Mineral Issues' Impact on Solar Energy Development in Texas and Other States
(2013 Update)

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EXECUTIVE SUMMARY

It remains uncontroverted that energy production is one of the most vital issues facing our society today. The sustained growth of renewable energy options, primarily wind power and solar power, lends itself to this endeavor, but does so with the understanding that it will not replace all conventional forms of energy generation, i.e. oil and gas. It is within this context that renewable energy developers must navigate the sometimes confusing world of surface use conflicts. This paper discusses the basic legal tenets involved in the interaction that serves as the basis of such conflicts, and proposes alternatives to ensuring that both mineral and surface developments are able to exist and function cooperatively.

Texas has two distinct types of property rights associated with land tracts. Each tract includes a surface estate and a mineral estate. Where those two estates are separately owned (referred to as a "severed" estate), the law recognizes the dominance of the mineral estate over the surface. In general, this means that the owner (or if leased, the lessee) of the mineral estate possesses the right to utilize as much of the surface of the tract as is reasonably necessary to exploit the minerals below. Texas courts have based the efficacy of a "mineral easement" upon the principle that without such a right, the mineral estate would be worthless. However, the mineral easement is counterbalanced by the rights of the surface estate owner (or if leased, the lessee), who is able to use the surface in any manner consistent with the mineral estate owner's rights. It is within this context that a multitude of cases on the topic of the respective rights of mineral and surface owners has been decided. Further complicating this reality is the fact that no bright-line test exists for determining the rights of the parties in situations where trespass is alleged between the severed estates, but rather is determined on an *ad hoc* basis dependent upon the facts of each case. Consequently, a determination of mineral estate ownership via a title search is of paramount importance for a solar developer, and the developer must understand the varying types of interests associated with the mineral estate, and how each can affect the developer's ability to operate a project. This information is important to negotiate an agreement to accommodate reciprocal uses of the tract.

If it is determined that a solar project location is partially or wholly overlying a severed mineral estate, the developer must then consider its options in going forward and, as required by most financing parties, create some modicum of certainty in the solar project's rights. Several options are available to a developer in this situation, in both the contractual and regulatory contexts. First, a developer may consider approaching the mineral owner with a surface use waiver. The waiver may be in the form of a stand-alone agreement and must be recorded to provide notice to third parties. Waivers must attempt to be broad and to waive *all* rights that a mineral owner possesses, including exploration, testing, access, and production, among others. The solar developer must ensure that all relevant mineral interest owners, including owners, lessees, and executive rights holders, execute such a waiver. The failure to include every mineral interest owner on such an agreement may result in the developer lacking complete authority to utilize the surface without restriction.

If any interest owners refuse to waive all rights to the surface, a developer may also attempt to enter into an accommodation agreement. Such agreements may be in the form of a joint development agreement, wherein the mineral estate and surface estate interest holders agree to certain respective rights to use the surface and disallow interference between the parties. Alternatively, the agreement may include the designation of specified areas for drilling and access for the mineral estate to utilize in exploiting minerals, but restrict the mineral owners from using or accessing any other portions of the surface estate. If both the mineral and surface estate owners are interested in such an agreement, the specific provisions of the document are generally "worked out."

As anyone with experience developing projects on severed lands can testify to, sometimes the parties cannot agree on an arrangement. In this instance, a solar developer has other options to attempt to secure rights sufficient to provide certainty of development, or at least a minimization of the risks otherwise involved. The least desirable is the initiation of a lawsuit based upon the accommodation doctrine. This judicially constructed tenet generally holds that where an existing surface use is present upon the subject property, mineral interest owners may not impair or preclude the existing use (based upon the dominant estate concept) so long as there are industry-established alternatives available. In other words, if a developer installs equipment upon the surface of a tract, and a mineral owner alleges that the surface use must be altered in order to satisfy the dominant estate doctrine, the mineral owner must show that is has no other reasonable alternative to utilizing that particular location to install its equipment or conduct its operations. As technology evolves in the oil and gas industry, in particular with directional and horizontal drilling, asserting a claim in opposition to the accommodation doctrine is a difficult proposition, but because a judge and jury are involved in the contest, it provides little certainty to a solar developer. The accommodation doctrine is recognized by court decisions and/or statutes in many other states, so it is imperative that a solar developer understand this concept and its risks and rewards.

Solar developers may also be able to obtain some certainty by engaging an underutilized rule of the Railroad Commission of Texas, the agency responsible for regulating the oil and gas industry in Texas. Chapter 92 of the Texas Natural Resources Code, and Statewide Rule 76 (Section 3.76 of the Texas Administrative Code), provide a process by which a surface owner may create a "qualified subdivision." The qualified subdivision serves to designate "operation" sites for a mineral interest owner to utilize on the subject tract, and the applicant must reserve at least two acres for every 80 acres in the qualified subdivision for the sites. At its core, the qualified subdivision rule provides an avenue by which surface owners can apply for (and possibly obtain) a ruling, from the agency that regulates oil and gas matters, that limits mineral interest owners' access to a surface estate. The qualified subdivision may only be requested for land in certain counties in the state (generally those with populations over 400,000, and counties adjacent to those large population counties), and a qualified subdivision may be no larger than 640 acres. The process has been used sparingly since its enactment, and no solar

developer has attempted to use this process in this manner to date. However, Rule 76 seems to provide an incentive for a surface owner and a mineral interest owner to negotiate an agreement privately instead of taking an application to a hearing. Whether the process ends in a ruling or an enforceable agreement, the solar developer would be able to walk away with some certainty regarding the project development.

While the primary focus of the paper is on Texas law, it also discusses the process by which a solar developer would approach and interact with the Bureau of Land Management ("BLM"). BLM administers over 245 million surface acres of land and over 700 million acres of mineral estates within the United States, with such lands generally located west of the Mississippi River. Of the 700 million acres of mineral estates, 58 million acres underlie a privately owned surface estate. These "split estates" are similar to the severed estates discussed previously, but are more complicated to deal with because a federal agency with statutory and regulatory mandates is the mineral owner. BLM has not, and likely will not, enter into surface waivers or accommodation agreements, because doing so may implicate public trust and participation issues due to the nature of the land's ownership. Even if BLM would entertain such an agreement, the public ownership of the properties would also likely concern potential investors. Consequently, a solar developer's two realistic options for obtaining certainty on split estate lands are: (1) attempt to amend the local BLM office's Resource Management Plan in order to create a stipulation restricting surface uses that would apply to all oil and gas leases taken from BLM in the area, or (2) request a mineral conveyance pursuant to Section 209(b) of the Federal Land Policy and Management Act. Either option would create certainty for a solar developer, but the first option takes a considerable amount of time to complete (assuming the local BLM office would agree to the terms of the stipulation), and the second option requires only the surface estate owner (not a lessee) to apply for the conveyance, and the conveyance itself could be cost prohibitive. Nonetheless, these are the realistic options for solar developers on split estate lands.

The final option for a solar developer dealing with the mineral issues discussed to this point is to obtain relevant and meaningful insurance coverage. In Texas, the T-19 series of endorsements serves to alleviate some risk to developers if their actions are disturbed by mineral activities on the surface. Claims under these endorsements can be made following a relocation of a disturbed project, but the policies insure only the value of the underlying real estate rights and improvements up to the amount of policy coverage. In most other jurisdictions, the ALTA 35 (minerals) and 36 (renewable energy projects) series insurance endorsements may be available to serve the same purpose as their Texas equivalents. Of particular interest, though, is that the series 36 endorsement extends the valuation of title by treating a loss on a single parcel to include resulting losses to the integrated project as a whole.

While a potential conflict between a mineral interest owner and a solar developer may cause the developer to avoid certain areas of the state and/or country, the foregoing discussion demonstrates that avoidance is not automatically necessary. Several options exist for a developer to move forward on a project with reasonable certainty.

Mineral Issues' Impact on Solar Energy Development in Texas and Other States

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1. Introduction

Solar energy project developers typically own or lease several hundred acres of land for commercial scale solar energy projects. Solar facilities are located within the surface estate, but developers (and their lenders) must ensure that project facilities are not required to relocate if mineral estate owners or lessees want to explore for oil, gas, or other minerals within the project footprint. Solar project developers can eliminate the risk of disturbance from mineral estate owners or lessees by acquiring the mineral estate rights or by obtaining agreements from mineral estate owners to either not disturb the solar project facilities or waive their rights to use the surface. In the absence of such agreements, mineral estate disturbance risk is less if developers reserve drill sites and access routes within the project area. In the right circumstances, reserving drill sites in conjunction with the accommodation doctrine can force mineral estate owners to locate their oil and gas facilities away from the solar project facilities. The rules and procedures of the Railroad Commission may provide additional avenues that a solar project developer may utilize to reach peaceful and meaningful coexistence between itself and mineral development in the project area. Further, with sufficient facts, designated drill sites, and access routes, solar project developers should be able to obtain title insurance endorsements to provide coverage against future relocation issues caused by mineral estate owners or lessees.

2. Mineral Estate vs. Surface Estate. Texas has two distinct types of property rights with respect to land areas -- the mineral estate and the surface estate. Solar energy project developers face obstacles because of certain attributes of mineral estates in Texas. Challenges arise because of how Texas law defines the mineral estate and surface estate.

Mineral Estate Rights in Texas. Mineral parties have the right to use as much of the surface, subsurface, and adjacent airspace of the land as reasonably necessary to enjoy the mineral estate, but this right must be exercised with "due regard" to the rights of the surface parties.[1] This right over the surface estate has been described by the Texas Supreme Court as an "appurtenance" and a "mineral easement" over the surface of the land.[2] If a surface party does not explicitly grant the mineral easement to the mineral

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[1] *Getty Oil v. Jones*, 470 S.W.2d at 621 (Tex. 1971); *Humble Oil v. Williams*, 420 S.W.2d at 134 (Tex. 1967).
[2] *Harris v. Currie*, 176 S.W.2d 302, 305 (Tex. 1943); *Empire Gas & Fuel Co. v. Texas*, 47 S.W.2d 265, 268 (Tex.

party, then the grant of the mineral easement is implied.[3] Without the mineral easement, Texas courts have noted that the rights in the mineral estate would be "wholly worthless."[4] Surface parties and mineral parties may alter, restrict, or eliminate the legal rights granted under the mineral easement by written agreement.[5] Because the mineral estate includes rights to use the surface, surface estate owners and lessees such as solar energy project developers must determine whether mineral estate uses may negatively affect the subject solar energy project's surface uses.

Rights of Surface Estate in Texas. Although the mineral estate is dominant, surface parties may still use the surface of the land. Surface owners and their lessees have identical rights with regard to the mineral estate, except as such rights are limited in the surface lease.[6] The rights of the surface party and the mineral party are "reciprocal and distinct," and if either party "exceeds [his] rights he becomes a trespasser."[7] Surface parties may continue to use the surface of the land in any manner that is consistent with the mineral party's use of its estate.[8] A surface party is not prohibited from an activity merely because it might diminish the value of the minerals under the land.[9] In order for a mineral party to prohibit a particular activity by a surface party, the mineral party must show that, at that specific moment in time, the use interferes with the reasonable exercise of its rights.[10]

The mineral easement is not an unfettered right to the use of the surface. Mineral parties may only use the surface to the extent that it is reasonable necessary and must exercise due regard toward the surface parties. Apart from claims for breach of a written agreement, Texas courts have created two causes of action by surface parties against mineral parties that may result in the award of damages or an injunction. Under these causes of action, the surface party must prove that either (1) the mineral party exercised its rights in a negligent or intentionally wrongful manner or (2) the mineral party used more of the surface of the land than was reasonably necessary.[11] Despite some of these limitations on the mineral estate, surface estate parties are left with some degree of uncertainty because the mineral estate is the dominant estate, due in no small part to the fact that the existing common law on the subject remains the result of *ad hoc* decisions. Without a bright-line test, sufficient certainty may be lacking. An election by a mineral estate holder to use the surface of the estate has significant and potentially very costly implications to a planned or developed solar project. In doing its feasibility on a site, a

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1932) (defining the "mineral easement" to be "the necessary right to use the surface of the earth in the enjoyment of the mineral estate").

[3] *Id.*

[4] *Harris*, 176 S.W.2d at 305.

[5] *Warren Petroleum Corp. v. Monzingo*, 304 S.W.2d 362, 363 (Tex. 1957); *Atlantic Refining Co. v. Bright & Schiff*, 321 S.W.2d 167, 168, 169 (Tex. Civ. App.—San Antonio 1959, writ ref'd n.r.e.) (this is the line of cases allowing benefits to be obtained from Waiver of Surface Rights Agreements or Non-interference Agreements).

[6] *Robinson Drilling Co. v. Moses*, 256 S.W.2d 650, 650 (Tex. Civ. App.—Eastland 1953, no writ).

[7] *Brown v. Lundell*, 344 S.W.2d 863, 866 (Tex. 1961).

[8] *Atlantic Refining*, 321 S.W.2d at 169.

[9] *Id.*

[10] *Id.*

[11] *Reading & Bates Offshore Drilling Co. v. Jergenson*, 453 S.W.2d 853, 855 (Tex. Civ. App.—Eastland 1970, writ ref'd n.r.e).

solar energy project developer must evaluate who owns the mineral estate, what risks are involved, and if there is a way to reduce those risks or insure against them. The remainder of this paper explores how owners or lessees of surface rights can reduce the uncertainty resulting from mineral estate rights.

3. Determining Ownership of Mineral Estate. Issues arising from mineral estate rights can be simply resolved if the owner of the surface rights also owns the mineral rights. In the case where the project developer will purchase the real estate, if the purchase includes the mineral rights (and such rights are not already subject to a mineral lease) the buyer's ownership and control of all mineral rights alleviates concerns about the mineral estate. In lease transactions, the solar tenant's concerns can be resolved by the landlord agreeing in the lease not to use, convey, or lease the mineral rights in any way that would hinder the tenant's surface lease rights. Because a seller or landlord can easily alleviate a developer's concerns about the mineral estate if such person owns the mineral rights, determining mineral ownership is a very important initial step in conducting due diligence on the proposed real estate area for a particular solar energy development project. Mineral estate ownership is typically determined by a title company, a landman, or an attorney title opinion.

   A. Title Search. Mineral Estate ownership is determined by searching the real property records in the county in which the property is located. Texas title companies are not required to, but may, provide mineral estate ownership information when they issue title insurance commitments on real estate (e.g., real estate for a pending purchase, loan, or lease transaction). If the land area in question has active oil and gas production, some mineral ownership information may be contained in the Railroad Commission's online database system and copies of Division Orders and other relevant information for older wells filed with the Texas Railroad Commission regarding the property.[12] If the title company is unwilling or unable to provide information regarding mineral estate ownership, a "landman" can be retained to search the real property records for mineral ownership. The American Association of Professional Landmen defines a landman as a professional who has been primarily engaged in negotiating for the acquisition or divestiture of mineral rights and/or negotiating agreements for exploring for and/or developing the mineral estate.[13] Landmen are hired by oil companies traditionally to determine ownership of the mineral estate and then to work with those owners in negotiating leases.[14] This type of professional can also be hired by solar developers to determine the appropriate mineral estate owners. If necessary, the findings of a landman can then be submitted to an attorney who issues an opinion on who owns the different rights that comprise the mineral estate. This opinion may be necessary for lenders or tax equity investors in a project or for the title company.

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[12] *See* Tex. Nat. Res. Code Ann. §§ 91.402(c) - (i); *see also* www.rrc.state.tx.us/about/faqs/royaltiesleases.php (last visited January 3, 2013).
[13] *See What is a Landman, available at* http://industrial-marketing.bestmanagementarticles.com/a-30814-what-is-an-oil-and-gas-landman.aspx (last visited January 3, 2013).
[14] *Id.*

B. Spectrum of Mineral Estate Rights

When reviewing the title history of the mineral estate, it is important to understand the various types of mineral estate rights that a party may own.

i. Owner.

The "Owner" of the mineral estate rights can be the owner of the surface estate or can simply be the owner of the severed mineral estate. The owner of the mineral estate has the right to enter and drill, lease, receive the bonus, receive delay rentals, and receive royalties. The mineral estate holder can convey out these rights separately.[15]

ii. Lessee

A lessee-lessor relationship arises when an executive tenant enters into an oil and gas lease. The lease provides a leasehold interest with the right to explore, develop, produce, and market oil and gas; the rights under the lease instrument are also known as "working interests" or "operating interests".[16] While the term "lease" typically describes the relationship between the owner of the mineral interest and the person granted the rights to explore, develop, produce and market the minerals, the legal arrangement is more precisely a determinable fee interest in land.[17] Such contracts are determinable fees since the rights created terminate and return to the grantor on the occurrence of certain events.

iii. Executive Lease Rights

An executive tenant has the executive right to lease and manage the mineral estate. The executive tenant or "executive right" is an interest in real property, incident and part of the mineral estate.[18] A mineral owner can convey out part or all of the mineral estate and retain certain portions or all of the executive rights to lease the property. When a mineral interest is reserved or excepted in a deed, the corresponding executive right is also retained unless specifically conveyed.[19] Similarly, when mineral interests are conveyed, the executive right incident to that interest passes to the grantee unless specifically reserved.[20]

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[15] S*ee Altman v. Blake*, 712 S.W.2d 117, 118 (Tex. 1986).
[16] *See Williams and Meyers*, Oil and Gas Law, § 202.1 (2010).
[17] *See Stephens County v. Mid-Kansas Oil & Gas Co.*, 254 S.W. 290 (Tex. 1923).
[18] *Day & Co. v. Texland Petroleum, Inc.*, 786 S.W.2d 667 at 669 (Tex. 1990).
[19] *Martin v. Snuggs*, 302 S.W.2d 676, 678 (Tex. Civ. App.--Fort Worth 1957, writ ref'd n.r.e.).
[20] *Schlitter v. Smith*, 128 Tex. 628, 630-21, 101 S.W.2d 543, 544 (1937).

iv. Royalty Owner

The royalty owner owns a non-possessory, cost-free right to a share of the gross production or a share of the proceeds from the sale thereof. It is a real property interest in Texas. A royalty interest may be created by grant, reservation, or exception, similar to a mineral interest.[21]

There are several different types of royalty interest:

a. ***Landowners Royalty***: This type of interest is typically created when the owner of the mineral estate grants the right to a lessee (oil and gas company) to produce the minerals. In exchange for this grant, the mineral owner holds a royalty or the fractional share of production (typically between 1/8 and 1/4).

b. ***Overriding Royalty***: This type of interest is carved out of the lessee's interest. The lessee can assign a portion of its royalty to third parties or the lessee can assign the lease in full and reserve for itself an overriding royalty. This interest stems only from the proceeds of the sale of the minerals and is not a possessory interest in the minerals themselves. This type of royalty ends when the lease terminates.

c. ***Nonparticipating Royalty***: A royalty can also be created separate and apart from a lease. A landowner, for example, prior to or subsequent to leasing the land, may convey a royalty interest in the land. Such conveyance is a nonparticipating royalty and can expire concurrent with the expiration of a lease or after a date certain. The owner of a nonparticipating royalty interest does not share in the lease bonus and delay rental benefits.

4. Determining Ability of Mineral Interest Holders to Use the Land

Prior to initiating negotiations with the existing mineral interest holders, the solar developer should determine whether there are any regulations that would prohibit mineral infrastructure, in particular drill sites, to be located on the property. The Texas Railroad Commission (the Commission) serves as the State of Texas' lead agency in regulating oil and gas.[22] The Texas Administrative Code sets out certain spacing requirements from lease lines and between wells, and if there is activity on or near the property, these spacing requirements may indicate that wells may not be permitted on the portions of the property being used for solar infrastructure.[23] Additionally, local rules should be analyzed to determine how they affect mineral development. If a solar project is located

[21] *See Williams and Meyers*, Oil and Gas Law, § 202.1(2010).
[22] *See*, R.R. Comm'n of Texas, An Informal History, *available at* http://www.rrc.state.tx.us/about/history/centennial/centennial05.php (last visited January 3, 2013).
[23] 16 TEX. ADMIN. CODE § 3.37 (2000).

within the jurisdiction of a municipality, it is likely that any mineral development will have permitting requirements for the drill sites and the pipelines. A municipality may even have a prohibition for drilling or more stringent setbacks than those required by the Commission. Since the 1930s, Texas courts have recognized the concurrent authority of municipalities to regulate oil and gas activities alongside the Texas Railroad Commission.[24] Defining the scope of this police power and determining when a municipality may cross into the realm of a taking of private property has not been challenged. If regulatory or permitting issues do not adequately protect the solar project from disturbance by mineral owners, then the project developer may need to negotiate an agreement with the mineral owners.

5. Waiver of Surface Rights Agreement

Once the mineral estate owners have been identified and it is determined that the solar project is not protected by regulatory or permitting issues, a solar energy project developer may eliminate any risk of surface disruption from mineral exploration through a "waiver of surface rights" where the owner of the mineral estate rights waives the right to use the surface of the land. When properly obtained, a complete surface rights waiver will benefit a solar energy developer by preventing any future owner or lessee of the mineral estate under the project site from disturbing the project while accessing minerals or oil and gas.

A. Form of Waivers of Surface Rights

A waiver of surface rights may take the form of a clause inserted into either a deed conveying the mineral estate, a warranty deed reserving the ownership of the mineral estate to the grantor, or a recorded oil and gas lease. A waiver of surface rights may also take the form of a standalone agreement. Waivers of surface rights must be recorded in the real property records to bind sublessees, successors, and future grantees.[25]

A developer of a solar energy facility should review title records to determine if surface rights have been previously waived. If there is an existing waiver of surface rights, solar energy developers will want to ensure that the waiver adequately waived the surface rights and was signed by all required parties; both of these issues are discussed below. If surface rights have not been previously waived, the developer may want to approach the requisite parties to obtain waivers.

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[24] *See, e.g., Tysco Oil Co. v. R.R. Comm'n of Texas,* 12 F. Supp. 202, 203 (S.D. Tex. 1935) (upholding a municipal regulation governing the spacing of wells within the city limits). *See also Unger vs. State*, 629 S.W.2d 811, 812 (Tex. App.--Fort Worth 1982) (pet. denied) (upholding a conviction for an owner who drilled on his property without a permit from the city as required by city ordinance).

[25] *See* Tex. Prop. Code § 13.001 (Vernon 2010); *Ehler v. B.T. Suppenas, Ltd*., 74 S.W.3d 515, 521 (Tex. App.--Amarillo 202, pet. denied) (concerning the enforceability of restrictive covenants against future property owners); *McClure v. Atterbury*, 20 S.W.3d 722, 730 (Tex. App.--Amarillo 1999, no pet.) (concerning the enforceability of easements against future property owners).

(See Appendix A for an example of the State Bar Waiver of Surface Rights form).

B. Components of Waivers of Surface Rights

When reviewing waivers of surface rights, solar energy developers should ensure the waivers are complete. A surface rights waiver should waive all rights to use the surface of the property—including for exploration, testing, and general access—and not just for production. In addition, a surface rights waiver should waive the right to use the surface of the property to access any mineral or subsurface material, not just oil and gas. Texas courts have been called upon in the past to address the issue of whether particular material is part of the mineral estate.[26] To be conservative, a solar developer will want to make sure that the surface rights waiver is broad in scope. The ultimate goal of the surface rights waiver is to waive every type of surface use for the development of every type of subsurface material.

C. Signatories to Waivers of Surface Rights

Solar energy developers relying on surface rights waivers must ensure the waivers are signed by all mineral estate owners and lessees. The goal is to make sure that every mineral interest is subject to the waiver of surface rights. For example, a waiver of surface rights clause contained in a recorded oil and gas lease will be binding on the lessee signing the lease and any successor or sublessee of the initial lessee's interest; however, the waiver will not be binding on the owner of the mineral estate that executed the lease as the lessor. Since this mineral estate owner retains the possibility of reverter following the termination or expiration of an oil and gas lease, he/she could later execute another lease that did not contain a waiver of surface rights, in which case a surface installation like a solar energy facility could be at risk for disturbance. For this reason, the developer should make sure that waivers are signed by every mineral tenant, owner, and executive leasing rights owner.

Developers do not need to obtain waivers of surface rights from royalty interest owners.[27] An owner of a royalty interest in real property is deemed to own part of the mineral estate under Texas law, but the interest permits the holder to merely share in the profits of the mineral estate without actually owing the minerals in place or having the right to lease or otherwise develop the mineral estate.[28] A

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[26] *See, e.g, Storm Assoc., Inc. v. Texaco, Inc.*, 645 S.W.2d 579 (Tex. App.—San Antonio 1982), *aff'd, Friedman v. Texaco, Inc.*, 691 S.W.2d 586 (Tex. 1985) (holding that uranium is part of the mineral estate); *Ambassador Oil Corp. v. Robertson*, 384 S.W.2d 752 (Tex. Civ. App.—Austin 1964, writ ref'd n.r.e.) (holding that subsurface salt water is part of the mineral estate); *Watkins v. Certain-Teed Products Corp.*, 231 S.W.2d 981 (Tex. Civ. App.—Amarillo 1950, no writ) (holding that sand and gravel are not part of the mineral estate).

[27] To be clear, this is applicable to those who own *only* a royalty interest, not an owner of another of the various interests in an oil and gas leasing situation that also possesses a royalty interest.

[28] *See Glover v. Union Pac. R.R. Co.*, 187 S.W.3d 201, 211 (Tex. App.—Texarkana 2006, no pet.); *Martin v. Schneider*, 622 S.W.2d 620 (Tex. App.—Corpus Christi 1981, writ ref'd n.r.e.).

royalty interest owner does not have the right to participate in the execution of oil, gas, and mineral leases, and does not (without a specific grant) have the right to use the surface of the property for exploring or developing the mineral estate.[29] These principles of Texas law make obtaining a surface rights waiver from a royalty owner unnecessary.

Determining whether a mineral estate interest is subject to a waiver of surface rights can be difficult. In areas of the state that have historically produced significant amounts of oil and gas, mineral estate ownership is often divided among several owners. If a solar energy developer is intending to rely on waivers of surface rights to eliminate the risk of disturbances by mineral rights owners, it will need to retain legal counsel to prepare a mineral title opinion that will identify all of the mineral estate owners and current lessees. Each fractional owner of the mineral estate, plus every lessee, will need to execute an adequate surface rights waiver in order for the developer's legal strategy to succeed. Solar energy developers should expect to pay some consideration to these parties for waiving their common law right to use the surface of the property.

Although it may seem unreasonable to require every mineral estate owner—even owners of minute fractional interests—to execute a waiver of surface rights, this level of diligence is required for an effective surface waiver. Under Texas law, every mineral rights owner who owns a fraction of the mineral estate is treated as a tenant-in-common of the mineral estate.[30] Any tenant-in-common of a real estate interest is entitled to lease the real estate interest for value without the consent of the other tenants-in-common.[31] This right pertains to both surface interests and mineral interests.[32] As a result, any single mineral owner, no matter how small his or her percentage interest, possesses the right to use (or lease the use of) the surface of the property to access minerals or oil and gas. Consequently, the solar energy developer will want each mineral owner to execute a waiver of surface rights.

6. Accommodation Agreements/Non-Interference Agreements

If a solar energy developer is unsuccessful in its attempts to obtain surface rights waivers from every mineral owner and lessee, another route that may prove more palatable to mineral rights holders is the execution of accommodation agreements (also sometimes referred as "non-interference agreements"). Where a waiver of surface rights requires the mineral rights holder to waive all of its rights to use the surface of the property, an accommodation agreement merely agrees in advance on what surface uses would be

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[29] *See In re Estate of Slaughter*, 305 S.W.3d 804, 809, 811 (Tex. App.—Texarkana 2010, no pet h.); *Hamilton v. Morris Resources, Ltd.*, 225 S.W.3d 336, 344 (Tex. App.—San Antonio 2007, pet. denied); *Neel v. Alpar Resources, Inc.*, 797 S.W.2d 361, 365 (Tex. App.—Amarillo 1990, no writ).
[30] *See Way v. Venus*, 35 S.W.2d 467 (Tex. Civ. App.—El Paso 1931, no writ).
[31] *See Myers v. Crenshaw*, 116 S.W.2d 1125 (Tex. Civ. App.—Texarkana 1938), *aff'd*, 137 S.W.2d 7 (Tex. 1940); *Hamman v. Ritchie*, 547 S.W.2d 698, 706-07 (Tex. App.—Fort Worth 1977, writ ref'd n.r.e).
[32] *Id.*

permitted, and perhaps where they would be permitted, if the property is developed.

An accommodation agreement can be drafted to fit a particular solar project by limiting surface uses to particular areas or permitting only certain types of activities on the surface. As with waivers of surface rights, mineral rights holders may require consideration for limiting their common law rights. Because of the Texas case law discussed above with respect to surface rights waivers, solar energy developers will want to make sure that every owner of the mineral estate executes an accommodation agreement.

A typical accommodation agreement for a solar energy site may require the developer to designate certain reserved areas for mineral activities in consideration for the mineral rights holders quitclaiming their leases of the remaining areas, deeding the mineral estate of the remaining areas to the developer, or agreeing to waive surface rights on the remaining areas. In this case, the accommodation agreement acts like a form of development agreement among the solar energy developer, existing mineral lessees, and the owners of the mineral estate. This type of accommodation agreement preserves the right to access the mineral estate for the mineral estate holders while also protecting the solar developer's facility from future disturbance.

See Appendix B for an example of a waiver of surface rights agreement that has been proposed and largely agreed to in Texas. As seen, this is not a total waiver of surface rights as proposed in the form attached as Appendix A, but rather this agreement provides for a waiver of rights subject to the areas the solar developer has set aside for mineral development use, and for cooperative sharing of the access roads. The form specifically contemplates that the two separate estate interests can function alongside each other, but do not have the right to interfere with each other. Appendix B represents a hybrid between the straight waiver and the accommodation agreement. Appendix C and D are examples of plats that delineate at least one tack in configuring a solar development with reservations of portions of the project area for mineral development that support the waiver of surface rights agreement concept provided for in Appendix B.

Solar energy developers may practically discover that it will take a combination of surface rights waivers and accommodation agreements in order to insulate their projects from disturbances by mineral rights holders. Some parties may be unwilling to waive their surface rights and may instead be more open to negotiating an accommodation agreement. Alternatively, mineral estate owners may be willing to waive surface rights for adequate consideration, but current lessees might not be open to a complete waiver. No matter what combination is used, the goal remains the same—every mineral estate interest must be subject to an adequate waiver of surface rights or accommodation agreement in order for the developer to successfully contract around the risk of surface disruption.

7. Issues If All Mineral Estate Owners Do Not Agree to the Waiver of Surface Rights or Accommodation Agreement or Cannot Be Located

If all of the mineral estate owners cannot be located or do not agree to a waiver of surface rights or an accommodation agreement, there are doctrines and other avenues that may be pursued for risk reduction of surface disruption by the mineral estate.

A. Accommodation Doctrine

In some cases, Texas courts provide special protection for surface uses that pre-exist mineral uses under the accommodation doctrine. In *Getty Oil Company v. Jones* in 1971, the Texas Supreme Court interpreted the "with due regard" language of the mineral easement as adopting the accommodation doctrine.[33] Under the accommodation doctrine, where there is an existing use by a surface party that would be impaired or precluded by a mineral party's activities, and where there is an industry-established alternative practice reasonably available to the mineral party that would not impair or preclude the existing surface activity, the mineral party may be required to use the alternative practice.[34] This is true even if the mineral party's rights predated the rights of the surface party (i.e., the doctrine focuses on the timing of the uses and not when the parties obtained their rights). The surface party carries the burden of proving both: (i) the impairment or preclusion of its existing use and (ii) the availability of a reasonable alternative to the mineral party.[35] If the surface party is unable to prove both facts, the accommodation doctrine will not apply and the mineral party will be able to use as much of the surface as reasonably necessary even if a surface party's preexisting use is precluded or impaired.

In *Getty Oil v. Jones*, Jones owned the fee simple title to certain land, and Getty Oil was an oil and gas lessee on the land. Getty Oil's lease predated Jones' purchase of the fee simple surface estate. At the time of Jones' purchase in 1955, Getty Oil had already drilled some wells on the land. In 1963, Jones installed a self-propelled circular irrigation system to irrigate his cotton crops. In 1967, Getty Oil drilled two additional wells that produced but needed pumps to create flow. Getty Oil began installing two beam pumps that were each at least thirteen feet tall. The pumps would have restricted the movement of Jones' irrigation system because it maintained only a seven-foot clearance. Jones sued for damages and an injunction to prevent Getty Oil from installing the pumps.

At trial, Jones had the burden of proving his existing use of the surface to grow cotton would be impaired/precluded by Getty Oil's pumps. Jones also had the burden of proving that Getty Oil had other reasonable alternatives to the beam pumps. Jones proved to the satisfaction of the jury and the Court that the self-

[33] *See also Tarrant County Water Control and Improvement District Number One v. Haupt, Inc.*, 854 S.W.2d 909, 910-11 (Tex. 1993) (holding that the right of accommodation applies to government-owned land).
[34] *Getty Oil v. Jones*, 470 S.W.2d at 622.
[35] *Id.* at 623.

propelled irrigation system represented the only reasonable method by which he could profitably grow cotton on the land. Jones also introduced evidence that Getty Oil had two alternatives to the beam pumps it intended to install—Getty Oil could use hydraulic pumps that were much shorter and would not impede the irrigation system, or Getty could dig cellars into the ground so that beam pumps would not extend more than seven feet above the surface. The hydraulic pumps would cost less than $5000 more than the beam pumps. Installing the beam pumps in cellars would have cost less than $12,000 more than installing the pumps on the surface. The Court held that the doctrine of accommodation applied because these two alternatives were reasonable alternatives despite their added expense, the use of the beam pumps was not reasonably necessary to the extraction of oil, and the use of the beam pumps violated Getty Oil's obligations to exercise its rights with due regard to the surface owner.[36]

Recent Texas case law has even made it clear that directional drilling can be a reasonable, industry-established alternative requiring the mineral estate holder to accommodate a surface use.[37]

The mineral estate is the dominant estate in land in Texas, and parties with mineral rights benefit from an easement over the surface of the land. Activities of the mineral parties that interfere with surface activities can be limited by a written agreement or by proving that the mineral party is negligently or intentionally injuring the surface party or is using more of the surface than is reasonably necessary. Surface uses that pre-exist mineral uses have a right of accommodation if the surface use would be impaired or precluded by the mineral use and the mineral party has reasonable alternatives to its use.

B. Accommodation Doctrine Application Outside of Texas

Many states use a variation of the accommodation doctrine. States employing an accommodation doctrine hem in the dominance of the mineral estate by applying case law language requiring "reasonable accommodation" or "due regard" be given to the surface owner. These states include Alaska, Arkansas, Colorado, New Mexico, North Dakota, Utah, and West Virginia.[38] In these states, courts generally decide that where separate ownership of mineral rights and the surface exist, the mineral estate remains dominant, but each owner should have the right to use and enjoy his interest in the property to the highest degree possible without interfering with the rights of the other.[39] Colorado has taken the accommodation

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[36] *Id.*

[37] *See Tex. Genco, LP v. Valence Operating Co.*, 187 S.W.3d 118 (Tex. App.--Waco 2006, no pet. h.) (the *Genco* case involved an existing ash disposal landfill; the mineral operator was required to directionally drill from an area adjacent to the landfill in order to avoid making portions of the existing landfill unusable for ash waste disposal).

[38] It should be noted that there exists some authority for the proposition that Pennsylvania also adheres to an accommodation doctrine, but the Pennsylvania Supreme Court has yet to hear a case on the issue. *See http://www.lexisnexis.com/community/emergingissues/blogs/oilgasandenergylaw/archive/2009/12/10/the-accommodation-doctrine-in-pennsylvania.aspx* (last visited January 3, 2013).

[39] *See Flying Diamond Corp. v Rust*, 551 P.2d 509 (Utah 1976); *see also Buffalo Mining Co. v. Martin*, 267 S.E. 2d

doctrine one step further by codifying it in House Bill 1252. Under the statute, an operator must "minimize intrusion upon and damage to the surface of the land."[40] In order to do so, the operator must "select alternative means of operation that prevent, reduce, or mitigate the impacts of the oil and gas operations on the surface, where such alternatives are technologically sound, economically practicable, and reasonably available to the operator."[41] In the Colorado case of *Zeiler Farms v. Anadarko & Unioil*, the court held that HB 1252 expressly provides that the statute is not to be construed to prevent the operator from entering upon and using the surface of the land in a manner that is reasonable and necessary to develop and produce oil and gas.[42] In other words, the mineral estate remains dominant, subject to the requirements of the statute. The court also made it clear that the statute should not be applied to abrogate or impair a contract or contractual provision that expressly provides for the use of the surface for the conduct of oil and gas operators.[43]

While California does not apply a traditional accommodation doctrine, the courts do look to a standard similar to that used in Texas to resolve disagreements regarding the use of the surface of the land by mineral rights holders. In Texas, courts often express the mineral owner's right to use of the surface as the right to use as much of the surface as is reasonably necessary to exercise their rights under a lease. One California case mirrors this common rule with only slight variation by holding that oil and gas lessees have the right to such possession of the surface as is necessary and convenient for the exercise of their profit.[44]

C. State Surface Damages Acts

Surface damages acts require oil and gas operators to pay surface owners for damages resulting from their operations.[45] A number of states have adopted a surface damages act. These states include Arkansas, Illinois, Indiana, Kentucky, Montana, New Mexico, North Dakota, Oklahoma, South Dakota, Tennessee, West Virginia, and Wyoming. Most state surface damages acts require the mineral owner to provide notice to the surface owner prior to commencing drilling or other surface operations. Upon notice, both sides must enter into good faith negotiations on the issue of surface damages. Upon the execution of a contractual agreement, the operator may then begin operations.[46]

The Oklahoma statute serves as an example of how most surface damages acts operate. The Oklahoma act applies to mineral owners or lessees and to the

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721 (W. Va. 1980); *see also Amoco v. Carter Farms*, 703 P.2d 394 (N.M. 1985); *see also Norken Corp. v. McGahan*, 823 P.2d 622 (Alaska 1991).

[40] Colorado Revised Statute 34-60-127 (2010).

[41] Colorado Revised Statute 34-60-127 (2010).

[42] *Zeiler Farms v. Anadarko & Unioil*, No. 07-CV-01985.

[43] *Id.*

[44] *California Callahan v. Martin*, 43 P.2d 788 (Cal. 1935).

[45] *See* Williams & Meyers Manual of Oil and Gas Terms 14th Edition (2009).

[46] *See, e.g.* N.D. Cent. Code §§ 38-1.1-01; Okla. Stat. § 318.2; 765 Ill. Comp. Stat. § 530/4.

surface owner of record.[47] The act requires the mineral developer to send written notice to the surface owner of its intent to drill; the notice must identify the drilling location and provide the approximate date operations will begin. Within five days of this notice, the statute creates a duty on both sides to enter into good faith negotiations on the issue of surface damages. Once the negotiations are complete and a contract is executed, the operator may begin operations. However, if an agreement is not reached, the operator must petition the court to appoint appraisers to make recommendations concerning the proper amount of damages owed. In determining the proper amount of damages owed to the surface owner due to the diminution in value caused by the surface operations, a court will apply a variety of factors, including location or site of drilling operations, quality of the land used or disturbed by the drilling operations that may affect convenient use and further enjoyment, the inconvenience suffered during actual use of the land by the operator, and whether the damages are temporary or permanent in nature.[48]

D. Reserving Well Drill Sites

In addition to reliance on the accommodation doctrine, in planning the development of the solar project, the developer may proactively reserve certain areas restricted from development so that the site is withheld as a future potential drill site. Such pro-active measures would help support an accommodation argument later if the mineral parties attempt to locate mineral infrastructure where there are existing surface uses. Reserving drill sites in advance would likely require the involvement of a petroleum geologist and/or a petroleum engineer who can obtain the relevant data regarding the geologic formations and spacing requirements from surrounding wells. Appendix B is an example of an agreement that reflects such an effort, and creates a starting point for a discussion of the issues between the solar developer and the oil and gas exploration outfit. If such a discussion proves fruitless, the additional steps discussed below may be taken at an administrative level at the Railroad Commission.

(see Appendix A for an example of a drill site reservation clause)

E. Texas Railroad Commission Rules

Prior to obtaining a drilling permit, an operator must file a P-5 with the Commission, which requires the operator's organizational report and posting of financial security.[49] The operator must submit an application to drill with a plat to scale showing that the relevant administrative code requirements have been met.[50] The process of permitting for a drill site is administrative unless the operator is requesting certain exceptions to the rules, including the exception to the spacing

[47] 52 Okla. Stat. §318.2 (2010).
[48] *See Ward Petroleum v. State*, 64 P.3d 113 (OK 2003).
[49] 16 TEX. ADMIN. CODE § 3.1 and § 3.78 (2000).
[50] 6 TEX. ADMIN. CODE § 3.5 (2000).

requirement.[51] If an exception is sought, a public hearing may be requested by affected parties. It is possible for a solar developer to work collectively with oil and gas lessees to designate where a well will be drilled. Even if the developer does not have a waiver of surface rights or accommodation agreement, it may be able to request that the drill sites are placed in a manner that does not interfere with the operations of the solar farm. However, because of the limited nature of this procedure, the going may be tough on this front.

In addition, if the solar developer intends to develop a project in certain counties in Texas, it may be possible for a solar developer to initiate a process at the Railroad Commission pursuant to Statewide Rule 76 (16 Tex. Admin. Code § 3.76) to designate certain lands as qualified subdivisions, also known as a "drillsite designation." In 1983, the Texas Legislature enacted Chapter 92 of the Texas Natural Resources Code. Chapter 92 provides authority to surface owners of certain tracts to apply for the creation of a qualified subdivision that limits the "possessory mineral interest" holder to explore and produce the tract's associated minerals from specified "operation sites."[52] The terms of the statute and the rule specify that a qualified subdivision may not exceed 640 acres in size, and may only be granted in (1) counties with a population exceeding 400,000, and (2) counties with a population exceeding 140,000 so long as that county is adjacent to a county with a population exceeding 400,000 or located on a barrier island.[53] In order to satisfy the statute, the qualified subdivision must contain "an operations site for each separate 80 acres within the 640-acre tract and provisions for road and pipeline easements to allow use of the operations site."[54] The operations sites are must be two acres or greater,[55] although research of hearing dockets indicates a tendency to offer (and for the Commission to accept) anywhere from 2- to 6-acre sites. Finally, the qualified subdivision must be a tract that has been subdivided in a manner authorized by law by the surface owner for residential, commercial, or industrial use.[56]

Procedurally, the applicant must submit an application to the Railroad Commission, which in turn sends notice to all possessory mineral interest holders of the application and hearing date.[57] Often, the applicant and mineral interest holders will negotiate an accommodation-type of agreement in order to avoid the costs and efforts involved in a Railroad Commission hearing. In the event the parties do not arrive at such an agreement, a hearing will be held, at which the applicant and the interest holders provide evidence to support the approval, denial, or amendment of the application. The Commission's decision is reached

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[51] *See* R.R. Comm'n of Texas, *Barnet Shale Information, available at* http://www.rrc.state.tx.us/barnettshale/index.php (last visited December 30, 2010).
[52] Tex. Nat. Res. Code Ann. § 92.002(1), (2).
[53] *Id.*
[54] *Id.*
[55] *Id.*
[56] *Id.*
[57] *Id.*, § 92.004.

after consideration of "the adequacy of the number and location of operations sites and road and pipeline easements" for each application.[58] If an application is granted, the surface owner must commence actual construction of roads or utilities within the newly qualified subdivision, and must sell a lot within the subdivision to a third party within three years of the order granting the application.[59]

While the contents of Chapter 92 and Rule 76 have existed for nearly 20 years, the process has been used sparingly. An uptick in applications has occurred in the last few years, but the provisions of the rule have remained either largely anonymous, or largely avoided. In 2010, the Austin Court of Appeals heard arguments in the case of *SWEPI, LP v. Railroad Commission of Texas*,[60] wherein the mineral interest holder (SWEPI) challenged the Railroad Commission's approval of a qualified subdivision under Rule 76. SWEPI was the operator of the mineral estate underlying two contiguous 640-acre tracts which the surface owner (Eyhorn) and Hidalgo County (which possessed a purchase option) filed plats and request designation of drill sites upon pursuant to the rule. Eyhorn and Hidalgo County planned to construct and operate a landfill on the subject lands. After the hearings and legal wrangling, the Commission granted both applications. In affirming the Commission's approval, the court held that an owner of greater than 640 acres of land is entitled to a qualified subdivision for *every* 640 acres, thereby extending what appears from the statute to be a requirement that landowners are limited to a single 640-acre qualified subdivision.[61] In addition, the court upheld the Commission's decision that use of the surface for a landfill satisfied Section 92.002(3)(B), largely basing its decision on the facts that the legislative history of the statute is silent regarding what constitutes "industrial use," and the common meaning of "industrial" from Webster's dictionary is "of or belonging to industry."[62] The case ultimately stands for the proposition that the courts approve of the authority provided pursuant to Chapter 92, and that the Railroad Commission has great latitude in determining the strictures involved in an application under Rule 76.

To date, no solar developer has applied for and received a qualified subdivision pursuant to Rule 76. However, the process does provide an avenue for solar developers (and arguably mineral interest owners and developers) to achieve more certainty in the utilization of surface areas within specified counties that overlie a severed mineral estate.

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[58] *Id*., §92.004(b).
[59] *Id*., §92.005(c).
[60] 317 S .W.3d 253 (Tex. App. – Austin 2010, pet. denied).
[61] *Id*. at 261.
[62] *Id*. at 266.

8. BLM Lands/Split Estates

The Bureau of Land Management ("BLM"), a division of the United States Department of Interior, controls and administers over 245 million surface acres of land owned by the United States.[63] A significant amount of these public lands are located west of the Great Plains region. As a result, solar developers in this region must be familiar with the applicable rules, regulations, and processes of the BLM, regardless of whether the agency is a fee simple, surface estate, or mineral estate interest owner on the applicable development location.

A. BLM as Surface/Fee Owner. In many instances, BLM owns the unsevered surface and mineral estates of a tract, or simply the surface estate. BLM has offered certain of its lands to renewable energy development, in particular wind and solar. In order to proceed with a project on BLM lands, an application must be filed for a right-of-way ("ROW") pursuant to Title V of the Federal Land Policy and Management Act, and Title 43, Part 2800 of the code of Federal Regulations.[64] While a full-scale and detailed discussion of the entirety of the process is outside the scope of this paper, the basics of securing a ROW for a solar development project are as follows:

- **Pre-application meetings.** BLM requires that *at least* two pre-application meetings occur between the various involved organizations and agencies, including the applicant, BLM, other federal agencies (DoD, Fish & Wildlife Service, National Park Service, etc.), BLM field offices, tribal governments, and state and local agencies with jurisdiction.[65] Therefore, the first step is contacting the BLM office with management responsibility for the area under consideration. The first meeting is intended to discuss the general project proposal, status of BLM land use planning in that particular area, potential environmental or other siting restraints, and the ROW application process.[66] The next required meeting initiates coordination with the various governmental agencies (federal, state, tribal, and local).[67] Since the various agencies involved obtained information about the proposed project at the first meeting, it is likely at this point that *specific* environmental and siting constraints may be addressed, and studies or other work on these topics will be suggested. Based on the information exchanged at these meetings, the BLM may advise the potential applicant of the efficacy of filing the ROW application.

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[63] http://www.blm.gov/wo/st/en/info/About_BLM/subsurface.html

[64] BLM, Solar Energy Development Policy Instruction Memorandum No. 2007-097, dated April 4, 2007, http://www.blm.gov/wo/st/en/info/regulations/Instruction_Memos_and_Bulletins/national_instruction/2007/im_2007-097__.html.

[65] BLM, Solar and Wind Energy Applications – Pre-Application and Screening Instruction Memorandum No. 2011-061, dated February 7, 2011, http://www.blm.gov/wo/st/en/info/regulations/Instruction_Memos_and_Bulletins/national_instruction/2011/IM_2011-061.html.

[66] *Id.*

[67] *Id.*

- **Application.** Assuming BLM has not advised that an application not be filed, the applicant will file an application (and appropriate fees) with the agency. For commercial solar projects in particular, the applicant should complete and submit Form SF-299.[68] While the BLM reviews the application, it, among other things: (a) completes or reviews a National Environmental Policy Act ("NEPA") analysis to determine the environmental effects, if any, of the proposed project; (b) determines federal and state law compliance; (c) consults with other applicable agencies; and (d) assesses whether granting the ROW is in the public interest.[69] It should be noted that a Solar Energy Plan of Development ("POD") must be submitted prior to the initiation of the NEPA analysis.[70] The POD is described as a "dynamic document," the contents of which will change over the course of the application process.[71] During this time BLM also reviews the proposed project for land use plan conformance, which may require an amendment of the land use plan.[72] The length of time for BLM to perform its review is dependent upon the screening criteria (found in the Solar and Wind Energy Applications Guidance), and the applicable regulations (43 CFR 2804.25(c)).

- **Authorization.** If BLM is satisfied the criteria for the ROW grant are met, it will issue a ROW authorization, which will "contain appropriate stipulations relating to all aspects of project development including, but not limited to, road construction and maintenance, vegetation removal, natural, cultural and biological resources mitigation and monitoring, and site reclamation."[73] Pursuant to the applicable regulations, the ROW holder must provide a bond to secure the obligations related to the grant.[74] This Performance and Reclamation bond is required for all solar energy projects, but BLM is also authorized to require a Decommissioning and Site Reclamation Plan as part of the POD, which may be used to determine the full bond amount.[75] The final version of the POD must be approved and completed prior to construction of the project.[76]

Section 211 of the Energy Policy Act of 2005 (Public Law 109-58, August 8, 2005) encourages the approval of at least 10,000 MW of non-hydropower renewable energy projects on public lands before 2015.[77] As of this date of this

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[68] Solar Energy Development Policy IM.
[69] 43 CFR 2804.25.
[70] http://www.blm.gov/pgdata/etc/medialib/blm/wo/MINERALS__REALTY__AND_RESOURCE_PROTECTION_/energy/solar_and_wind.Par.35804.File.dat/POD_Solar_121911.pdf.
[71] *Id*.
[72] Solar and Wind Energy Applications IM.
[73] Solar Energy Development Policy IM.
[74] 43 U.S.C. 1764(i) and 43 CFR 2805.12(g).
[75] BLM, Solar Development Policy Instruction Memorandum No. 2011-003, dated October 7, 2010, http://www.blm.gov/wo/st/en/info/regulations/Instruction_Memos_and_Bulletins/national_instruction/2011/IM_2011-003.html.
[76] Solar Energy Development Policy IM.
[77] *Id*.

writing, BLM had approved the development of over 4,500 MW of solar energy,[78] and clearly intends to continue this trend. In late 2012, the Department of Interior and BLM announced that it had designated certain lands as preferred solar energy zones, which was the result of a Programmatic Environmental Impact Statement (PEIS).[79] The PEIS attempts to provide a streamlined procedure to evaluate utility-scale solar energy development, develop and implement Agency-specific programs or guidance that would establish environmental policies and mitigation strategies for solar energy projects, and amend relevant BLM land use plans with the consideration of establishing a new BLM Solar Energy Program.[80] The preferred solar energy zones (SEZs) are located in Arizona, California, Colorado, Nevada, New Mexico and Utah, and can be located by visiting the BLM website.[81] It is readily apparent that BLM is active in the renewable energy development arena, and thus understanding BLM's rules, regulations, and procedures is a necessity for solar developers and practitioners.

B. Split Estate. In addition to the 254 million surface acres, BLM also manages 700 million acres of sub-surface mineral estate.[82] Of these 700 million acres, 58 million underlie surface estates that are privately held.[83] Land with a private owner in possession of the surface estate and BLM reserving the minerals pursuant to an applicable patent, is referred to as a "split estate." Nearly 90% of split estate lands are found west of the Mississippi.[84]

Split estates pose different challenges for solar developers than developing on BLM surface lands; challenges more in line with the overall topic of this paper. Specifically, a solar developer's attempt to obtain certainty regarding the proposed project land's mineral estate situation may be tested by the fact that the mineral estate is owned by the United States and operated by BLM. In other words, it is not as "simple" as obtaining a waiver of surface use or other non-disturbance agreement, primarily because the estate is not in private hands. Before moving to an analysis of solar developer options on split estate tracts, a discussion of how BLM manages such lands is in order.

BLM oversees the development of the United States' onshore mineral interests. The development occurs in five general phases: land use planning; parcel nominations and lease sales; well permitting and development; operations and

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[78] BLM Fact Sheet, *Renewable Energy and the BLM: Solar*, http://www.blm.gov/pgdata/etc/medialib/blm/wo/MINERALS__REALTY__AND_RESOURCE_PROTECTION_/energy/solar_and_wind.Par.99571.File.dat/fact_Solar_12_2012.pdf (updated January 2013).

[79] *Obama Administration Approves Roadmap for Utility-Scale Solar Energy Development on Public Lands*, October 12, 2012, http://www.blm.gov/wo/st/en/info/newsroom/2012/october/NR_10_12_2012.html.

[80] *Id*. See also *Solar Energy Development Programmatic EIS*, http://solareis.anl.gov/.

[81] *Id*.

[82] http://www.blm.gov/wo/st/en/info/About_BLM/subsurface.html.

[83] *Id*.

[84] Amy Moll, *BLM fracking rule will apply to more than 55 million acres of private land*, http://switchboard.nrdc.org/blogs/amall/blm_fracking_rule_will_apply_t.html (last visited January 21, 2013).

production; and plugging and reclamation.[85] Of these phases, the two of most importance to solar development are land use planning, and well permitting and development.

- Land use planning involves the assessment by a local office of the open lands under BLM control, and the drafting and implementation of a Resource Management Plan ("RMP"). The RMP "analyzes impacts of *reasonably foreseeable development* and spells out any *stipulations* needed to provide extra protection for sensitive resources in the plan area."[86] The RMP is a dynamic document that guides oil and gas development, and contains stipulations that apply to all oil and gas leases issued by BLM in the area. For instance, if the local office determines that oil and gas activities may adversely affect certain overlying surface tracts, or that an area contains unique resources or values, a stipulation will be included in the RMP to address that topic. Consequently, any oil and gas leases that are granted by BLM (pursuant to the parcel nomination and lease sales procedures) will contain the stipulation language specified in the RMP, and that stipulation ultimately restricts where or how the lease operator will utilize the surface overlying the subject mineral estate. Some existing RMPs contain what are referred to as Controlled Surface Use Stipulations, where the BLM may alter the normal siting and timing standards related to oil and gas development on the subject lands,[87] including significant restrictions on surface use.

- Following the nomination and lease sale phase, wherein oil and gas developers bid for the right to apply for a permit to explore and develop certain mineral estate parcels, is the well permitting and development phase. A leaseholder must obtain a permit prior to any surface use or drilling on the subject lands, and on split estate lands, it is at this stage that the surface owner becomes involved. Specifically, a leaseholder may not enter onto the property for surveying or staking purposes without first attempting to notify the landowner.[88] Additionally, the operator must certify that a good faith effort has been made to enter into a surface use agreement with the surface owner.[89] If no agreement has been reached, a bond must be filed to "cover compensation."[90] The operator is also expected to provide the surface owner with a copy of its application for a permit to drill, the Conditions of Approval of the application, and any future proposals for involving new surface disturbances.[91]

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[85] http://www.blm.gov/wo/st/en/prog/energy/oil_and_gas/leasing_of_onshore.html.

[86] http://www.blm.gov/wo/st/en/prog/energy/oil_and_gas/leasing_of_onshore/og_planning.html (emphasis in original).

[87] See Bakersfield Regional Management Plan (draft and proposed versions), Appendix G, http://www.blm.gov/ca/st/en/fo/bakersfield/Programs/planning/caliente_rmp_revision.html.

[88] BLM, *The Gold Book*, Fourth Edition, p. 11-12 (2007).

[89] *Id*. at 12.

[90] *Id*.

[91] *Id*.

These two stages are the most important to a solar developer because they provide the backdrop for the limited alternatives available for dealing with a split estate situation. Conspicuously absent from the foregoing analysis of applicable rules and procedures is any provision referring to solar development atop BLM split estates. Recognizing that most solar developers require the participation of a lender or other investor whose standards for investment are high, and that providing certainty related to project stability is paramount to obtaining such financing, it would appear that a developer has three options when faced with development on such lands:

- Attempt to enter into a non-disturbance or surface use agreement with BLM;[92]

- Attempt to amend the local RMP to create a stipulation for solar energy project development; and

- Attempt to request a mineral conveyance pursuant to Section 209(b) of the Federal Land Policy and Management Act ("FLPMA").

The first alternative is one of great uncertainty. That is so because, to the author's knowledge, BLM has not entered into such an agreement with a split estate surface lessee. It is possible that entering into such an agreement would raise public trust and participation issues for BLM. While this route would provide an efficient and quick alternative, project financiers may balk due to the legal and policy questions such an agreement may raise.

The second alternative would seem to provide the best option, primarily because it would provide a great amount of certainty for developers and financing parties alike. However, because the amendment of an RMP involves a NEPA review, in addition to the customary length of time that drafting and approving such a document takes, this process may require two or more years to complete. During the pendency of an RMP amendment, the developer would not be able to move forward on a parallel track of development for fear that, if the amendment were not enacted, significant amounts of money would be lost. This reality may also influence funding, and therefore further affect the likelihood that a solar developer would move in this direction.

The third alternative is authorized by Section 209(b) of the FLPMA, and guided by the regulations found in 43 CFR 2720 *et seq.* The objective of the conveyance policy is "to allow consolidation of surface and subsurface or mineral ownership where there are no known mineral values or in those instances where the

[92] While attempting to enter into a non-disturbance or surface use waiver agreement with the mineral estate lessee is the normal tack to take in a wholly private ownership situation, participating in that type of agreement on BLM split estate lands may fail to provide any long-term certainty. BLM leases last for 10 years (absent production in paying quantities) before the lease needs to be renewed, so the time horizons for the oil and gas lease and the solar development do not match, and uncertainty ensues.

reservation interferes with or precludes appropriate non-mineral development, and such development is a more beneficial use of the land than the mineral development."[93] An application may be filed for the conveyance by either an existing or a prospective record owner of the surface of the land where mineral interests are reserved or otherwise owned by the United States.[94]

The application must include proof of ownership of the surface, a $50 fee, and a statement concerning: (i) the nature of the mineral values in the land; (ii) the existing and proposed uses of the surface; (iii) an explanation regarding the reason that the United States mineral interests are interfering with or precluding appropriate non-mineral development of the applicant's land; (iv) how and why the proposed surface development would be a more beneficial use of the land than for use in mineral development; and (v) a demonstration that the proposed surface use complies or will comply with State and local zoning and/or planning requirements.[95] The authorized official reviewing the application will make a determination regarding the amounts estimated to cover the administrative costs of processing the application.[96] Part of this cost estimate shall include the costs associated with conducting an exploratory program, which determines the character of the mineral deposits in the land.[97] The program is only required if the authorized BLM officer determines one is necessary, and more times than not the BLM is able to use existing information and a simple mineral potential analysis. However, if an exploratory program is necessary, it may be requested of the BLM by the applicant, or the applicant may request that it conduct the program on its own.[98] Regardless of who conducts the activity, the exploratory program is intended to provide information to the BLM officer to aid in determining fair market value for the mineral interests at issue. Following the submission of all necessary information as required by regulation, the BLM shall determine whether the requirements of the FLPMA have been satisfied.[99] If so, then BLM will inform the applicant of the fair market value of the mineral interests and provide an opportunity for the applicant (surface owner) to purchase.[100]

Solar developers may find this option appealing. Instead of attempting to work out the parameters of a surface use agreement, or expending the time and money to amend an RMP, developers may choose to purchase the underlying minerals. Of course, the costs of doing so may be greater than the other two options, but it may be worth the costs as opposed to the uncertainty involved in the other two options. Another possibly complicating factor involves the reality that only the existing surface owner has the authority to request a conveyance. If the solar

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[93] 43 CFR 2720.0-2.
[94] *Id*., 2720.1-1.
[95] *Id*., 2720.1-2.
[96] *Id*., 2720.103(b).
[97] *Id*.
[98] *Id*., 2720.1-3.
[99] *Id*., 2720.3.
[100] *Id*.

developer has purchased the surface estate, this is not an issue. However, if the solar developer is operating under a lease agreement, the developer will have to request that the surface owner/lessor file this application. Most solar leases have provisions requiring landowners to assist the developer in regulatory and other procedures that the developer believes is necessary to effectuate the project. The conveyance procedure described here may very well satisfy that requirement. It should also be noted that BLM does not encounter many of these types of applications, and has not, to date, approved any to facilitate solar development.[101]

So, what should a solar developer do? As shown, uncertainty surrounds each of the potential options listed above. This subject appears to be in its infancy with regard to resolving these issues, and the various options are either new or time-consuming. To hedge the uncertainty involved here, a developer may attempt to secure appropriate endorsements or coverage from its title insurance provider. If the insurance company agrees, at least the financing side of the deal may be easier to achieve. However, the bottom line is that solar developers eyeing western United States lands must be ready and willing to properly interact and work with BLM, and can at least take solace in the understanding that it appears BLM and the current administration are moving towards the same goals, as evidenced by the "All-of-the-Above" energy policy. Regardless of administration, however, developers should have reasonable opportunities to include BLM lands in their assessments for solar energy sites.

9. Factors in States with Growing Commercial Scale Solar Energy Development

A. Data on Leading Solar Energy Development States

California leads the U.S. in current installations of commercial scale solar energy projects; New Jersey, Arizona and Nevada have the next most installations.[102] It is also apparent that many states have implemented "significant" policies that may lead to greater solar development, on a distributed and commercial basis, including California, Connecticut, and Texas.[103]

B. State Incentives as a Growth Driver

At the beginning of the process to write this paper, the authors wondered whether state laws and rules on the mineral estate might be a factor in solar energy project development. The authors did not find a correlation, however, between mineral estate laws and states' growth rates for solar energy projects. Instead, state mandates and incentives seem to be the main driving force in whether a particular state experiences meaningful growth of its commercial scale solar energy industry. Below are a few examples of recent state rules in leading solar energy development

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[101] January 24, 2013 e-mail from Ray Brady.

[102] Solar Energy Industries Association, *Solar Industry Data* for Q3 2012 (http://www.seia.org/research-resources/solar-industry-data)

[103] *10 Significant State Policies for Distributed Solar Energy*, SustainableBusiness.com, October 5, 2012 (*available at http://www.sustainablebusiness.com/index.cfm/go/news.display/id/24150).*

states.

i. RPS Requirements. Many states have implemented Renewable Portfolio Standard(s) (RPS) or Renewable Energy Standard(s) (RES) requiring their respective public utilities to provide minimum proportions of their energy from renewable sources. California has one of the most aggressive RPS requirements in the United States.[104] It sets the state's renewable energy target at 33% by 2020.[105]

The latest version of the New Jersey RPS mandates 20.38% of the electricity supplied by investor-owned utilities and retail supplies originate from Class I and Class II renewable sources by 2021.[106] Solar energy project development is active in New Jersey because of the general RPS and also because the RPS rules have a specific requirement for solar -- 4.1% of the electricity must come from in-state solar electric generation during the year 2028.[107]

ii. Other State Incentives. Some states provide state tax incentives to attract solar energy project development. In 2010, Arizona passed a law providing for state tax credits for each kilowatt hour (kWh) of electricity produced from a qualified solar energy facilities; the credit applies to systems installed between December 31, 2010 and January 1, 2021. Once installed, the solar energy system is entitled to a state tax credit for 10 years, beginning at $0.04 per kWh in year one, with such rate gradually reducing to $0.01 per kWh by year 10 of the project.[108]

10. Title Insurance Products

Appendix E, F, and G contain the promulgated forms, procedural rules and rate rules for issuance of available endorsement coverage for mineral issues in Texas. Texas has four different types of promulgated title insurance endorsements to address mineral issues that arise in the context of surface real estate rights: Forms T-19, T-19.1, T-19.2 and T-19.3. These endorsements are available when a title insurance company issues its title policy with an exception or exclusion for mineral estate coverage. Title companies may include such mineral exceptions or exclusions under Texas Title Insurance Procedural Rule 5.1, but when including the mineral exclusion title companies are in turn required to make the T-19 endorsements available under Rule P-50.1:

P-5.1. Exception or Exclusion Regarding Minerals

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[104] www.cpuc.ca.gov/PUC/energy/Renewables/index.htm.
[105] *Id*.
[106] http://www.dsireusa.org/incentives/incentive.cfm?Incentive_Code=NJ05R.
[107] *Id*.
[109] A.R.S. §41-1510.01 (2010); *see also http://www.ncsl.org/documents/energy/AZFact032012.pdf.*

A. As used by this rule, minerals means coal, lignite, oil, gas, and other minerals in, under, and that may be produced from the land, together with all rights, privileges, and immunities relating thereto. The Policy is not an abstract of title nor does a Company have an obligation to determine the ownership of any mineral interest. A Company may insert into a policy or any other title insuring form an exception or an exclusion for minerals as provided below:

1. On Schedule A, Item 2:
"subject to, and the Company does not insure title to, and excepts from the description of the Land, coal, lignite, oil, gas and other minerals in, under and that may be produced from the Land, together with all rights, privileges, and immunities relating thereto."; or

2. On Schedule B:
"All leases, grants, exceptions or reservations of coal, lignite, oil, gas and other minerals, together with all rights, privileges, and immunities relating thereto, appearing in the Public Records whether listed in Schedule B or not. There may be leases, grants, exceptions or reservations of mineral interest that are not listed."

B. When the language described in either A.1 or A.2 above is inserted, the Company upon request by the insured **must** issue one or more of the applicable endorsements as provided in Procedural rule P-50.1.

Because of the language in section B of Rule P-5.1, the endorsements attached as Appendix E, F and G are available to address the risks that surface estate improvements may be disturbed by mineral estate activities. These endorsements help alleviate some of the concerns about mineral rights faced by solar energy project operators because the endorsements allow claims to be filed under the title policy if mineral estate activities force the solar project operator to relocate its facilities. While this title insurance coverage is helpful, solar developers should be aware of the limitations of Texas title insurance policies and endorsements. Such policies insure only the value of the underlying real estate rights and improvements and only up to the amount of coverage purchased in the policy. If a solar project's operating revenues and profits exceed the value of the underlying real estate rights and improvements, such excess is not covered by the title insurance policy.

ALTA 35 and 36 Series. For development areas outside of Texas and other "regulated" states, the American Land Title Association (ALTA) has developed two additional series of endorsements of interest to renewable energy project developers. The ALTA 35 series (an example of which is attached as Appendix H) covers enforced removal or alteration of a "building" or "improvements" resulting from the future exercise of a right to use the surface to extract or develop minerals. The ALTA 36 series (an example of which is attached as Appendix I) covers renewable energy developments, and adds specific items of loss appropriate for an energy project. In addition, as opposed to the limitations of the Texas title insurance policies and endorsements discussed above, the ALTA 36 series expands the valuation of title to include that a loss on a single parcel includes the

resulting loss to the integrated project as a whole. Developers may consider requesting these endorsements in the same instances discussed above related to Texas. The foregoing notwithstanding, the only way to eliminate all risks of mineral estate disturbance is through owning or controlling the mineral estate or securing a properly executed waiver of surface rights or accommodation agreement.

11. Conclusion

Because commercial scale solar energy projects must utilize hundreds of acres of contiguous land, developers must carefully determine that project facilities will not be subject to disturbance by the dominant mineral estate. Solar energy project owners can mitigate disturbance risks in several ways: (a) acquiring and controlling the mineral estate, (b) obtaining waivers of surface rights from mineral estate owners and lessees, (c) obtaining accommodation agreements from mineral estate owners and lessees, (d) designating well drill sites, and (e) obtaining title insurance mineral endorsements.

APPENDIX A

Waiver of Surface Rights
Reservation of Drill Site Clause

Texas State Bar Form Examples

Mineral Estate—Waiver of Surface Rights Clause

Grantor waives and conveys to Grantee the right of ingress and egress to and from the surface of the Property relating to the portion of the mineral estate owned by Grantor.

Nothing herein, however, restricts or prohibits the pooling or unitization of the portion of the mineral estate owned by Grantor with land other than the Property; or the exploration or production of the oil, gas, and other minerals by means of wells that are drilled or mines that open on land other than the Property but enter or bottom under the Property, provided that these operations in no manner interfere with the surface or subsurface support of any improvements constructed or to be constructed on the Property.

Mineral Estate—Waiver of Surface Rights; Reservation of Drill Site Clause

Drill Site: [_____]
Access Routes: [_____]

For Grantor and Grantor's heirs, successors, and assigns forever, a reservation of a perpetual, exclusive easement in and to the free and uninterrupted use of the Drill Site to explore and produce the oil, gas, and other minerals in and under and that may be produced from the Property, together with access to and from the Drill Site over the Access Routes. Grantor waives the right to explore and develop from the surface of the Property the portion of the mineral estate owned by Grantor, other than on or from the Drill Site.

APPENDIX B

Waiver of Surface Rights Agreement Form

NOTICE OF CONFIDENTIALITY RIGHTS: IF YOU ARE A NATURAL PERSON, YOU MAY REMOVE OR STRIKE ANY OR ALL OF THE FOLLOWING INFORMATION FROM ANY INSTRUMENT THAT TRANSFERS AN INTEREST IN REAL PROPERTY BEFORE IT IS FILED FOR RECORD IN THE PUBLIC RECORDS: YOUR SOCIAL SECURITY NUMBER OR YOUR DRIVER'S LICENSE NUMBER.

WAIVER OF SURFACE RIGHTS AGREEMENT

This WAIVER OF SURFACE RIGHTS ("Agreement") dated as of _____ ___, 2012 (the "Effective Date") is made by and among **[_____]**, ("Mineral Owner") a [_____] corporation, with a mailing address at [_____], _____, ("Surface Owner"), with a mailing address at _____, and _____ ("Solar Lessee"), a _____, whose address is _____.

RECITALS

A. The Surface Owner owns the surface of approximately _____ acres of land, more or less, in _____ County, Texas.

B. The Mineral Owner owns 100% of the mineral rights in said ___ acres.

C. The Solar Lessee entered into a Solar Lease Agreement with the Surface Owner dated _____, covering the Surface Lands for the development and operation of solar energy generation system(s) (the "Solar Project").

D. The Parties desire to provide for: (i) the waiver, release, and relinquishment of Mineral Owner's right to use the Surface Lands, subject to the provisions contained herein, (ii) the establishment of drill site areas in which the Mineral Owner shall have exclusive use to produce and explore for oil, gas and other minerals under the land described under Drillsite Areas in Exhibit "__", and (iii) the orderly and protected development of the Surface Land, which is to be used for the Solar Project.

E. In consideration of the mutual promises set out in this Agreement, and other good and valuable consideration, the receipt and sufficiency of which is acknowledged, the Mineral Owner, the Surface Owner and Solar Lessee agree to be bound by the terms of this Agreement.

AGREEMENT

1. DEFINITIONS, INTERPRETATION AND EXHIBITS

1.1. **Definitions**. As used in this Agreement, these words or expressions have the following meanings:

"Access Areas" has the meaning given in Section 7 below.

"Affiliate" means any legal entity which controls, is controlled by, or is under common control with, another legal entity. An entity is deemed to "control" another if it owns directly or indirectly at least fifty percent of either of the following:

(A) The shares entitled to vote at a general election of directors of such other entity.

(B) The voting interest in such other entity if such entity does not have either shares or directors.

"Central Tank Battery Site" has the meaning given in Section 3.5 below.

"Claim" means any claim, liability, loss, demand, damages, lien, cause of action of any kind, obligation, costs, royalty, fees, assessments, penalties, fines, judgment, interest and award (including recoverable legal counsel fees and costs of litigation of the Person asserting the Claim), whether arising by law, contract, tort, voluntary settlement or otherwise,

"Designated Drillsite Area" means, as applicable as indicated by the context in which the phrase is used, each of the four separate areas described on Exhibit "__", individually, or all of them, collectively,

"Dispute" means any dispute or controversy arising out of this Agreement or the performance of obligations under this Agreement, including a Claim under this Agreement and any dispute or controversy regarding the existence, construction, validity, interpretation, enforceability or breach of this Agreement.

"Effective Date" means the date defined as "Effective Date" in the introductory paragraph of this Agreement.

"Geophysical Operations" means the surface and/or subsurface generation and/or measurement of different types of energy and forces used to record geophysical properties of the earth, which properties include, by way of example and not of limitation, magnetic, seismic, gravitational, electrical and natural radiation.

"Party" means Mineral Owner, Surface Owner or Solar Lessee and "Parties" mean all of them.

"Person" means an individual, corporation, company, state, statutory corporation, government entity or any other legal entity.

"Property" of a Person means property owned, leased or furnished by that Person or in which that Person has an economic interest.

"Mineral Deeds" has the meaning given in Section 2.1 below.

"Minerals" means all of the minerals below Section ___, Block ____, _____ Survey, _____ County, Texas, and owned by the Mineral Owner.

"Mineral Owner" means [_____].

"Solar Lessee" means [_____].

"Solar Project" means the solar energy generation system(s) and related equipment, facilities and improvements planned, developed and/or operated by Solar Lessee on the Surface Lands.

"Surface Lands" means [_____].

"Surface Owner" means the [_____].

1.2. **Interpretation**. Unless the context expressly requires otherwise, all of the following apply to the interpretation of this Agreement:

(A) The plural and singular words each include the other.

(B) The masculine, feminine and neuter genders each include the others.

(C) The word "or" is not exclusive.

(D) The word "includes" and "including" are not limiting.

(E) The headings in this Agreement are included for convenience and do not affect the construction or interpretation of any provision of, or the rights or obligations of a Party under, this Agreement.

2. CURRENT FEE MINERAL LANDS.

2.1. Mineral Owner owns the oil, gas and other minerals under the Surface Lands pursuant to the agreements described in Sub-Sections [_____] below (the "Mineral Deeds"). This Agreement is made subject to the Mineral Deeds, and the terms and conditions of the Mineral Deeds are incorporated herein by reference:

[include description of Mineral Deeds]

3. DESIGNATED DRILLSITE AREAS.

3.1. **Grant**. Subject to Mineral Owner's reservations contained in this Agreement, the Mineral Owner hereby waives, releases, and relinquishes all of its rights to use the surface of the Surface Lands, including, the right

to enter upon the surface of the Surface Lands for purposes of exploring for, developing, drilling, producing, treating, storing or transporting the Minerals or for any other purpose incident thereto, further subject to other provisions contained in this Agreement. Notwithstanding the foregoing sentence, the Mineral Owner reserves for itself, its successors and assigns, and Surface Owner grants to Mineral Owner, its successors and assigns, the exclusive right to use the Designated Drillsite Areas, the Access Areas (except as otherwise provided in Subsection 7.3 regarding the joint use of the Access Areas by Mineral Owner, Surface Owner and Solar Lessee), and the Central Tank Battery Site for purposes of exploring for, developing, drilling, producing, treating, storing or transporting the Minerals from the Designated Drillsite Areas, or for any other purpose incident thereto, by pooling, by directionally drilling, or by any other method the Mineral Owner deems useful or appropriate in its sole discretion provided such method is in compliance with applicable laws, rules, and regulations and with the terms of this Agreement.

3.2. **Term.** This agreement shall remain in effect until _____ and up to _____ years thereafter unless terminated under the provisions of the Solar Lease.

3.3. **Designated Drillsite Area Size and Relinquishment of Right to Use**. The Designated Drillsite Areas shall be each area described in Exhibits __ and __, regardless of whether the well or the well location is in the center of each such area. The Surface Owner hereby relinquishes to the Mineral Owner for as long as this Agreement is in effect all of the Surface Owner's rights to use the surface of the Designated Drillsite Areas, the Access Areas (except as otherwise provided in Subsection 7.3 regarding the joint use of the Access Areas by Mineral Owner, Surface Owner and Solar Lessee), and the Central Tank Battery Site for any purpose.

3.4. **Central Tank Battery Site**. The Mineral Owner hereby reserves an area at the location also described in Exhibit "__" (the "Central Tank Battery Site") for the purpose of placing central battery tanks and related equipment, used to collect, store, and prepare for transportation or sale, product that has been produced from the Designated Drillsite Areas, if any such product exists. The failure of the Mineral Owner to utilize the Central Tank Battery Site for any amount of time shall not be deemed or construed to waive, abandon, or impair the rights of the Mineral Owner to use such Central Tank Battery Site for the purposes designated herein.

3.5. **No Restriction on Drilling Activities Below Surface Lands**. The Surface Owner acknowledges and agrees that the purpose of this Agreement is not to restrict or limit in any way drilling activities conducted below the Surface Lands, or land pooled with the Surface Lands, so long as the surface drilling operations are conducted within a Designated Drillsite Area or from off of the Surface Lands and in

compliance with applicable laws, regulations and local ordinances in effect at the time the drilling operation is conducted. This Agreement is not intended to impose any limitation or in any way restrict the Mineral Owner's rights to drill a directional or horizontal well or use any drilling method or production technique that may be developed after the Effective Date of this Agreement. The Surface Owner hereby agrees that the Mineral Owner may drill oil or gas well(s) at any location within any Designated Drillsite Area or off of the Surface Lands so long as the drillsite location is consistent with the applicable laws, regulations and local ordinances in effect at the time the drillsite permit is issued by the appropriate regulatory body having authority to issue the drilling permit.

4. MINERAL OWNER'S USE OF A DESIGNATED DRILLSITE AREA.

4.1. **No Restriction**. The Parties acknowledge that as of the Effective Date of this Agreement, the Mineral Owner has not drilled an oil and gas well on the Designated Drillsite Area. The Parties agree that the rights granted to the Mineral Owner pursuant to the terms and conditions of this Agreement and the rights owned by the Mineral Owner pursuant to the terms of the Mineral Deeds shall not be restricted in any manner within the boundary of each Designated Drillsite Area so long as this Agreement remains in full force and effect as to the land within a Designated Drillsite Area.

4.2. **No Abandonment**. So long as this Agreement is in effect, the Mineral Owner's failure to drill an oil or gas well or use any Designated Drillsite Area or Access Area for oil and gas operations shall not be deemed or construed to waive, abandon, or impair the rights of the Mineral Owner to thereafter use any Designated Drillsite Area or Access Area for the purposes designated herein.

5. NOTICE TO THIRD PARTIES PURCHASING AN INTEREST IN THE SURFACE LANDS AFTER THE EFFECTIVE DATE OF THIS AGREEMENT.

5.1. **Notice**. The recording of this Agreement in the official county records of _____ County, Texas shall serve notice to all third parties that purchase any tract or interest in the Surface Lands, or obtain a building permit to construct a residence, office or other building or improvement upon any tract of the Surface Lands, of the Mineral Owner's rights under this Agreement.

5.2. **Deemed Notice of this Agreement, Consent**. After this Agreement has been recorded in the official county records of _____ County, Texas, any person that subsequently acquires any tract or interest in the Surface Lands, or that obtains a building permit to construct a residence, office or other building or improvement upon any tract of the Surface Lands shall be deemed to have notice of the existence of this Agreement and shall be

bound by the terms of this Agreement for purposes of any applicable law, regulation or local ordinance that may require the consent or permission of any such third party to the drilling of any well within a Designated Drillsite Area.

6. DAMAGE TO FACILITIES.

The Mineral Owner and the Solar Lessee each agree to indemnify and hold the other harmless for any physical damages to the other's equipment, facilities and improvements on the Surface Lands and for physical injuries to any person resulting or arising directly from the indemnifying party's use of or operations on the Surface Lands. This indemnification shall survive the termination of this Agreement. This indemnification shall not apply to losses, damages, claims, expenses and other liability to the extent caused by any negligent or deliberate act or omission on the part of the indemnified party.

7. ACCESS AREAS.

7.1. **Access to Facilities**. The Parties hereto recognize the Mineral Owner must retain access to and from the Designated Drillsite Areas, existing Access Areas, and any future facilities placed on the Surface Lands. To that end the parties hereto agree that the Mineral Owner shall have the right to lay pipelines, build roads and access its Designated Drillsite Areas and facilities in a manner in keeping with good oilfield practice utilizing the Access Areas described in Exhibit "__", or an existing access easement (if any), or establishing with the Surface Owner and Solar Lessee new Access Areas as needed and when practical. Pursuant to Article 12, the Surface Owner acknowledges and confirms the Mineral Owner's dominate rights to its mineral estate and all access required to explore, produce, and develop same subject to the terms of this Agreement.

7.2. **Conflicting Uses**. Subject to the terms of this Agreement and to the terms of any existing access easement of record, in the event of any conflict between the Mineral Owner and any other Person entitled to use an existing access easement (if any), the Mineral Owner shall have the dominant or superior right over all other Persons, but the Mineral Owner agrees to use only such lands under the existing easement as are necessary for oil and gas operations and to accommodate, whenever possible, the needs of any other party or entity including, without limitation, those of the Solar Lessee.

7.3. **Joint Use**. Notwithstanding anything to the contrary in this Agreement, Mineral Owner, Surface Owner and Solar Lessee agree that all may use the Access Areas or any existing access easements (to the extent allowed by the terms of such access easements) for the purpose of access to their respective equipment, facilities and improvements on the Surface Lands

and for related purposes allowed by law or pursuant to any written agreement between such Parties and that each shall be responsible for their proportionate share of the costs of maintenance of the Access Areas or such access easements in relation to their level of use of the same. At such time the Mineral Owner begins operations on the Surface Lands, the Parties agree to begin negotiations to determine an allocation of maintenance costs based on the planned usage of the Surface Lands by the Mineral Owner, Surface Owner and Solar Lessee. Said allocation of maintenance costs is to be reviewed annually. To the extent allowed by law, the Mineral Owner, Surface Owner and Solar Lessee each agree to indemnify and hold the other Parties harmless against any liabilities for physical damage to property and for physical injuries to any person resulting or arising directly from the indemnifying party's use of or operations on the Access Areas or access easements. This indemnification shall survive the termination of this Agreement. This indemnification shall not apply to losses, damages, claims, expenses and other liabilities to the extent caused by any negligent or deliberate act or omission on the part of any indemnified Party.

8. ACCESS OF SURFACE LANDS.

8.1. **No Denial of Access**. Notwithstanding any provision herein to the contrary, the Parties agree that the Mineral Owner shall not be denied access to the Surface Lands, except for those portions of the Surface Lands on which the Solar Project is located. The Mineral Owner agrees to attempt access from the north of the Surface Lands, and limit access from the south of the Surface Lands as much as reasonably possible to accommodate the Surface Owner and Solar Lessee. If access to Surface Lands cannot be made from any direction other than the south, then access may be obtained from the south of the Surface Lands.

9. FUTURE EXPLORATION AND GEOPHYSICAL OPERATIONS.

9.1. **Geophysical Operations**. The Parties agree that nothing contained in this Agreement shall be construed to waive, release, relinquish or in any way limit the Mineral Owner's rights to use reasonably the Surface Lands for exploration or Geophysical Operations so long as such operations are conducted in accordance with this Section 9.1 and Section 11 below. The Mineral Owner may use the Surface Lands for exploration or Geophysical Operations, so long as such operations are conducted in accordance with this Agreement, the applicable laws, rules or regulations, if any, in effect at the time such operations are conducted and in such a way as not to interfere unreasonably with the Surface Owner's or Solar Lessee's use of the Surface Lands other than the Designated Drillsite Areas.

9.2. **No Dynamite**. Irrespective of future changes made to the ordinances, the Mineral Owner agrees not to use dynamite explosives for Geophysical Operations conducted anywhere on the Surface Lands.

10. MINERAL OWNER'S RESERVATION OF RIGHTS TO EXPLORE FOR OIL, GAS AND MINERALS.

10.1. **Right to Explore**. The Mineral Owner reserves, for itself, and its successors and assigns, the right to explore (as distinguished from the right to develop) for oil, gas and minerals on and over the Surface Lands so long as the Mineral Owner: (i) does not use dynamite explosives anywhere on the Surface Lands, and (ii) does not damage the Surface Lands or buildings, facilities, and infrastructure owned by the Surface Owner or Solar Lessee on the Surface Lands as a result of the exploration activities. The Mineral Owner shall have the right to use the roads situated on the Surface Lands, whether existing roads or Access Areas, in accordance with Section 7 above when conducting its exploration activities and will confine its operations to such roads and the Designated Drillsite Areas, provided there exist on the Surface Lands enough roads, in Mineral Owner's sole discretion, to conduct the exploration activities. Otherwise, Mineral Owner may use as much of the Surface Lands as is reasonably necessary to conduct such activities, subject to Subsections 9.1 and 11.1(ii) above.

11. MINERAL OWNER RETAINS DOMINANT ESTATE.

11.1. **Exclusive**. The Surface Owner hereby confirms and agrees that the rights, titles, and interests that the Mineral Owner retains in the Designated Drillsite Areas, the Access Areas, and the Central Tank Battery Site, are exclusive to the Surface Owner's rights therein, except as otherwise provided in Subsection 7.3 regarding the joint use of the Access Areas by Mineral Owner, Surface Owner and Solar Lessee.

11.2. **No Construction**. Neither the Surface Owner nor the Solar Lessee shall have any right to excavate, construct or place a building, pipeline, fixture, solar panel or structure on, across, over or under, any part of any Designated Drillsite Area or Access Area or the Central Tank Battery Site except as provided in Subsection 7.3 and this Subsection 11.2. Solar Lessee shall be entitled to install underground, low voltage collection lines in connection with and as part of the Solar Project under the Access Areas after prior notice to and consultation with Mineral Owner regarding the location and specifications of such collection lines.

12. SUCCESSORS AND ASSIGN, COVENANTS RUNNING WITH THE SURFACE AND MINERAL ESTATES.

12.1 **Successors and Assigns**. The terms and conditions of this Agreement shall be binding upon, and shall inure to the benefit of the Parties hereto and their respective heirs, legal representatives, successors and assigns, and shall be covenants running with the land, the mineral and the surface estates therein owned by the Parties hereto. In the event that the Mineral Owner enters into a lease of or otherwise grants or conveys its Minerals, then the covenants, waivers, terms and provisions set forth herein shall apply and attach, with equal force and effect, to any leasehold or other right, title or interest in the Minerals.

12.2 **Mortgage Provisions**. Solar Lessee shall have the right at any time to mortgage, pledge, encumber, and/or collaterally assign to any entity (each, a "Mortgagee") all or any part of Solar Lessee's interest under this Agreement and the rights and obligations created by this Agreement without the consent of Mineral Owner or Surface Owner. Each Mortgagee shall have the right to do any act or thing required to be performed by Solar Lessee under this Agreement, and any such act or thing performed by a Mortgagee shall be as effective to prevent a default under this Agreement and/or a forfeiture of any of Solar Lessee's rights under this Agreement as if done by Solar Lessee itself.

12.3 **Multiple Mineral Owners.** If Mineral Owner consists of more than one person or entity, then each reference herein to "Mineral Owner" shall include each person and entity signing this Agreement as or on behalf of Mineral Owner, and the liability of each such person and entity shall be joint and several. In the event that this Agreement is not executed by one or more of the persons or entities comprising Mineral Owner herein, then this Agreement shall nonetheless be effective, and shall bind all those persons and entities who have signed this Agreement.

13. GOVERNING LAW AND RESOLUTION OF DISPUTES

13.1. **Governing Law**. This Agreement is governed by and interpreted under the laws of the State of Texas, without regard to its choice of law rules.

13.2. **Confidentiality**.

(A) The Parties agree that any Dispute and any negotiations, mediation and litigation proceedings between the Parties in relation to any Dispute shall be confidential and will not be disclosed to any third party to the extent permitted by Texas Government Code Chapter 552.

(B) The Parties further agree to the extent permitted by Texas Government Code Chapter 552 that any information, documents or

(C) Without prejudice to the foregoing, the Parties agree that disclosure may be made:

(1) In order to enforce any of the provisions of this Agreement, court judgment.

(2) To the auditors, legal advisers, insurers and Affiliates of that Party to whom the confidentiality obligations set out in this Agreement shall extend.

(3) Where that Party is under a legal or regulatory obligation to make such disclosure, but limited to the extent of that legal obligation.

(4) With the prior written consent of the other Party.

14. GENERAL PROVISIONS

14.1. **Amendment**. No amendment to this Agreement is effective unless made in writing and signed by authorized representatives of all Parties.

14.2. **Severability**. Each provision of this Agreement is severable and if any provision is determined to be invalid, unenforceable or illegal under any existing or future law by a court, arbitrator of competent jurisdiction or by operation of any applicable law, this invalidity, unenforceability or illegality does not impair the operation of or affect those portions of this Agreement that are valid, enforceable and legal.

14.3. **Survey**. If and when the Parties acquire survey plats of the Surface Lands, the Parties agree to amend this Agreement to replace the GPS coordinates located on Exhibits __ and __ with plats of the survey.

15. NOTICES AND CONTACT INFORMATION

15.1. **Notices**. All notices required or permitted under this Agreement must be in writing and delivered by mail (postage prepaid) or by hand delivery to the address of the receiving Party set out in the signature page to this Agreement. Notice may also be delivered by facsimile sent to the facsimile number of the receiving Party set out in the signature page to this Agreement provided that the original notice is promptly sent to the recipient by mail (postage prepaid) or by hand delivery. Notices sent by email are ineffective.

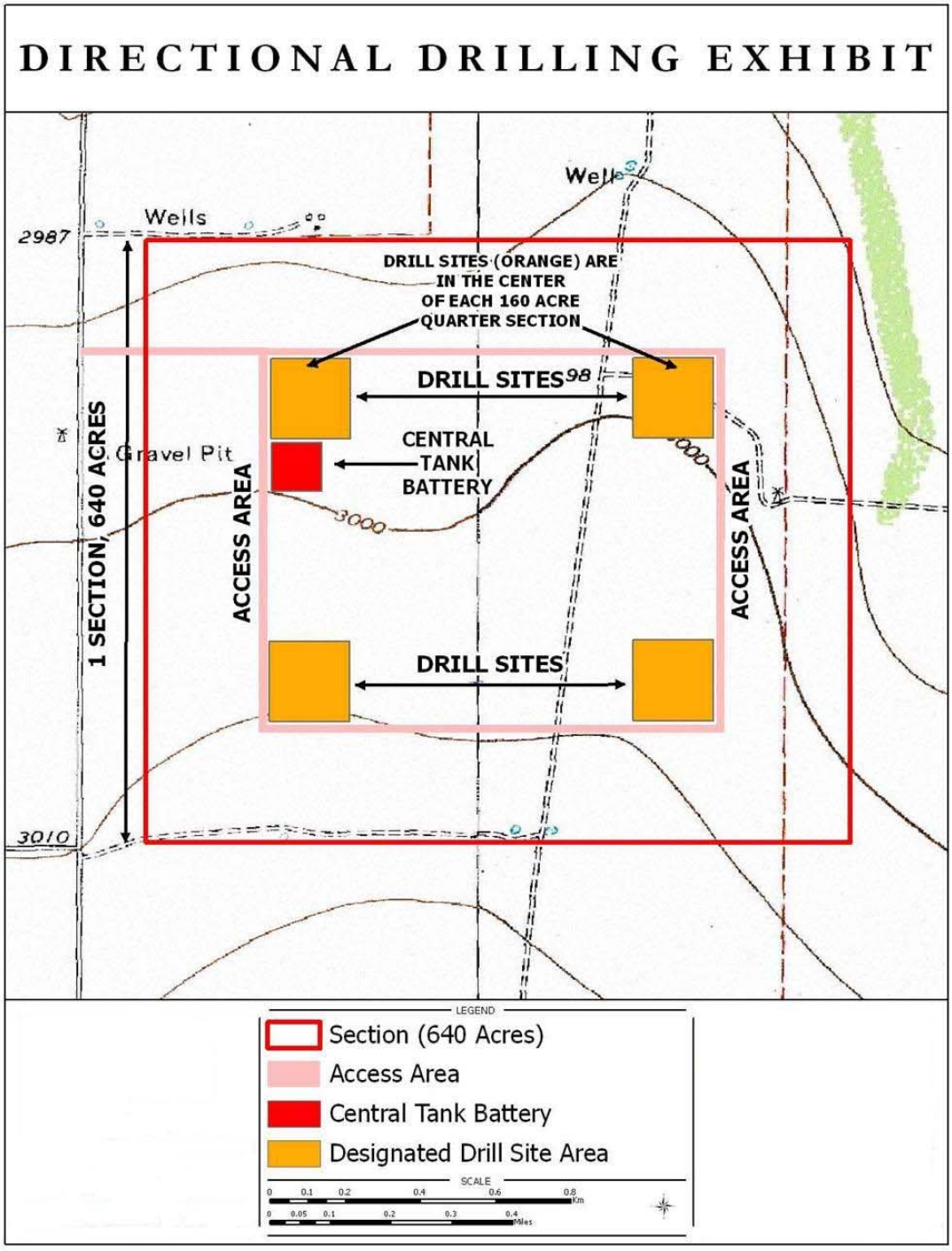
15.2. **Effective**. Notices are effective when received by the recipient during the recipient's regular business hours.

15.3. **Non-compliance**. Notices which do not comply with the requirements of this Agreement are ineffective, and do not impart actual or any other kind of notice.

[Signatures on Following Page]

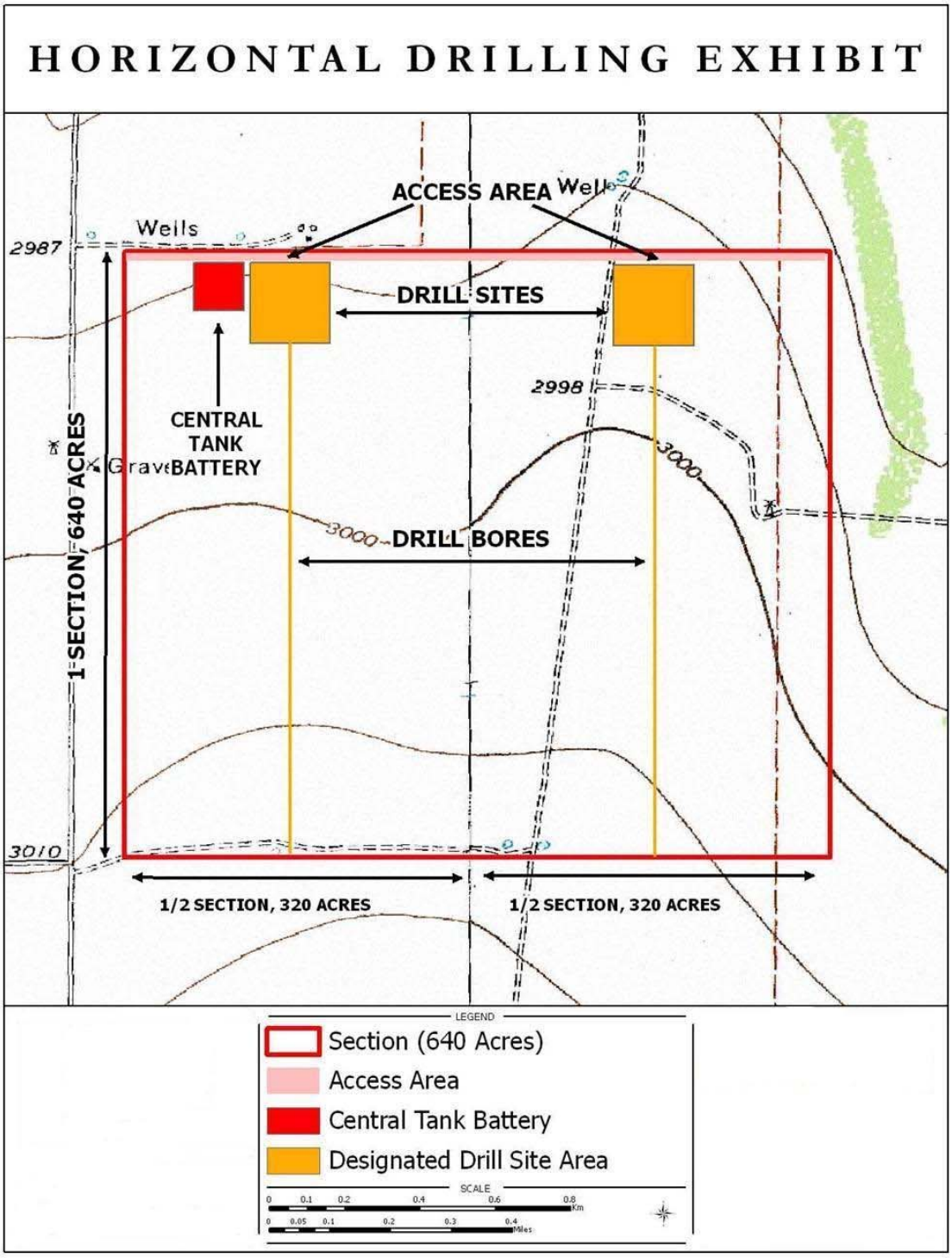
APPENDIX C

Drillsite Configuration Option - Directional



APPENDIX D

Drillsite Configuration Option – Horizontal



Form T-19 - Restrictions, Encroachments, Minerals Endorsement

ENDORSEMENT
Attached to Policy No.
Issued by
BLANK TITLE INSURANCE COMPANY

The Company insures the owner of the Indebtedness secured by the Insured Mortgage against loss or damage sustained by reason of:

1. The existence at Date of Policy of any of the following:
   a. Covenants, conditions, or restrictions under which the lien of the Insured Mortgage can be divested, subordinated, or extinguished or its validity, priority, or enforceability impaired.
   b. Unless expressly excepted in Schedule B
      i. Present violations on the Land of any enforceable covenants, conditions, or restrictions, or existing improvements on the Land that violate any building setback lines shown on a plat of subdivision recorded or filed in the Public Records.
      ii. Any instrument referred to in Schedule B as containing covenants, conditions, or restrictions on the Land that, in addition, (A) establishes an easement on the Land, (B) provides a lien for liquidated damages, (C) provides for a private charge or assessment, (D) provides for an option to purchase, a right of first refusal, or the prior approval of a future purchaser or occupant.
      iii. Any encroachment of existing improvements located on the Land onto adjoining land or any encroachment onto the Land of existing improvements located on adjoining land.
      iv. Any encroachment of existing improvements located on the Land onto that portion of the Land subject to any easement excepted in Schedule B.
      v. Any notices of violation of covenants, conditions, or restrictions relating to environmental protection recorded or filed in the Public Records.

2. Any future violation on the Land of any existing covenants, conditions, or restrictions occurring prior to the acquisition of Title by the Insured, provided the violation results in:
   a. invalidity, loss of priority, or unenforceability of the lien of the Insured Mortgage; or
   b. loss of Title if the Insured shall acquire Title in satisfaction of the Indebtedness.
3. Damage to existing improvements, including lawns, shrubbery, or trees, located or encroaching on that portion of the Land subject to any easement excepted in Schedule B, which damage results from the exercise of the right to maintain the easement for the purpose for which it was granted or reserved.
4. Damage to improvements, including lawns, shrubbery, or trees, located on the Land on or after Date of Policy resulting from the future exercise of any right to use the surface of the Land for the extraction or development of minerals excepted from the description of the Land or excepted in Schedule B.
5. Any final court order or judgment requiring the removal from any land adjoining the Land of any encroachment excepted in Schedule B.
6. Any final court order or judgment denying the right to maintain any existing improvements on the Land because of any violation of covenants, conditions, or restrictions, or building setback lines shown on a plat of subdivision recorded or filed in the Public Records.

Wherever in this endorsement the words "covenants, conditions, or restrictions" appear, they do not include the terms, covenants, conditions, or limitations contained in an instrument creating a lease.
As used in paragraphs 1.b.i. and 6, the words “covenants, conditions, or restrictions” do not include any covenants, conditions, or restrictions (a) relating to obligations of any type to perform maintenance, repair, or remediation on the Land, or (b) pertaining to environmental protection of any kind or nature, including hazardous or toxic matters, conditions, or substances, except to the extent that a notice of a violation or alleged violation affecting the Land has been recorded or filed in the Public Records at Date of Policy and is not excepted in Schedule B.
This endorsement is issued as part of the policy. Except as it expressly states, it does not (i) modify any of the terms and provisions of the policy, (ii) modify any prior endorsements, (iii) extend the Date of Policy, or (iv) increase the Amount of Insurance. To the extent a provision of the policy or a previous endorsement is inconsistent with an express provision of this endorsement, this endorsement controls. Otherwise, this endorsement is subject to all of the terms and provisions of the policy and of any prior endorsements.

[Witness clause optional]

BLANK TITLE INSURANCE COMPANY

By: _____
Authorized Signatory

Form T-19.1: Restrictions, Encroachments, Minerals Endorsement - Owner Policy

ENDORSEMENT
Attached to Policy No.
Issued by
BLANK TITLE INSURANCE COMPANY

The Company insures against loss or damage sustained by the Insured by reason of:

1. The existence, at Date of Policy, of any of the following unless expressly excepted in Schedule B:

a. Present violations on the Land of any enforceable covenants, conditions, or restrictions, or any existing improvements on the Land that violate any building setback lines shown on a plat of subdivision recorded or filed in the Public Records.

b. Any instrument referred to in Schedule B as containing covenants, conditions, or restrictions on the Land that, in addition, (i) establishes an easement on the Land, (ii) provides for an option to purchase, a right of first refusal, or the prior approval of a future purchaser or occupant, or (iii) provides a right of reentry, possibility of reverter, or right of forfeiture because of violations on the Land of any enforceable covenants, conditions, or restrictions.

c. Any encroachment of existing improvements located on the Land onto adjoining land, or any encroachment onto the Land of existing improvements located on adjoining land.

d. Any encroachment of existing improvements located on the Land onto that portion of the Land subject to any easement excepted in Schedule B.

e. Any notices of violation of covenants, conditions, or restrictions relating to environmental protection recorded or filed in the Public Records.

2. Damage to existing buildings that are located on or encroach upon that portion of the Land subject to any easement excepted in Schedule B, which damage results from the exercise of the right to maintain the easement for the purpose for which it was granted or reserved.

3. Damage to improvements (excluding lawns, shrubbery, or trees) located on the Land on or after Date of Policy resulting from the future exercise of any right existing at Date of Policy to use the surface of the Land for the extraction or development of minerals excepted from the description of the Land or excepted in Schedule B.

4. Any final court order or judgment requiring the removal from any land adjoining the Land of any encroachment, other than fences, landscaping, or driveways, excepted in Schedule B.

5. Any final court order or judgment denying the right to maintain any existing building on the Land because of any violation of covenants, conditions, or restrictions, or building setback lines shown on a plat of subdivision recorded or filed in the Public Records.

Wherever in this endorsement the words "covenants, conditions, or restrictions" appear, they do not include the terms, covenants, conditions, or limitations contained in an instrument creating a lease.

As used in paragraphs 1.a. and 5, the words “covenants, conditions, or restrictions” do not include any covenants, conditions, or restrictions (a) relating to obligations of any type to perform maintenance, repair, or remediation on the Land, or (b) pertaining to environmental protection of any kind or nature, including hazardous or toxic matters, conditions, or substances, except to the extent that a notice of a violation or alleged violation affecting the Land has been recorded or filed in the Public Records at Date of Policy and is not excepted in Schedule B.

This endorsement is issued as part of the policy. Except as it expressly states, it does not (i) modify any of the terms and provisions of the policy, (ii) modify any prior endorsements, (iii) extend the Date of Policy, or (iv) increase the Amount of Insurance. To the extent a provision of the policy or a previous endorsement is inconsistent with an express provision of this endorsement, this endorsement controls. Otherwise, this endorsement is subject to all of the terms and provisions of the policy and of any prior endorsements.

[Witness clause optional]

BLANK TITLE INSURANCE COMPANY

By: _____

Authorized Signatory

Form T-19.2: Minerals and Surface Damage Endorsement (T-19.2)

Attached to Policy No. _____ ; Applies to Parcel(s) _____

Issued by: _____ TITLE INSURANCE COMPANY

Herein called the Company

The Company insures the insured against loss which the insured shall sustain by reason of damage to improvements (excluding lawns shrubbery, or trees) located on the Land on or after Date of Policy resulting from the future exercise of any right existing at Date of Policy to use the surface of the Land for the extraction or development of coal, lignite, oil, gas or other minerals excepted or excluded on Schedule A, Item 2 or excepted in Schedule B. This endorsement does not insure against loss resulting from subsidence.

This endorsement is issued as part of the policy. Except as it expressly states, it does not (i) modify any of the terms and provisions of the policy, (ii) modify any prior endorsements, (iii) extend the Date of Policy, or (iv) increase the Amount of Insurance. To the extent a provision of the policy or a previous endorsement is inconsistent with an express provision of this endorsement, this endorsement controls. Otherwise, this endorsement is subject to all of the terms and provisions of the policy and of any prior endorsements.

[Witness clause optional]

_____ TITLE INSURANCE COMPANY

By:_____

Authorized signatory

Form T-19.3 Minerals and Surface Damage Endorsement (T-19.3)

Attached to Policy No. _____; Applies to Parcel(s) _____

Issued by: _____ TITLE INSURANCE COMPANY

Herein called the Company

The Company insures the insured against loss which the insured shall sustain by reason of damage to permanent buildings located on the Land on or after Date of Policy resulting from the future exercise of any right existing at Date of Policy to use the surface of the Land for the extraction or development of coal, lignite, oil, gas or other minerals excepted or excluded on Schedule A, Item 2 or excepted in Schedule B. This endorsement does not insure against loss resulting from subsidence.

This endorsement is issued as part of the policy. Except as it expressly states, it does not (i) modify any of the terms and provisions of the policy, (ii) modify any prior endorsements, (iii) extend the Date of Policy, or (iv) increase the Amount of Insurance. To the extent a provision of the policy or a previous endorsement is inconsistent with an express provision of this endorsement, this endorsement controls. Otherwise, this endorsement is subject to all of the terms and provisions of the policy and of any prior endorsements.

[Witness clause optional]

_____ TITLE INSURANCE COMPANY

By:_____

Authorized signatory

APPENDIX F
Procedural Rules for Mineral Endorsements

P-50. Restrictions, Encroachments, Minerals Endorsement (T-19) and, Restrictions, Encroachments, Minerals Endorsement - Owner Policy (T-19.1),

A. Any insured matter covered in the Restrictions, Encroachments, Minerals Endorsement T-19 or T-19.1 may be insured only by the use of these endorsements, except that coverage regarding minerals may be insured by the use of the T-19.2 or T-19.3 endorsements as provided in P-50.1.

B. A Company may issue its Restrictions, Encroachments, Minerals Endorsement (T-19) to a Loan Policy (T-2), if its underwriting requirements are met. The Company shall delete any insuring provision if it does not consider that risk acceptable.

C. A Company may issue its Restrictions, Encroachments, Minerals Endorsement - Owner Policy (T-19.1) to an Owner Policy if its underwriting requirements are met. The Company shall delete any insuring provision if it does not consider that risk acceptable.

P-50.1. Minerals and Surface Damage Endorsement (T-19.2), and Minerals and Surface Damage Endorsement (T-19.3)

Any insured matter covered in the Minerals and Surface Damage Endorsement T-19.2 or T-19.3 may be insured only by the use of these endorsements, except that coverage regarding minerals may be insured by the use of the T-19 or T-19.1 endorsements as provided in P-50. When the policy includes an exclusion or an exception regarding minerals as provided in Procedural Rule P-5.1:

1. As to real property of one acre or less improved or intended to be improved for one-to-four family residential use, the Company upon request by the insured **must** issue its Minerals and Surface Damage Endorsement (T-19.2) to an Owner or Loan Policy.

2. As to real property improved or intended to be improved for office, industrial, retail, mixed use retail/residential, or multifamily purposes, the Company upon request by the insured **must** issue its Minerals and Surface Damage Endorsement (T-19.2) to an Owner or Loan Policy.

3. As to other real property, the Company upon request by the insured **must** issue its Minerals and Surface Damage Endorsement (T-19.3) to an Owner or Loan Policy.

4. As to an Owner or Loan Policy covering multiple parcels of real property that consist of a combination of real property described in paragraphs **1 or 2**, and 3, the Company upon request by the insured **must** issue for each parcel the applicable Minerals and Surface Damage Endorsement (T-19.2 or T-19.3) to the Owner or Loan Policy.

APPENDIX G
Rate Rules for Mineral Endorsements

R-29. Premium for Restrictions, Encroachments, Minerals Endorsement (T-19) and Restrictions, Encroachments, Minerals Endorsement - Owner Policy (T-19.1)

A. When the Restrictions, Encroachments, Minerals Endorsement (T-19) is issued on residential real property in accordance with Rule P-50, the premium shall be 5% of the Basic Rate for a single issue policy provided that the minimum premium shall be not less than $50.00.

B. When the Restrictions, Encroachments, Minerals Endorsement (T-19) is issued on land which is not residential real property, in accordance with Rule P-50, the premium shall be 10% of the Basic Rate for a single issue policy provided that the minimum premium shall be not less than $50.00.

C. When the Restrictions, Encroachments, Minerals Endorsement - Owner Policy (T-19.1) is issued on residential real property in accordance with Rule P-50, the premium shall be:

1. 10% of the Basic Rate for a single issue policy; or

2. 5% of the Basic Rate for a single issue policy if an amendment of the exception to area and boundaries is also purchased in accordance with Rate Rule R-16.

In either event, the minimum premium shall not be less than $50.00

D. When the Restrictions, Encroachments, Minerals Endorsement - Owner Policy (T-19.1) is issued on land which is not residential property, in accordance with Rule P-50, the premium shall be:

1. 15% of the Basic Rate for a single issue policy; or

2. 10% of the Basic Rate for a single issue policy if an amendment of the exception to area and boundaries is also purchased in accordance with Rate Rule R-16.

In either event, the minimum premium shall be not less than $50.00

R.29.1. Premium for Minerals and Surface Damage Endorsement (T-19.2), and Minerals and Surface Damage Endorsement (T-19.3)

A. When the Minerals and Surface Damage Endorsement (T-19.2) is issued in accordance with Rule P-50.1, the premium shall be $50.00.

B. When the Minerals and Surface Damage Endorsement (T-19.3) is issued in accordance with Rule P-50.1, the premium shall be $50.00.

APPENDIX H

ALTA Series 35 Endorsement Example

ALTA Endorsement 35.1-06 (Minerals and Other Subsurface Substances – Improvements) (04-02-12)

ENDORSEMENT
Attached to Policy No. _____
Issued by
BLANK TITLE GUARANTY COMPANY

1. The insurance provided by this endorsement is subject to the exclusion in Section 4 of this endorsement; and the Exclusions from Coverage, the Exceptions from Coverage contained in Schedule B, and the Conditions in the policy.

2. For purposes of this endorsement only, "Improvement" means a building, structure located on the surface of the Land, and any paved road, walkway, parking area, driveway, or curb, affixed to the Land at Date of Policy and that by law constitutes real property, but excluding any crops, landscaping, lawn, shrubbery, or trees.

3. The Company insures against loss or damage sustained by the Insured by reason of the enforced removal or alteration of any Improvement, resulting from the future exercise of any right existing at Date of Policy to use the surface of the Land for the extraction or development of minerals or any other subsurface substances excepted from the description of the Land or excepted in Schedule B.

4. This endorsement does not insure against loss or damage (and the Company will not pay costs, attorneys' fees, or expenses) resulting from:

a. contamination, explosion, fire, vibration, fracturing, earthquake or subsidence; [or]

b. negligence by a person or an Entity exercising a right to extract or develop minerals or other subsurface substances[; or

c. the exercise of the rights described in ( )]. *

* Instructional note: identify the interest excepted from the description of the Land in Schedule A or excepted in Schedule B that you intend to exclude from this coverage.

This endorsement is issued as part of the policy. Except as it expressly states, it does not (i) modify any of the terms and provisions of the policy, (ii) modify any prior endorsements, (iii) extend the Date of Policy, or (iv) increase the Amount of Insurance. To the extent a provision of the policy or a previous endorsement is inconsistent with an express provision of this endorsement, this endorsement controls. Otherwise, this endorsement is subject to all of the terms and provisions of the policy and of any prior endorsements.

[Witness clause optional]

BLANK TITLE GUARANTY COMPANY

By: _____

Authorized Signatory

APPENDIX I

ALTA Series 36 Endorsement Example

ALTA Endorsement 36-06 (Energy Project – Leasehold/Easement – Owner's) (04-02-12)

ENDORSEMENT
Attached to Policy No. _____
Issued by
BLANK TITLE INSURANCE COMPANY

1. The insurance provided by this endorsement is subject to the exclusions in Section 6 of this endorsement; and the Exclusions from Coverage, the Exceptions from Coverage contained in Schedule B, and the Conditions in the policy.

2. For purposes of this endorsement only:

a. "Constituent Parcel" means one of the parcels of Land described in Schedule A that together constitute one integrated project.

b. "Easement" means each easement described in Schedule A.

c. "Easement Interest" means the right of use granted in the Easement for the Easement Term.

d. "Easement Term" means the duration of the Easement Interest, as set forth in the Easement, including any renewal or extended term if a valid option to renew or extend is contained in the Easement.

e. "Electricity Facility" means an electricity generating facility which may include one or more of the following: a substation; a transmission, distribution or collector line; an interconnection, inverter, transformer, generator, turbine, array, solar panel, or module; a circuit breaker, footing, tower, pole, cross-arm, guy line, anchor, wire, control system, communications or radio relay system, safety protection facility, road, and other building, structure, fixture, machinery, equipment, appliance and item associated with or incidental to the generation, conversion, storage, switching, metering, step-up, step-down, inversion, transmission, conducting, wheeling, sale or other use or conveyance of electricity, on the Land at Date of Policy or to be built or constructed on the Land in the locations according to the Plans, that by law constitutes real property.

f. "Evicted" or "Eviction" means (a) the lawful deprivation, in whole or in part, of the right of possession or use insured by this policy, contrary to the terms of any Lease or Easement or (b) the lawful prevention of the use of the Land or any Electricity Facility or Severable Improvement for the purposes permitted by the Lease or the Easement, as applicable, in either case as a result of a matter covered by this policy.

g. "Lease" means each lease described in Schedule A.

h. "Leasehold Estate" means the right of possession granted in the Lease for the Lease Term.

i. "Lease Term" means the duration of the Leasehold Estate, as set forth in the Lease, including any renewal or extended term if a valid option to renew or extend is contained in the Lease.

j. "Plans" means the survey, site and elevation plans or other depictions or drawings prepared by (*insert name of architect or engineer*) dated ____, last revised _____ ,designated as (*insert name of project or project number*) consisting of ___sheets.

k. "Remaining Term" means the portion of the Easement Term or the Lease Term remaining after the Insured has been Evicted.

l. "Severable Improvement" means property affixed to the Land at Date of Policy or to be affixed in the locations according to the Plans, that would constitute an Electricity Facility but for its characterization as personal property, and that by law does not constitute real property because (a) of its character and manner of attachment to the Land and (b) the property can be severed from the Land without causing material damage to the property or to the Land.

3. Valuation of Title as an Integrated Project:

a. If in computing loss or damage it becomes necessary to value the Title, or any portion of it, as the result of an Eviction, then, as to that portion of the Land from which the Insured is Evicted, that value shall consist of (i) the value of (A) the Leasehold Estate or the Easement Interest for the Remaining Term, as applicable, (B) any Electricity Facility existing on the date of the Eviction, and, if applicable, (ii) any reduction in value of another insured Lease or Easement as computed in Section 3(b) below.

b. A computation of loss or damage resulting from an Eviction affecting any Constituent Parcel shall include loss or damage to the integrated project caused by the covered matter affecting the Constituent Parcel from which the Insured is Evicted.

c. The Insured Claimant shall have the right to have the Leasehold Estate, the Easement Interest, and any Electricity Facility affected by a defect insured against by this policy valued either as a whole or separately. In either event, this determination of value shall take into account any rent or use payments no longer required to be paid for the Remaining Term.

d. The provisions of this Section 3 shall not diminish the Insured's rights under any other endorsement to the policy; however, the calculation of loss or damage pursuant to this endorsement shall not allow duplication of recovery for loss or damage calculated pursuant to Section 8 of the Conditions or any other endorsement to the policy.

4. Valuation of Severable Improvements:

a. In the event of an Eviction, the calculation of the loss shall include (but not to the extent that these items of loss are included in the valuation of the Title determined pursuant to Section 8 of the Conditions or any other provision of this or any other endorsement) the diminution in value of the Insured's interest in any Severable Improvement resulting from the Eviction, reduced by the salvage value of the Severable Improvement.

b. The policy does not insure against loss or damage (and the Company will not pay any costs, attorneys' fees or expenses) relating to:

i. the attachment, perfection or priority of any security interest in any Severable Improvement;

ii. the vesting or ownership of title to or rights in any Severable Improvement;

iii. any defect in or lien or encumbrance on the title to any Severable Improvement; or

iv. the determination of whether any specific property is real or personal in nature.

5. Additional items of loss covered by this endorsement:

If the Insured is Evicted, the following items of loss, if applicable to that portion of the Land from which the Insured is Evicted, shall be included, without duplication, in computing loss or damage incurred by the Insured, but not to the extent that the same are included in the valuation of the Title determined pursuant to Section 3 of this endorsement, the valuation of Severable Improvements pursuant to Section 4 of this endorsement, or Section 8(a)(ii) of the Conditions.

a. The reasonable cost of: (i) disassembling, removing, relocating and reassembling any Severable Improvement that the Insured has the right to remove and relocate, situated on the Land at the time of Eviction, to the extent necessary to restore and make functional the integrated project; (ii) transportation of that Severable Improvement for the initial one hundred miles incurred in connection with the restoration or relocation; and (iii) restoring the Land to the extent damaged as a result of the disassembly, removal and relocation of the Severable Improvement and required of the Insured solely because of the Eviction.

b. Rent, easement payments or damages for use and occupancy of the Land prior to the Eviction that the Insured as owner of the Leasehold Estate or the Easement Interest, as applicable, may be obligated to pay to any person having paramount title to that of the lessor in the Lease or the grantor in the Easement, as applicable.

c. The amount of rent, easement payments or damages that, by the terms of the Lease or the Easement, as applicable, the Insured must continue to pay to the lessor or grantor after Eviction with respect to the portion of the Leasehold Estate or Easement Interest, as applicable, from which the Insured has been Evicted.

d. The fair market value, at the time of the Eviction, of the estate or interest of the Insured in any lease, sublease or easement specifically permitted by the Lease or Easement, as applicable, and made by the Insured as lessor or grantor of all or part of the Leasehold Estate or Easement Interest, as applicable.

e. Damages caused by the Eviction that the Insured is obligated to pay to lessees or sublessees or easement or subeasement grantees on account of the breach of any lease or sublease or easement or subeasement specifically permitted by the Lease or the Easement, as applicable, and made by the Insured as lessor or grantor of all or part of the Leasehold Estate or Easement Interest, as applicable.

f. The reasonable cost to obtain land use, zoning, building and occupancy permits, architectural and engineering services and environmental testing and reviews for a replacement leasehold reasonably equivalent to the Leasehold Estate or a replacement easement reasonably equivalent to the Easement Interest, as applicable.

g. If any Electricity Facility is not substantially completed at the time of Eviction, the actual cost incurred by the Insured up to the time of Eviction, less the salvage value, for the Electricity Facility located on that portion of the Land from which the Insured is Evicted. Those costs include costs incurred to construct and fabricate the Electricity Facility, obtain land use, zoning, building and occupancy permits, architectural and engineering services, construction management services, environmental testing and reviews, and landscaping, and cancellation fees related to the foregoing.

6. This endorsement does not insure against loss, damage or costs of remediation (and the Company will not pay costs, attorneys' fees, or expenses) resulting from environmental damage or contamination.

This endorsement is issued as part of the policy. Except as it expressly states, it does not (i) modify any of the terms and provisions of the policy, (ii) modify any prior endorsements, (iii) extend the Date of Policy, or (iv) increase the Amount of Insurance. To the extent a provision of the policy or a previous endorsement is inconsistent with an express provision of this endorsement, this endorsement controls. Otherwise, this endorsement is subject to all of the terms and provisions of the policy and of any prior endorsements.

[Witness clause optional]

BLANK TITLE INSURANCE COMPANY

By: _____

Authorized Signatory