Suggestions for a Strong Title XVII Innovative Clean Energy Loan Guarantee Application
June 24, 2016

The U.S. Department of Energy's (DOE) experience with previous loan guarantee solicitation processes has yielded useful lessons. Where possible, DOE has tried to incorporate these lessons into new solicitations in order to make the application process transparent and robust, yet efficient. Stronger applications will enable DOE to process loan guarantee applications more efficiently, significantly reducing the administrative and resource burdens on the applicant as well. To that end, DOE has compiled the following non-exhaustive list of features that have historically distinguished particularly strong applications from weaker ones. These attributes are grouped into three categories:

- Key attributes that facilitate the *financial evaluation*
- Key attributes that facilitate the *technical evaluation*
- *Administrative suggestions* to facilitate the overall review process

Please note that the list below is not exhaustive, nor is every element discussed equally relevant to every application. In addition, although this document discusses individual attributes that may yield a stronger application, the application ultimately will be evaluated on its overall merits, and no single attribute is likely to be dispositive. Please refer to the relevant solicitations (http://energy.gov/lpo/title-xvii-open-solicitations) for all information on complete application requirements and evaluation scoring criteria. This document is intended solely to serve as a guidance tool to help prospective applicants submit the strongest applications possible.

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Financial Attributes

This section includes some of the key characteristics that can strengthen the financial review of Title XVII innovative clean energy project applications.

- **Third-party supply and off-take agreements.** Information on supply and off-take agreements supports revenue and cost projections – having a reliable source of raw materials or a buyer committed to purchasing the output of a project at a certain price provides significant comfort to a lender. Applications that do not include any third-party supply or off-take agreements may be compared unfavorably to applications that include such agreements in the financial review. These are helpful determinants of credit quality, even in draft form. The strongest applications will provide the following support:
  - Agreements for a term that matches the entire proposed tenor of the loan
  - Agreements with subsidiaries or third parties of strong credit quality
  - Agreements with independent third parties

- **Engineering, Procurement, and Construction (EPC) contracts.** Strong EPC contracts provide for liquidated damages and performance guarantees by the contractor, and are concluded with a large, established, creditworthy counterparty. While this may not be feasible in its entirety for every project, applications which lack an EPC contract, do not provide insight into key EPC terms, or which include contracts presenting highly variable costs, may be deemed weaker than comparable applications that include EPC contracts and/or terms.

- **Construction budgets.** Detailed construction budgets strengthen applications, particularly for innovative projects that may face increased risk of cost overruns. Applications that do not provide detail in their construction budgets often fail to specify the total cost of a plant as a single item, or may fail to provide for reserves or contingencies, among other omissions. This can weaken a project's financial assessment.

- **Identification of resources.** The strongest applications fully identify and account for all the resources necessary for a project to become fully operational, including capital goods, raw materials, O&M requirements and decommissioning. Failure to do this contributes to weakness in financial models and may result in overly optimistic project timelines and financial projections.

- **Permitting and Environmental Review.** Applicants should fully account for fulfilling permitting and environmental review requirements, particularly National Environmental Policy Act (NEPA) requirements, in project timelines. Acquiring the various local, state, and federal permits that may be needed to implement a project is often a time-consuming process. More guidance on NEPA and environmental requirements is available on the Loan Program Office's (LPO) website (http://www.energy.gov/lpo/title-xvii-environmental-compliance). Attachment B in LPO Title XVII solicitations provides more detailed information on environmental information to include in an application (http://www.energy.gov/lpo/title-xvii-open-solicitations).

- **Intellectual property (IP).** Strong applications will demonstrate clear rights to the IP necessary to implement the project. This is especially important in the case of innovative projects.

- **Access to IP in a default scenario.** Where proprietary technology is essential to the operation of a project, a willingness to assign those IP rights to the DOE as collateral in the event of default also strengthens the application. The purpose of providing DOE access to the company's IP is to allow DOE to continue operating the project in a default scenario.

- **Sources of equity.** Equity participation is a requirement of all loan guarantee applications, and applicants should clearly substantiate all sources of equity. The strongest applications demonstrate equity that is readily available and provided directly by the project sponsor or a combination of the sponsor and committed, creditworthy joint venture partners. Applications that rely on one or more of the following sources of equity, for example, may be viewed as comparatively weak:
  - Equity to be raised from unidentified / third parties
  - Equity contingent upon yet-to-be-generated revenues from earlier phases of the project
  - Equity contingent upon successful raisings of debt

  Some projects plan to raise equity following receipt of a conditional commitment for a loan guarantee. This is not preferred by DOE; however it may be acceptable in some cases. Projects that have a substantial equity commitment prior to applying for a loan guarantee likely will rate higher for that criterion in the review process than projects that do not have a substantial equity commitment at the time of application.

- **Project sites.** Stronger applications both identify and demonstrate control over a project site, or document steps taken to establish control. Weaker applications do not identify host sites or are very early in the siting process.

- **Working financial model.** A working financial model is necessary for lenders to evaluate and validate the prospects for profitability of a project. All applications should contain a viable financial model. Key elements of a strong working financial model include:
  - A thorough explanation of the assumptions underlying the model, such as average production, costs and selling prices as appropriate
  - Reserve accounts for future expenses (e.g. major maintenance; decommissioning)
  - A structure that allows reviewers to access the model, test a range of assumptions and understand the process through which the model is expected to achieve its results.

- **Monetization of tax/regulatory incentives.** Tax credits and certificates that cannot be used by applicants should be monetized, or converted into cash. Strong applications demonstrate a clear strategy for the monetization of state and federal tax incentives. Appropriate monetization strategies could include off-take agreements for the sale of

Renewable Energy Certificates, or the confirmed participation of an equity provider with the tax capacity to make use of tax incentives.

- **Market and competition.** Strong applications will provide information on their markets and competition, including data to substantiate any claims made in the application. Useful information for such consideration includes average selling prices, segmentation (to the extent that it exists) and both historical and forward-looking market trends.

Technical Attributes

This section includes some of the key characteristics that can strengthen the technical review of project applications.

- **Pilot / demonstration plant data.** In general, applicants proposing innovative projects should be able to submit a minimum of 1,000 to 2,000 hours of operating data from a demonstration facility that uses the same technology as proposed in the project application. This is essential to determining the project's capability to support a loan. Particularly in the case of innovative projects, weak applications may provide only limited pilot or demonstration plant data, or may provide data from a plant design that differs from the one proposed in the application.

- **Engineering reports.** All applications submitted by project sponsors or proposed borrowers should include a project-specific engineering report. Reports that discuss the general technology, rather than the use of that technology in the specific context of the project proposed, are of minimal assistance, especially in the evaluation of the technical and financial viability of an application proposing an innovative project
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- **Technological advantages.** Applications required to satisfy Section 1703 of Title XVII should discuss and highlight how the technology as proposed in the project constitutes a new or significant improvement over existing competing technologies in the U.S. commercial marketplace today (e.g. cost, greenhouse gas emissions avoidance or reductions, etc.). Weaker applications proposing innovative projects may fail to provide this context.

- **Mitigation of technology risk.** Particularly in the case of innovative projects, strong applications will discuss how to mitigate technology risk. Stronger applications address alternative scenarios in the event that critical technologies fail or do not perform as expected. For example, applicants may address this risk through warranties, production or performance guarantees, corporate guarantees, letters of credit, performance bonds, etc.

- **Management Capability and key staff.** Applications should provide clarity on the applicant sponsor's capability and its key staff. In addition to the staff biographies, stronger applications should include management's experience, expertise, history, and organizational structure, as well as roles and responsibilities. Stronger applications explain how the experience and skills of key employees will uniquely contribute to the success of the proposed project.

Administrative Suggestions

This section includes administrative suggestions for application submissions that will enable the LPO to review applications more efficiently.

Please note: These are suggestions, not requirements, and are not related to application evaluation criteria.

- **Searchable PDFs.** Searchable application PDF files are very helpful to reviewers. Generally, PDF files that are generated from word processing software are inherently searchable, whereas PDF files generated from printed, scanned documents are not.

- **Consolidation.** It is similarly helpful to reviewers if application materials submitted in response to a particular section of the application instructions are consolidated into as few PDF files as possible.