

DER

Massachusetts Department
of Energy Resources

**COMMONWEALTH OF MASSACHUSETTS
DEPARTMENT OF ENERGY RESOURCES**

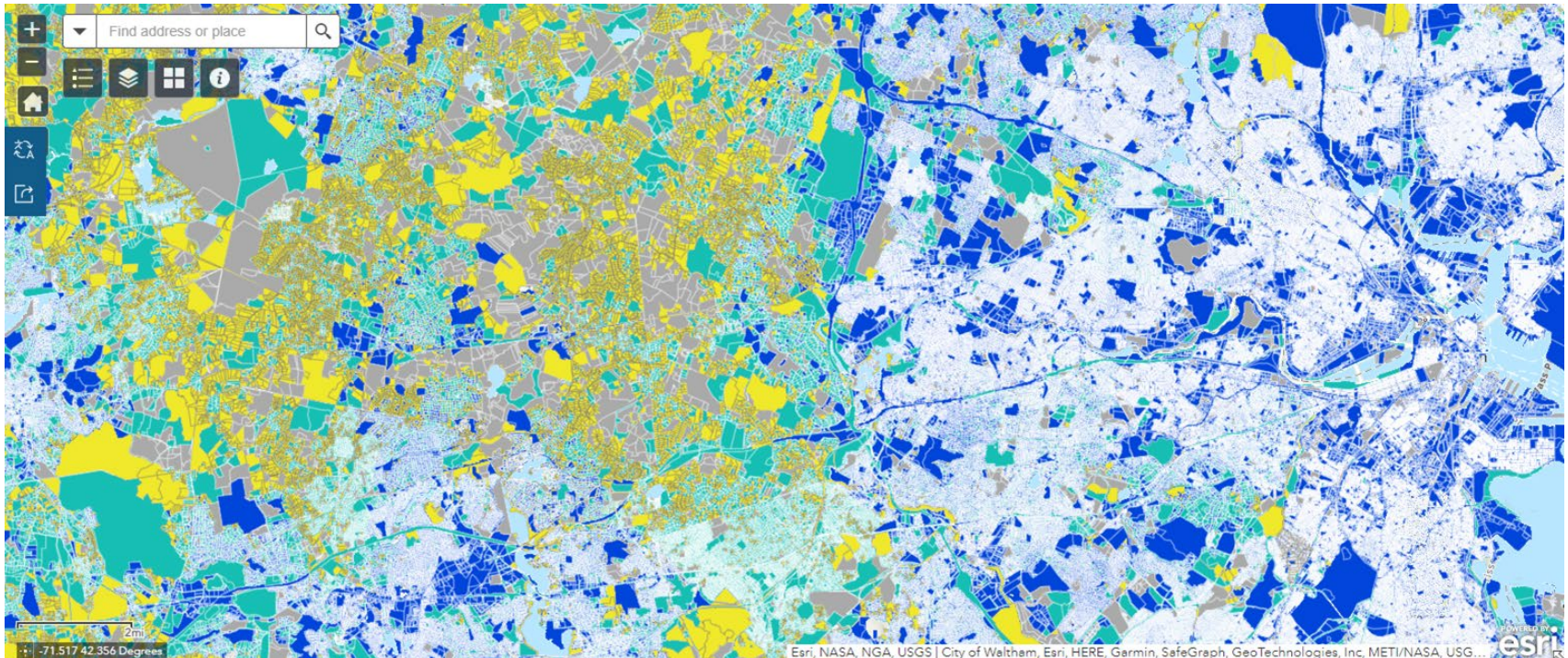
Elizabeth Mahony, Commissioner

***Pragmatic Energy Infrastructure Siting
Solutions***

October 17, 2023

Technical Potential of Solar Study

- Quantify the technical potential for solar development in Massachusetts
- An estimate of the total amount of solar that could physically be built, thematically ranked for suitability based on natural resource impacts and economic factors

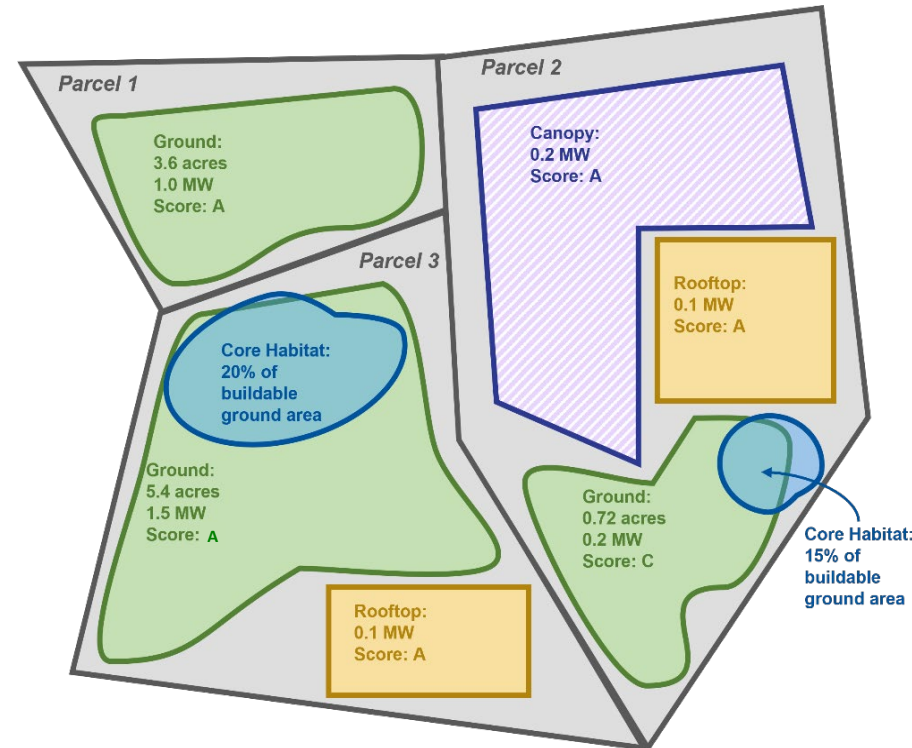


Suitability Categories

Table 1. Suitability Categories and Criteria

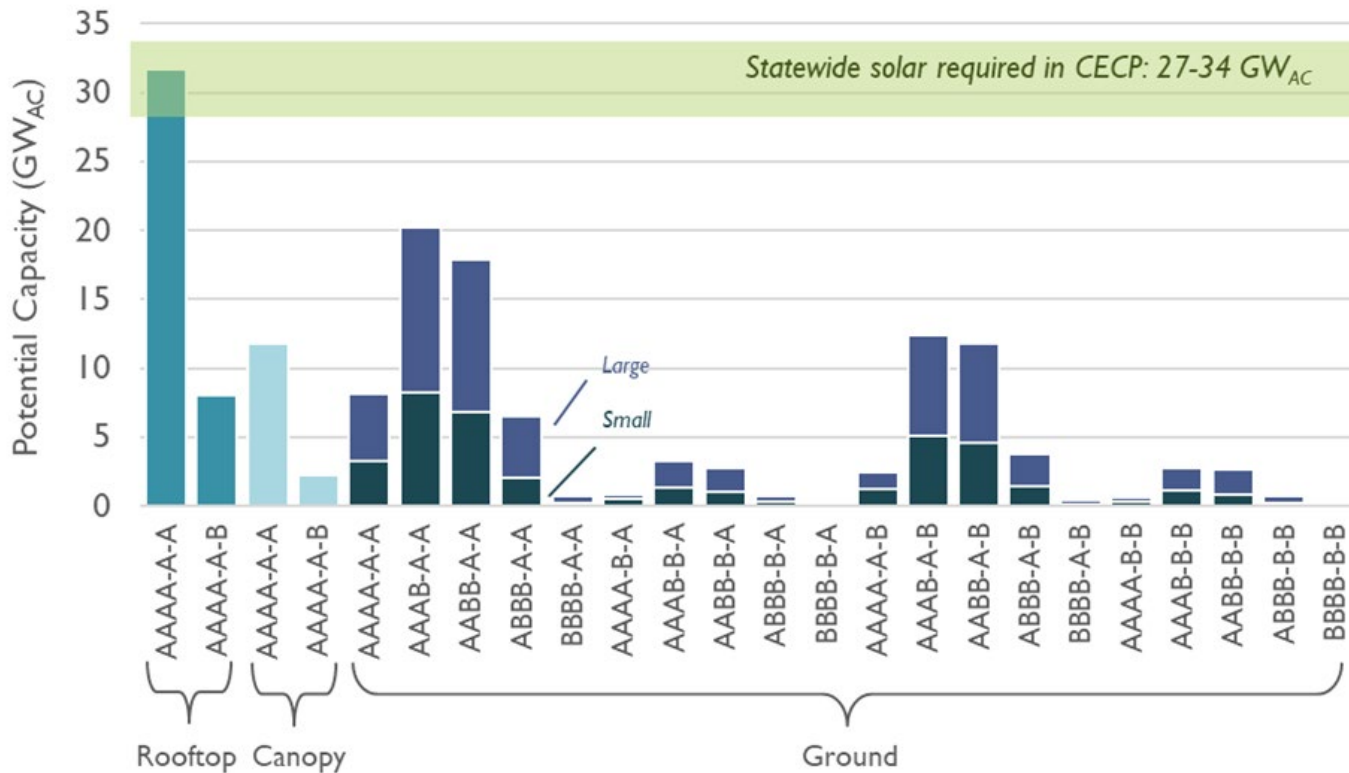
Category	Criteria
Agriculture	Does the parcel contain agricultural soils and/or is it designated as farmland?
Biodiversity	Does the parcel overlap with Biomap area?
Other Ecosystem Services	Does the parcel overlap with a Wellhead Protection Area, and/or Areas of Critical Environmental Concern?
Embedded CO _{2e}	How much embedded and foregone CO _{2e} does the parcel contain?
Grid Infrastructure	How far is the parcel from a substation?
Slope and Aspect	What is the parcel's grade and what direction does it face?

Figure 2. Suitability scoring example – biodiversity category



Technical Potential of Solar Study

- Far more solar potential than needed to meet decarbonization goals
- Massachusetts has 506 GW of technical solar potential
- The top-rated parcels alone add up to nearly double what’s called for in the 2050 Decarbonization Roadmap
- <https://technicalpotentialofsolar-ma-synapse.hub.arcgis.com/pages/main-map>





Broccoli+Solar



Public Transit+Solar