

Analysis of DOE Loan Program - 2011

Author: David Douglas

Email: nearwalden (gmail)

Website: <http://www.nearwalden.com>

Source: [https://lpo.energy.gov/?page\\_id=45](https://lpo.energy.gov/?page_id=45)

**Program 1703**

Awarded Company	Ownership, Customer, Investor and Lender Notes	Loan Amount (\$M)	Partial Guarantee?	Status	Description	Investment Area	Technology Category	Project Timezone
AREVA		\$2,000		Conditional Commitment	(S)upport the Eagle Rock Enrichment Facility in Idaho Falls, Idaho. The project will supply uranium enrichment services.	Fuels production	Nuclear	West
Georgia Power Company	Wholly owned subsidiary of Southern Company	\$8,330		Conditional Commitment	(C)onstruction and operation of two new nuclear reactors at a plant in Waynesboro, Georgia.	Electricity generation	Nuclear	East
Red River Environmental Products, LLC	Wholly owned subsidiary of ADA Environmental Solutions	\$245		Conditional Commitment	(B)uild an activated carbon manufacturing facility near Coushatta, Red River Parish, Louisiana.	Manufacturing plant	Coal	Central
Sage Electrochromics, Inc	Saint Gobain Glass is half owner	\$72		Conditional Commitment	(C)onstruction and operation of a facility to produce SageGlass, an energy-saving window technology for commercial use.	Manufacturing plant	Buildings	Central
	Total	\$10,647	4					

**Program 1705**

Awarded Company	Ownership, Customer, Investor and Lender Notes	Loan Amount (\$M)	Partial Guarantee?	Status	Area	Investment Area	Technology Category	Project Timezone
1366 Technologies, Inc.	Investors: South Korean Hanwha Chemical, Ventizz Capital Fund, North Bridge Venture Partners and Polaris Venture Partners, et al.	\$150		Closed	(R)educe silicon waste and dramatically cut the cost of solar power	Manufacturing plant	Solar	East
Abengoa Bioenergy Biomass of Kansas LLC	Parent company is Abengoa Bioenergy US Holding, Inc, a wholly owned subsidiary of Abengoa	\$132.40		Closed	(D)evelopment of a commercial-scale cellulosic ethanol plant	Fuels production	Biofuels	Central
Abengoa Solar, Inc. (Mojave Solar)	Wholly owned subsidiary of Abengoa; PPA with Pacific Gas and Electric Company	\$1,200		Closed	(P)roduce 250 MW of power and will be the first U.S. utility-scale deployment of Abengoa's latest Solar Collector Assembly (SCA)	Generation plant	Solar	West
Abengoa Solar, Inc. (Solana)	Wholly owned subsidiary of Abengoa; PPA with Arizona Public Service Company	\$1,446		Closed	Solana Project, which has a net capacity of 250 megawatts and will deliver enough electricity to meet the annual needs of approximately 80,000 Arizona households.	Generation plant	Solar	West
Abound Solar	Investors: DCM, Invus Group, GLG Partners, Technology Partners, and Bohemian Companies, et al	\$400		Closed	(M)anufacture state-of-the-art thin-film solar panels.	Manufacturing plant	Solar	Mountain, Central
AES Energy Storage, LLC	Wholly owned subsidiary of AES Corporation	\$17.1		Closed	(B)uild a 20 megawatt energy storage system in Johnson City, New York.	Grid operation	Grid	East
Beacon Power Corporation ***Bankrupt***		\$43		Closed	(S)upport the construction of its 20 megawatt innovative flywheel energy storage plant in Stephentown, New York.	Grid operation	Grid	East

BrightSource Energy, Inc.	Investors: Google.org, BP Alternative Energy, Morgan Stanley, DBL Investors, Draper Fisher Jurvetson, Chevron Technology Ventures, Statoil Venture, and Black River; PPA with Pacific Gas & Electric and Southern California Edison Company (SCE)	\$1,600		Closed	(W)ill nearly double the generation capacity of concentrated solar in the U.S.	Generation plant	Solar	West
Caithness Shepherds Flat	Investors: led by Citi, as lender-applicant and joint lead arranger, with the Bank of Tokyo-Mitsubishi UFJ, Ltd., RBS Securities and WestLB Securities Inc.	\$1,300	Yes	Closed	(W)ill finance the Caithness Shepherds Flat wind project, an 845 megawatt wind-powered electrical generating facility located in eastern Oregon	Generation plant	Solar	West
Cogentrix of Alamosa, LLC.	Wholly owned subsidiary of Goldman Sachs; PPA with Public Service Company of Colorado	\$90.60		Closed	(S)upport one of the first utility scale, high concentration photovoltaic energy generation facilities in the U.S. and the largest of its kind in the world.	Generation plant	Solar	Mountain
Exelon. (Antelope Valley Ranch)	PPA with Pacific Gas & Electric Company	\$646		Closed	(W)ill feature a utility-scale deployment of innovative inverters with voltage regulation and monitoring technologies that are new to the U.S. market.	Generation plant	Solar	West
Granite Reliable	Brookfield Asset Management and Freshet (Wagner Forest); PPA with Central Vermont Public Service and Green Mountain Power; lender is WestLB AG	\$168.90	Yes	Closed	(W)ill annually produce 99 MW of power	Generation plant	Wind	East
Kahuku Wind Power, LLC.	Wholly owned subsidiary of FirstWind	\$117		Closed	(C)onstruction and start-up of an innovative 30 megawatt wind energy project	Generation plant	Wind	Hawaii
LS Power Associates (ON Line)	jointly owned by Great Basin Transmission South, LLC and NV Energy	\$343		Closed	(D)evelop the first phase of a line that will carry approximately 2,000 MW of electricity.	Grid operation	Grid	West
Mesquite Solar 1, LLC (Sempra Mesquite)	Owned by Sempra Energy; PPA with Pacific Gas & Electric Company	\$337		Closed	(P)roduce 170 MW of power and will be one of the first large-scale photovoltaic power plants in the U.S.	Generation plant	Solar	West
Nevada Geothermal Power Company, Inc.	Lender: John Hancock Financial Services; PPA with Nevada Power	\$98.50	Yes	Closed	(B)uild the Blue Mountain Geothermal project	Generation plant	Geothermal	West

NextEra Energy Resources, LLC (Desert Sunlight)	Wholly owned subsidiary of NextEra Energy; PPA with Phase Pacific Gas & Electric Company and Southern California Edison; lenders are Goldman Sachs and Citi	\$1,460		Closed	(E)xpected to generate enough electricity to power over 110,000 homes and will avoid over 735,000 metric tons of carbon dioxide annually.	Generation plant	Solar	West
NextEra Energy Resources, LLC (Genesis)	Wholly owned subsidiary of NextEra Energy; PPA with Pacific Gas and Electric Company; lender is Credit Suisse	\$852	Yes	Closed	(P)roduce enough electricity to power over 48,000 homes	Generation plant	Solar	West
NRG Energy (California Valley Solar Ranch)	PPA with Pacific Gas & Electric	\$1,237		Conditional Commitment	(S)upport construction of a 250 MW alternating current PV solar generating facility	Generation plant	Solar	West
NRG Solar LLC (Aqua Caliente)	NRG Energy	\$967		Closed	(S)upport the construction of a 290 MW solar generation facility	Generation plant	Solar	West
Ormat Nevada, Inc.	Ormat Industries, LTD; PPA with Nevada Power Company; lender is John Hancock Life Insurance	\$350	Yes	Closed	(P)roduce 121 MW of baseload power from three geothermal power facilities and increase geothermal production in Nevada by nearly 25 percent.	Generation plant	Geothermal	West
POET, LLC.		\$105		Closed	(D)evelopment of the nation's first commercial-scale cellulosic ethanol plant in Iowa	Fuels production	Biofuels	Central
Prologis (Project Amp)	NRG Energy (Phase 1 lead investor); PPA with Southern California Edison (Phase 1); lender is Bank of America Merrill Lynch	\$1,400	Yes	Conditional Commitment	(I)nstallation of approximately 752 MW of PV solar panels	Distributed generation	Solar	Countrywide
Record Hill Wind	Major investment by Yale University Endowment. Developed and managed by Wagner Wind Energy, LLC (aka Wagner Forest) and Independence Wind, LLC	\$102		Closed	(S)upport the a 50.6 megawatt wind power plant and an eight mile transmission line and associated interconnection equipment near the town of Roxbury, Maine.	Generation plant	Wind	East
Solar Reserve, LLC	Founded by technology from United Technologies and investment from US Renewables Group; PPA with NV Energy	\$737		Conditional Commitment	(S)upport a 110 MW molten salt concentrated solar power tower generating facility with over 10 hours of thermal energy storage.	Generation plant	Solar	West
SoloPower	Investors: Convexa Capital, Spencer Energy and Scatec (Series B)	\$197		Closed	(R)etrofit of an existing building to operate a thin-film solar panel manufacturing facility in Wilsonville, OR	Manufacturing plant	Solar	West
Solyndra Inc. **BANKRUPT**		\$535		Closed	finance construction of the first phase of the company's new solar manufacturing facility in Fremont, California.	Manufacturing plant	Solar	West
US Geothermal, Inc.	PPA to Idaho Power Company	\$97		Closed	(P)roject that uses a geothermal supercritical binary cycle to generate electricity.	Generation plant	Geothermal	West
	Total	\$16,129	28					

#### ATVM Program

Awarded Company	Ownership, Customer, Investor and Lender Notes	Loan Amount (\$M)	Partial Guarantee?	Status	Area	Investment Area	Technology Category	Project Timezone
Fisker Automotive	Investors: Kleiner Perkins Caufield & Byers, Qatar Holdings, LLC, A123 Systems, Ace Investments, etc.	\$529		Closed	(D)evelopment and production of two lines of plug-in hybrid electric vehicles	Manufacturing plant	Automobile	East

Ford Motor Company		\$5,907		Closed	(U)pgrade factories across Illinois, Kentucky, Michigan, Missouri, and Ohio and to introduce new technologies that will raise the fuel efficiency of more than a dozen popular vehicles.	Manufacturing plant	Automobile	Central, East
Nissan North America, Inc.		\$1,448		Closed	(R)etool (Nissan's) Smyrna, Tennessee assembly plant to manufacture all-electric automobiles in addition to existing Nissan vehicles, and to construct an advanced battery manufacturing facility	Manufacturing plant	Automobile	Central
Severstal Dearborn, LLC	Severstal	\$730		Conditional Commitment	(M)odernization of existing facilities in Dearborn, Michigan, in addition to the design, manufacture, and construction of new facilities to produce the next generation of automotive advanced high strength steel (AHSS).	Manufacturing plant	Automotive steel	Central
Tesla Motors		\$465		Closed	(1) reopen an auto manufacturing plant in Fremont, California to produce specially-designed, all-electric, plug-in vehicles, and (2) to develop a manufacturing facility to produce battery packs, electric motors and other powertrain components that will power all-electric plug-in vehicles manufactured by Tesla and other original equipment manufacturers	Manufacturing plant	Automobile	West
The Vehicle Production Group LLC		\$50		Closed	(S)upport the development of the six-passenger MV-1, a factory-built wheelchair accessible vehicle that will run on compressed natural gas	R&D	Automobile	East
	Total	\$9,129	6					
	Total	\$35,905	38					
	Average	\$944.86						
			Company location					
					US		29	\$28,331
					Foreign		9	\$7,574
			Business type					
					Electricity generating plant		20	\$22,536
					Grid infrastructure		3	\$403
					Manufacturing plant		11	\$10,678
					Fuel production plant		3	\$2,237
					R&D		1	\$50
			Project timezone					
					East		8	\$9,390
					Central		6	\$2,732
					Mountain		1	\$91
					West		19	\$15,868
					Hawaii		1	\$117
					Multi-region		3	\$7,707
			Technology					
					Solar		17	\$14,555
					Wind		3	\$388

	Geothermal	3	\$546	
	Grid	3	\$403	
	Biofuels	2	\$237	
	Vehicles	6	\$9,129	
	Nuclear	2	\$10,330	
	Coal	1	\$245	
	Buildings	1	\$72	
Loan size	< \$100M	7	\$468	
	\$100M - \$199M	7	\$972	
	\$200M - \$299M	1	\$245	
	\$300M - \$399M	3	\$1,030	
	\$400M - \$499M	2	\$865	
	\$500M - \$599M	2	\$1,064	
	\$600M - \$699M	1	\$646	
	\$700M - \$799M	2	\$1,467	
	\$800M - \$899M	1	\$852	
	\$900M - \$999M	1	\$967	
	Total < \$1B	27	\$8,577	
	\$1B - \$1.99B	8	\$11,091	
	\$2B - \$3B	1	\$2,000	
	\$5B - \$6B	1	\$5,907	
	\$8B - \$9B	1	\$8,330	
Revenue	< \$100M	14	\$ 3,593	includes pre and
	\$100M - \$999M	3	\$686	
	\$1B - \$9.99B	7	\$6,719	
	\$10B - \$99.9B	8	\$14,204	
	> \$100B	3	\$7,698	
	unknown	3	\$3,005	have revenue, bi
Largest	Georgia Power		\$ 8,330.00	23.2%
	AES		\$17.10	0.05%
Smallest	Solyndra		\$535	
	Beacon Power		43	
Bankrupt	Total		\$578	1.6%
	Risky	9	\$3,546.50	
	Solar Generation	12	\$13,272.60	

Public?	Foreign?	Founded	Employees	Annual Revenue (M)	Financial Notes	Risk?	New Jobs	Saved Jobs	Construction jobs	URL
Euronext: CEI	Y	2001 (merger)	47K	9,000 €	Established, 47K employees			310	1000	<a href="http://www.aveva.com/">http://www.aveva.com/</a>
NYSE: SO	N	1945	26K	\$17,500	Established, 8.3K employees			800	3500	<a href="http://www.georgiapower.com/">http://www.georgiapower.com/</a>
NasdaqCM: ADES	N	1996	81	\$117	Market cap: \$117M, Cash: \$42M As of 2010, more than \$50M in investment, sold half in 2010 to St. Gobain	X	70		500	<a href="http://www.adaes.com/index.html">http://www.adaes.com/index.html</a>
N 3	N 1	1989	100	unknown			160 1340		210 5210	<a href="http://www.sage-ec.com/">http://www.sage-ec.com/</a>

Public?	Foreign?	Founded	Employees	Annual Revenue (M)	Company Phase	Risk?	New Jobs	Saved Jobs	Construction jobs	URL
N	N	2007	unknown	targeting 2013	Startup, \$46M in funding, \$4M ARPA-E grant, first product in 2013	X	70		50	<a href="http://www.1366tech.com/">http://www.1366tech.com/</a>
Madrid: ABG	Y	1941	26,500	5,500 €				65	300	<a href="http://www.abengoabioenergy.com/">http://www.abengoabioenergy.com/</a>
Madrid: ABG	Y	1941	26,500	5,500 €				70	830	<a href="http://www.abengoa.com/corp/web/es/index3.html">http://www.abengoa.com/corp/web/es/index3.html</a>
Madrid: ABG	Y	1941	26,500	5,500 €				60	1700	<a href="http://www.abengoa.com/corp/web/es/index3.html">http://www.abengoa.com/corp/web/es/index3.html</a>
N	N	2007	350	9 (2008)	\$260M in private investment	X	1200		400	<a href="http://www.abound.com/">http://www.abound.com/</a>
NYSE: AES	N	1981	29,000	14,000				5	30	<a href="http://www.aes.com/aes/index?page=home">http://www.aes.com/aes/index?page=home</a>
NasdaqCM: BCON	N	1977	65	1.4	Mkt cap \$11M, also has \$24M DOE Stimulus grant and a \$2.8M ARPA-E grant, enterprise value of \$47M	XXX				<a href="http://beaconpower.com/">http://beaconpower.com/</a>

N	N	2006	unknown	unknown	Contracts for 2.6GW of power, \$330M in investments, losses of \$265.6 million since it was founded, including \$88.4 million in H1 2011; planning IPO	X	86	1000	<a href="http://www.brightsourceenergy.com/">http://www.brightsourceenergy.com/</a>
N	N	1964	unknown	unknown	Founded in 1964, manage 35 operating power projects. Many institutional investors in the project.		35	400	<a href="http://www.caithnessenergy.com/">http://www.caithnessenergy.com/</a>
N	N	1988	533 (2007)	\$640			10	75	<a href="http://www.cogentrix.com/">http://www.cogentrix.com/</a>
NYSE: EXC	N	2000 (merger)	17,000	\$18,000	Project acquired from First Solar in 2011, loan reduced from \$680M to \$646M		20	350	<a href="http://www.exeloncorp.com/energy/marketing/exelonenergy.aspx">http://www.exeloncorp.com/energy/marketing/exelonenergy.aspx</a>
TSX: BAM	Y	1899	18,000	\$13,600	Majority ownership of project sold to Brookfield Renewable Power, subsidiary of Brookfield Asset Management		6	198	<a href="http://www.brookfieldpower.com/">http://www.brookfieldpower.com/</a>
N	N	2002	100	\$75 (2009)	Failed IPO in 2010, "owes more than \$500 million, loses money on a steady basis", company received \$113M from Treasury and DOE previously	X	10	200	<a href="http://www.firstwind.com/">http://www.firstwind.com/</a>
NYSE: DYN	N	1984	1,700	\$100,000	Subsidiary of Dynegy		15	400	<a href="http://www.dynegy.com">http://www.dynegy.com</a>
NYSE: SRE	N	1998 (merger)	17,500	\$2,400	Loan reduced from \$398M to \$337M		7	300	<a href="http://www.sempra.com/">http://www.sempra.com/</a>
OTCBB: NGLPF	Y	1995	25	\$24	77 geothermal plants with 4GW, \$20M market cap, \$9M cash, \$157M debt, company struggling ( <a href="http://www.nytimes.com/2011/10/03/business/a-us-backed-geothermal-plant-in-nevada-struggles.html?page-wanted=all">http://www.nytimes.com/2011/10/03/business/a-us-backed-geothermal-plant-in-nevada-struggles.html?page-wanted=all</a> )	X	14	200	<a href="http://www.nevadageothermal.com/">http://www.nevadageothermal.com/</a>

NYSE: NEE	N	1925 (FPL)	15,000	\$15,000	Project acquired from First Solar in 2011, load amount reduced from 1.8B to 1.46B		15		550	<a href="http://www.nexteraenergy.com/">http://www.nexteraenergy.com/</a>
NYSE: NEE	N	1984	15,000	\$15,000			47		800	<a href="http://www.nexteraenergy.com/">http://www.nexteraenergy.com/</a>
NYSE: NRG	N	1989	5,000	\$8,700	Founded in 1970s, 890M market cap		15		350	<a href="http://us.sunpowercorp.com/">http://us.sunpowercorp.com/</a>
NYSE: NRG	N	1989	5,000	\$8,700	Project acquired from First Solar in 2011		10		400	<a href="http://www.nrgenergy.com/nrgsolar/index.html">http://www.nrgenergy.com/nrgsolar/index.html</a>
Tel Aviv: ORMT.TA	Y	1965	1,000	\$344	US subsidiary created in 1994, 1,100 employees, market cap \$690M		64		332	<a href="http://www.ormat.com">http://www.ormat.com</a>
	N	1986	1,600	unkown	Largest ethanol producer, 20 years old, investors for each project		40		200	<a href="http://www.poet.com">http://www.poet.com</a>
NYSE: NRG	N	1989	5,000	\$8,700	Prologis: 600M sq ft of real estate in 22 countries, 1,300 employees, S&P 500		42		1000	<a href="http://www.prologis.com/index.html">http://www.prologis.com/index.html</a>
	N	2007	unknown	unknown	\$125M project	X	8		200	<a href="http://recordhillwind.com/">http://recordhillwind.com/</a>
	N	2007	unknown	unkown	First full-scale deployment of technology, not sure how big the company is	X	45		600	<a href="http://www.solarreserve.com/">http://www.solarreserve.com/</a>
	N	2005	unknown	unknown	Through D-series financing. Series A was \$2.6M, B was \$30M, C was \$48M, D is targeting \$43M	X	450		270	<a href="http://www.solopower.com/">http://www.solopower.com/</a>
	N	2005	-	-	Bankrupt	XXX			0	<a href="http://www.solyndra.com/">http://www.solyndra.com/</a>
AMEX: HTM 17	N 5	2002	34	\$3	Market cap \$34M, \$9.6M in cash, delisted from NYSE	X	10		150	<a href="http://www.usgeothermal.com/">http://www.usgeothermal.com/</a>
							2419	0	11285	

Public?	Foreign?	Founded	Employees	Annual Revenue (M)	Company Phase	New Jobs	Saved Jobs	Construction jobs	URL
N	N	2007	150	\$0	founded 2007, 3 rounds of financing, currently valued at \$2.2B	2,000			<a href="http://www.fiskerautomotive.com/en-us">http://www.fiskerautomotive.com/en-us</a>

NYSE: F	N	1903	164,000	\$130,000		33,000		<a href="http://www.ford.com">http://www.ford.com</a>
TYO: NSANY	Y	1933	155,000	\$115,000		1,300		<a href="http://www.nissan-global.com">http://www.nissan-global.com</a>
RTS: CHMF	Y	1993	84,000	\$13,000		260	2500	<a href="http://www.severstalna.com/">http://www.severstalna.com/</a>
NASDAQ: TSLA	N	2003	1,010	\$16	market cap 2.74B, \$319M cash	1,500		<a href="http://www.teslamotors.com/">http://www.teslamotors.com/</a>
N 4	N 2	2006	4	\$35	started in 2007, VC backed	900 5,960	33,000	2500 <a href="http://www.vpgautos.com/">http://www.vpgautos.com/</a>
						9,719 3,694,259	33,000	18,995 61,714 581,789 1,250,418 no Ford

early revenue startups without public data

ut no data available