



MASSACHUSETTS
**DEPARTMENT OF
ENERGY RESOURCES**

Solar Canopy Deployment at State Sites

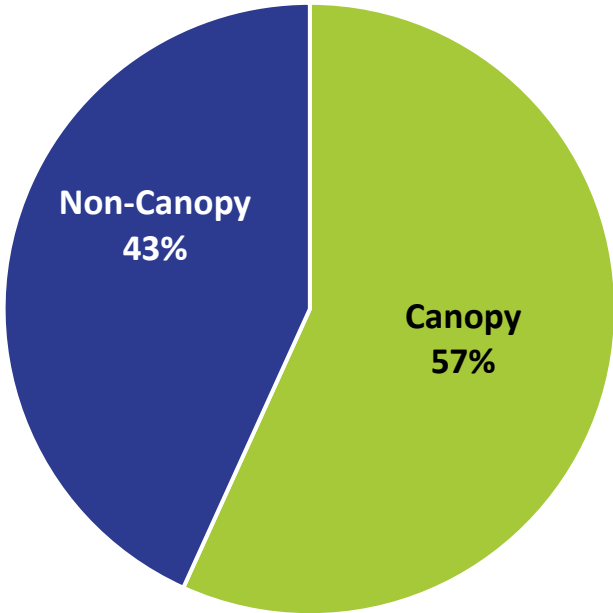
Eric Friedman & Sophia Vitello, Leading by Example Division, DOER



Solar at State Sites: Overview

State sites have installed a total of 34.3 MW DC of operational solar PV capacity (with another 1.1 MW coming online by the end of FY25)

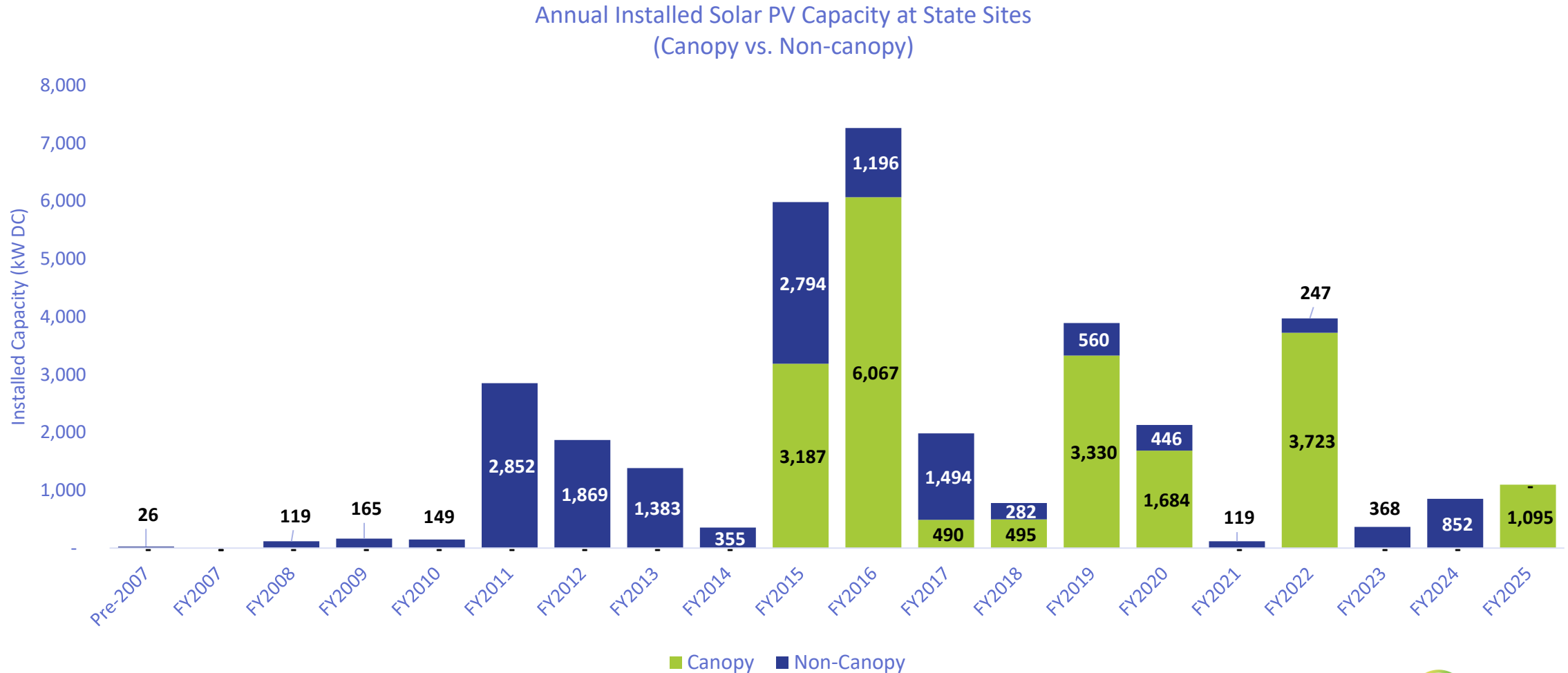
Solar PV Installed at State Sites by Technology Type



Operational Solar PV at State Sites	Capacity (kW DC)
Canopy	20,071
Non-Canopy	15,276
Total	35,347

Annual Solar Deployments at State Sites

Starting in FY2015, state sites began to install more solar canopies as compared to non-canopy solar PV



Solar Canopies: Lessons Learned

Challenges

- Higher cost to build solar canopies (\$4 avg. cost-per-watt for 2024 state canopy projects)
- Public projects often have extra requirements (e.g. prevailing wage)
- Interconnection time and costs (extremely variable)
- Decreasing SMART incentives with revamp in development
- Many projects require grant funds to make viable
- Uncertainty around future of federal ITC/PTC and elective pay credits; elective pay requires delayed receipt of associated funds
- Ongoing O&M costs for solar and storage (if owned)
- Energy storage with solar typically not cost-effective
- (State-specific) State project development typically takes 2-4 years

Opportunities/Benefits

- Significantly more opportunity for solar
- Supports larger facility decarbonization
- Resilience benefits when paired with storage
- Electricity cost savings/certainty
- Contribute to grid emissions reductions
- Additional benefits – e.g. shade for cars, reduce urban heat island effect, visibility
- LBE grant program for solar canopies Includes higher incentive for solar canopies to address higher upfront cost

