

BRIEFING MEMO

THE WHITE HOUSE
Washington

October 25, 2010

MEMORANDUM FOR THE PRESIDENT

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SUBJECT: Renewable Energy Loan Guarantees and Grants

Your advisors seek your direction on implementing the energy loan guarantee program. Three near-term risks characterize this program: rescission of non-obligated funds; criticism from Hill supporters and stakeholders for slow implementation; and making commitments to projects that would have happened anyway and thus fail to advance your clean energy agenda. In considering these risks, the Department of Energy supports a process that would limit OMB and Treasury review. OMB and Treasury support the establishment of clear policy principles for project review, recognizing that this may pose a risk that some program funds may not be obligated by the program's September 30, 2011 sunset date. We also believe you should consider working with Congress to reprogram loan guarantee funds for an extension of the Recovery Act's renewable grant program during the lame duck tax extenders debate. An expanded EDB, including Secretary Chu, will provide an opportunity to discuss the options described below with you tomorrow.

DISCUSSION

Background

The Recovery Act created two new programs to promote deployment of renewable power: the 1705 energy loan guarantee program and the 1603 grant in lieu of tax credit program.

1705 Energy Loan Guarantee Program: The Recovery Act appropriated about \$6 billion to enable the government to pay for the credit subsidies associated with loan guarantees for renewable energy (and related) projects. The credit subsidy can be thought of as the premium that must be paid for the insurance the government provides in guaranteeing the loan for a project. This program was intended to address concerns about tightening credit markets for renewable projects. It represents a modification of the existing 1703 loan guarantee program, which supports innovative technologies and covers renewables, nuclear, and advanced fossil. To date, the 1703 program has not received appropriations for credit

subsidies, thus requiring project developers to pay the government for the credit subsidy and thereby limiting the interest in the 1703 program among small renewable developers.¹

1603 Grant Program: Renewables developers may opt to convert the existing renewable investment tax credit, equal to 30 percent of a project's investment cost, into a grant. Before the financial crisis, renewable developers often partnered with large financials that had sizable taxable income and could use tax credits, i.e., provide "tax equity." This program addresses concerns about the capacity of the tax equity market for renewables through 2010.

Doubling Renewable Power Goal: Based on these Recovery Act programs, the Administration set a goal to double renewable power generation within three years. In 2009, the wind industry enjoyed its best year ever with nearly 10,000 megawatts of new installed capacity. Lawrence Berkley National Lab estimated that nearly one-quarter of this capacity would not have been built in the absence of the 1603 grant program. The 1705 loan guarantee program did not close any deals on renewable generation in 2009.

Summary of 1705 Loan Guarantee Program and 1603 Grant Program (through October 25)

	1705 Loan Guarantee	1603 Grant
Staff	100-200 FTE DOE staff and contractors	5 Treasury FTEs and 15 DOE FTEs
Determination of Receipt	Discretionary, reflecting deal characteristics and negotiations with sponsor	Standardized, subject to eligible technology entering into service
Typical length of review	6+ months	4-6 weeks
Program sunset date	September 30, 2011	December 31, 2010
Total number of projects (closed/conditional for 1705)	4 / 8	3,851
Number of wind power projects	1 / 1	203
Number of solar power projects	0 / 2	3,571
Number of geothermal power projects	1 / 1	23
Number of biomass power projects	0 / 0	25
Number of other technology projects	2 / 4	29
Number of states with supported projects	4 / 6	48 plus DC and PR
Total capacity installed (MW)	~80 / ~1,600	~8,600
Total investment supported	\$1.2 billion / \$7.6 billion	~\$18.2 billion

Note: Project sponsors for all power generation projects under the 1705 program have indicated that they intend to claim a 1603 grant once they enter into service.

¹ The 1703 program has made conditional commitments for the Southern Company's Vogtle nuclear power plant in Georgia and AREVA's Eagle Rock Enrichment Facility in Idaho.

Estimated Benefits of 1705 and 1603 to Renewables Developers: The combined effect of 1603 and 1705 lowers the cost of a new wind farm by about 55% and solar technologies by about half relative to a no-subsidy case (see appendix table 1). Renewables' intermittency problem limits the deployment of these technologies, which could be remedied by installing back-up capacity (likely increases the cost by 2 to 4¢/kWh). Past experience with the wind tax credit suggests that the 1603 grant and the associated tax credits could have a significant impact on new wind capacity. Appendix figure 1 shows (in shaded regions) the halt to new investment during the three times the wind tax credit expired since 1999.

Loan Guarantee Pipeline and Process: After receiving an application, DOE conducts extensive due diligence work on the technological, financial, credit, legal, contractual, environmental, and operational aspects of each project. This due diligence can take months to complete and often results in significant changes to the original transaction structure to mitigate identified risks. In addition to negotiating with the project sponsors, DOE also engages in a back-and-forth with OMB and Treasury, in particular after the deal package has been submitted for review. OMB review of DOE projects has averaged 28 calendar days since September 2009, and 17 business days for the 1 closing and 3 conditional commitments DOE has transmitted between August 1 and October 15 of this year. DOE notes that the back and forth consumes a significant amount of staff time, thereby making it challenging to move several transactions forward simultaneously. Policy review by Treasury and the White House has occasionally extended the amount of time a project is under review beyond the time taken by OMB to score a credit subsidy. Last week, DOE conducted an interagency preview of five projects, with the expectation that most of these could reach the conditional commitment stage within the next 4-8 weeks under the current review system. DOE currently has 35 projects in due diligence, and expects a significant number of new applications when two project solicitations close in the next few weeks. Since loan guarantee funds can only be obligated at closing, conditional commitments will need to occur in the first quarter of 2011 in order to close by September 30, 2011.

Legislative Implications

The Administration's approach to the renewable loan guarantee program and grants has implications for legislative activity, including the FY2011 appropriations (House mark is \$0, Senate mark is \$380 million for energy loan guarantee credit subsidies); the tax extenders bill in which some Members would like to extend the 1603 grant; and the FY2012 budget.

Risks Characterizing the Loan Guarantee Program

Rescission Risk: The 1705 loan guarantee program has been scaled back to about \$2.5 billion after reprogramming for Cash-for-Clunkers (May 2009) and the state aid package (August 2010). There has been recent interest in rescinding unobligated Recovery Act balances to pay for other programs. DOE has obligated about 2.5% of the \$2.5 billion in the 1705 program appropriations. An additional 9 projects have received 1705 conditional commitments, and if DOE closes these deals, the total obligations would be about \$500 - \$900 million.

Congressional Risk: Failing to make progress on renewables loan guarantees could upset the Hill (Sen. Bingaman, Speaker Pelosi), as well as renewables stakeholders, and draw criticism of the White House, which has been singled out as a roadblock on past loan guarantees.

Economic Risk: OMB and Treasury, which have statutory obligations to review 1705 loan guarantees, have raised implementation questions, including: “double dipping” – the total government subsidy for loan guarantee recipients, which have exceeded 60%; “skin in the game” – the relatively small private equity (as low as 10%) developers put into projects; and non-incremental investment – some loan guarantee projects would appear likely to move forward without the credit support offered by 1705 (including those projects that already exist and for which the loan guarantee simply provides a means for refinancing). See the appendix for an illustration of these issues with the Shepherds Flat project.

Energy Loan Guarantee Program Options

Option 1: Limit OMB and Treasury Oversight Role

In the current review process, after working with project sponsors for 6 to 18 months, DOE submits projects for review of the credit subsidy for conditional commitments and policy review by OMB and Treasury. DOE would prefer to eliminate the deal-by-deal review and instead have OMB and Treasury play roles akin to what they do for other credit programs, such as OPIC and Ex-Im Bank. It should be noted, however, that OPIC and Ex-Im credit programs have a long track record; OMB was more involved in the review of these programs in their early years; and they have boards with representation by other Federal agencies, including Treasury, that review and approve all major projects. DOE would make initial credit subsidy estimates at the conditional commitment stage, and OMB would only review and approve of the credit subsidy used at the time of closing on a deal.

Pros

- Some Members of Congress may applaud this effort, *if* it results in a meaningful increase in the rate of granting conditional commitments to energy projects.

Cons

- Still exposes 1705 program to rescission risk until DOE can move through its pipeline a lot more conditional commitments – up to twice as many in the next few months as have been made in first 20 months of the program.
- OMB believes that this approach will not remedy the challenge of an insufficient number of financially and technically viable projects in the 1705 pipeline.
- The economic risks will not likely be addressed.

Option 2: Make the Process Work Better by Establishing Clear Policy Principles

Treasury and OMB believe that clear policy principles – and associated metrics for evaluation – should be developed for the energy loan guarantee program. These principles would be applied to all projects and address issues like doubling dipping, skin in the game, and incrementality of investment (including refinancing). Those proposed loan guarantee projects that have satisfactory measures under each of the key policy principles would then be expedited through review. Those that do not would require more extensive policy review

and possible rejection. It is important to recognize that under such an approach, there is a risk that not all of the 1705 appropriation of \$2.5 billion will be obligated by the program's sunset of September 30, 2011.

Pros

- Ensures the economic integrity of government support for renewables.

Cons

- Exposes the program to rescission risk through September 30, 2011.
- Some Members of Congress may criticize this effort to limit the application of the loan guarantee program. The White House will bear this criticism.

Option 3: Reprogram 1705 Funds for an Extension of 1603 Grant Program

The 1603 grant program expires on December 31, although the associated tax credits that could be converted into grants under this program do not sunset until December 31, 2012. A 2-year extension of the 1603 grant program through the sunset of the associated tax credits has a \$2.5 billion tax score. The Administration could work with Congress during the lame duck on the tax extenders bill to reprogram the 1705 funds to pay for the 1603 extension. As a variant of this option, the funds could be reprogrammed to support other clean energy priorities, such as the 48C clean energy manufacturing tax credit.

Pros

- Moves funds to the 1603 program that has been much more effective in promoting renewable energy, and likely to have a more significant impact on renewable energy investment in 2011 and 2012.
- Reduces economic risks and the rescission risks identified above.

Cons

- Sen. Bingaman, who views 1705 as "his program," would strongly oppose.
- Could signal the failure of a Recovery Act program that has been featured prominently by the Administration.
- The reprogramming effort entails the risk that Congress accepts the 1705 rescission but fails to deliver the 1603 extension.

Option 4: Streamline and Accelerate OMB / Treasury Reviews with Project Prioritization

OVP supports an option that falls in possible middle ground between options 1 and 2. This approach would create an expedited deal review process, while not doing away with Treasury and OMB reviews altogether. One option to be explored would be to assign higher credit subsidy scores in order to reach faster agreement on the government's risk tolerance and to more quickly utilize the \$2.5 billion in appropriated funds. In addition, this approach could prioritize deals with more favorable policy characteristics (e.g., deals with lower total government subsidies). This option would prevent the holding of the loan guarantee program to a more rigorous policy standard in awarding stimulus funds than other Recovery Act programs. The focus would be on spending all remaining funds while maintaining the necessary risk avoidance and *prioritizing* policy issues where possible.

Pros:

- Parties with equities, including Hill members and industry groups, would view the Administration as supporting a program that they have spent political capital defending.
- This would be an attempt to fix a broken process, as opposed to a complete and unexpected overhaul which could engender criticism.

Cons:

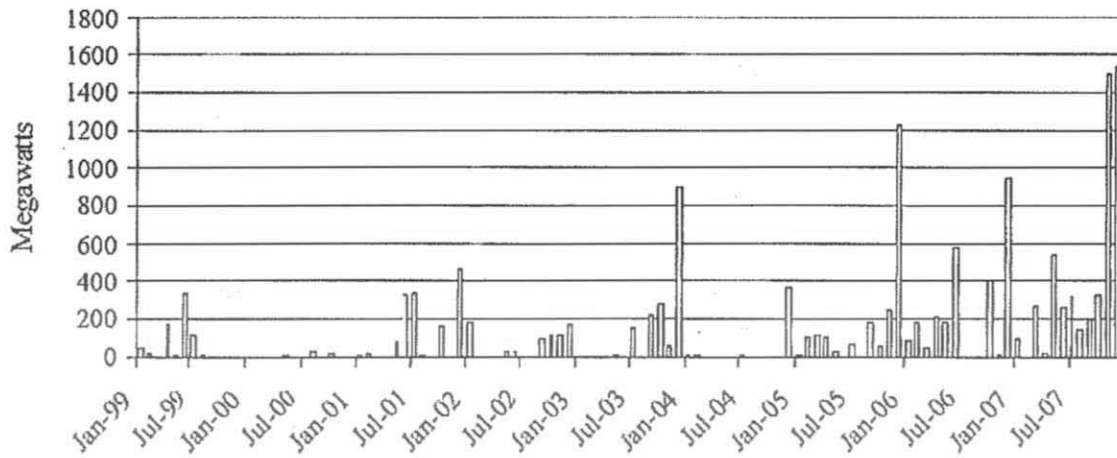
- DOE, OMB, and Treasury have tried to reach common ground on which to execute the program to date, and success has been limited.
- In order to spend the remaining budget authority, the policy principles may be so lax that this option may resemble Option 1 in practice.

Appendix Table 1: Cost of Generating Power from New Capacity Investment by Technology Type, ¢/kWh

	Natural Gas	Wind	Solar Thermal
No Subsidy Cost	7.3	8.8	23.2
Cost with 1603	7.3	6.7	16.0
Cost with 1603 and 1705	7.3	4.0	12.6

Source: DOE Energy Information Administration 2010.

Appendix Figure 1: U.S. Wind Capacity Additions and Periods of No Wind Tax Credit (shaded), 1999-2007



Source: Metcalf 2009 using DOE Energy Information Administration data.

Appendix: Shepherds Flat Loan Guarantee

The Shepherds Flat loan guarantee illustrates some of the economic and public policy issues raised by OMB and Treasury. Shepherds Flat is an 845-megawatt wind farm proposed for Oregon. This \$1.9 billion project would consist of 338 GE wind turbines manufactured in South Carolina and Florida and, upon completion; it would represent the largest wind farm in the country. The sponsor's equity is about 11% of the project costs, and would generate an estimated return on equity of 30%.

- Double dipping: The total government subsidies are about \$1.2 billion.

Subsidy Type	Approximate Amount (millions)
Federal 1603 grant (equal to 30% investment tax credit)	\$500
State tax credits	\$18
Accelerated depreciation on Federal and State taxes	\$200
Value of loan guarantee	\$300
Premium paid for power from state renewable electricity standard	\$220
Total	\$1,238

- Skin in the game: The government would provide a significant subsidy (65+%), while the sponsor would provide little skin in the game (equity about 10%).
- Non-incremental investment: This project would likely move without the loan guarantee. The economics are favorable for wind investment given tax credits and state renewable energy standards. GE signaled through Hill staff that it considered going to the private market for financing out of frustration with the review process. The return on equity is high (30%) because of tax credits, grants, and selling power at above-market rates, which suggests that the alternative of private financing would not make the project financially non-viable.
- Carbon reduction benefits: If this wind power displaced power generated from sources with the average California carbon intensity, it would result in about 18 million fewer tons of CO2 emissions through 2033. Carbon reductions would have to be valued at nearly \$130 per ton CO2 for the climate benefits to equal the subsidies (more than 6 times the primary estimate used by the government in evaluating rules).