

Narragansett Bay Research Reserve Gets Greener



Conservation

In late 2017 the Research Reserve took one more step in reducing our carbon footprint by replacing our existing indoor and outdoor lighting with high efficiency LEDs. The complete retrofit also includes advanced motion sensors that will dim or shut off the lights when no one is around to further reduce use. This retrofit was possible through an incentive program offered by National Grid which finances the project through our monthly electric bills. With this program, National Grid pays for the upfront cost of the hardware and installation, but is then repaid by taking a portion of our monthly electricity payments, which remain the same as before the energy efficiency retrofits. After the total cost of the installation is paid, the electric bill will be reduced to reflect the actual cost of energy used. An energy audit suggests that this change will reduce the electricity consumption in the Reserve's headquarters building by 30% or more. The headquarters building is the single largest consumer of electricity on the Reserve campus, so this is a big savings for us.



Renewable Energy

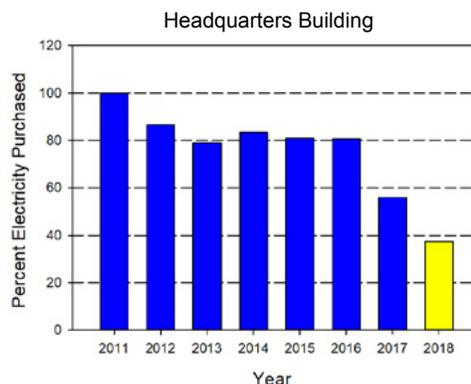


This upgrade follows closely after the installation of 7.4 KW of solar panels on the roof of the headquarters building in 2016 and a 3.7KW pole mounted array installed in 2012. Since 2012, these panels have generated 28.4 megawatt Hours (MWH) of power and have saved the equivalent of 17 tons of carbon dioxide (CO₂) compared to conventionally generated power. To put that in more common terms, the power generated would be the equivalent of 5.28 million smart phone charges, 6,450 washer dryer loads, or

2500 gallons of gasoline. For a live update on solar power generation at the Reserve go to <https://www.solrenview.com/SolrenView/mainFr.php?siteId=1200>

Savings

The graph below shows the increasing contribution these solar arrays have made to the total electrical use of the Reserve headquarters building as they have been phased in over time. We estimate that on an annual basis, our total electricity purchased from the grid will be reduced to approximately 37% of what we were actually using before these investments. And this is just a start. We are continually looking for opportunities to further increase our renewable energy capacity and to further reduce our consumption of electricity.



Since installation in 2012 we have generated the power equivalent of

17 Tons of CO₂



5.28 million cell phone charges



5.7 Million light bulbs for 1 hr



2,500 gallons of gasoline

