



July 28, 2017

Commissioner Judith Judson
Department of Energy Resources
100 Cambridge Street
Boston, MA

Via email: thermal.doer@state.ma.us

Re: MA Alternative Portfolio Standard DRAFT Regulations

Dear Commissioner Judson:

Bloom Energy Corporation ("Bloom Energy") hereby respectfully submits its comments in response to the Department of Energy Resources' ("DOER") draft Alternative Portfolio Standard ("APS") regulations filed on June 2, 2017. Bloom Energy greatly appreciates your efforts to develop these regulations and in particular the inclusion of fuel cells in this rulemaking. These important regulations will allow businesses in Massachusetts the opportunity to operate more reliably and efficiently while also reducing their energy costs.

Bloom Energy is a provider of solid oxide fuel cell technology that produces reliable base load power using a highly resilient and environmentally superior electrochemical (non-combustion) process. The advent of the Bloom Energy Server™ enables customers to deploy a new form of clean, reliable, on-site generation that can be deployed irrespective of the presence of a thermal load.

As currently drafted, the APS regulations effectively include two different and conflicting efficiency standards. First, Section 16.05(1)(a)(7)(b) of the draft regulations require that fuel cell generation must "meet an overall efficiency of 60%." Second, Section 16.05(1)(e) of the draft regulations states that APS generators must comply with a net carbon dioxide emissions rate to be established by the DOER at least every two years.

The establishment of two conflicting standards creates an inherent conflict that should be clarified by removing the first requirement. It is not clear whether the 60% standard is intended to be read as a lower heating value figure or a higher heating value figure. Moreover, the use of a stated efficiency standard fails to account for variables such as capacity factor or benefits such as the elimination of

criteria pollutants such as oxides of nitrogen, sulfur dioxide, and particulate matter. Furthermore, setting a fixed efficiency requirement in the regulations runs counter to the important work the DOER will do to update the CO₂ standards, which are a function of efficiency, every two years.

Bloom Energy recommends that the DOER eliminate the 60% efficiency standard in draft Section 16.05(1)(a)(7)(b) and instead (1) retain the net carbon dioxide emissions rate “equal to the average emissions rate of existing natural gas plants in Massachusetts at the time when the Generation Unit is qualified,” and (2) clarify that the net emissions rate standard will be calculated in a way that takes into account transmission and distribution line losses for projects installed on the customer side of the meter.

Thank you again for time and commitment to expeditiously developing regulations that will help advance the development of fuel cell projects in the Commonwealth. Please do not hesitate to reach out if the Department requires any additional information on this matter.

Sincerely,

/S/

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