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THE AMERICAN RECOVERY AND REINVESTMENT ACT AND A NEW ROLE FOR GOVERNMENT IN CLEAN TECHNOLOGY PROJECT FINANCING *by James Hunter**

As a result of the current global economic crisis and credit crunch, financial institutions, governments, and companies recognize that traditional project finance regimes in the realm of clean technology are potentially outmoded.¹ For example, traditional tax incentives that once spurred major financial institutions towards investing in clean technology projects no longer fuel the sector's financial development, as the tax incentives for those investments dried up along with banks' profits in 2008 and 2009.² Additionally, investors are shifting their focus from capital-intensive projects like solar energy technology towards less capital-intensive projects like emerging smart grid technologies.³ Revisions to tax incentives and the revitalization of the Department of Energy ("DOE") Loan Guarantee Program are two innovative responses introduced by the Obama administration and the U.S. Congress through the passage of the American Recovery and Reinvestment Act ("ARRA") that address this realignment.⁴ With these programs, the new administration is signaling that the development and success of a clean technology sector is both the litmus test and poster-child for economic recovery.

The Business Energy Investment Tax Credit ("ITC")⁵ and the Renewable Electricity Production Tax Credit ("PTC")⁶ are among the most important tax incentives for institutional investment into clean technologies. The ITC provides a tax credit on up to thirty percent of expenditures for investment in alternative energy sources, such as solar power, fuel cells, and small wind turbines.⁷ Similarly, the PTC institutes a "per-kilowatt-hour tax credit for electricity generated by qualified energy resources and sold by the taxpayer to an unrelated person" for a specified period of time—usually 10 years.⁸ These corporate tax incentives worked so long as the financial institutions had profits and tax liabilities to be offset by the tax credits; unfortunately, since the financial crash in 2008, this system is no longer sustainable.⁹

In light of this development, Congress and the Obama administration enacted important revisions to the incentive structures of both the ITC and the PTC through the ARRA. The credits now provide for the option to take either the PTC or ITC credit, or to receive an equivalent cash grant from the Treasury Department.¹⁰ Further, the ARRA extended the deadlines of PTC credits and removed an ITC provision limiting the credit for new projects that also receive subsidized financing.¹¹ Critics have applauded this revision, noting that the ability for investors to receive federal cash almost immediately "is much simpler and more affordable than the old periodic tax credit schemes favored by Congress" and will "significantly lower the cost of financing."¹² Effects of the revised tax incentive structure and the

credit crunch are leading some businesses to reassess traditional project financing and business models. For example, the California based utility Pacific Gas & Electric recently announced it would install solar power facilities using its own capital to take advantage of the ITC.¹³

On March 20, 2009, DOE announced the first clean-energy loan guarantee for the California solar company, Solyndra.¹⁴ The \$535 million loan guarantee is the result of a \$39 billion appropriation in the ARRA to DOE for direct investment in backing renewable energy projects.¹⁵ This loan guarantee program is not new—in fact the Energy Policy Act of 2005 first authorized DOE to issue these loan guarantees¹⁶—however, DOE, for various reasons, has failed to disburse any funds until now.¹⁷ Not only will the loan guarantee program assist in revitalizing projects that may have lost financing as a result of the credit crisis,¹⁸ the program will also aid in allaying the fears of risk averse investors who may see potential in projects, but have shied away from investing in capital-intensive and unproven technologies.

Several other noteworthy projects are awaiting review of their loan guarantee applications, including the highly anticipated all-electric Tesla Motors Model S sedan. Tesla requires \$450 million in government funds—\$250 million of which would come from the DOE loan guarantee program, and the remainder from a 2007 Congressional bill authorizing \$25 billion for electric vehicle technologies—in order to continue production of the car.¹⁹ Energy Secretary Steven Chu aims to streamline the loan application process and disburse seventy percent of the ARRA funds by the end of 2010.²⁰

The latter ARRA provisions represent a significant shift from traditional bank backed project finance and help to keep capital-intensive projects afloat in these tough economic times. Additionally, the provisions help stabilize the incentive structure surrounding clean technology investment in order to avoid the historical cycle of "unnecessary fluctuation in tax credits, leading to alternating periods of investment followed by instability when the federal credit terminates."²¹ Despite the controversies surrounding the expenditures required by the ARRA, the provisions regarding clean technology are sound policies in uncertain times.



Endnotes: The American Recovery and Reinvestment Act
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¹ See Nathaniel Gronewold, *Stimulus Seen Sowing Seeds for Renewable Energy's Revival*, N.Y. TIMES, Mar. 20, 2009, <http://www.nytimes.com/gwire/2009/03/20/20greenwire-stimulus-seen-sowing-seeds-for-industrys-reviv-10227.html>; see also Mitchell Zuklie, *The Clean Energy Investment Climate*, in BUSINESS 2009: STRATEGIES FOR FIN., CARBON TRADING, IT, AND CARBON NEUTRAL POLICIES 27, 38 (PLI Corp. Law & Practice, Course Handbook Series No. 1718, 2009) (noting that “[m]any project financing lenders have effectively shut down on closing new deals through the end of the year.”).

² See Gronewold, *supra* note 1 (reporting that approximately twenty-five of the largest financial firms “were active in tax equity financing for alternatives in 2007” and today there are only six bank investors remaining active in the sector); see also Kate Galbraith, *Dark Days for Green Energy*, N.Y. TIMES, Feb. 4, 2009, <http://www.nytimes.com/2009/02/04/business/04windsolar.html> (reporting that since the crisis but before the Obama economic stimulus package, installation of wind and solar power plummeted).

³ See Zuklie, *supra* note 1, at 40 (finding that these technologies are less capital-intensive “since they are targeted at making more efficient use of the existing power generation and supply grid, rather than on new energy generation technologies”).

⁴ See Press Summary, Committee on Appropriations: 111th Congress, American Recovery & Reinvestment, available at <http://appropriations.house.gov/pdf/PressSummary02-13-09.pdf> (outlining the specific provisions of the American Recovery and Reinvestment Act); see also Kate Galbraith, *Obama Signs Stimulus Packed With Clean Energy Provisions*, N.Y. TIMES, Feb. 17, 2009, <http://greeninc.blogs.nytimes.com/2009/02/17/obama-signs-stimulus-packed-with-clean-energy-provisions/>; American Recovery and Reinvestment Act of 2009, Pub. L. No. 111-5, 123 Stat. 115.

⁵ I.R.C. § 48 (2008).

⁶ I.R.C. § 45 (2008).

⁷ American Recovery and Reinvestment Act of 2009, Pub. L. No. 111-5, §§ 1104, 1603, 123 Stat. 115; see also Database of State Incentives for Renewables & Efficiency, Business Energy Investment Tax Credit (ITC), http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive_Code=US02F&State=federal¤tpageid=1&ee=1&re=1 (last visited Apr. 13, 2009) [hereinafter DSIRE, ITC].

⁸ Database of State Incentives for Renewables & Efficiency, Renewable Electricity Production Tax Credit, http://www.dsireusa.org/library/includes/incentive2.cfm?Incentive_Code=US13F&State=federal¤tpageid=1&ee=1&re=1 (last visited Apr. 13, 2009) [hereinafter DSIRE, PTC] (noting that under the PTC, the qualified energy resources receiving the highest credit amount are wind, geothermal, and closed-loop biomass).

⁹ See generally Gronewold, *supra* note 1.

¹⁰ See generally DSIRE, ITC, *supra* note 7; see also DSIRE, PTC, *supra* note 8.

¹¹ See DSIRE, ITC, *supra* note 7; DSIRE, PTC, *supra* note 8.

¹² Gronewold, *supra* note 1.

¹³ See Martin LaMonica, *Utility PG&E Placing Bets in Solar Tech Race*, CNET NEWS, Mar. 18, 2009, http://news.cnet.com/8301-11128_3-10198984-54.html (recognizing that Pacific Gas & Electric’s decision is also the result of the California renewable portfolio standard mandate that utilities generate 20 percent of electricity from renewable sources by 2010); see also Jeff Postelwait, *A U.S. Federal Renewable Portfolio Standard: Potentials & Pitfalls*, RENEWABLEENERGYWORLD.COM, Mar. 27, 2009, <http://www.renewableenergyworld.com/rea/news/article/2009/03/a-federal-renewable-portfolio-standard-potentials-and-pitfalls> (highlighting recent pushes for a federal RPS; uniform utility regulation through an RPS system combined with other incentives could induce more business to follow in Pacific Gas & Electric’s footsteps).

¹⁴ Martin LaMonica, *Green-tech Pros Gird for Stimulus Jolt*, CNET NEWS, Mar. 26, 2009, http://news.cnet.com/8301-11128_3-10204816-54.html.

¹⁵ See U.S. Dep’t of Energy – Loan Guarantee Program, <http://www.lgprogram.energy.gov> (last visited Apr. 18, 2009); see also Keith Johnson, *Obama: Gov’t Support the Key to Clean Tech*, WALL ST. J., Mar. 23, 2009, <http://blogs.wsj.com/environmentalcapital/2009/03/23/obama-government-support-the-key-to-clean-tech/> (noting that there is also \$20 billion available for clean energy grants).

¹⁶ See generally Energy Policy Act of 2005, Pub. L. No. 109-58, 119 Stat. 594.

¹⁷ See John M. Broder, *Energy Department Issues First Renewable-Energy Loan Guarantee*, N.Y. TIMES, Mar. 20, 2009, <http://greeninc.blogs.nytimes.com/2009/03/20/energy-department-issues-first-renewable-energy-loan-guarantee/>.

¹⁸ See LaMonica, *supra* note 14.

¹⁹ See Claire Cain Miller, *An All-Electric Sedan, Awaiting Federal Aid*, N.Y. TIMES, Mar. 26, 2009, <http://www.nytimes.com/2009/03/27/technology/startups/27tesla.html> (noting that, because of the credit crisis, survival of these kinds of projects depend on federal loans).

²⁰ Stephanie Condon, *Energy Dept. Aims to Give Out Stimulus Loans by Summer*, CNET NEWS, Feb. 19, 2009, http://news.cnet.com/8301-13578_3-10167814-38.html.

²¹ Elizabeth Burleson, *Multilateral Climate Change Mitigation*, 41 U.S.F. L. REV. 373, 403 (2007).