Comment Listing

U.S. Department of Energy

Loan Programs Office

Draft Advanced Fossil Energy Projects Solicitation

September 2013

Table 1 – Comment Matrix

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Table 2 – Comment Key

Commenter Number	Commenter Name	Affiliation	Comments
1.	Burdett L. Hallett	ADP Holdings, Ltd.	**1a**
2.	Charles Peterson	N/A	**2a****
3.	Max Williamson	New Carbon Future LLC	**3a**
4.	Jon Marbaise	Blackrock Energy	**4a, 4b****
5.	Bob Lerman	N/A	**5a**
6.	Mark Schoenfield	Jupiter Oxygen Corporation	**6a, 6b**
7.	Robert Hickmott	Smith-Free Group	**7a***
8.	Paul Kavinoky	Rio Tinto	**8a***
9.	J.R. Keeling	N/A	**9a**
10.	Keith Tracy	Chaparral CO2, L.L.C.	**10a, 10b, 10c, 10d**
11.	Farid Hekmat	Holland & Knight	**11a**
12.	Andrew Paterson	Environmental Business International	**12a, 12b, 12c, 12d, 12e, 12f, 12g, 12h**
13.	Steve Lindauer	Association of Union Constructors	**13a****
14.	Rodney Sobin	Alliance to Save Energy	**14a**
15.	Gus Block	Nuvera Fuel Cells, Inc.	**15a**
16.	Keith Dennis	National Rural Electric Cooperative Association	**16a**
17.	Douglas Cox	Primus Green Energy	**17a,17b**
18.	David Gardiner	Alliance for Industrial Efficiency	**18a**
19.	David J. Zaziski	Siluria Technologies, Inc.	**19a**
20.	Angus King	United States Senate	**20a**, 20b, 20c**
21.	Leonard Dolhert	Aither Chemicals, LLC	**21a**
22.	Robert Thornton	Int'l District Energy Association	**22a, 22b**
23.	Connor Dolan	Fuel Cell and Hydrogen Energy Assn	**23a, 23b**
24.	Lineth Metcalf	Coal Utilization Research Council	**24a**
25.	Scott Fisher	NRG	**25a, 25b, 25c****
26.	Kelly Merritt	Grannus LLC	**26a, 26b**, 26c****
27.	Lisa Ward	Clear Edge Power	**27a**
28.	Tyler Krutzfeldt	N/A	**28a**
29.	Luke Hopkins	Fairbanks North Star Borough	**29a**
30.	Bob Shefchik	Interior Gas Utility	**30a**
31.	Autumn Hanna	Taxpayers for Common Sense	**31a**
32.	Walker Dimming	Netpower	**32a, 32b, 32c, 32d, 32e, 32f, 32g**
33.	Fred Carey	Potomac-Hudson Engineering, Inc.	**33a**
34.	Michael Ducker	Mitsubishi Power Systems	**34a*, 34b*, 34c***
35.	John McNamara	Caithness Energy	**35a**
36.	Robert Johnsen	Primus Energy	**36a, 36b**

*These individuals provided comments in person at the LPO Public Meetings.

**These comments were deemed purely administrative

1. **Fees and Costs**
   a. **Commenters: 5, 12, 14, 18, 20, 22, 23, 27, 32**
   b. **Comments: 5a, 12a, 14a,18a, 20b, 22b, 23b, 27a, 32b, 32c, 32d**

One commenter (Lerman) noted that the application fees are too high. The commenter noted that the application fees are too high for small companies and projects, effectively shutting them out of the process. **A second commenter** (Paterson) asked what can be done to manage due diligence costs. A **third commenter** (Sobin) requested that the solicitation consider smaller project developers when assigning the fee structure. **A fourth commenter** (Gardiner) believed the fees were excessive and could deter many projects (especially smaller projects) from applying for the loan guarantee. The **fourth commenter** (Gardiner) suggested that the application fee should be proportionate to the size of the loan (rather than establishing a flat fee for all projects) and also suggested that DOE modify the program so that the full fee is not due until the loan is approved.

The **fourth commenter** (Gardiner) suggested the following fee structure:

- 25 percent of the application fee can continue to be due upon filing Part I of the application;
- An additional 25 percent (rather than 75 percent) can be due upon filing Part II of the application;
- The remaining 50 percent should be due only after (and only if) the loan is approved.

A fifth commenter (Thornton) suggested that DOE significantly restructure the fees to make them more commensurate with both the size of projects and the risk profiles. **A sixth commenter** (Dolan) said that DOE should consider changing the fee structure to accommodate support of smaller scale distributed generation systems. **A seventh commenter** (Ward) noted that DOE should limit the amount of all fees associated with the loan guarantee solicitation; specifically for stationary fuel cell projects, which the commenter believes to qualify under this solicitation, the fees should not exceed 0.5% of the total project cost. According to the **seventh commenter** (Ward), when the fees surpass this amount, customers tend to abandon the project because the financial feasibility deteriorates exponentially. **An eighth commenter** (Dimming) noted that an Application Fee of $1,000,000 has the potential to create a barrier to entry for small and medium sized enterprises that might otherwise apply with strong technologies and eligible projects. The same commenter noted that other fees (outside consultants, credit subsidy, and outside counsel) should be capped to provide more financial certainty and clarity to applicants at the start of the program. The same commenter also noted that the DOE Loan Programs Office website suggests the maintenance fee for Section 1703 Programs "will generally be in the range of $25,000 to $150,000.", but that the proposed program maintenance fee of $500,000 is far in excess of this stated expected range. **A ninth commenter** (King) asked that the solicitation be modified to reduce the application fee for small companies.

Answer:
We understand that the fees associated with applying for and receiving a guarantee appear high and could be difficult for smaller projects and/or sponsors to pay. However, Section 1702(h) of the Energy Policy Act of 2005 requires that DOE "charge and collect fees for guarantees in amounts the Secretary determines are sufficient to cover applicable administrative expenses," which includes both direct and third-party costs.

DOE has designed the three different types of fees (application, facility, and maintenance) listed below to fairly distribute the direct administrative costs among the different periods in the application process. However, we continue to examine the structure of the fees, to ensure that they allow DOE to pay its administrative costs, while not discouraging potentially eligible projects.

1) The application fee in the draft Advanced Fossil Solicitation is $1,000,000, 25% payable in connection with the submission of Part I of the application, and the remaining 75% payable in connection with the submission of Part II of the application. The application fee, as a whole, is designed to cover the direct administrative costs of the application process and has been calculated based on the historical average cost of processing similar types of applications. The 2008 fossil solicitation (issued 5 years ago) required an application fee of $800,000, payable in two parts, just as the draft Advanced Fossil Solicitation requires.

   However, based on the feedback we have received, we are intending that the final Advanced Fossil Solicitation will provide for the Part I application fee to be $75,000 and the Part II application fee to be $925,000.

2) The facility fee in the draft Advanced Fossil Solicitation is ½ of 1.0% (or 0.5%) of the principal amount of the guaranteed obligation, 25% payable upon the issuance of the conditional commitment, and the remaining amount payable upon the issuance of the guarantee. The facility fee is designed to cover the direct administrative costs of the negotiation and documentation of the loan guarantee. The 2008 fossil solicitation required the same facility fee.

3) The maintenance fee in the draft Advanced Fossil Solicitation is stated to be expected to be $500,000 each year of the loan, payable annually, beginning on the issuance of the guarantee. The maintenance fee is designed to cover the direct administrative costs, other than extraordinary expenses, to service and monitor the loan guarantee from the issuance of the guarantee until the payment in full of the guaranteed obligation and has been calculated based on the historical average cost of servicing and monitoring similar types of projects. The 2008 fossil solicitation stated that the maintenance fee was "[e]xpected to be in the range of $200,000 to $400,000 per year."

The indirect administrative costs (paid to DOE's third-party advisors) are required to be paid by the project sponsor. This arrangement is typical in connection with large project financings. In some instances, prices with the third-party advisors have been negotiated by DOE to decrease them below such firms' "market" rates. DOE works with project sponsors and its third-party advisors to manage those costs. However, putting a limit on the costs would mean putting a limit on the actual due diligence, documentation, and other services these advisors provide, which would not be acceptable to any lender or guarantor.

2. Technical Eligibility

a. Commenters: 3, 6, 10, 11, 12, 15, 16, 17, 19, 21, 23, 26, 29, 30, 34, 35

b. Comments: 3a, 6b, 10a, 11a, 12e, 15a, 16a, 17b, 19a, 21a, 23a, 26a, 29a, 30a, 34b, 34c, 35a

Several comments requested that their technologies be made eligible for the solicitation. **One commenter** (Williamson) inquired as to whether clean coal technologies would be eligible, such as those employing energy efficiency and emissions savings from recycling, improved emissions controls, and alternative waste disposal methods. **A second commenter** (Dennis) asked to include advanced fossil technologies that capture waste energy and recycle byproducts. **The third commenter** (Schoenfield) suggested that the solicitation include eligibility for high flame temperature oxy-combustion that uses less fuel. **A fourth commenter** (Tracy) wanted confirmation that industrial processing facilities, ethanol plants, fertilizer plants, and captured CO_2 in a pipeline are eligible, and encouraged the concept that CO_2 pipelines be clearly addressed in the solicitation, so that potential applicants can clearly know whether CO_2 pipelines may be included (or must be excluded) from any potential qualifying project or facility. **A fifth commenter** (Hekmat) asked if LNG facilities would qualify.

A sixth commenter (Paterson) asked whether it is more appropriate for projects using natural gas as a feedstock, rather than coal, to submit under Category B as an industrial process (making fuels and chemicals), or under Category D as a more efficient manufacturing process (or both). **A seventh commenter** (Block) suggested that hydrogen produced from on-site natural gas be eligible. **An eighth commenter** (Cox) asked for clarification that a project producing fuels (gasoline, diesel or jet fuel) utilizing natural gas as the feedstock and a non-Fischer-Tropsch gas to liquids technology would be considered eligible. **A ninth commenter** (Zaziski) requested appropriate modifications or additions to the technology area descriptions and/or the list of illustrative project types be made to include a class of new or substantially improved technologies that utilize natural gas as a feedstock for chemical conversion to fuel or chemical products. **A tenth commenter** (Dolhert) requested that the solicitation allow for projects that will reduce energy use in the production and distribution of ethylene, including projects that use catalytic cracking of ethane to ethylene.

An eleventh commenter (Dolan) requested that loan guarantees should be made available for hydrogen infrastructure in the final solicitation. **A twelfth commenter** (Merritt) suggested that the solicitation allow for polygeneration and process efficiency improvements with new technology, existing technology integration, and cogeneration processes using a variety of fuels, as well as process integration of wind, solar, or solar thermal power through physical or electrical interconnection to create renewable, ultra–low, or zero emission baseload power, partial and full oxidation polygeneration systems with carbon dioxide capture and water production with re-use of byproducts, magnetohydrodynamics, metal oxide boilers with CO_2 capture for reuse, sequestration or EOR, and inclusion of processes which can reduce the use of fuel and electricity for other existing systems, such as polygeneration or cogeneration. **A thirteenth commenter** (Hopkins) said that funding through this federal loan program could be used for rapid build out of a natural gas distribution system and could provide loans to residents and businesses to convert from fuel oil to gas, which would incentivize individuals and businesses to buy the highest energy efficient furnaces that are dual oil and gas and can be easily converted once the gas distribution system is in place. **A fourteenth commenter** (Shefchik) urged that DOE consider the eligibility of natural gas distribution systems.

A fifteenth commenter (Ducker) suggested that DOE amend the definition of Low-Carbon Power Systems in Section II.A.1.c to include seamless integration of CO_2 capture and also suggested that DOE amend the Illustrative Types of Eligible Projects in Section II.B.3 to include natural gas-fired systems with exhaust gas recirculation. **A sixteenth commenter** (McNamara) asked that the final language of the solicitation, specifically within Technology Area 4 of the solicitation, include high efficiency, flexible fossil power systems, in addition to the distributed fossil power systems mentioned.

Answer:
The two principal goals of section 1703 of Title XVII of the Energy Policy Act of 2005 are to (1) encourage commercialization of new or significantly improved energy-related technologies and (2) achieve substantial environmental benefits by avoiding, reducing, or sequestering anthropogenic emissions of greenhouse gases. Accordingly, as stated in section II.A.2 of the draft Advanced Fossil Solicitation, it is a statutory requirement that all projects must satisfy these requirements to be deemed eligible under the final Advanced Fossil Solicitation.

The draft Advanced Fossil Solicitation further clarifies, for the avoidance of doubt, that the illustrative types of eligible projects listed in section II.B of the draft Advanced Fossil Solicitation may or may not be eligible, depending on the project structure, loan application, and subsequent technical review. Inclusion of a particular technology or project in the illustrative list, as several comments requested, does not assure that a project employing such technology is eligible. Ultimately, the project's loan application is responsible for demonstrating satisfaction of all eligibility criteria, subject to LPO review and assessment.

LPO intends for the definition of new or significantly improved technologies in the Advanced Fossil Solicitation to conform to final rule 10 CFR Part 609, which provides the following relevant terms: "New or Significantly Improved Technology means a technology concerned with the production, consumption, or transportation of energy and that is not a Commercial Technology, and that has either: (1) Only recently been developed, discovered, or learned; or (2) Involves or constitutes one or more meaningful and important improvements in productivity or value, in comparison to Commercial Technologies in use in the United States at the time the Term Sheet is issued;" and "Commercial Technology means a technology in general use in the commercial marketplace in the United States at the time the Term Sheet is issued by DOE. A technology is in general use if it has been installed in and is being used in three or more commercial projects in the United States in the same general application as in the proposed project, and has been in operation in each such commercial project for a period of at least five years…." Project applications will be required to demonstrate that a New or Significantly Improved Technology is being proposed.

As stated in the draft Advanced Fossil Solicitation, LPO intends that the scope of the draft Advanced Fossil Solicitation is broad. In response to several comments requesting inclusion of various industrial processes as eligible projects, the term "industrial processing facilities" in section II.B of the draft Advanced Fossil Solicitation is meant to include fuel production and conversion, petrochemical and petrochemical derivatives production, and hydrocarbon derivatives production sourced from fossil fuels. In response to comments requesting the inclusion of CO_2 pipelines and hydrogen and LNG infrastructure as eligible projects, LPO

reiterates that any such project will only be deemed eligible if it satisfies the requirements of sections II.A and II.B of the draft Advanced Fossil Solicitation. In response to comments about projects that fit multiple technology areas, a project that qualifies under more than one of the technology areas described in section II.A.1 of the draft Advanced Fossil Solicitation may submit an application under any applicable technology area.

With respect to the costs related to pipeline transport of CO_2 for a proposed project, LPO intends to adhere to the principles described in 10 CFR Part 609.12(a) to determine whether costs are eligible project costs, namely that they be "Project Costs" as defined in 10 CFR Part 609, which requires that they be "costs, including escalation and contingencies that are to be expended or accrued by Borrower and are necessary, reasonable, customary and directly related to the design, engineering, financing, construction, startup, commissioning and shakedown of an Eligible Project…." It further states that "Project [C]osts…do not include costs for the items set forth in [Section] 609.12(c) of this part." LPO will review the project costs of each applicant project to determine if they are eligible under 10 CFR Part 609.

3. Loan Repayment
   a. Commenters: 6
   b. Comments: 6b

One commenter (Schoenfield) requested that failed projects not be required to pay back the loan. The commenter noted that because of high LPO application and other fees, the LPO's low interest rates are not enough to reduce the investment risk to the utility industry and that investment risk to utilities or technology providers must be reduced by not requiring payback unless the project revenue is sufficient.

Answer:
As a guarantor of debt, DOE is not intended to take the same level of risk as an equity provider to a project. If DOE were to agree, at the time of the issuance of the guarantee, that the debt did not need to be repaid if the project failed, DOE would be taking the same risk as the equity, which is not what Title XVII anticipated or requires.

In addition, pursuant to Section 1702(d)(1) of the Energy Policy Act of 2005, DOE can provide a guarantee only if DOE determines that there is "a reasonable prospect of repayment of the principal and interest on the obligation by the borrower." It is unlikely that DOE would ever be able to make such a determination if the project had an ability to walk away from the debt without consequence.

4. Process Timing
   a. Commenters: 1, 7, 8, 10, 12, 32
   b. Comments: 1a, 7a, 8a, 10d, 12b, 12e, 32a

Three commenters asked that DOE provide clarity on the schedule and timing for the Advanced Fossil Solicitation. **The first commenter** (Hallett) asked when the final solicitation will be released and for the dates for submitting an application. **The second, third, and fourth commenters** (Hickmott, Kavinoky, Keeling) requested further information on dates of

submittals and processing timeframes. **The fourth commenter** (Keeling) also requested the deadline for application submittals. **A fifth commenter** (Paterson) requested information on how sequestration might impact the DOE review process. The same commenter asked what dates DOE is contemplating for a Part I submission, and whether there will be a rolling submittal schedule. The same commenter asked how much time an applicant has to submit a Part II application after being invited to do so. **A sixth commenter** (Dimming) suggested that DOE provide deadlines by which it will respond to Part I and Part II of the Application, as well as complete its due diligence.

Answer:
DOE expects that the final Advanced Fossil Solicitation will be issued in the Fall of 2013.

The deadlines for filing Part I and Part II applications will be set forth in detail in the final Advanced Fossil Solicitation. DOE anticipates providing a number of Part I deadline dates and Part II deadline dates. An applicant will be permitted to submit a Part I application prior to any Part I deadline. If such applicant is invited to submit a Part II application, it may do so prior to any Part II deadline.

DOE's expectation is that the application portal for filing an application will be available shortly after the issuance of the final Advanced Fossil Solicitation.

Based on information currently available, DOE does not anticipate that sequestration will substantially affect DOE's review of applications.

5. **Process Guidance**
   a. **Commenters: 9**
   b. **Comments: 9a**

One commenter (Keeling) requested that DOE provide a guidance document to accompany the solicitation that would outline how to navigate the process.

Answer:
DOE is creating an application portal for submission of applications. The application portal has been designed to be "user friendly" and will allow the user to work on its application, save its work, revise its work, and proofread its work prior to submission. DOE expects that the information requested in the initial section of Part I of the application will be entered directly into the text fields provided in the application portal. DOE expects that the information requested for all other sections of Part I of the application and the information requested for all sections of Part II of the application will be provided in PDF or Excel documents uploaded through the application portal. DOE has professionals from multiple disciplines reviewing the application portal, with the goal of providing clear and detailed instructions regarding how to use the application portal.

DOE's preliminary expectation is that the application portal for filing an application will be available shortly after the issuance of the final Advanced Fossil Solicitation, which will allow applicants to commence the submittal process of their applications, regardless of the deadlines in the final Advanced Fossil Solicitation.

DOE intends to hold at least one webinar and/or seminar on the final Advanced Fossil Solicitation, at which we will discuss the process. We will announce all such webinars/seminars on the LPO website.

6. Loan Authority
   a. Commenters: 10
   b. Comments: 10b

One commenter (Tracy) requested to know what the dollar limit of loan authority to a single project would be.

Answer:
DOE does not have a statutory or regulatory dollar limit of loan authority to a single project. However, as it states in Section IV.C. of the draft Advanced Fossil Solicitation, "[t]he use of partial guarantees and/or co-lenders will be viewed favorably by DOE."

7. Multiple Contracting
   a. Commenters: 10
   b. Comments: 10c

One commenter (Tracy) requested to know whether multiple contracting parties would be given a preference.

Answer:
DOE has no particular preference as to whether there is one or there are several project sponsors. DOE's interest in any project sponsor is, as stated in Section IV.C. of the draft Advanced Fossil Solicitation, in its experience in the development of advanced fossil energy projects, including experience in securing project financing, project due diligence, developing, designing, equipping, building, interconnecting, contracting for the sale/purchase of energy, and commissioning of the assets.

8. Credit and Equity
   a. Commenters: 12, 25, 32
   b. Comments: 12c, 12d, 25b, 32e

One commenter (Paterson) asked what equity levels traditionally have been seen on projects over $200 million in financing, and how those equity levels affect the creditworthiness review. The same commenter wanted to know what the credit subsidy costs have historically been for DOE loans to date. **A second commenter** (Fisher) noted that it also will be important for DOE to provide applicants early insight into the credit subsidy calculation, perhaps after the project's Part I and Part II application review, but prior to formal due diligence; for example, an extremely high credit subsidy score could cause the applicant to weigh whether it can justify continuing with the process. **A third commenter** (Dimming) requested that DOE provide further clarity around the statement that the ability of a project to secure long-term commercial financing without a loan guarantee will be assessed.

Answer:
Section 1702(c) of the Energy Policy Act of 2005 permits DOE to issue loan guarantees for up to a maximum of 80% of eligible project costs. However, an 80:20 debt to equity ratio (leverage) is unlikely, particularly given the risk profiles and cash flows of many of our applicants' projects. Many factors go into determining how much debt is appropriate for any particular project, such as risks associated with construction and the ability of the projected cash flows to predictably service debt. Leverage is an important component of overall risk mitigation in a project and is important factor in credit subsidy calculation.

DOE does not have sufficient information available to estimate the potential credit subsidy cost for a project unless and until it has completed the Part II application review and begun discussions with the applicant regarding appropriate structuring for the project. However, DOE agrees that the potential credit subsidy cost is an important factor in an applicant's determination whether to proceed and will make every attempt to provide an initial estimate as early in the process as practicable.

Applications for loan guarantees for projects that could be financed on a long-term basis by commercial banks or others without a federal loan guarantee will be viewed unfavorably.

9. Federal Support
   a. Commenters: 12, 32, 36
   b. Comments: 12g, 32f, 36a

One commenter (Paterson) asked why project applicants must disclose all other federal support, when such support is not allowed for obtaining a loan. The same commenter noted that having a federal agency as an off-taker should bolster its creditworthiness. **A second commenter** (Dimming) requested that DOE provide further details about the ineligibility of projects that otherwise benefit direct or indirectly from other federal support. **A third commenter** (Johnsen) suggested that the federal support clause may well be in conflict with the stated objective of supporting many new or significantly improved technologies, because such technologies may be sponsored by applicants and principles with innovative and economically viable technologies, but those applicants and principals may have no prior experience in the fossil energy sector.

Answer:
The Omnibus Appropriations Act, 2009, Pub. L. No. 111-8, div C, tit. III, "Title 17 Innovative Technology Loan Guarantee Program," 123 Stat. 524, 619-20 (2009), as amended by the Supplemental Appropriations Act , 2009, Pub. L. No. 111-32, tit. IV, "Title 17 Innovative Technology Loan Guarantee Program," 123 Stat. 1859, 1878 (2009), provides that none of the DOE's loan authority that is being used in connection with the final Advanced Fossil Solicitation "shall be available for commitments to guarantee loans for any projects where funds, personnel, or property (tangible or intangible) of any Federal agency, instrumentality, personnel or affiliated entity are expected to be used (directly or indirectly) through acquisitions, contracts, demonstrations, exchanges, grants, incentives, leases, procurements, sales, other transaction authority, or other arrangements, to support the project or to obtain goods or services from the project…"

However, the Act goes on to make clear that it does not intend to preclude the use of this loan authority for projects that benefit from "(a) otherwise allowable Federal income tax benefits; (b) being located on Federal land pursuant to a lease or right-of-way agreement for which all consideration for all uses is (i) paid exclusively in cash, (ii) deposited in the Treasury as offsetting receipts, and (iii) equal to the fair market value as determined by the head of the relevant Federal agency; (c) Federal insurance programs, including Price-Anderson; (d) for electric generation projects, use of transmission facilities owned or operated by a Federal Power Marketing Administration or the Tennessee Valley Authority that have been authorized, approved, and financed independent of the project receiving the guarantee; (e) contracts, leases or other agreements entered into prior to May 1, 2009, for front-end nuclear fuel cycle projects, where such project licenses technology from the Department of Energy, and pays royalties to the federal government for such license and the amount of such royalties will exceed the amount of federal spending, if any, under such contracts, leases or agreements; or (f) grants or cooperative agreements, to the extent that obligations of such grants or cooperative agreements have been recorded in accordance with section 1501(a)95) of title 31, United States Code, on or before May 1, 2009."

The draft Advanced Fossil Solicitation requires the applicant to disclose all other federal support to ensure that the application is eligible pursuant to this Appropriations Act, which is the Act that provides the appropriated funds being used under the final Advanced Fossil Solicitation.

10. Prior Experience

a. **Commenters: 17, 20, 36**
b. **Comments: 17a, 20c, 36b**

One commenter (Cox) felt that Section I.C.4. of the application submission instructions requiring applicants to describe at least two projects in the fossil energy area that: (a) have been completed by the applicant's organization or its principals (b) the applicant's organization or principals raised equity and secured debt for financing, and (c) the applicant's organization operated and maintained for a minimum of two years were unduly limiting and in conflict with the stated objective of supporting many new or significantly improved technologies. The commenter thought that experience in developing, funding and operating projects in the alternative fuels/biofuels sector of the energy industry may have far greater relevance than fossil energy sector experience alone and urged DOE to allow more flexibility in their consideration of prior experience. **A second commenter** (King) noted that the solicitation's definition or "prior experience" eliminates innovations by smaller or newly established companies. **A third commenter** (Johnsen) suggested that an applicant may consist of principles with substantial experience in business technology and project development, and providing substantial equity funding and co-lender involvement, but not have at least two projects in the fossil energy sector similar in nature and scope to the project being proposed.

Answer:
DOE not only wants the debt that it guarantees to be repaid, but it also wants to see eligible projects built and completed. The projects contemplated by the draft Advanced Fossil Solicitation are quite complex, and evidence of an ability of the involved parties to execute on similar projects is vital to becoming comfortable that the applicant project will be a success.

However, we do understand that there may be other ways to provide that comfort and will address that concern appropriately in the final Advanced Fossil Solicitation.

11. Innovation

a. **Commenters: 22**
b. **Comments: 22a**

One commenter (Thornton) raised a concern that potential Combined Heat and Power (CHP) projects will use well-demonstrated technologies including steam turbines, combustion turbines and reciprocating engines and may not be perceived as innovative. The commenter believes that loan guarantees could be used to facilitate financing of CHP, WHR and other energy-efficient systems, noting that there are innovative approaches which can break new ground in CHP and WHR and limited US market penetration.

Answer:
LPO recognizes the comments and confirms the commenter's position that the final Advanced Fossil Solicitation will be clear that loan guarantees are available to finance only innovative technologies.

With specific respect to CHP, and all other technologies in the final Advanced Fossil Solicitation, eligible projects must employ a "New or Significantly Improved Technology," as defined in final rule 10 CFR Part 609, which provides that "New or Significantly Improved Technology means a technology concerned with the production, consumption or transportation of energy and that is not a Commercial Technology, and that has either: (1) Only recently been developed, discovered, or learned; or (2) Involves or constitutes one or more meaningful and important improvements in productivity or value, in comparison to Commercial Technologies in use in the United States at the time the Term Sheet is issued."

The final rule 10 CFR Part 609 defines "Commercial Technology" as "a technology in general use in the commercial marketplace in the United States at the time the Term Sheet is issued by DOE. A technology is in general use if it has been installed in and is being used in three or more commercial projects in the United States in the same general application as in the proposed project and has been in operation in each such commercial project for a period of at least five years. The five-year period shall be measured, for each project, starting on the in service date of the project or facility employing that particular technology. For purposes of this section, commercial projects include projects that have been the recipients of a loan guarantee from DOE under this part."

The final Advanced Fossil Solicitation will require New or Significantly Improved Technology, as defined in final rule 10 CFR Part 609.

12. Statutory Requirements

a. **Commenters: 24, 28, 31**
b. **Comments: 24a, 28a, 31a**

One commenter (Metcalf) noted that the draft Advanced Fossil Solicitation deviates from the express directions of the "Explanatory Statement" and includes a substantially broader list of

eligible projects than those intended by Congress by describing eligible projects as those utilizing "fossil energy resources" and "fossil fuels". According to the commenter, Congress clearly indicated in its "Explanatory Statement" that the eligible projects it intended to be supported by loan guarantees were "coal based power generation and industrial gasification activities" and "advanced coal gasification". If Congress intended that the $6 billion and $2 billion authority referred to in the "Explanatory Statement" be allocated for the broader "fossil" category, it would have so stated. The inclusion of "eligible projects" that are not consistent with the clearly stated intent of Congress that such loan guarantee authority is available only to coal-based projects should be eliminated in the final Advanced Fossil Solicitation.

A second commenter (Krutzfeldt) said that carbon 'recycling' must be defined in the regulation and on equal footing with underground sequestration. The definition should include biological capture of CO_2 with technologies and pathways above ground. **A third commenter** (Hanna) suggested that DOE withdraw the solicitation until it is demonstrated that taxpayers can be protected, as required under the original Title XVII statute.

Answer:
We are aware of the Committee Report language noted in Metcalf's comment and have given it due consideration. However, based upon LPO's experience in connection with a previously issued Advanced Fossil Solicitation that addressed only "coal based power generation, industrial gasification and advanced coal gasification facilities," LPO has determined that the final Advanced Fossil Solicitation scope should be broadened to encompass not only coal based power generation, industrial gasification and advanced coal gasification facilities, but also other projects that are eligible under Title XVII. We notified Congress of this intent on March 28, 2013, and received no inquiries or other response from them regarding our intent. Finally, we note that Committee Reports are not binding law, but are to be given due consideration by the implementing agencies, which we have done. Cherokee Nation v. Leavitt, 543 U.S. 631 at 646 (2005) ("[R]estrictive language contained in Committee Reports is not legally binding.")

Section II.A.2 of the draft Advanced Fossil Solicitation restates the Title XVII eligibility requirement that any project must "avoid, reduce, or sequester air pollutants or anthropogenic emission of greenhouse gases." As such, any carbon reduction technology or strategy that avoids or reduces greenhouse gas emissions may be deemed eligible in addition to geologic sequestration. LPO intends to assess all applications on a life-cycle basis to determine if the project contributes to greenhouse gas avoidance, reduction, or sequestration in support of an eligibility determination.

As DOE fulfills its mission in connection with Title XVII, we work tirelessly to protect taxpayer's interests and serve as strong stewards of taxpayer dollars. Several independent reports have shown that the taxpayer's interests are well-protected under this program. Herbert Allison's report from February 2013, on the LPO confirmed that DOE has been judicious in balancing risk and that the loan portfolio, as a whole, is expected to perform well and holds less than the amount of risk envisioned by Congress when they created and funded the program. In addition, a December 2011 report by Bloomberg Government found that the LPO portfolio was in solid financial health.

All of LPO's projects (including those that apply under the final Advanced Fossil Solicitation) undergo many months of rigorous technical, financial and legal due diligence by LPO personnel. This extensive record has made clear that the loan guarantee to Solyndra and all other loan guarantees were issued on their merits.

It also should be noted that Section 1702(a) of the Energy Policy Act of 2005 requires that the "cost" (credit subsidy cost) of the guarantee has either been appropriated or paid by the borrower. As this solicitation requires that the borrower to pay the relevant credit subsidy cost, the full "cost of the loan guarantee" will be accounted for by the private sector at the time of closing.

13. Scale and Viability

a. **Commenters: 25**
b. **Comments: 25a**

One commenter (Fisher) noted that DOE should focus on projects using technology with some experience at scale. Rather than spread loan guarantee funds across many smaller projects, DOE should focus on fewer larger projects that have the potential to achieve the required financial returns.

Answer:
The two principal goals of section 1703 of Title XVII of the Energy Policy Act of 2005 are to encourage commercial use of new or significantly improved energy-related technologies and to achieve substantial environmental benefits, primarily in the form of greenhouse gas reductions.

According to final rule 10 CFR Part 609, which is applicable to the final Advanced Fossil Solicitation, eligible projects must employ "New or Significantly Improved Technology," which means "a technology concerned with the production, consumption or transportation of energy and that is not a Commercial Technology, and that has either: (1) Only recently been developed, discovered, or learned; or (2) Involves or constitutes one or more meaningful and important improvements in productivity or value, in comparison to Commercial Technologies in use in the United States at the time the Term Sheet is issued."

The final rule 10 CFR Part 609 further defines "Commercial Technology" as "a technology in general use in the commercial marketplace in the United States at the time the Term Sheet is issued by DOE. A technology is in general use if it has been installed in and is being used in three or more commercial projects in the United States in the same general application as in the proposed project and has been in operation in each such commercial project for a period of at least five years. The five-year period shall be measured, for each project, starting on the in service date of the project or facility employing that particular technology. For purposes of this section, commercial projects include projects that have been the recipients of a loan guarantee from DOE under this part."

Therefore, the degree to which the relevant technology may have been utilized at scale is limited. However, assessment of a project's viability, encompassing the elements submitted by the commenter, is a main priority of LPO's application review and determination to proceed, as described in Section IV of the draft Advanced Fossil Solicitation. LPO intends to prioritize

projects that are more viable due to factors described in Sections IV.D-G of the draft Advanced Fossil Solicitation. Project viability also will have a principal impact on the terms of any project seeking loan guarantee closure.

14. Weighting

a. **Commenters: 32, 34**
b. **Comments: 32g, 34a**

One Commenter (Dimming) suggested that criteria weightings should favor innovative projects that have high technical merit and will enable cost-effective and significant emissions reductions. They suggested the following weightings:

Criteria	Weighting	Explanation
Financial Factors	10%	Projects that have excellent creditworthiness should be able to access the commercial lending market without Federal support. It is recognized that the DOE should support projects that have a strong prospect of financial success; however, first-of-a-kind projects may operate with lower-than-normal margins but still be considered a success as long as they meet debt repayment obligations and lay the groundwork for further and more profitable deployment. Weighting certain financial factors too highly will skew the program in favor of large enterprises and projects that are able to secure commercial financing with ease. This occurs at the expense of smaller enterprises and newer, more innovative technologies. The Credit Subsidy Cost is the appropriate way to address additional risk that DOE perceives within each project.
Technical Factors	40%	The technical factors identified in the Draft Solicitation deserve thorough evaluation and consideration, as the technical merit of a project is something that can be determined with a high level of confidence and accuracy and is necessary to enabling the project to meet its financial obligations.
Policy Factors	50%	The loan guarantee program presents an opportunity for the DOE to rapidly advance technologies that will enable the United States to achieve emissions reduction, energy cost, and energy security goals. Without significant breakthroughs by advanced fossil energy projects, the realistic timeframe for achieving these goals will continue to be pushed out. The projects that support these breakthroughs are initially met with considerable commercial challenges. It is important and justifiable for the Government to support projects that meet these pivotal policy criteria, and thus the Loan Program should put considerable weight on these factors.
Programmatic Factors	Pass / Fail	Compliance factors should be determined to either be satisfactory (pass) or unsatisfactory (fail) so that these important factors could not be usurped by the relative weight of the other

		factors.

A second commenter (Ducker) suggested that weightings should focus on the cumulative benefit of technology innovativeness together with the likelihood of widespread deployment and the ability to greatly reduce CO2 emissions through widespread deployments. He proposed the following weightings:

Review of Financial Factors: 20%
Review of Technical Factors: 40%
*Strong weighting for technical readiness (Criteria 1a)
*Strong weighting for long-term applicability of the technology (Criteria 1b)
Review of Policy Factors: 30%
*Criteria 1 should consider the cumulative ability for the technology to reduce CO2 based on the long-term applicability to future commercial projects in addition to the individual project's ability to reduce CO2
*Strong weighting should be given for the potential of the technology to be widely employed in future power projects (Criteria 2)
*Criteria 3 (or an additional Criteria 4) should consider the project's ability to leverage
other CO2 reduction advancements over the life of the project
*Add Criteria to provide additional weighting for the project's ability to meet more than one eligibility requirement
Review of Programmatic Factors: 10%

Answer:
While we are taking these comments into careful consideration in determining the appropriate weighting of the various factors, it may be useful to briefly summarize the application process to illustrate the appropriate place for policy considerations. Part I applications largely verify a project's eligibility, given both statutory and policy considerations. Part II applications largely verify a project's viability, given financial, technical, and programmatic factors. DOE also intends to apply a robust policy screen to those projects that successfully navigate the Part II application review.

15. Environmental Review

a. **Commenters: 33**
b. **Comments: 33a**

One commenter (Carey) had an environmentally-related question for the fossil solicitation process. Noting that NEPA was required, the commenter asked what environmental factors and environmental data bases would be considered in the event that an environmental critique is required under 10 CFR 1021.216(g). The commenter also asked whether DOE plans to commence with a 216 review.

Answer:
The need for the preparation of an environmental critique pursuant to DOE's NEPA regulations

at 10 CFR 1021.216 (a 216 review), will depend on the number and nature of the applications received in response to the final Advanced Fossil Solicitation and on the number of applicants that proceed beyond the Part II application process. In the event that a 216 process is warranted, the evaluation of applicant's proposals will follow the structure outlined in 10 CFR 1021.216(g). Attachment B of the draft Advanced Fossil Solicitation describes the information to be included in the application for use by DOE in the preparation of NEPA-related documentation, including any necessary 216 review.