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The American Energy Initiative: No More Solyndras

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Chairman Whitfield, Ranking Member Rush, members of the Committee, I am honored to be invited to testify before you today on the subject of your efforts to ensure that there will be no more Solyndras. I am a senior fellow at the Manhattan Institute. From 2003 until April 2005 I was chief economist at the U.S. Department of Labor. From 2001 until 2002 I served at the Council of Economic Advisers as chief of staff. I have also been a senior fellow at the Hudson Institute and a resident fellow at the American Enterprise Institute. I have served as Deputy Executive Secretary of the Domestic Policy Council under President George H.W. Bush and as an economist on the staff of President Reagan's Council of Economic Advisers. I am the author of *Regulating to Disaster: How Green Jobs Policies Are Damaging America's Economy*, which will be published in August by Encounter Books.

There is no better proof of the risks of green industrial policy, or the misuse of "stimulus" funds, than the case of Solyndra, the Fremont, California solar company. It declared bankruptcy in September 2011 after receiving a total of $528 million in federal loans.

The tangled tale of Solyndra, a startup company that thought it could make solar panels that turn sunshine into electricity and sell them profitably, ably illustrates the perils of "industrial policy," a shorthand phrase for the government's deciding which new industries or startups to support with federal money, loan guarantees, or tax benefits.

It's not just Solyndra that has gone bankrupt. Abound Solar, a solar panel manufacturer based in Colorado that received funds from the federal government, filed for bankruptcy on July 2, citing aggressive pricing actions from Chinese solar panel companies as the principal cause. Abound had received a $400 million loan guarantee, and spent about $70 million before the Department of Energy halted its credit. The company plans to suspend operations and dismiss 125 employees.

In August 2010, Beacon Power Corporation received a $43 million loan guarantee from the Department of Energy to build a $69 million, 20-megawatt flywheel energy storage plant in New York. After receiving $39 million of the loan, the company filed for bankruptcy in October 2011 and was subsequently bought by a private equity firm.

Nevada Geothermal, a struggling company heading into financial trouble, received a $98.5 million loan guarantee in September 2010. According to its interim financial statements, Nevada Geothermal has "incurred net losses over the past several years, accumulated a deficit of $98.9 million, has substantial debts and currently does not generate positive cash flow from operations after debt service costs." With a net loss of $11 million for the nine-month period ending on March 31, 2012, it is likely that the company will be unable to repay its loans. When the financial statements issued by the board of directors state, "Consequently, material uncertainties exist which cast significant doubt upon the Company's ability to continue as a going concern" it raises questions as to why DOE did not do a more thorough investigation of the company during the loan guarantee investigation process.

Ener1, a rechargeable batteries maker for the transportation, utility grid and industrial electronics markets, declared bankruptcy on January 26, 2012. It filed for Chapter 11 bankruptcy after spending $55 million of a $118.5 million Department of Energy Grant. With a 48 percent investment in Think Holdings, AS, a Norwegian electric vehicle manufacturer, Ener1 suffered from the decreasing demand of high-priced little Battery Electronic Vehicles. According to interim Chief Executive Officer Alex Sorokin in the petition, Ener1 also faced fierce competition from battery makers in China and South Korea which have lower costs on manufacturing base, labor and raw materials.

Range Fuels, a company aimed at converting forest waste into bio-fuels, failed to prove the feasibility of employing the technology in a cost-effective way. It first received a grant of $76 million from the Department of Energy for a wood-based ethanol plant producing 40 million gallons per year. Later on, the company got another $80 million loan guarantee from the Department of Agriculture in January, 2009. These grants did not prevent Range Fuels from bankruptcy. It closed the plant in January 2010, and filed for bankruptcy in September 2011.

Both Republican and Democratic administrations have practiced industrial policy under the "green" energy rubric by supporting ventures that promised to pursue renewable, non-carbon-based energy production or energy conservation.

The authority for the Department of Energy (DOE) to issue loan guarantees for innovative, clean energy technologies, the Energy Policy Act of 2005, was passed by a Republican House and Senate and signed into law by George W. Bush. In the 2005 Act, Congress authorized the issuance of $4 billion of loan guarantees in 2007, and $47 billion in 2009 with the objective of encouraging the development of new technologies. [i] [ii]

However, no DOE loan guarantees were made during the Bush administration. The DOE wanted to make a loan to Solyndra, but career officials at the Office of Management and Budget (OMB) did not approve it, on the grounds that the project was not financially sound.

The Section 1705 Loan Program was created by the 2009 American Reinvestment and Recovery Act, which amended the Energy Policy Act of 2005.[iii] The 2009 stimulus bill gave the DOE an additional $3.95 billion for guarantees.[iv]

The Obama White House followed up by encouraging the DOE to issue loan guarantees for what the Department and the White House regarded as clean energy projects; however, these projects turned out not to be commercially viable. The loans themselves were made through the Federal Financing Bank (FFB), a bookkeeping arm of the Treasury Department, and so the money was lent at below-market interest rates.

Solyndra: A Failure, Like Others

Solyndra was founded in California in May of 2005 by Christian Gronet to produce a less-expensive type of solar panels, devices to convert sunlight into electricity. Its panels consisted of forty cylinders coated with solar cells.[v] A competing technology consisted of flat panels, made of polysilicon. Polysilicon was expensive, and, according to Solyndra, the panels were more costly to install on a building's roof.

By November 2008, Solyndra had raised $450 million from investors and was applying for a loan guarantee from the DOE under the Energy Policy Act of 2005. But the loan was turned down in January 2009 in the waning days of the Bush administration, on the grounds that "there is presently not an independent market study addressing long term prospects for this company" and "there is concern regarding the scale-up of production assumed in the plan for Fab 2," a second factory.[vi]

On January 13, 2009, Lachlan Seward, director of the loan program at the DOE, wrote, "After canvassing the Committee it was the unanimous decision not to engage in further discussions with Solyndra at this time."[vii] Lachlan was referring to the DOE Credit Committee, which was composed of DOE officials.

When President Obama took office days later, the tone changed. In an e-mail dated March 10, 2009, a senior adviser to Steven Chu, the Secretary of Energy, wrote an unnamed official, "The solar co board approved the terms of the loan guarantee last night, setting us up for the first loan guarantee conditional commitment for the president's visit to California on the 19th." [viii] As events soon revealed, March 19, 2009, was a wildly premature target date for a presidential visit. In fact, President Obama didn't visit Solyndra until May 2010.

E-mails dated 2009 depict White House and DOE officials rushing to sign off on the project so that Vice President Joe Biden could appear at the Fremont plant in September 2009 to trumpet the administration's support for green jobs. There was confusion about who would go and when, as well as a palpable sense of urgency and hurry. Within the OMB—historically the most fiscally conservative agency in any administration—there was anxiety about premature planning and precedent.

On March 10, 2009, an OMB official whose name was blacked out by the administration before the e-mails were released to Congress wrote, "DOE is trying to deliver the first loan guarantee within 60 days from inauguration (the prior administration could not get it done in four years). This deal is NOT [sic] ready for prime time." [ix] Another OMB official wrote on August 27, 2009, "As long as we make it crystal clear to DOE that this is only in the interest of time, and that there's no precedent set, then I'm okay with it. But we also need to make sure that they don't jam us on later deals so there isn't time to negotiate those, too." [x]

Concerns were still apparent later that summer. On August 19, 2009, an unnamed official wrote presciently, "While debt coverage is robust under stress conditions, the project cash balance goes to $62,000 in September 2011. Under the assumption that a small amount of cash is tied up in working capital, the project will face a funding shortfall. Even one day of A/R results in a negative cash balance, for example."[xi]

As of August 27, 2009, the loan still had not been approved. A DOE official wrote, "Can you confirm whether there are any issues regarding a closing on Sept. 3 for a Sept. 4 VP event on Solyndra?"[xii]

On August 31, 2009, an unidentified OMB official wrote to Terrell McSweeny, domestic policy adviser to Vice President Biden, saying "We have ended up in the situation of having to do rushed approvals on a couple of occasions (and we are worried about Solyndra at the end of this week.) We would prefer to have sufficient time to do our due diligence reviews and have the approval set the date for the announcement rather than the other way around."[xiii] Nevertheless, the loan was approved on September 3, and Biden announced it via satellite at Solyndra's plant on September 4.

Solyndra's bankruptcy has been attributed to factors beyond its control, such as falling prices for polysilicon products and lower costs and pricing in China. But documents filed by Solyndra with the Securities and Exchange Commission (SEC) in September 2009, after Biden's visit and ahead of an initial public offering that failed in June 2010, show that the company was fully aware of all the risks. The House Energy and Commerce Committee has sent a subpoena to the White House to ask for e-mails relating to Solyndra, and it is clear that officials were aware of the situation.

PricewaterhouseCoopers, Solyndra's auditors, also expressed public concern about the company. Reuters reported, "PricewaterhouseCoopers LLP said Solyndra's recurring operating losses, negative cash flows, $532.3 million stockholder deficit and other factors 'raise substantial doubt about its ability to continue as a going concern.' " The combination of its deficit, operating losses, and negative cash flow raised doubts as to its ability to survive.[xiv]

Solyndra itself, in its public filing (S-1) at the SEC in September 2009, dutifully offered twenty-two pages of reasons why it might fail. In case anyone missed the point, the report included a table of financial and operating data for 2006–2009, showing six different measures of gross and net losses—not one positive outcome.

On May 24, 2010, Valerie Jarrett, senior adviser to the president, forwarded a blog post by Philip Smith in Cleantech to Ron Klain, chief of staff to Vice President Biden. The report outlines the doubts of Pricewaterhouse Coopers, Solyndra's auditors, about the company. The post stated, "On a pure business analysis you have to agree with the auditors—they are not a going concern."[xv] Jarrett said to Klain in an e-mail, "As you know, a Going Concern letter is not good. Thoughts?"[xvi]

Although Jarrett and Klain knew that Solyndra would go under, two days later, on May 26, 2010, the president visited the newly built Solyndra manufacturing plant in Fremont, California, and declared, "It is here that companies like Solyndra are leading the way toward a brighter, more prosperous future ... We can see the positive impacts right here at Solyndra."

Putting Private Debt before Government Debt

Fast-forward to January 2011, when Solyndra's cylindrical panels were not competitive. The price of the polysilicon used by its rivals on their flat panels, the product competing with Solyndra, had fallen from about $375 a kilogram in 2009 to around $60, making flat panels far more attractive. First Solar, a U.S. maker of flat panels, could generate solar power for 75 cents a watt, compared to $4 for Solyndra.

Still, when Solyndra came calling, the DOE insisted on throwing good money after bad, to the frustration of an unnamed OMB official. He wrote, on January 31, 2011, *"If Solyndra defaults down the road, the optics will be arguably worse later than they* *would be today* [sic]."[xvii] He added that the public might forgive one mistake, due to the complexity of dealing with innovative companies, but not two mistakes.

Events would later show that the Obama administration made a bad bet. Despite an infusion of investor funds and a loan "restructuring" in February 2011 intended to raise additional funds, Solyndra filed for bankruptcy in September 2011 in the District of Delaware U.S. Bankruptcy Court, in Wilmington.

The company had used $460 million of the federal loans by February 2011 to build a second factory near Fremont, California, even though it had excess capacity at its first plant in Fremont.[xviii] With Solyndra's bankruptcy, the bulk of these funds are lost to taxpayers.

By January 2011, it was clear to many that Solyndra was going to fail. Still, the DOE helped shore it up by allowing it to draw on another $68 million in government loans. In addition, the department signed off on a restructuring agreement that allowed $385 million in government loans to take a back seat to $75 million in new investors' funds. In the restructuring, the $75 million from investors became senior to all government debt except $143 million.[xix]

Due to the restructuring, the remaining $385 million in government loans, first issued in 2009, have equal status as bankruptcy claims with $175 million in original investor funds, and can be recovered only after the investors get back their $75 million and the government gets back $143 million. This reduced the value of the $385 million by about a third because the government would not get back all its money—it would likely only get the $143 million.

Although objections were raised from the OMB and the Department of Justice (DOJ), the DOE paid no heed. On August 16, 2011, an unnamed official wrote in an e-mail to Mary Miller, assistant secretary for financial markets at the Treasury,

> "The Title XVII statute and the DOE regulations both require that the guaranteed loan shall not be subordinate to any loan or other debt obligation.
>
> The DOE regulations state that DOE shall consult with OMB and Treasury before DOE grants any 'deviation' from the requirements of the regulations (to the extent such requirement is not specified by the statute) that would constitute a substantial change in the financial terms of the Loan Guarantee Agreement.
>
> But I will bet a quarter that the DOE lawyers have some kind of theory on how whatever restructuring they have done and whatever they are considering doing does not violate these requirements. Can't wait to hear it."

In other words, besides Valerie Jarrett and Ron Klain, many others in government with an eye for detail knew that the Solyndra deal was illegal. Some said as much to Treasury officials. But by August 2011, the taxpayers' money was lent—and effectively gone when Solyndra declared bankruptcy. No other company wanted to buy Solyndra, so its core assets were auctioned for a mere $3.8 million, which represented less than 1 percent of the loan guaranteed by the DOE.[xx]

The Department of Energy Digs a Deeper Hole

One might think the DOE would have learned a lesson from the Solyndra bankruptcy in early September 2011. Surely that would have been a good time to halt the DOE's loan guarantee program and understand why this program has become the poster child for cronyism. But instead of taking pause, the DOE recklessly issued another $8 billion of loan guarantees in that same month under the Energy Policy Act of 2005.

Why the haste to put taxpayers at even more risk? No doubt, the administration was aware that the legal authority for the loan guarantee program was going to end at the end of September 2011. Rather than try to understand why the program was defective, the administration, ardently committed to promoting renewable energy, rushed ahead where a more diligent government might have hesitated.

Twelve companies received loan guarantees in September 2011, including NRG Energy for $1.2 billion, NextEra Energy Resources for a partial guarantee of $1.5 billion, and Abengoa Solar (a second loan for $1.2 billion, following a first loan for $1.4 billion in December 2010). This brought to $16 billion the sum of guarantees issued by the government under the program since 2009, according to DOE spokesman Sonia Taylor.

Some might be Solyndras.

The DOE apparently did not learn from the example of Range Fuels, the cellulosic ethanol plant in Soperton, Georgia, or Beacon Power, which built a plant in Stephentown, New York, both discussed above. Neither did the DOE learn from the example of Evergreen Solar, which closed its doors and moved operations to China in January of 2011 after receiving $58 million in grants from the State of Massachusetts.[xxi] It filed for bankruptcy in January 2012, citing lack of financing as the cause.[xxii]

Bankruptcies are not limited to American companies. In December 2011 the first publicly traded German solar company, Solon, declared bankruptcy, citing competition from low-cost Chinese imports. Other German companies, such as Q-Cells and Conergy, may also follow suit.

Mimicking Failed Economies

Why is the government, under pressure from voters and credit rating agencies to reduce the budget deficit, issuing these loan guarantees at all?

One answer, we repeatedly hear, is fear of China, the new Red Scare. In the 1950s we were afraid that the Soviet Union might get ahead of us. "We will bury you," threatened Nikita Khrushchev.

Now America is throwing billions of dollars at renewable energy, electric cars, and high-speed rail, projects that are too weak to attract private funding, because we are concerned that China is getting ahead of us and stealing our jobs.

On October 3, 2011, in a TV interview with ABC, President Obama said, "what we always understood was that not every single business is going to succeed in clean energy, but if we want to compete with China, which is pouring hundreds of billions of dollars into this space, if we want to compete with other countries that are heavily subsidizing the industries of the future, we've got to make sure that our guys here in the United States of America at least have a shot."[xxiii]

Jonathan Silver, who was executive director of the Loan Programs Office at the DOE until his resignation in October 2011, testified at the Subcommittee on Oversight and Investigations of your Committee on September 14, 2011 that "no country has been as aggressive as China, which last year, alone, provided more than $30 billion in credit to the country's solar manufacturers through the government-controlled China Development Bank."[xxiv] Surely we have descended to great depths as a nation when we have lost confidence in our own reason and instead can think of nothing better to do than mimic the actions of a commercial rival.

China is not using solar energy for its electricity production. As of 2008, 70 percent of China's energy came from coal. Wind and solar provide less than two percent of the power for China's electricity.[xxv] [xxvi] China is producing solar panels and wind turbines to export to America and Europe, but it is not relying on these technologies for electricity production because they are a more costly way to generate electricity. Rather, it is importing our coal so it can produce inexpensive energy in its power plants. Another green energy project, China's high-speed rail investment, is on hold after a high-profile accident in Wenzhou in the Zhejiang province in the summer of 2011.[xxvii]

If we are afraid of China's growth, domestic industrial policy is not the answer. Rather, we should improve economic growth through more efficient tax and regulatory policies. The greater threat from China is that, out of fear, America will pursue government loan guarantee programs, which will slow our economy and make it less efficient. America is more likely to best China without government help. America grows when it relies on the strength of market forces, rather than when our government attempts to pick winners. Loan guarantees are not a sign of confidence in markets but the exact opposite, and make no sense in these economic times, when corporations are flush with cash.

The reason that these renewable energy projects need to turn to the government for loan guarantees is painfully obvious. Their prospects are weak, and private investors and lenders do not want to fund the projects. If large gains were on the horizon, private firms would be vying for the opportunity of funding the projects. China and other countries might want to invest in projects that have no business logic, but American taxpayers deserve better.

Some of the new DOE loans may actually be repaid. But, like Solyndra, some will not. The Solyndra case demonstrates that government should not try to pick industrial winners. The temptation for politics to trump sound judgment and waste millions in taxpayer money is always there. The program should be ended as soon as practical.

Thanks for allowing me to testify today. I would be glad to answer any questions.

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[iii] "History," U.S. Department of Energy Loan Program Office website, accessed November 15, 2011, https://lpo.energy.gov/?page_id=134.

[iv] "LGP (1703 and 1705) FAQ," Department of Energy Loan Program Office website, accessed November 16, 2011, https://lpo.energy.gov/?page_id=368.

[v] Solyndra, "Timeline," Solyndra website, Accessed October 15, 2011, http://www.solyndra.com/about-us/timeline/.

[vi] Credit Committee Recommendation from Chairman Loan Guarantee Credit Committee to Director Loan Guarantee Program Office, *Subject: Credit Committee Recommendation re: Solyndra Fab 2 LLC, solar photovoltaic power panel project for a loan guarantee of $535,000,000*, January 9, 2009, http://republicans.energycommerce.house.gov/Media/file/Hearings/Oversight/091411/DocumentsEnteredIntoRecord.pdf.

[vii] Email from Lachlan Steward to [Name redacted], Subject: Solyndra meeting, January 13, 2009, http://republicans.energycommerce.house.gov/Media/file/Hearings/Oversight/091411/DocumentsEnteredIntoRecord.pdf.

[viii] Email from Senior Advisor to the Secretary of Energy for Recovery Act Spending to [Name Redacted], March 10, 2009, http://republicans.energycommerce.house.gov/Media/file/Hearings/Oversight/091411/DocumentsEnteredIntoRecord.pdf

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[xi] Email from [Name redacted] to [Name redacted], Subject: Solyndra, August 19, 2009, http://republicans.energycommerce.house.gov/Media/file/Hearings/Oversight/091411/DocumentsEnteredIntoRecord.pdf.
Note: (A/R stands for accounts receivable.)

[xii] Email from [Name redacted]@hq.doe.gov to [Name redacted], Subject: Solyndra Closing Date, August 27, 2009, http://republicans.energycommerce.house.gov/Media/file/Hearings/Oversight/091411/DocumentsEnteredIntoRecord.pdf.

[xiii] Email from Office of Management and Budget official to Terrell P. McSweeny, subject: DOE announcement, August 31, 2009, http://republicans.energycommerce.house.gov/Media/file/Hearings/Oversight/111711_solyndra/footnotes.pdf.

[xiv] (A deficit means a company's liabilities are greater than its assets, whereas an operating loss occurs when the cost of producing a good exceeds its revenue.)

[xv] E-mail from Steve Westly to Valerie Jarrett, May 24, 2010, http://republicans.energycommerce.house.gov/Media/file/Hearings/Oversight/111711_solyndra/footnotes.pdf.

[xvi] E-mail from Valerie Jarrett to Ronald Klain, May 24, 2010, http://republicans.energycommerce.house.gov/Media/file/Hearings/Oversight/111711_solyndra/footnotes.pdf.

[xvii] Email from [Name redacted] to [Name redacted], Subject: Solydra optics, January 31, 2011. http://republicans.energycommerce.house.gov/Media/file/Hearings/Oversight/091411/DocumentsEnteredIntoRecord.pdf

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