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Making Your Construction Documents Financeable

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In addition to finding a good geothermal site, financing is a central challenge facing any developer of geothermal energy projects. Therefore, in the current financial climate, it is more important than ever that a prospective project be free of flaws. Until capital becomes more freely available, only the best projects will secure financing, and every project must pass muster with lenders and tax investors in two respects: (1) the project itself must be a good, predictable geothermal resource, with data to support its predictability, and (2) the project documents must be pristine. The purpose of this paper is to provide a short, simple and practical guide to enable the reader to quickly evaluate a geothermal construction document, with an eye toward project financing.

The reason for pristine construction documents is rather simple: geothermal projects are overwhelmingly project financed. This type of financing is also known as cash-flow financing or non-recourse financing. The central feature of a project financing is that the hard assets or balance sheet and credit wherewithal of the sponsor do not support a significant portion of the debt. In an asset-backed financing, hard assets such as real estate, inventory, or equipment secure the repayment of the loan. In other recourse-based financings, a corporate guarantee from a credit-worthy affiliate may support the debt.

In a project financing, however, the assets securing the debt have a market value well below the financed amount, and there is no corporate guarantee. As a result, the lender looks to the future cash flows of the project – for a geothermal project, the revenues under the PPA (and associated ITCs/PTCs) – for repayment. The security for the loan is the cash flow generated by the project assets rather than the value of the project assets themselves (although the project assets may form part of the overall collateral package). This cash flow, in turn, is assured by the project documents. In a sense, the project documents are the primary collateral for a project financing. It is not surprising, therefore, that project finance lenders subject project documents to far greater scrutiny than their asset-backed financing counterparts.

Project developers can satisfy this scrutinized lender review by keeping in mind that the project cash flow needs to be (1) predictable and (2) uninterrupted. When lenders (and their counsel) are reviewing project documents, they are looking for anything in the documents that could interrupt cash flow or make cash flow less predictable. In order to obtain necessary credit approvals, the lenders need to be able to make reliable financial projections for the life of the financing. For those projections to be meaningful, the lenders must have confidence that the cash flow will continue uninterrupted and stay within the predicted range. If the lenders cannot gain this confidence then they cannot create reliable financial projections, and they will not provide the financing.

Once a project developer understands the lenders' motivations (predictability and uninterruptedness), it becomes a relatively simple matter to review the documents and identify provisions that could interfere with these motivations. Lenders notoriously do not like to take any risk – they generally do not distinguish between “unacceptable risk” and “general risk.” Therefore, when reviewing project documents, it is important to simply look for any possible risks.

Typical Construction Documents

The various construction documents required for a geothermal project are critical to the project's financeability. Accordingly, the developer of a geothermal project must enter into agreements for the following:

- design and engineering;
- procurement of power generation equipment (steam turbine generators and heat exchange components) and materials and equipment for “balance-of-plant” facilities, including cooling systems, extraction and injection wells, piping systems, foundations, roads, transformers, and maintenance facilities;
- obtaining construction services necessary to install the power generation equipment and the balance of plant facilities; and
- operation and maintenance of the completed facility.

Engineering, procurement, and construction tasks are often combined in a single agreement called an “EPC Agreement.” There may be separate agreements that provide for or anticipate other services, including warranty services.

Alternatively, all phases of the design and engineering, procurement, and construction/installation services are sometimes addressed in a single agreement (a “full-wrap” or “turnkey” agreement) and a single entity is made responsible for the whole project. It is also common to have separate agreements such as design and engineering agreements, construction/installation agreements (“balance-of-plant agreements”), and procurement and sale agreements for major pieces of equipment, using one or more contractors for each of the various services. Depending on the contractual structure, warranties, insurance, and other matters may be addressed in a single master agreement or in each individual agreement. Whatever the contractual structure, there are some key provisions that are critical to financeability and must be evaluated in any construction document.

Evaluating a Construction Document

The chart below (Figure 1) presents some of the deal points for the major construction documents associated with geothermal deals. There is no single determinant of financeability. Therefore, few of these issues are fatal by themselves, unless the violation is egregious. Instead, financeability is predicated on the totality of the risk package. Nevertheless, every small risk that is added to the package makes it more likely that the project will not pass investor/lender scrutiny, so no risk should be casually accepted.

Figure 1.

| Issue | Comment |
|-----------------------------|---|
| Scope of Work | <input type="checkbox"/> Determine whether the contract is “turnkey” or for limited services only <input type="checkbox"/> Determine what scope is excluded |
| Permits | <input type="checkbox"/> Determine what permits contractor will obtain <input type="checkbox"/> Developer’s permit obligations to be listed |
| Payment Schedule | <input type="checkbox"/> Can be either milestone based or on a monthly basis <input type="checkbox"/> If done monthly, typically includes 5-10% retainage <input type="checkbox"/> Determine whether contract provides that achievement of milestone is verified by an independent engineer |
| Taxes | <input type="checkbox"/> Determine whether sales taxes are included in contract price |
| Cancellation Fees | <input type="checkbox"/> Determine the cancellation fees, if any |
| Change Orders | <input type="checkbox"/> Determine procedure for requesting change order |
| Subcontractors | <input type="checkbox"/> Determine whether use of subcontractors requires the approval of developer for work over a certain \$ threshold (\$100,000 is a typical threshold) |
| Dispute Resolution | <input type="checkbox"/> Determine whether there is a dispute resolution clause and to what extent it limits dispute resolution options and whether it precludes the possibility of taking a matter to trial |
| Work During Dispute | <input type="checkbox"/> Check for provision requiring contractor to work during a dispute with developer |
| Guaranteed Completion Dates | <input type="checkbox"/> Assess whether agreement provides guaranteed dates for substantial/final completion |

| Issue | Comment |
|---|--|
| Event of Default | <input type="checkbox"/> Developer should have the right to terminate the contract and assume control of the project if there has been a material breach that remains uncured after a specified period of time |
| Delay Liquidated Damages (LDs) | <input type="checkbox"/> Are there delay damages to compensate for: <input type="checkbox"/> Financing costs <input type="checkbox"/> Damages under a PPA or SREC Agreement <input type="checkbox"/> Damages for lost tax benefits (e.g., cash grant) |
| Performance Testing/Guarantee | <input type="checkbox"/> Performance test to occur after substantial completion and, possibly, annually thereafter <input type="checkbox"/> Determine whether there is an output guarantee |
| Performance LDs | <input type="checkbox"/> Contractor to pay performance LDs per kW shortfall below the guaranteed output |
| Bonuses | <input type="checkbox"/> Determine if there are any bonuses payable in the event of early completion or over performance of the system. These are somewhat uncommon. |
| Liability Caps | <input type="checkbox"/> Check the liability caps, which generally should be: <input type="checkbox"/> 100% of Contract Price <input type="checkbox"/> 5-10% for Delay LDs <input type="checkbox"/> 5-10% for Performance LDs |
| Warranties | <input type="checkbox"/> Contractor to warrant its work and assign all equipment warranties to project company at the expiration of the warranty period |
| Warranty Period | <input type="checkbox"/> Contractors typically provide warranty for defects in design and workmanship for 2-5 years <input type="checkbox"/> Warranty to be extended for repairs made |
| Performance Security | <input type="checkbox"/> Determine whether contractor is providing performance security during the construction period and warranty period |
| Lien Releases | <input type="checkbox"/> When developer makes periodic payments, it should obtain lien releases <input type="checkbox"/> Confirm that the form of lien release complies with local law |
| Tax Credits/Incentives | <input type="checkbox"/> Contract should require cooperation from both parties in submitting all required documentation for any federal, state or local incentives <input type="checkbox"/> Determine who bears the risk if the incentive is not received <input type="checkbox"/> Determine whether either party to the contract is making any representations or warranties about receiving incentives |
| Lender Protection; Assignment Cooperation | <input type="checkbox"/> Confirm whether the agreement has customary lender protections (e.g., cooperate, notice to lender, consent to collateral assignment) <input type="checkbox"/> Confirm whether assignment to a lender requires approval |

Analysis of Deal Points

As mentioned previously, the financeability of a construction document depends on the totality of the risk package. In conjunction with the checklist above, we would like to highlight five specific provisions that are material to financeability.

1. Equipment Warranties

Equipment warranties likely will be subject to substantial negotiation. The issues to carefully consider when negotiating an equipment warranty include the following: (1) the term of a

particular warranty; (2) whether the term of the warranty can be extended; (3) the definition of a “defect” with respect to a piece of equipment; (4) any limitations on a warranty, including limitations related to acts of third parties (e.g., O&M providers); and (5) the remedial measures a contractor may take to cure a defect. In addition to these points, another contract-drafting consideration is the extent of the warranty – whether the contractor will obtain “commercially reasonable” warranties or the “best available” warranties. Finally, construction documents should address whether the contractor will “pass-through” warranties received from its suppliers and subcontractors.

2. Performance Guarantees

Project financing is much easier to acquire when there is a performance guarantee from contractors and/or equipment suppliers in place. A performance guarantee provides certainty, which enhances a project’s financeability. This gives the financier comfort that the geothermal facility will produce a baseline level of output or otherwise receive a payment in lieu of any output (and be assured of at least a certain revenue stream). Thus, from a developer’s perspective, it is critical to have a performance guarantee in construction documents.

3. Liquidated Damages

Liquidated damages may be another area of extensive negotiation. There are two general types of liquidated damages: (1) performance liquidated damages, and (2) delay liquidated damages.

Performance liquidated damages are assessed when a project falls short of its guaranteed performance. Accordingly, the performance liquidated damages will be calculated pursuant to a formula specified in the construction documents, which is rooted in compensating the developer for the shortfall in production from the project.

Delay liquidated damages are relevant when a project misses its deadline for any guaranteed dates for completion and/or other milestones. They are designed to compensate the project owner for the revenue lost as a result of such delay. Thus, delay liquidated damages come in the form of a per day assessment for each day the project has missed a guaranteed deadline; some delay liquidated damages incrementally increase at certain thresholds (often in 10- or 15-day increments). Delay liquidated damages may be subject to a cap within the limitation of liability provision in a construction document. In sum, delay liquidated damages enhance financeability because they provide assurance that, in the event a project does not start on time, the developer will still receive revenue that otherwise approximates the amount of revenue it would have generated but for the delay.

4. Limitation of Liability

Contractors and suppliers often seek to limit their liability under construction contracts. A contract may include a general limitation of liability. For example, construction contracts often limit the liability of the contractor to the contract price. Additionally, construction documents also may have “sub-caps” to limit liability for specific items. For example, a construction contract may limit the liability for liquidated damages to 10% of the contract price. This liquidated damages sub-cap may be further broken down to differentiate between performance liquidated damages and delay liquidated damages. These limitations and sub-caps are often heavily negotiated between parties and are of great interest to financiers. In sum, the limitation of liability helps financiers evaluate the downside risk for a project, and this is another important component in obtaining financing.

5. Performance Security

Construction documents often specify a certain type of security provided by the contractor to the developer. Performance securities can come in several varieties: bond, letter of credit, or parent guaranty. Such security is meant to ensure: (1) the timely performance of the contractor; (2) that such performance on the project is completed pursuant to the construction documents; and (3) that no liens or any other encumbrances are filed against the project property or improvements. In addition, albeit rare, contractors may demand some form of reciprocal security issued by the developer to ensure prompt and full payment of all the developer’s obligations under the construction contracts. In negotiating the performance security provision, contractors will also request an opportunity to cure any default or delay and will try to limit a developer’s ability to call on the contractor’s performance security. The performance security is just one more assurance that financiers look for when evaluating the downside risk of a project.

Conclusion

The central principle when evaluating construction documents is this: ALL documents must pass muster, individually and collectively, not just the “important” documents. As a result, project developers should be prepared to present a consistent and cogent set of construction documents to lenders and/or investors. Additionally, project developers should be prepared for the possibility that lenders and/or investors will require the developer to make substantial changes in the construction documents in order to provide reasonable assurances of the revenue flow. Ultimately, financiers want to ensure predictability and uninterruptedness of the cash flows. By following the guidance provided in this paper, we hope you can maximize the financeability of your next geothermal project.

