

VIEWPOINT: IS THE SUN SETTING ON US RENEWABLES?

HOW IS THE OUTLOOK FOR US RENEWABLE ENERGY FINANCING CHANGING AND WHY?

This September marked a turning point for the US renewable energy industry. The expiration of the US Department of Energy (DOE) Loan Guarantee Program (LGP) Section 1705 came at about the same time as the controversial bankruptcy of Solyndra – a solar manufacturing company that had secured USD 535 million in DOE support.

While the politically charged Solyndra case made the headlines, the “real news” is the beginning of the phase-out of several federal support programs, which is going to be a game-changing factor in the field of renewable energy in the US. In fact, the expiration of the DOE Loan Guarantee Program Section 1705 will be followed by the closing of eligibility for the US Treasury’s Section 1603 Cash Grant Program next December. Both these programs have been instrumental in supporting the renewable energy industry in the US, and without them, the financing of renewable energy projects will become far more challenging. Compounding this will be the phase-out of the Production Tax Credit (PTC) and the Investment Tax Credit (ITC) in the next few years – in any case, it is expected that these programs will be insufficient on their own to sustain current rates of investment in renewable energy generation.

In the absence of significant federal support and in the presence of an adverse macroeconomic environment, we expect that the industry will experience a dramatic decline in the recent rate of growth of renewable energy installed capacity.

WHAT WAS THE IMPORTANCE OF THE DOE LOAN GUARANTEE PROGRAM?

The Department of Energy Loan Guarantee Program Section 1705 aimed to expedite the deployment of renewable energy installed capacity. It did so by providing guarantees on credit extended by private lenders to renewable energy projects, which otherwise may not have secured commercial lending, due to the perceived risk.

Since its inception in 2009, the program provided approximately USD 14 billion in loan guarantees to 19 renewable energy generation projects. The Section 1705 program supported some of the most important renewable energy projects developed in the US in recent years, including the world’s largest on-shore wind farm (Caithness Shepherds Flat/Oregon – 845 MW). Most notably, the Loan Guarantee Program provided substantial support to the development of solar generation:

- Several of the world’s largest photovoltaic generation facilities, including the world’s largest (Agua Caliente/Arizona – 290 MW).
- The solar industry received over 80% of total support provided to renewable energy generation projects.
- Supported solar projects are expected to triple the nation’s current installed capacity of concentrated solar power.

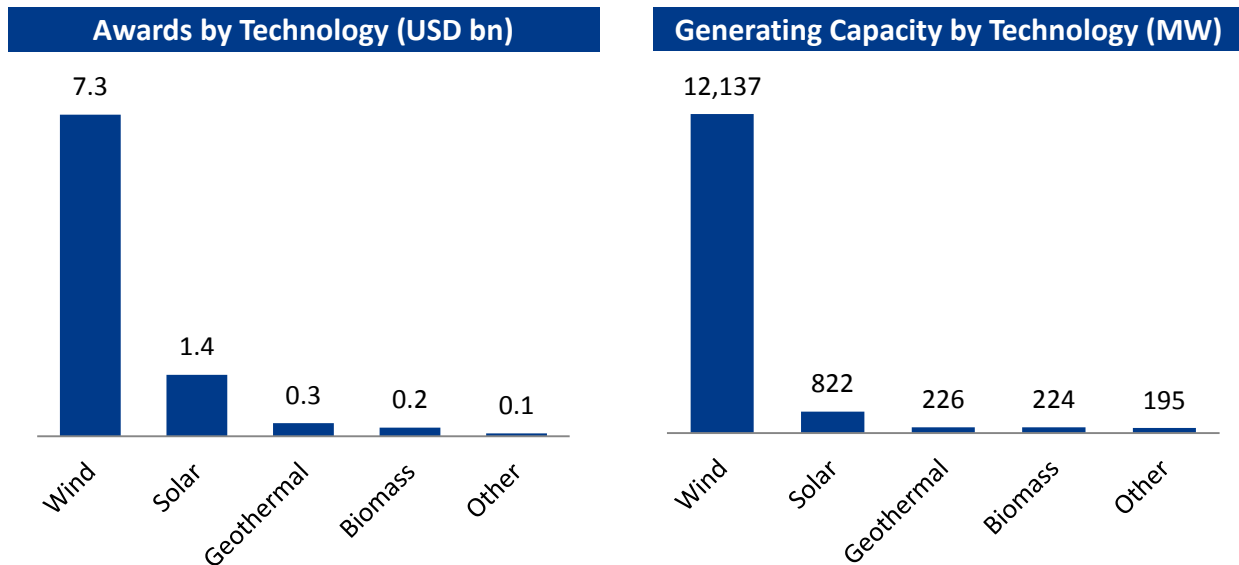
WHAT ABOUT THE SECTION 1603 CASH GRANT PROGRAM?

The Section 1603 Cash Grant Program has been of even greater importance to the US renewable energy industry. It has been the driving force behind the financing of renewable energy generation projects, which – when brought on line – will account for a significant portion of the nation’s renewable energy installed capacity.

The generating capacity of Section 1603-supported projects stands at over 13,000 MW (as of September 11, 2011). This impressive amount becomes even more significant when broken down by technology; as of this past summer, wind projects receiving support accounted for over 10,000 MW, an amount equivalent to approximately one quarter of total wind capacity installed in the US.

By providing renewable energy project sponsors with cash reimbursement equal to 30% of eligible capital costs, the Section 1603 Program has directly catalyzed private sector investment. Unlike other programs, the added benefit of the Section 1603 Program is the “front loading” of the subsidy – the sponsor receives the 30% cash disbursement upfront. These features substantially improved the attractiveness of these projects and have eased their access to commercial financing.

The graphs below provide select highlights on the Section 1603 Cash Grant Program as of September 11, 2011:



WHAT IS THE OUTLOOK FOR RENEWABLE ENERGY WITHOUT 1705 AND 1603?

Upon the expiration of these two important programs, several federal renewable energy incentive programs will still remain in place. However, these programs will be inadequate on their own to maintain the recent growth rate of installed renewable energy capacity in the US. In particular, both the Production Tax Credit and the Investment Tax Credit will remain available for a period of time, but both have significant shortcomings:

- The utilization of the Production Tax Credit and the Investment Tax Credit depends heavily on the tax equity market. In other words, project sponsors (who tend to have insufficient taxable income) need to partner with tax equity investors to monetize this kind of support. According to a July 2011 study of the US Partnership for Renewable Energy Finance (US PREF), tax equity available for renewable projects in 2012 may be limited to ~USD 3.6 bn. This amount is well below the levels required to sustain current levels of investment in renewable energy generation projects (the combined support of tax equity and the Section 1603 Cash Grant in 2010 amounted to USD 7.2 bn).
- Under the Production Tax Credit, tax credits are awarded on the basis of the kilowatt-hours produced, thus not being as helpful to projects with lower levels of production. Furthermore, this credit is not available for solar projects.

- Finally, the Production Tax Credit and the Investment Tax Credit also have sunset provisions – respectively 2012-2013 and 2016 – so they are not a longer term solution.

IS THE COMMERCIAL BANKING SECTOR GOING TO STEP IN TO FILL THE GAP?

It is not expected that commercial banks will be able to entirely fill the gap left by the demise of these federal support programs. Furthermore, some of the most active renewable energy lenders are currently under pressure.

- The federal support programs made renewable energy projects more commercially viable (and thus more attractive for commercial lenders). Their looming absence will render renewable energy a less competitive alternative compared to conventional energy sources, especially in times of low gas and electricity prices.
- European banks have been among the dominant players in the US renewable energy market. The adverse macroeconomic environment in Europe and the recent downgrades and turmoil impacting the European banks will make it difficult for them to sustain past lending volumes.
- The retreat of US money market funds from Europe is further worsening European banks' ability to access USD financing, and thus lending to US projects.
- The full implementation of Basel III rules will require European banks to raise several trillion dollars in fresh capital, which is going to negatively affect lending.

The combined effect of these factors will be an increasingly tighter credit market, meaning upward pressure on debt pricing, shorter tenors, and reduced borrowing capacity for projects. Going forward, an enhanced role for vendor financing may be expected, as well as a step-up by Asian banks to partially fill the gap left by their European competitors.

LIGHT AT THE END OF THE TUNNEL FOR US RENEWABLES?

Renewable energy projects will still be financed in the US; however, the industry is going through a paradigm shift given that the times of big federal money for green projects seem to be over.

The deterioration of market conditions for renewable energy generation projects, however, is not going to be immediately visible, as sponsors will still be able to take advantage of the tail end of the Section 1603 Program. The market conditions will create a process of natural selection among projects: solid, long-term Power Purchase Agreements (PPAs), commercially proven technologies, credible vendor warranties and experienced sponsors will be the determining factors for projects' success in obtaining financing.

For developers, new federal-linked opportunities will arise through the various green initiatives of the Department of Defense. Several branches of the military have already announced large and aggressive renewable energy targets. In particular, one of the Army's energy initiatives is to achieve 25% power sourced from renewable energy by 2025, which is estimated to demand a private sector investment of approximately USD 7 billion. Other branches have also set ambitious renewable energy targets, such as:

- Navy: 50% reduction of petroleum use for the commercial fleet by 2015; use of 50% renewable energy sources for all energy needs by 2020.
- Air Force: 50% use of "alternative blend" fuels for domestic aviation by 2016.

In conclusion, while the future holds many uncertainties, it is clear that financing of US renewable energy projects as we know it will soon change radically.

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