

Comments of FreeWire Technologies on the
Distribution Circuit Multiplier Draft Guidance

Introduction

FreeWire Technologies (“FreeWire” or the “Company”) is the leading provider of battery-integrated electric vehicle supply equipment (“EVSE”). This unique configuration enables ultrafast electric vehicle (“EV”) charging in grid-constrained areas. FreeWire’s solution minimizes the need for time-consuming and costly infrastructure upgrades on both sides of the meter that are often required to support traditional direct-current fast-chargers (“DCFC”) that offer a comparable output power. This is possible because FreeWire’s technology uses a low-power input from the grid (drawing a maximum of 27kW) to charge its internal battery energy storage system (“BESS”) which then charges EVs with a high-power output (up to 200kW). This solution allows for ultrafast EV charging using ubiquitous low and medium voltage or even single-phase power unlike most traditional DCFC which require three-phase power at 480v. FreeWire appreciates the opportunity to provide comments to the Massachusetts Department of Energy Resources (“DOER”) on the Clean Peak Standard Distribution Circuit Multiplier Draft Guideline (“DCM”)¹.

1

<https://www.mass.gov/doc/draft-clean-peak-distribution-circuit-multiplier-guideline-clean-10-31-22/download>



Battery-Integrated EVSE Should be Eligible for the DCM

EVSE can participate in Clean Peak Standard as either a Demand Response Resource (“DRR”) or a Qualified Energy Storage System (“QESS”), however, under DOER’s Draft Guideline, only Generation Units are eligible for the DCM and are able to reserve capacity on DCM-eligible circuits. The exclusion of other resources, particularly battery-integrated EVSE, fails to recognize this unique technology's value in helping to mitigate distribution system upgrades while simultaneously advancing the State’s other policy objectives like accelerating transportation electrification.

EVSE can mitigate peak load on distribution circuits by reducing their input power during the Seasonal Peak Periods of the Clean Peak Standard program. Uniquely, battery-integrated EVSE can still charge EVs at their nameplate output even if the input power is reduced during Seasonal Peak Periods unlike traditional EVSE where reducing the input power also reduces the output power. Further, a properly equipped battery-integrated EVSE could also export energy during Seasonal Peak Periods thereby providing incremental peak load reduction. This is exactly the type of solution that the State needs and that DCM is intended to support.

FreeWire encourages DOER to revise the Draft Guideline to make clear that resources other than Generation Units, in particular battery-integrated EVSE, are eligible for the DCM as they were in DOER’s previous Straw Proposal. In that proposal, Demand Response, RPS Class I/II, BTM storage, and standalone storage were all eligible to receive the DCM on circuits with



increasing peak demand². If the DCM is not modified to properly incentivize innovative solutions like battery-integrated EVSE, Massachusetts will miss out on a significant source of load flexibility – including both load reduction and exports – that can help mitigate distribution system upgrades and support the State’s broader clean energy and decarbonization goals.

Conclusion

FreeWire strongly commends the DOER for their leadership in seeking to deploy distributed energy resources to support the grid and avoid costly infrastructure upgrades through the Clean Peak Standard program. We sincerely appreciate the opportunity to provide these comments and look forward to participating in the DCM.

Respectfully submitted,

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² <https://www.mass.gov/doc/cps-dcm-straw-proposal/download>