedly causing the injury?

Substantial Completion: The step of completion of construction of a project beyond *Mechanical Completion*, where all performance tests have been completed and the only thing left is completion of the *Punchlist*.

Substantive Consolidation: The pooling of the assets and liabilities of separate legal entities in a bankruptcy. Creditors of substantively consolidated entities will have a claim against the single pool of assets and guaranty claims. The notion that a bankruptcy court can order the Substantive Consolidation of the assets and liabilities of multiple affiliate debtors dates back many years. The remedy of Substantive Consolidation is "equitable," not statutory, and is not the same thing as *Piercing the Corporate Veil*. Whether it will be ordered in a particular case will turn on how the court chooses among and applies standards that have developed as judge-made law, rather than through analysis of a statute. Historically, Substantive Consolidation has been reserved for cases where (i) the financial affairs among affiliates are so entangled—whether by design or sloppy business practices—that an accurate assessment of which entity is obligated to a particular creditor or group of creditors cannot be determined or could only be determined at undue cost or

(ii) where creditors generally had dealt with the enterprise as a single consolidated entity (rather than separate legal entities). Courts routinely state that Substantive Consolidation is to be granted "rarely," though courts routinely permit Substantive Consolidation when it is consensual.

Subsurface Risk: The risk that geotechnical studies such as core sampling were not sufficiently extensive to reveal all relevant subsurface conditions prior to commencement of construction, such as an unknown *UST,* a giant slab of solid rock, unstable soil or an aquifer. Usually stated in terms of who is taking it, the contractor or owner (and rarely is it the contractor).

Successful Syndication: In *Commitment Paper* land, a number of things happen once the Arranger has achieved a Successful Syndication. For example, *Flex* rights terminate. The term is not always defined in Commitment Papers, but when it is, it is usually with reference to the Arrangers' *Target Hold*. For example, if the original commitment is US$500 million, Successful Syndication may be defined as the point at which the Arranger has Syndicated commitments such that it is only on the hook for US$50 million.

Supermajority Voting: Situation where a percentage of the Lenders under a Credit Agreement greater than a simple majority (usually 65 percent to 80 percent) is required for certain particularly material amendments or waivers.

Supplemental Rent: Generally, all amounts owed by a Lessee under a lease transaction other than *Basic Rent* and *Interim Rent*.

Survey: A pictorial depiction of the state of facts in existence on real property including boundary lines, improvements, setbacks, encumbrances and other matters affecting the subject property. For a development project, a survey will often include the future improvements to be constructed on the subject property as contemplated by a development plan.

Swap: A type of *Hedge* in which the parties agree to exchange specified cash flows at specified intervals (*e.g.,* one party agrees with the other party that it will exchange a floating interest rate for a fixed interest rate on a specified *Notional Amount* of principal at the end of each quarter). See *Interest Rate Swap* for a better explanation.

Swept Area: Measured in square meters, the area covered by rotating *Turbine Blades*. Obviously, more is better. The reason Blades are always failing is because manufacturers keep wanting to make them longer, since the Swept Area increases by the increased radius squared (doubling the blade length increases the Swept Area 4x).

Synchronization: The process of ensuring that a generation source is operating harmoniously with the rest of the power grid.

Syndication: The process by which the *Arranger* sells loans and/or commitments to a number of Lenders. Remember that the Arranger is in the distribution business and not the storage business.

Synthetic Letter of Credit: A *Letter of Credit* facility where the *Issuing Bank* relies on cash collateral to secure the Account Party's reimbursement obligation. The source of the cash collateral is up-front loans from the Lender group, and thus the Issuing Bank does need not be concerned that any Lender will not fund its participation in the facility if the Account Party does not reimburse a Letter of Credit draw.

System Impact Study: A study performed by a utility before it will agree to interconnect a new generation source within its system, to evaluate the impact of the proposed interconnection on the reliability of the system. If the System Impact Study concludes that facilities need to be constructed to provide the service, the System Impact Study is usually followed by a more detailed Facilities Study to identify specific additional facilities needed.

Take or *Pay Contract:* A contract under which an Offtaker pays its supplier for a given volume regardless of whether the Offtaker actually accepts that volume. This allows the supplier to cover its fixed costs and thereby be ready to supply in the future. It is similar to a contract where the Offtaker makes a Capacity payment (*i.e.*, a payment designed to cover fixed costs).

Target Cost Contract: A hybrid between a *Turnkey Contract* and a *Cost-Plus Contract*. In this arrangement, the owner and contractor exhaustively analyze the expected costs to build a project and this becomes the Target Cost. The contractor is in any event paid whatever it costs on a pass-through basis; but if actual costs exceed the Target Cost, some or all of the contractor's profit is relinquished. If the Target Cost exceeds actual cost (*i.e.*, the project is under-budget), the contractor is paid a percentage of the "savings" as a bonus. This is a worthwhile approach for both parties, but there are a lot of tricky (non-obvious) structuring issues not found in other types of contracts. Sometimes called a "Target Price Contract."

Target Hold: The principal amount of a credit facility that a Lender wants to sell down to during Syndication. If all of the Lenders sell down to their Target Hold, it is a *Successful Syndication*.

Tariff: The terms of service used by a public utility that have been approved by the utility's regulatory oversight body. Often, the term is used to refer to just the rate schedule part of the terms of service.

Tax Attributes: The tax benefits that can be used by owners of a facility based on the characteristics of the facility that qualify it for the tax benefit.

Tax Equity Investor: An entity invested in renewable energy or other projects which qualify for various tax benefits. The entity has tax liability from other operations that it is seeking to offset using the tax benefits. The investment is made to look like an equity investment because the tax benefits are only available to owners, but in reality is substantively more like a loan. However, if it looks *too much* like a loan, the tax benefits will be disallowed. The IRS has published safe harbor rules on this.

Tax Lease: A generic term for a Lease in which the Lessor takes the risk of ownership (as determined by various IRS pronouncements) as the owner, and is entitled to the benefits of ownership, including tax benefits.

Taxpayer ID Number: A company's Federal Employer Identification Number (FEIN). One of the items of information a Lender must obtain from the Borrower in order to comply with PATRIOT Act Requirements.

Tenor: The length of time a debt instrument is outstanding through its *Maturity*.

Term Sheet: A non-binding summary of the expected terms of a transaction.

Term-Conversion: A set of conditions that must be satisfied by a Borrower to avoid maturity of its construction loan. After Term-Conversion, the construction loan turns into a term loan and the Lenders largely do not have to think about it again until they are refinanced or the loan matures. Outside the United States, the Term-Conversion concept is not much used; rather, the important Term-Conversion features are addressed through covenants.

Termination Value: An amount calculated for a lease transaction which, at any point in time during the lease term, is sufficient to (i) pay off in full any debt (if the lease is a *Leveraged Lease*), (ii) return to the Lessor its outstanding investment in the transaction, (iii) pay to the Lessor a yield on that investment to the date of repayment, (iv) pay to the Lessor an amount in recognition of the expected *Residual Value* of the leased asset and (v) pay to the Lessor a gross-up amount so the Lessor achieves its after-tax yield. A given lease may have one or more schedules of termination values (sometimes called *Stipulated Loss Values* or *Casualty Values*) which assure to the Lessor different yields from the transaction. In particular, the parties may agree that the Casualty Value due upon an Event of Loss is less than the Termination Value due upon a termination of the lease due to an event of default since the occurrence of the *Event of Loss* is not the Lessee's "fault."

TFA: Technical Field Advisor. These are the folks sent to a jobsite by turbine and other heavy equipment manufacturers to oversee installation and assist in *Commissioning*.

Thermal Host: What you need to meet FERC's *QF* standards for *Cogeneration* facilities. The Thermal Host has to have sufficient thermal energy needs and be sufficiently near the facility that produces thermal energy. Traditionally, a Thermal Host has a long-term thermal energy purchase agreement with the generation owner.

Thin Film PV: Photovoltaic technology that converts sunlight at a substantially lower efficiency than silicon crystal (wafer) technology, but also at a much lower cost. Thin Film PV can be printed on flexible and light substances, which may lead to new applications.

Third Party Beneficiary: An entity that is entitled to the benefits of some or all of the terms of a contract without actually being a party thereto. If you want there to be a Third Party Beneficiary, the contract should say so, in which case you have an "express third party beneficiary" (and if you are the Third Party Beneficiary, that's the type you want to be). If you don't want any Third Party Beneficiaries, the contract should also say that.

Time of Use (TOU) Metering: Where a customer pays more for electricity used during Peak hours and less for electricity used during *Off-Peak* hours. For example, one TOU tariff in California has the customer pay approximately 50¢/kWh during summer peak hours (noon to 6:00 pm Monday through Friday) and 10¢ during summer off-peak (the remainder of the week), where a normal customer would pay 13.5¢ for all kWh. See also *Net Metering*. If TOU Metering were mandatory, it would result in enormous consumption savings; but at this point it is purely elective for residential customers.

Tipping Fee: The per-ton fee charged by a *Trash-to-Cash* power plant as consideration for accepting *Municipal Solid Waste* or other combustible material. Sometimes, the Tipping Fee varies depending on the usability of the material as fuel. The term is also used at landfills.

Title: One of the titles which entitles a bank to a ranking in the *League Tables*. These are Administrative Agent, Documentation Agent, Lead Arranger, Syndication Agent and Book Runner.

Title Company / Title Insurer: The company that provides *Title Insurance*.

Title Insurance Commitment: A commitment by a *Title Company* to issue Title Insurance, subject to the satisfaction of the conditions and requirements contained therein. This document does not itself provide title insurance coverage.

Title Insurance / Title Insurance Policy: A policy of insurance that insures against specified losses arising due to defects in title to real property, or invalidity of, or not having the expected priority of, mortgage liens, and certain other coverages pursuant to the included endorsements, subject to the enumerated exclusions and exceptions contained therein. In real property-secured deals, both the owner and lender have Title Insurance insuring their respective interests (ownership and priority of mortgage, respectively).

T-Line: Transmission line.

Toller: An entity providing fuel to, and purchasing electric energy and capacity from, a generation owner or operator under a Tolling Agreement.

Tolling Agreement: An agreement whereby an Offtaker provides to a project owner the fuel or other *Feedstock* for a facility, thereby relieving the owner of pricing and delivery risk as to that fuel or Feedstock. The owner is basically then just charging the Offtaker for the use of the facility (the "toll"). The term is used to describe this type of agreement, but the agreement is rarely actually called a "Tolling Agreement." For example, "that PPA is a tolling agreement." At these facilities, the metering station is called the "Tollhouse," where you can always find a supply of chocolate chip cookies — ask for one.

Tonne: A metric ton, or 1,000 kilograms, the standard unit to measure oil other than in the United States.

Tower: The steel structure at the top of which is placed a *WTG*. Modern Towers are much too tall to be shipped to site in one piece, so they are welded together in place.

TOU: *Time of Use* Metering, Tariff, etc. See *Time of Use Metering*.

Tracer Test: In a geothermal field, if there is any suspicion that injection fluid is migrating to the production zone and causing cooling, a chemical can be added to the injection fluid, which would later show up out of a *Production Well*, demonstrating this connection.

Tracking Account: A record (not an actual account into which something is deposited) used to track the amount by which one party under a contract has "overpaid" the other party in some sense. For example, a *PPA* might have a relatively "front-loaded" payment structure, which allows the owner to pay debt service on high capital costs. In the early years, the Tracking Account builds up and then over time, as *Capacity* is supplied and energy produced, the Tracking Account is reduced. If the PPA is terminated before the Tracking Account is reduced to zero, the owner owes the Offtaker the balance of the Tracking Account (securing the payment of which, there might be a *Mortgage* on the facility). Another type of Tracking Account can allow a *Windfarm* owner to manage its cashflows under a Financial Power Swap.

Trade Letter of Credit: A letter of credit used in a commercial transaction which is expected to be drawn by the *Beneficiary* as payment for goods provided to the Account Party. Compare to *Standby Letter of Credit*, which is not expected to be drawn. A *Commercial Letter of Credit* is the same as a Trade Letter of Credit.

Train: In any multi-step industrial processing facility, a Train refers to a stand-alone set of equipment that operates all the way from the initial to the final step of the process to produce a slice of the entire facility output. So in a three-Train facility, each Train would produce one third of the output and could operate with or without the other Trains operating. In the commodities business, using Train-based facilities is important, because production can be ramped up or down efficiently, depending on prices — a Train is typically running at full capacity (greatest efficiency) or not at all. In an *LNG* plant, a Train consists of a compression area, propane condenser area and methane and ethane areas.

Tranche: This term, which means "slice" in French, refers to an individual class or series of Bonds within an offering (which may have different ratings) or to individual types of loans within the same Credit Agreement.

Transmission Line: An electric power line located above or below ground that transmits energy to, from or within a project.

Trash-to-Cash: The conversion of *MSW* to recyclables, a much smaller amount of noncombustible trash, electric energy and ash, in that order. These facilities, while seemingly the ideal solution to landfill shortages and recycling apathy, are notoriously difficult to site. They create traffic, odor, noise, pollution and potentially other environmental issues.

Seems like a good idea, though, and who can argue with the name?

Tree: In the acquisition finance context, Trees are references to different bidders or financing sources. If a company puts itself up for sale (in an auction), there will be multiple bidders (generally Sponsors, but sometimes strategic buyers) looking at the target, and each bidder will in turn be examining possible financing from a variety of banks. So if Sponsor A and Sponsor B were looking at the target, and each had two possible financing sources (drafting *Commitment Papers*), there would be four financing Trees.

Triple Net Lease: Same as *Net Lease*.

True Lease: A lease can be a "true lease" for tax, accounting or commercial law / bankruptcy purposes. For tax purposes, a Tax Lease is a "true lease" if the Lessor owns the leased equipment and is entitled to take depreciation and other tax benefits. For accounting purposes, an *Operating Lease* is a "true lease" if the leased asset is on the Lessor's books and the Lessee incurs current expenses for the payment of rent. For commercial law and bankruptcy purposes, a "true lease" means that the equipment is owned by the Lessor and is not owned by the Lessee subject to the Lessor's lien, and is not owned by the Lessee and thus property of the Lessee's estate in any Lessee bankruptcy.

True Sale: A transaction in which actual legal title to an asset is transferred, as opposed to the asset being loaned or pledged as *Collateral* in a financing transaction. The issue of whether a transaction is a True Sale or a financing has bankruptcy implications, because if a transferor goes Bankrupt, unless the asset in question is deemed to have been sold in a True Sale transaction, the bankruptcy court can determine that the asset is still owned by the transferor and can therefore be included as part of the bankruptcy assets that are distributed to creditors.

Trust Agreement: In leasing, same as *Owner Trust Agreement*.

Trust Deed: Usually, same as *Deed of Trust*, but sometimes it can refer to the simple granting document that is used to place an asset in trust.

Trustee: Performs as the Bond equivalent of a *Credit Agreement Administrative Agent*. The Trustee has certain assigned duties and rights under the Indenture that become particularly important following *Defaults* or *Events of Default*. Unlike an Administrative Agent, a Trustee will rarely own any of the underlying securities and will take no action absent specific direction and indemnification from the bondholders.

Trust Indenture: Same as *Indenture.*

TSA: Turbine Supply Agreement (supplying *WTGs*).

TTM: Trailing twelve months. Used to describe the measurement period for Financial Covenants. Same as *LTM* (last twelve months).

Turbine Blade: Same as *Blade.*

Turbine Island: The part of a fossil-fired power plant consisting of gas and/or steam turbines, HRSG, and generator sets.

Turnkey Contract: A contract where the owner's main responsibilities are site procurement, permitting and writing checks to the contractor. At the end of construction, the contractor "hands the owner the keys." See also *EPC.*

Two-Meter Test: A very mobile and inexpensive way to test for geothermal prospects. Temperature probes are inserted in the ground at a two meter depth, and by measuring temperature over the course of a year, a temperature gradient is created which is highly predictive of temperatures at greater depth.

UCC: The Uniform Commercial Code. The UCC is one of a number of uniform acts that have been promulgated in conjunction with efforts to harmonize the law of sales and other commercial transactions in all 50 states within the United States (although each state's version of the UCC may be slightly different from another's). Also, Indian tribes, being sovereign nations in some senses, have their own UCCs. The UCC deals primarily with transactions involving personal property.

UCC-1: The form used to *Perfect* by filing.

UCC-3: The form used to evidence the termination or release (and in some states, amendment) of a *Security Interest*.

UEG: Utility Electric Generator.

UNCITRAL: United Nations Commission on International Trade Law.

UNCITRAL Arbitration: Arbitration conducted under *UNCITRAL* rules.

Underground Storage Tank / UST: Generally, a storage tank and associated piping that is located underground but also typically includes tanks 10 percent or more of whose volume is below ground. However, a tank that is entirely contained in an underground vault that is accessible for inspection may be considered an above-ground storage tank. USTs are often the source of contamination, and any facility with such tanks containing *Hazardous Materials* should be carefully evaluated.

Underwriting: Antiquated term, since the *Meltdown*, used mainly in the negative these days. However, *before* the Meltdown and *after* the bailouts succeed, it refers to an agreement by a Lender to take the risk that no other Lenders will be willing to invest in a particular financing. The Underwriting Lender agrees to fund the entire amount of the debt, but usually sells its commitment in a *Syndication* process, often before the first loan is made.

Unit Contingent: When a generator contracts to sell *Capacity* or energy from its plant, it might agree to sell on a Unit Contingent basis, meaning that if its own plant became unable to generate, it would not have to go find replacement power for the buyer or be liable for damages.

Unitization: In geothermal development or an oil or gas field where there are multiple owners/lessees of adjacent lands, you can imagine issues with one guy sticking his straw in the other guy's milkshake. If all the owners/lessees agree to Unitize, they have a commonly agreed plan as to how the entire resource is to be developed and operated, and how to share/allocate costs and revenues. If some of the land is *BLM* land, the owners additionally have a Unit Agreement with the BLM (BLM regulations have a model form).

Upfront Fee: Usually what *Project Finance* bankers call the fee they get paid at closing based on a percentage of the credit facilities they have committed to provide.

Upstream: The exploration and production sector of the oil and gas industry. This includes all activities up to (but not including) the refinery. See also *Downstream*.

Useful Life: Packing it all in and joining the Peace Corps. Also, for purposes of evaluating the proper *Tenor* of a *Project Financing*, refers to the expected time a facility or piece of equipment (*e.g.*, a *WTG*) will remain in service before becoming prohibitively expensive to maintain. This is a much less precise usage than *Estimated Useful Life*.

UST: Underground Storage Tank.

Usury: When a Lender not in an exempt class of Lenders (*e.g.*, a bank) lends to a Borrower in a class of transaction that is not exempt at a rate exceeding a state statutory limit. Typically, the penalty for Usury is not foregoing principal repayment, but foregoing a multiple of the usurious interest collected.

Usury Savings Clause: The provision of a Credit Agreement that says that if a loan would otherwise be usurious, "we didn't really mean it; the rate we meant to charge is that rate which is the highest non-usurious rate."

Variable-Pitch WTG: The ability of a WTG to rotate its *Blades* about their axis through a mechanism in the *Hub*, so as to regulate the rotational speed of the hub/blades and to vary the output, as well as minimizing wear and tear on the machine. For example, when wind speeds are high, one can expose less of the *Blade* to the wind (feather it) while staying on the high end of the *Power Curve*, all the while minimizing wear and tear on the gearbox, blades, etc.

Variable Rate Debt Obligation: A long-term security, often a municipal bond, that has interest that re-sets on very short terms, usually seven, 28 or 35 days. At the end of that period, the interest rate is re-set through a *Dutch Auction*. The holder can at the end of any interest period put the bond back to the issuer (*i.e.*, cause the issuer to buy the bond). The bond is then quickly *Remarketed* (another buyer is found). If no other buyer is found, a bank which has provided a backup facility for just that event puts up the money to buy the bond, and Remarketing efforts continue. See also *Auction Rate Securities*.

Variable-Speed WTG: Same as *Variable Pitch WTG*. Not all *WTGs* can vary their blade pitch.

Vertical Axis: Used with reference to *WTGs*, means that the main drive shaft is perpendicular to the ground. These have the advantage of never needing to turn to the wind. The most visible commercially produced example was the Flowind turbine, still seen in the Altamont Pass in Northern California, and known as the "eggbeater" turbines.

VOCs: Volatile Organic Compounds. VOCs are regulated under air quality standards as ozone precursors, although they are not themselves a *Criteria Pollutant*. Siting a new facility in an ozone *Non-Attainment Area* will typically require procuring offset credits for VOC emissions. In addition, VOCs are often discovered as part of soil and groundwater contamination. These typically include solvents, benzene and other petroleum breakdown products, and other compounds, all of which are generally part of the hydrocarbon chemical family. VOCs are those which evaporate more easily; there are also other hydrocarbons (typically heavier molecules), which have a lower vapor pressure and are termed "semi-volatile organic compounds," or "SVOCs." These are typically addressed as part of soil and groundwater remediation, and don't typically impact air quality analyses.

VPP: Volumetric Production Payment. Used as a financing technique in the US oil and gas industry, an oil and gas producer will sell a specified amount of hydrocarbons produced from a specified field or fields during a specified time period. Like a royalty, these volumes do not bear any of the burdens of production. In most states in the United States, a VPP is considered an interest in real property and when sold to a non-affiliate is specifically carved out from the estate of the seller. The structure is useful in financing oil and gas producers with weaker credit.

Waiver of Subrogation: See discussion under *Subrogation*.

Wake: The air downwind of a spinning *WTG*. Turbine *Blades* create air turbulence in the Wake, which can have a damaging effect on downwind WTGs due to increased wear and tear. This is why *Array* design is important, and why sometimes a *Windfarm* owner likes to have an *Easement* on upwind lands even if he or she doesn't plan on building there, to prohibit others from doing so.

Waste Coal: Same as Culm.

Waterfall: Sometimes called a "payment waterfall" or "flow of funds," refers to the order of application of revenues. Think of the funds in question as water running down a flight of stairs with a bucket placed on each step—the water (money) flows to the top step first and fills that bucket before the overflow continues on to the second step, and fills that bucket before proceeding to the third step, etc. You only "run the Waterfall" on periodic (usually quarterly or semiannual) payment dates, since if you filled up a lower waterfall level in-between payment dates, you would be potentially depriving a higher waterfall level of funds when needed. The exception is operating costs, which are paid at least monthly. The Waterfall is generally ordered: (i) operating costs, (ii) costs of administering the credit facility, (iii) interest and interest rate swap payments, (iv) principal, (v) reserves, (vi) subordinated debt, and (vii) equity distribution (or if distributions conditions are not met, *Cash Sweep* or *Cash Trap* (possibly with retention in a Distribution Suspension Account)).

Wet Distiller Grain Solubles / WDGS: Distiller Grain Solubles that have not been dried for transportation or storage.

WGL: Working Group List. The list assembled early in every deal showing all parties and their respective roles. In 15 years, the junior-most people on the list will be Masters of the Universe.

Wheeling: The transmission of electricity by one company or utility over the system of another utility.

Wildcat: See discussion under *Exploration Well*.

Windfarm: A power project using *Wind Turbine Generators*.

Windmill: A device which turns grain into flour by transferring through gearing the rotational action of a set of wind vanes or sails into rotational action of a millstone against another, fixed millstone.

Wind Power Density: See Class 3, 4, 5, etc. *Wind Resource*.

Wind Rose: A circular graphical depiction of the history of wind blowing at a particular spot, the frequency with which the wind blew from a particular direction and how often that wind was blowing within certain speed ranges. Each compass direction (broken down into 16) has a piece of pie emanating from the center of the graph. The pie piece has colored bands for each windspeed. The radius of each band shows how often the wind blew from that direction at that speed. (You kind of have to see one to understand.)

Wind Turbine Generator / WTG: A *Nacelle*, including its guts, being mainly a gearbox which converts a slowly rotating main drive shaft into a fast-moving shaft inside a generator, *Blades, Hub* and a *Tower*. So-called "first generation" WTGs (many of which are still in commercial operation) had capacities of 100 kW or less. The second generation was in the 500 kW range. It's not so clear what generation we are on now, but most machines are in the 1.5 MW to 2.5 MW range, with some offshore machines at 3.5 MW. Land-sited machines may not get much bigger, as the Blades and Tower sections already max-out transportation constraints.

Working Capital: A measure of a company's short-term liquidity, calculated by subtracting current liabilities from current assets.

Working Interest: A percentage of ownership in an oil and gas lease, granting its owner the right to explore, drill and produce oil and gas from a specific parcel. A Working Interest provides fewer benefits to its holder than a *Royalty Interest*. Working Interest owners are obligated to pay a corresponding percentage of the cost of leasing, drilling, producing and operating a well or unit. After *Royalties* are paid, the Working Interest also entitles its owner to share in production revenues with other Working Interest owners, based on the respective percentages owned.

Wrap: This term is used in different contexts to mean a party guaranteeing the obligations of one or more *Primary Obligors*. For instance, if you have a project entirely ready to be designed and built, but you have contracted with five different contractors for the various tasks, your Lender will have serious "finger-pointing" concerns, no matter how reputable the contractors. A single Wrap by a creditworthy contractor may save the day. An *EPC* Contract is usually a Wrap insofar as most or all of the work may be subcontracted out.

Wrong-Way Risk: See discussion generally under *Right-Way Risk*. An example of a Wrong-Way Risk: Say you enter into a currency swap with IcelandCo where you will owe them each month if the US Dollar is worth less than 125 Krona and they pay you if it is not. In other words, a relatively strong Dollar/weak Krona puts you *In the Money*, where IcelandCo owes you. The weaker the Krona, the more IcelandCo owes you. *But*, as the Krona weakens, capital leaves Iceland, unemployment rises, Icelanders who have debt in Dollars default because they are earning in Krona but paying in Dollars, they cut other expenditures, which further weakens the economy, and so on. In short, while you have cleverly bet in the right direction on the currency swap, you still have to collect, and your counterparty is less creditworthy than at contract inception due to the generally weaker Iceland economy; accordingly, you have a Wrong-Way Risk position.

WTG: *Wind Turbine Generator*.

Yank-a-Bank: A Credit Agreement provision that allows the Borrower to throw a Lender out of a Credit Facility if it won't agree to an Amendment (or sometimes, if it asks for an gross-up indemnity that not all of the Lenders are claiming). Certain Credit Agreement amendments (including Amendments affecting pricing of the loans) cannot be achieved without approval of all Lenders. Yank-a-Bank provisions enable the Borrower to squeeze out dissenting Lenders in a 100 percent vote situation so long as the majority of the Lenders has approved the Amendment. The "yanked" Lender is replaced with a new Lender who does approve the Amendment and is willing to purchase the outstanding loans and commitments of the yanked Lender, usually at *Par*.

Yaw: The rotation of a *Nacelle* to maintain alignment of the plane of the *Blades* perpendicular to wind direction.

Zoning: Local statutes and regulations governing the use of real property. For example, Zoning would tell you that you may not build a power plant in Beverly Hills. Zoning addresses minimum lot size for residential construction, building height, setback rules, noise restrictions, parking lot size, etc.

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