

Department of Energy Loan Guarantee Program: Status Update on Proposed, Pending, and Final Applicants



August 2013

Passed as part of the Energy Policy Act of 2005, the Department of Energy's (DOE) Title XVII Loan Guarantee Program currently has \$34.8 billion¹ in taxpayer-backed authority to award loan guarantees to various energy technologies.² Additionally, a section of the program created in the Stimulus had approximately \$2.4 billion in American Reinvestment and Recovery Act funds to pay for the credit subsidy cost for renewable and energy efficiency projects, but those funds expired on September 30, 2011.

To date, the DOE has finalized guarantees for more than \$15 billion in loans and offered conditional commitments for another \$10.3 billion in guarantees for projects that are considered 'active' by DOE today.³ Further, DOE is actively reviewing nine applications totaling \$4.8 billion for additional projects that could be offered conditional commitments.⁴

In its nine solicitations for projects, the DOE loan programs office has received a total of 460 applications with a median requested loan amount of \$141 million—and a high of \$12 billion to support the development of a nuclear power plant.⁵ Project applicants can apply to receive loan guarantees provided in various pools of authority set aside by Congress within the Energy Policy Act of 2005. These include renewable energy systems, advanced fossil energy technologies, hydrogen fuel cell technologies, advanced nuclear energy facilities, carbon capture and sequestration technologies, energy transmission and distribution technologies, energy efficiency technologies, production of high fuel economy vehicles, pollution control equipment, and oil and gas refineries.⁶

Below is a list of those applicants, separated by energy sector, which have received conditionally committed or finalized loans. Also included below are companies that are in the process of applying for a loan guarantee and companies which have withdrawn from the program or defaulted on their loan guarantee..

Nuclear Power Facilities

Current DOE loan guarantee authority for the financing of nuclear projects is set at **\$18.5 billion** with an additional \$4 billion now identified for uranium enrichment (see front-end nuclear cycle below).¹ President Obama has requested more. In both his FY2011 and FY2012 budgets, he included an additional \$36 billion in loan guarantee authority for nuclear reactors.



In late 2009 and early 2010, reports indicated that the final contenders for the first nuclear loan guarantee were: UniStar Nuclear Energy, SCANA Energy, Southern Company, and NRG

¹ \$4 billion in earmarked funds and \$2 billion transferred from funds appropriated in 2007 for any technology.

Energy. Despite setbacks and uncertainties, DOE offered the first conditional commitment to Georgia Power Company (subsidiary of Southern Company) and its utility partners to build a pair of new reactors in February 2010.

Table 1: Nuclear Power Facility Loan Guarantees

Loan Guarantee Recipient	Technology	Location	Loan Guarantee Allotment	Status	Date of Conditional Commitment	Date Finalized, Accepted
Georgia Power Company (Plant Vogtle Reactors 3&4)	Nuclear Generation	Waynesboro, GA	\$3,460,000,000	Conditional Commitment	February 2010	TBD
MEGA (Plant Vogtle Reactors 3&4)	Nuclear Generation	Waynesboro, GA	\$1,809,000,000	Conditional Commitment	February 2010	TBD
Oglethorpe Power Corp. (Plant Vogtle Reactors 3&4)	Nuclear Generation	Waynesboro, GA	\$3,057,000,000	Conditional Commitment	February 2010	TBD

Front-End Nuclear Fuel Cycle

Congress has appropriated \$2 billion in loan guarantee authority for Front-End Nuclear Fuel Cycle technology, and the Department of Energy further allocated \$2 billion in loan guarantee authority from previously unallocated funds passed by Congress in 2007, leaving **\$4 billion** available for uranium enrichment projects.⁷ In May 2010, \$2 billion was conditionally offered to French-based AREVA for a uranium enrichment center, pending receipt of the project’s licenses and other publically undisclosed criteria determined by DOE. Just over a year later, AREVA received its license from the Nuclear Regulatory Commission but the \$2 billion loan guarantee has yet to be finalized. The project continues to experience financial troubles.

A second uranium enrichment applicant, the United States Enrichment Corporation (USEC), originally appeared to be the front runner for the first uranium enrichment loan guarantee. However, USEC’s loan guarantee has yet to be committed and is still under review after almost being abandoned because of financial reasons.

Table 2: Front-End Nuclear Fuel Cycle Loan Guarantees

Loan Guarantee Recipient	Technology	Location	Loan Guarantee Allotment	Status	Date of Conditional Commitment	Date Finalized, Accepted
AREVA (Eagle Rock Enrichment Facility)	Front-end Nuclear Fuel Cycle	Idaho Falls, ID	\$2,000,000,000	Conditional Commitment	May 2010	TBD

Coal-Based Power Generation and Advanced Coal Gasification

Currently, no coal-based projects have been awarded a conditional commitment or finalized loan from DOE, though several companies are currently under review. Congress has approved **\$6 billion** in authority for Coal-based Power Generation and Industrial Gasification and **\$2 billion** for Advanced Coal Gasification. This includes such technologies as coal-to-liquid, or converting coal into a liquid fuel

through the Fischer Tropsch Process, and coal gasification. In 2008, DOE held a solicitation for fossil applicants. In response, eight companies applied including:

- Medicine Bow Fuel & Power LLC
- Christian County Generation LLC
- Mississippi Gasification LLC
- Indiana Gasification LLC
- Beard Energy
- TX Energy LLC
- MEP-I LLC
- Mississippi Power Company

As of January 2013, only one fossil fuel applicant remains ‘active’ within the loan guarantee program. As reported by DOE, the undisclosed applicant intends to construct a coal gasification facility with carbon capture and sequestration technology and has requested a loan guarantee amount of \$2.8 billion. The remaining seven applicants have been deemed ‘inactive’ by the Department of Energy.

Renewable and Energy Efficiency

The most active area of the loan guarantee program has been with the renewable and/or energy efficient systems manufacturing and distributed energy generation, transmission and distribution portion of the program. This sector currently has **\$1.5 billion** available in loan guarantee authority in addition to \$170 million allocated for credit subsidy funds. Solar, wind, geothermal, and various energy efficiency technologies have received finalized loans, while other energy alternatives are also under review. In April 2011, Congress decreased the budget authority cap for renewable projects and shifted \$170 million to credit subsidy funds. Additionally, as part of the American Recovery and Reinvestment Act of 2009, about \$2.4 billion in credit subsidy funds were earmarked specifically for renewable technologies under the DOE program. Those credit subsidy funds expired on September 30, 2011. But before the program fund expired, 30 loan applications were finalized and an unknown amount of pending applications were moved to the 1703 program. As of January 2013, eight applications totaling \$4.8 billion for renewable and energy efficiency loan guarantees under the 1703 program are being reviewed by DOE for conditional commitments.⁸



Table 3: Finalized Renewable and Energy Efficiency Loan Guarantees – Section 1705

Loan Guarantee Recipient	Technology	Location	Loan Guarantee Allotment	Date of Conditional Commitment	Date Finalized, Accepted
Solyndra, Inc.	Solar Manufacturing	Fremont, CA	\$535,000,000	20-Mar-09	4-Sep-09
Abound Solar Manufacturing	Solar Manufacturing	Longmont, CO Tipton, IN	\$400,000,000	2-Jul-10	9-Dec-10
SoloPower	Solar Manufacturing	Portland, OR	\$197,000,000	17-Feb-11	19-Aug-11
1366 Technologies, Inc.	Solar Manufacturing	Lexington, MA	\$150,000,000	17-Jun-11	8-Sept-11
NRG Energy, Inc. (Ivanpah 1)	Solar Generation	Oakland, CA Baker, CA	\$520,000,000	22-Feb-10	11-Apr-11
NRG Energy, Inc. (Ivanpah 2)	Solar Generation	Oakland, CA Baker, CA	\$551,000,000	22-Feb-10	11-Apr-11
NRG Energy, Inc. (Ivanpah 3)	Solar Generation	Oakland, CA Baker, CA	\$556,000,000	22-Feb-10	11-Apr-11

Abengoa Solar, Inc. (Solana)	Solar Generation	Gila Bend, AZ	\$1,446,000,000	2-Jul-10	20-Dec-10
NRG Solar, LLC (Agua Caliente)	Solar Generation	Yuma County, AZ	\$967,000,000	20-Jan-11	5-Aug-11
NRG Solar (California Valley Solar Ranch)	Solar Generation	San Luis Obispo, CA	\$1,237,000,000	12-Apr-11	30-Sept-11
Cogentrix of Alamosa, LLC.	Solar Generation	Alamosa, CO	\$90,600,000	10-May-11	9-Sept-11
SolarReserve, LLC (Crescent Dunes)	Solar Generation	Nye County, NV	\$737,000,000	19-May-11	28-Sept-11
Abengoa Solar, Inc. (Mojave Solar)	Solar Generation	San Bernardino County, CA	\$1,202,000,000	14-Jun-11	23-Sept-11
NextEra Energy Resources, LLC (Genesis Solar)	Solar Generation	Riverside County, CA	Partial Guarantee of \$852,000,000	14-Jun-11	26-Aug-11
Mesquite Solar 1, LLC (Sempra Mesquite)	Solar Generation	Maricopa County, AZ	\$337,000,000	15-Jun-11	28-Sept-11
Prologis (Project Amp)	Solar Generation	28 States	Partial Guarantee of \$1,400,000,000	22-Jun-11	30-Sept-11
Exelon (Antelope Valley Solar Ranch)	Solar Generation	Lancaster, CA	\$646,000,000	30-Jun-11	30-Sept-11
NextEra Energy Resources, LLC (Desert Sunlight)	Solar Generation	Riverside County, CA	Partial Guarantee of \$1,460,000,000	30-Jun-11	30-Sept-11
Kahuku Wind Power, LLC	Wind Generation	Kahuku, Oahu, HI	\$117,000,000	18-Feb-10	26-Jul-10
Caithness Shepards Flat	Wind Generation	Gilliam and Morrow Counties, OR	Partial Guarantee of \$1,300,000,000	8-Oct-10	16-Dec-10
Record Hill Wind	Wind Generation	Roxbury, ME	\$102,000,000	3-Mar-11	15-Aug-11
Granite Reliable	Wind Generation	Coos, NH	Partial Guarantee of \$168,900,000	21-Jun-11	23-Sept-11
U.S. Geothermal, Inc.	Geothermal	Malheur County, OR	\$96,800,000	9-Jun-10	23-Feb-11
Nevada Geothermal Power Company, Inc. (Blue Mountain)	Geothermal	Humboldt County, NV	Partial Guarantee of \$98,500,000	15-Jun-10	3-Sep-10
Ormat Nevada, Inc.	Geothermal	Jersey Valley, McGinness Hills, and Tuscarora, NV	Partial Guarantee of \$350,000,000	9-Jun-11	23-Sept-11
Beacon Power	Energy Storage	Stephentown, NY	\$43,000,000	2-Jul-09	6-Aug-10
LS Power Associates (ON Line)	Transmission	Ely to Las Vegas, NV	\$343,000,000	19-Oct-10	11-Feb-11
Abengoa Bioenergy Biomass of Kansas LLC	Biofuel	Hugoton, KS	\$132,400,000	19-Aug-11	29-Sept-11
POET, LLC (Project Liberty)	Biomass	Emmetsburg, IA	\$150,000,000	7-Jul-11	23-Sept-11

AES Energy Storage, LLC (Project Dyno)	Transmission	Johnson City, NY	\$17,000,000	30-Jul-10	22-Dec-10
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*Source: U.S. Department of Energy Loan Programs Office <http://ow.ly/dBmwo>

Defaulted Companies

Since the first DOE loan guarantee was finalized in September 2009, three companies have defaulted. Below you can find a list of these companies and information regarding their defaults.

Solyndra Inc. was a solar panel manufacturer that received the first Department of Energy (DOE) loan guarantee in September 2009. First the DOE restructured their loan guarantee in early 2011 when Solyndra didn't have the funds to start paying their loan off on their agreed schedule. Then the DOE allowed Solyndra to accept \$75 million worth of new capital that would jump in line in front of taxpayers in the event of a default. On August 31st 2011, the company filed for bankruptcy after spending \$528 million of its \$535 million loan guarantee. The company was under investigation by the FBI and House Energy and Commerce Committee for 18 months. It is currently unclear how much of the loan guarantee taxpayers will ultimately lose.

Beacon Power Corporation, an energy storage company in Stephentown, NY, became the second loan guarantee recipient to file for bankruptcy after Solyndra. On August 9th 2010, Beacon Power received a \$43 million loan guarantee from the DOE to finance the construction of its 20 megawatt 'flywheel' energy storage plant.⁹ Currently, Beacon Power is still operating with an accumulated deficit of \$229 million and its 65 employees are taking a 20% pay cut to retain their jobs.¹⁰ On February 3rd 2012, Rockland Capital, an energy-focused private equity firm, made a \$30 million bid to purchase the remaining assets of Beacon Power Corporation.^{11,12} Pending final approval from the Federal Energy Regulatory Commission, Rockland will also adopt a \$25 million promissory note to the federal government. In general, DOE officials say federal taxpayers will lose roughly 30 percent of the initial \$43 million investment.¹³

Abound Solar Manufacturing, LLC, a solar manufacturing company based in Longmont, Colorado, recently became the third loan guarantee recipient to file for bankruptcy. On December 9th 2010, Abound was awarded a \$400 million loan guarantee for the construction of two solar panel manufacturing facilities in Colorado and Indiana.¹⁴ Of the \$400 million loan guarantee, Abound had drawn down \$68 million when the company ceased all operations on June 28th 2012 and soon after filed for bankruptcy on July 2, 2012.^{15,16} It is currently unclear how much federal funds taxpayers will ultimately lose at this point.

Table 4: Defaulted Loan Guarantees

Loan Guarantee Recipient	Technology	Location	Loan Guarantee Allotment	Date Finalized, Accepted
Solyndra, Inc.	Solar Manufacturing	Fremont, CA	\$535,000,000	4-Sep-09
Beacon Power	Energy Storage	Stephentown, NY	\$43,000,000	9-Aug-10
Abound Solar Manufacturing	Solar Manufacturing	Longmont, CO Tipton, IN	\$400,000,000	14-Dec-10

For more information, please visit www.taxpayer.net
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- ¹ Loan guarantee authority includes a \$34 billion spending cap in addition to DOE's estimate of \$848 million in additional loan guarantees that can be provided through \$170 million appropriated to pay credit subsidy costs
- ² Revised Continuing Resolution, 2007. Pub. L. no. 110-5. 121 Stat 8 (2007), Consolidated Appropriations Act, 2008, Pub. L. no. 110-161, 121 Stat 1844 (2007), Omnibus Appropriations Act, 2009, Pub. L. no. 111-8, 123 Stat 524 (2009)
- ³ U.S. Government Accountability Office. "Status of Loan Programs." March 2013. <http://www.gao.gov/assets/660/653064.pdf>
- ⁴ U.S. Government Accountability Office. "Status of Loan Programs." March 2013. <http://www.gao.gov/assets/660/653064.pdf>
- ⁵ *Government Accountability Office*, "Further Actions Are Needed to Improve Tracking and Review of Applications." March 2012. <http://www.gao.gov/assets/590/589210.pdf>
- ⁶ "Title XVII Incentives for Innovative Technologies" within the Energy Policy Act of 2005. <https://lpo.energy.gov/wp-content/uploads/2010/09/EPA2005TitleXVII.pdf>
- ⁷ *Department of Energy*. "DOE Offers Conditional Loan Guarantee for Front End Nuclear Facility in Idaho." May 20, 2010. <http://www.energy.gov/news/8996.htm>
- ⁸ U.S. Government Accountability Office. "Status of Loan Programs." March 2013. <http://www.gao.gov/assets/660/653064.pdf>
- ⁹ *Beacon Power Corporation*. "2010 Annual Financial Report." 2011. http://files.shareholder.com/downloads/BCON/1492469759x0x479051/63504917-5293-4BB1-A951-65695A3A2E49/2010_Annual_Print_FINAL_BCON.pdf
- ¹⁰ *Ibid.*
- ¹¹ *Rockland Capital*. "Beacon Power Assets to Be Sold to Rockland Capital." February 2012. <http://www.rocklandcapital.com/newsmedia.htm>
- ¹² *Associated Press*. "Judge OKs sale of Beacon Power to equity firm." February 7, 2012. <http://online.wsj.com/article/AP310fc23d77ed4664a97864c135b1b117.html>
- ¹³ *Ibid.*
- ¹⁴ *Department of Energy*. "Department of Energy Closes \$400 Million Loan Guarantee for State of the Art Solar Manufacturing in Indiana and Colorado." December 14, 2010. <http://energy.gov/articles/department-energy-closes-400-million-loan-guarantee-state-art-solar-manufacturing-indiana>
- ¹⁵ *Abound Solar*. "Abound Solar to Suspend Operations." June 28, 2012. <http://www.abound.com/abound%C2%AE-solar-suspend-operations>
- ¹⁶ *Reuters*. "Abound Solar files to liquidate in bankruptcy." July 3, 2012. <http://in.reuters.com/article/2012/07/02/us-aboundsolar-bankruptcy-idINBRE86118020120702>