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Friday, April 5, 2013

Mr. Michael Judge  
Massachusetts Department of Energy Resources (DOER)  
100 Cambridge Street, Suite 1020  
Boston, MA 02114

Dear Mr. Judge,

Re: Comments on Post 400MW Policy

BlueWave Capital (“BlueWave”) appreciates the opportunity to provide comments to the Department of Energy Resources (“DOER”) on the Post-400MW Solar Program Policy Design Stakeholder Meeting.

Our firm is a Massachusetts-based company that develops solar renewable energy systems for the benefit of municipal and non-profit entities throughout the Commonwealth. As such, our team as well as our municipal and non-profit customers are keenly interested in the Department’s Policy Design changes to the Commonwealth’s Solar Carve Out (SCO).

Our firm commends the DOER on its policy objectives to provide the economic support and conditions to maintain and expand the Commonwealth’s solar market. We also applaud your desire to provide clear policy mechanisms that control ratepayer costs and exposure while maintaining a competitive market of diverse participants that encourages continued growth across industry segments and enables efficient access to project financing. The DOER’s efforts to date have resulted in over 250MW of solar installed in the Commonwealth through both the SCO as well as other funding mechanisms, making it one of the nation’s leaders in the adoption of solar, ranking 7<sup>th</sup> in total installed capacity as of YE 2012.

### **Solar Carve-Out II**

BlueWave strongly believes that the most efficient way to achieve the aforementioned policy goals is to maintain and expand, with revisions, the RPS Solar Carve-Out framework. Creating a fully distinct and separate Solar Carve-Out II (SCO2) market would accomplish the Commonwealth’s overarching policy goals without adding the additional complexity that would be introduced if a new system based on central procurement were to be implemented or if the current system were to be simply expanded.

An entirely new system incorporating central procurement would require legislative action as well which almost certainly will leave a period of time, perhaps considerable, in which little, if any, solar development activity will take place. An outright expansion of the current program, with modifications, could have the potential of adding confusion and uncertainty to a market that is currently working well as evidenced by the more than 200MWs that have been built under its auspices.

An essential element to successfully encouraging the long-term deployment of solar in the Commonwealth is to ensure that any incentive mechanism achieves two primary goals: 1) provides a degree of certainty sufficient to encourage capital deployment; and 2) incorporates an adjustment mechanism that reduces prospective ratepayer impact as capital and financing costs decline.

Providing a degree of certainty for the prospective value of Solar Renewable Energy Certificates under SCO2 would effectively reduce the cost of capital for projects by reducing the risk associated with them, resulting in a predictable path for declines in the hurdle rate for project level returns. We therefore advocate for a stable eligibility period of 10 years with annual adjustments to both the Floor Price and the ACP as the means by which the value of the incentives available for solar is moderated.

Predictable declines in incentives serves ratepayers by ensuring that the overall cost of the Solar Carve Out program is the lowest possible while also ensuring that project owners and investors have the ability to plan for and seek financing terms in a structure and manner that is consistent with the DOER's goals for the program.

A case in point is Germany's EEG which has led to the deployment of over 30GW of solar since 2004 using a Feed-in Tariff (FIT) mechanism that periodically reduces the tariff for new renewable energy projects using a number of factors for those adjustments. Since 2006, the German FIT has been reduced by more than 62%, and installed system costs have virtually matched the decline, dropping 65% over the same time period. This has resulted in installed system costs that are significantly lower than those seen in the United States as well as a far greater rate of adoption of solar in that country over the last eight years.

### **Market Sector Diversity**

Much like the German EEG and other performance based incentive schemes currently in use, we advocate for incentive adjustment factors for segments of the industry where additional incentives may be required to incite the attainment of the DOER's policy goals as outlined to date.

We would advocate for additional incentives in the form of a longer opt-in period or an SREC adder or multiplier for installations on closed landfills and other contaminated sites which can be more expensive to develop and build, but are attractive for solar development due to the the lack of alternative use for many of those sites and their typical proximity to energy infrastructure.

Similarly, we believe additional incentives for residential installations, such as forward minting or a longer opt-in period, are justified given the relatively higher costs related to the deployment of residential solar when compared to ground-mounted installations and the segment's importance in terms of job creation within the state.

We also believe that municipal participation in the Solar-Carve Out is one of the great stories of the program. To date, over 55MW of solar have been installed with an additional 185MW of capacity under development under the current program. When built, these projects would account for slightly more than half of the current Solar Carve-Out and have the potential of yielding hundreds of million of dollars in savings to municipalities through third-party ownership agreements with private sector investors. We believe that SCO2 must contain provisions that allow this type of public/private partnership to thrive given the attractive value proposition that these projects represent for public entities throughout the Commonwealth.

### **Solar as a Cornerstone of the Renewable Portfolio Standard**

The Commonwealth of Massachusetts has established a Renewable Portfolio Standard (RPS) requiring 15% of all retail electricity sales to come from eligible renewable energy sources by 2020.

By providing a predictable long-term framework for solar incentives, the Commonwealth could source one third (5% of all electricity sales) of the RPS using solar photovoltaic generation by 2020. This is equivalent to the deployment of a total of 2,000MW of solar throughout the state, including all capacity built to date, and the current Solar Carve-Out. Such a goal would call for the addition of roughly 1,600MW of solar over the next seven years, a goal that is realistically achievable based on the rate of growth the solar industry has exhibited in the United States over the last five years and one that could be achieved using less than 0.03% of the land area of the Commonwealth of Massachusetts. Solar is well suited to be developed in a fashion that ensures that installed capacity is well distributed throughout the state and generally close to load pockets rather than placed in locations that require significant distribution and transmission infrastructure investment like large-scale wind farms and other central generation station technologies to make the goal achievable.

### **Capital Flows for Energy in Massachusetts**

Based on the most recent data available (2008), the Commonwealth spends over \$22 billion a year on energy (\$4,600 per household per year) with 80% of that money leaving the state. We estimate that electricity generation related purchases accounted for roughly \$5 billion of the total, with the rest largely attributable to transportation and heating fuels.

The Commonwealth of Massachusetts cannot replace natural gas and coal imports for electricity generation with local fossil fuel production and is thus in a position where the only practicable alternative to these fuel sources are renewable energy technologies like wind and solar.

Encouraging the build-out of in-state generation capacity serves two purposes: it reduces the amount of dollars that flow out of the state economy and also generates local jobs and economic activity that undoubtedly have a beneficial impact as evidenced by the more than 70,000 jobs that have been created by the clean energy sector in the state over the last several years.

Full compliance with the RPS with in-state generation by 2020 reduce capital outflows by over \$500 million dollars a year, further strengthening the state's renewable energy industry and serving as a boost for economic activity. While we acknowledge that achieving 100% of the RPS with in-state generation is unlikely, it is not only possible but is indeed a realistic goal to have 1/3 of the RPS satisfied from in-state solar facilities.

We appreciate the opportunity to comment and look forward to working with you and others to build on the terrific work to date in advancing the goals of the Green Communities Act.

Sincerely,

A handwritten signature in black ink, appearing to read 'ESG', with a horizontal line extending from the end of the signature.

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Eric S. Graber-Lopez  
Partner  
BlueWave Capital, LLC