

Residential/Small Commercial Takeaways - RMLD Solar Workshop 6/20/19

System Type: RMLD customers must lease or own the system; third party electricity sales are not allowed in a municipal utility service area per MA state law.

System Size:

- The system should be sized to match electricity consumption.
- Average residential system size = 6.3 kilowatts.

Installation Considerations for Rooftop Solar:

- Roof condition/structure should be evaluated prior to installation
- Several conditions affect a system's operating efficiency:
 - Roof orientation: south facing is best
 - Roof tilt: a 30-45 degree angle is best (this is typical of most New England homes)
 - Shading: ideally, a system should have no shade for a minimum of six hours per day
 - The amount of electricity the system produces will vary seasonally due to the change in the position of the sun over the course of the year

IMPORTANT NOTE: The MLP Solar Rebate sets forth requirements regarding system efficiency and shading, and should be reviewed prior to the installation of a system.

Finding an Installer:

- Get at least three quotes and check installer references.
- Verify that installers are properly licensed by checking the MA Home Improvement Contractor Registry (<https://services.oca.state.ma.us/hic/licenseelist.aspx>) or MA ePlace Portal (<https://elicensing.mass.gov/CitizenAccess/Default.aspx>).
- Utilize MassCEC's database to find installers by county, number of projects they've completed, and their median cost per watt (<https://www.masscec.com/solar-costs-performance>).
- For more information, visit <https://www.masscec.com/finding-solar-installer>.

Net Cost of Average Size Residential System After Incentives:

(for illustrative purposes only, will vary by system size and installer)

	Base Cost	MLP Solar	Mass Tax		2019 FIT	Net Cost	2020 FIT	Net Cost
MLP Solar Rebate (<25 kW)	\$3.29	(\$1.20)	-15.0%	(\$1,000)	-30.0%	2019	-26.0%	2020
6,227 watts	\$21,714	(\$7,920)	(\$2,069)	(\$1,000)	(\$3,838)	\$8,956	(\$3,326)	\$9,468
Estimated Years to Achieve Positive Return on Investment						6.6		7.0

MLP Solar Rebate Program: System requirements and application forms may be found at <https://ee.ene.org/solar/>.

RMLD Considerations:

- Even with an appropriately sized system, solar customers will continue to utilize RMLD to provide electricity when the system is not producing an adequate amount due to weather or time of the day/year.
- RMLD credits customers the monthly fuel charge for any excess production over usage for that month.
- Solar projects are evaluated on a case by case basis for impact on feeders and load (currently there is a 15% limit per feeder; further studies are in process).