



MASSACHUSETTS
**DEPARTMENT OF
ENERGY RESOURCES**

Solar Canopy Working Group

Meeting #2: Innovative Solar Canopy Projects

25 April 2025

Presented by

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Deputy Director, Renewable & Alternative Energy



Working Group: Charge

Section 124 of Chapter 239 of the Acts of 2024 direct the group to:

*“...develop **recommendations for regulatory and legislative changes** that may be necessary to encourage the construction and operation of solar power generating canopies. The recommendations shall be designed to contribute to the state’s greenhouse gas emission limits and sublimits established pursuant to chapter 21N of the General Laws and **facilitate the development and deployment of solar canopies** in a cost-effective manner...”*

Working Group: Solar Canopies

- Solar Tariff Generating Unit with the majority of the solar capacity installed on a raised structure elevated high enough to maintain the function of the area beneath the canopy
- ***Example projects:*** parking lots, walkways, canals, gazebos, carports, pergolas
- For the purposes of this group, solar canopies will *not* include agricultural **or floating solar** projects



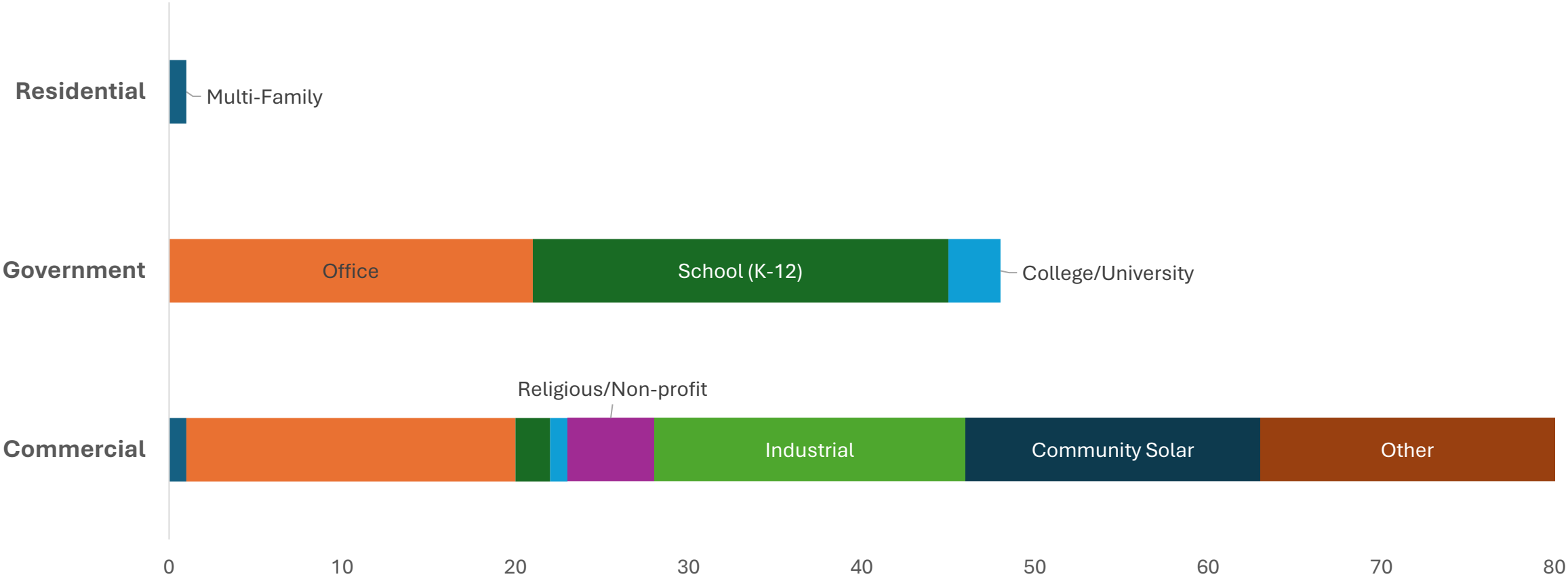
Working Group: Revised Timeline

In accordance with the legislation, we propose the following draft timeline:

Date	Deliverable	Details
March 28	Virtual kickoff: Overview	
April 18	Hybrid Meeting #1: Level-setting	<i>review of MA policies/data, developer/agency presentations</i>
April 25	Hybrid Meeting #2: Brainstorming	<i>discussion of stakeholder ideas, other states</i>
May 9	Hybrid Meeting #3: Outlining	<i>report outline, proposed recommendations</i>
May 16	Draft recommendations	
May 19-30	Group review and revision	
May 30	Hybrid Meeting #4: Finalizing	<i>if needed</i>
June 2-13	DOER/EEA review	
June 16-27	Governor review	
June 27	Hybrid Meeting #5: Wrap up	<i>if needed</i>
June 30	Submit report	

Solar Canopies in SMART

Approved Projects (by Project Count)



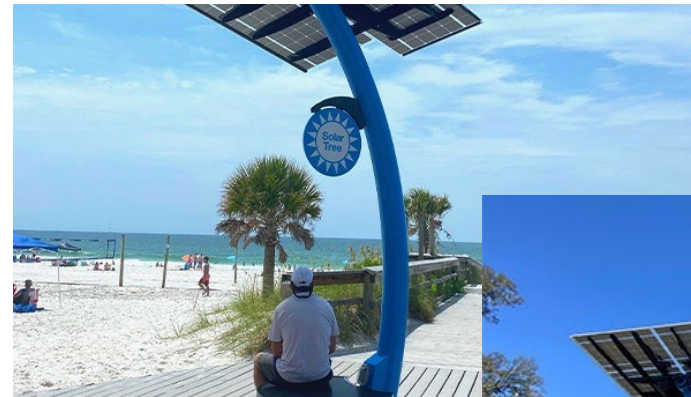
Innovative Solar Canopy Projects

From National League of Cities' *Innovative Approaches to Dual-Purpose Solar*¹

Shading for Bus Stops and Other Public Spaces



University of Wisconsin–Madison installed solar panels on 20 campus bus shelters



Pensacola, FL partnered with local utility to install “solar trees” in public areas, providing shading at parks and for other pedestrians

¹ <https://www.nlc.org/article/2025/04/03/innovative-approaches-to-dual-purpose-solar/>

Innovative Solar Canopy Projects

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Parking Lot Covers



San Antonio, TX has installed almost 500 parking spots worth of solar panels across municipal parking lots



At the police station, the panels generate energy while keeping squad cars cool

¹ <https://www.nlc.org/article/2025/04/03/innovative-approaches-to-dual-purpose-solar/>

Innovative Solar Canopy Projects

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Building Integrated Design



Solar panels at City Hall in Sunnyvale, CA provides shading for the sidewalk, building and has 2-way panels to capture ground reflected light

Canal and Water Treatment Center Covers

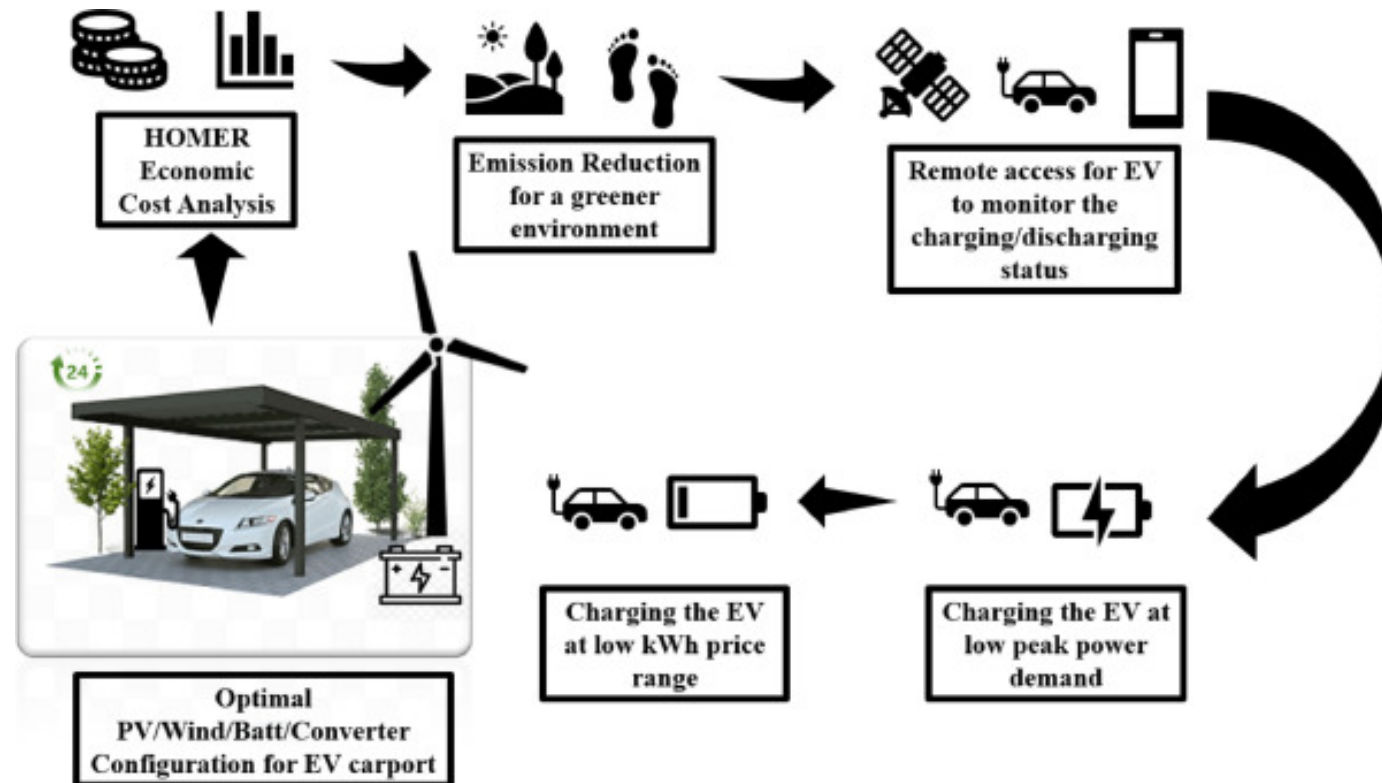


First canal-based solar project in the U.S. is nearing completion on tribal lands south of Phoenix, Arizona to help prevent excessive water evaporation

¹ <https://www.nlc.org/article/2025/04/03/innovative-approaches-to-dual-purpose-solar/>

Innovative Solar Canopy Projects

From Eco-friendly microgrid carport charging station for electric vehicles (EVs)²



Techno-economic feasibility study of an optimal energy layout configuration for an EV charging station carport infrastructure found hybrid microgrids can offer both social and environmental benefits to EV owners.

²<https://www.sciencedirect.com/science/article/pii/S2772671123000918>

Innovative Solar Canopy Projects

From *Paired Power*³



“PairTree can be installed within a single workday with just two workers using standard hand tools—more than 30 times faster than conventional solar canopies...

...there are no moving parts, no motors to fail, and no annual maintenance.”

³ <https://pairedpower.com/>



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Thank You!