Homeowner’s Rehab, Inc.
Solar Hot Water

Project Summary
Location: Cambridge, MA
Application: Hot water for eight residential affordable housing units, not for space heating
Solar Collectors: Eight Kingspan FPW30 flat plate collectors; 4’ x 8’ each
System Format: Closed loop, drainback. Three 80 gal stainless steel solar storage tanks preheating two 80 gal 24 KW commercial electric tanks
Storage Capacity: 240 gal
Backup Heating System: Commercial electric tanks
Metering: Provided by NESHW. Resol DeltaSol BS Plus controller with DL2 Datalogger connected to internet
Yearly Energy Output: 16,931 KWh (est.)
Yearly CO₂ Reductions: 24,859 lbs. (est.)
Install date: 2017
Install cost: $37,120
Incentives: Mass CEC low income rebate: $23,160; 117 AECs that produced $5,147 during a one-time sale
Cost to Customer: $8,813, with a 2.6 year payback (calculated at $0.20/kWh)

Contact Information
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Homeowner’s Rehab is a private non-profit housing corporation that works to provide affordable housing in multi-family dwellings. They are committed to renewable energy, and took advantage of a scheduled rehab of a property in Cambridge to install new solar hot water and PV systems. The solar hot water array was chosen because the roof had limited space, making it impractical for PV. There is also no gas access at the location, so solar preheating water was a more cost effective solution than sole reliance on electric heated hot water.

The solar hot water system, which provides about 60% of the hot water needs of the residents, was designed and installed by John Moore and New England Solar Hot Water. NESHW was recommended to Homeowner’s Rehab by New Ecology, Inc., a non-profit sustainable development consultant. The roof-mounted system requires very little maintenance, and all the controls and tanks fit into a small utility room.

Homeowner’s Rehab was able to utilize not only MassCEC rebates to help defray the cost, but also take advantage of selling Alternative Energy Credits (AECs), a process that NESHW helped them navigate. Homeowner’s Rehab is very pleased with their solar hot water array, not only because of the cost savings, but also because it helps them continue to be a leader in sustainability and furthers their mission of providing safe, healthy, efficient housing.