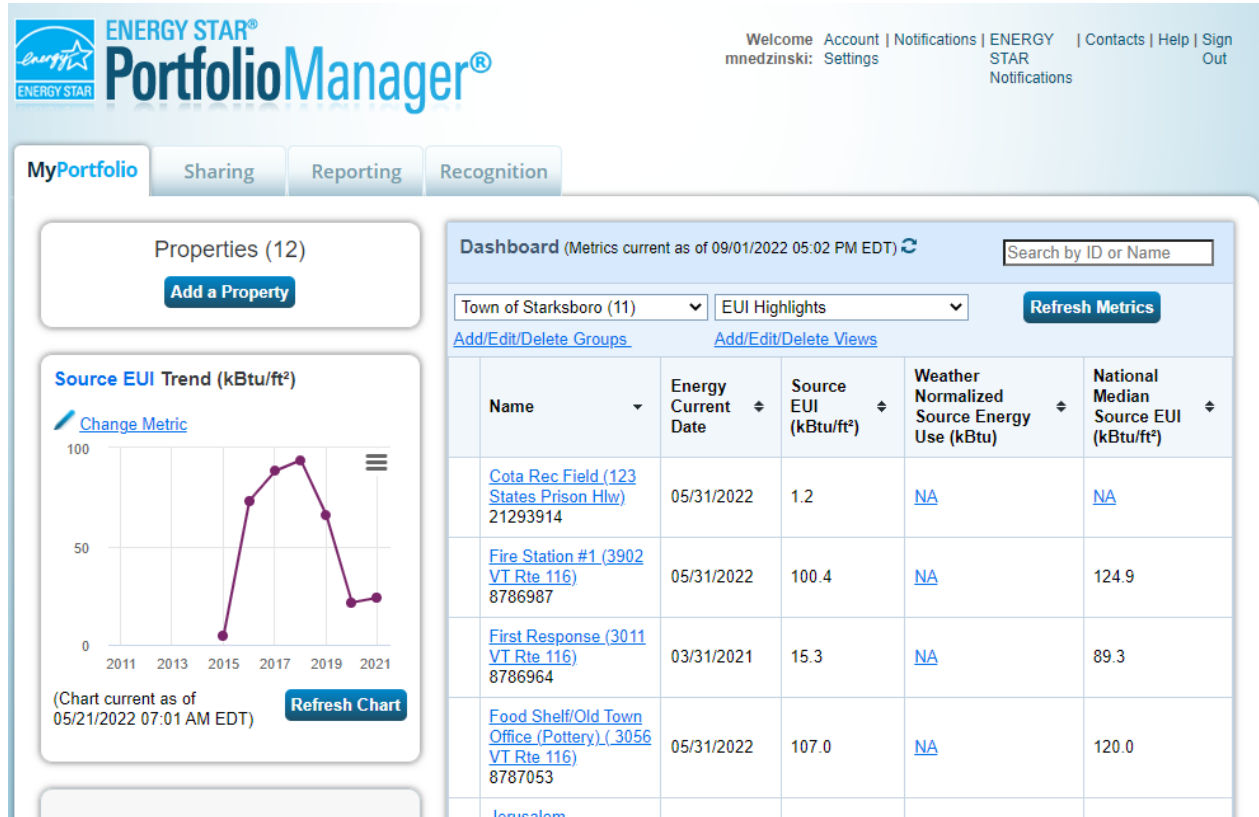


Town of Starksboro

Town Building Energy Benchmarking



8 buildings
6 Solar Trackers

- 1 - Fire Station #1
- 2 - First Response
- 3 - Old Town Office/Food Shelf
- 4 - Jerusalem Schoolhouse/#2 Fire
- 5 - New Town Garage
- 6 - Old Town Garage
- 7 - Old Town Hall/Library
- 8 - Town Office

Cota Field is also listed in the Town ESPM Group

19 Leased Trackers at the School are not included

ENERGY USAGE INTENSITY (EUI)

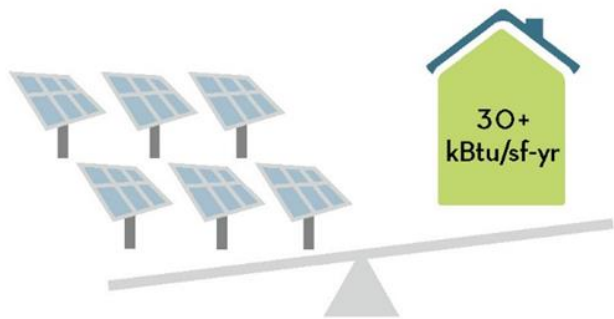
What?

Similar to MPG for a car

Why?

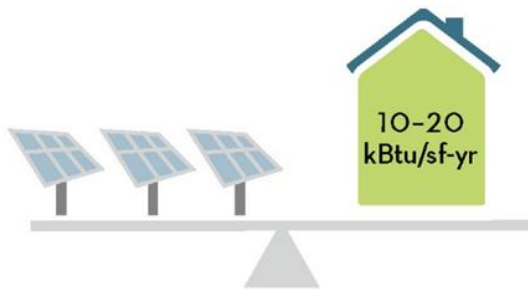
“right sizing” renewables / finding the balance

$$\frac{\text{TOTAL BUILDING ENERGY USE}}{\text{SF}} = \text{EUI} \text{ (kBTU/sf-yr)}$$

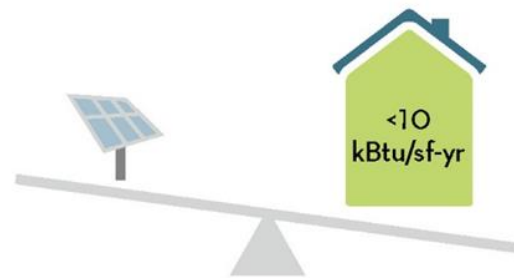


disproportionate cost of renewables

minimal insulation and poor energy performance



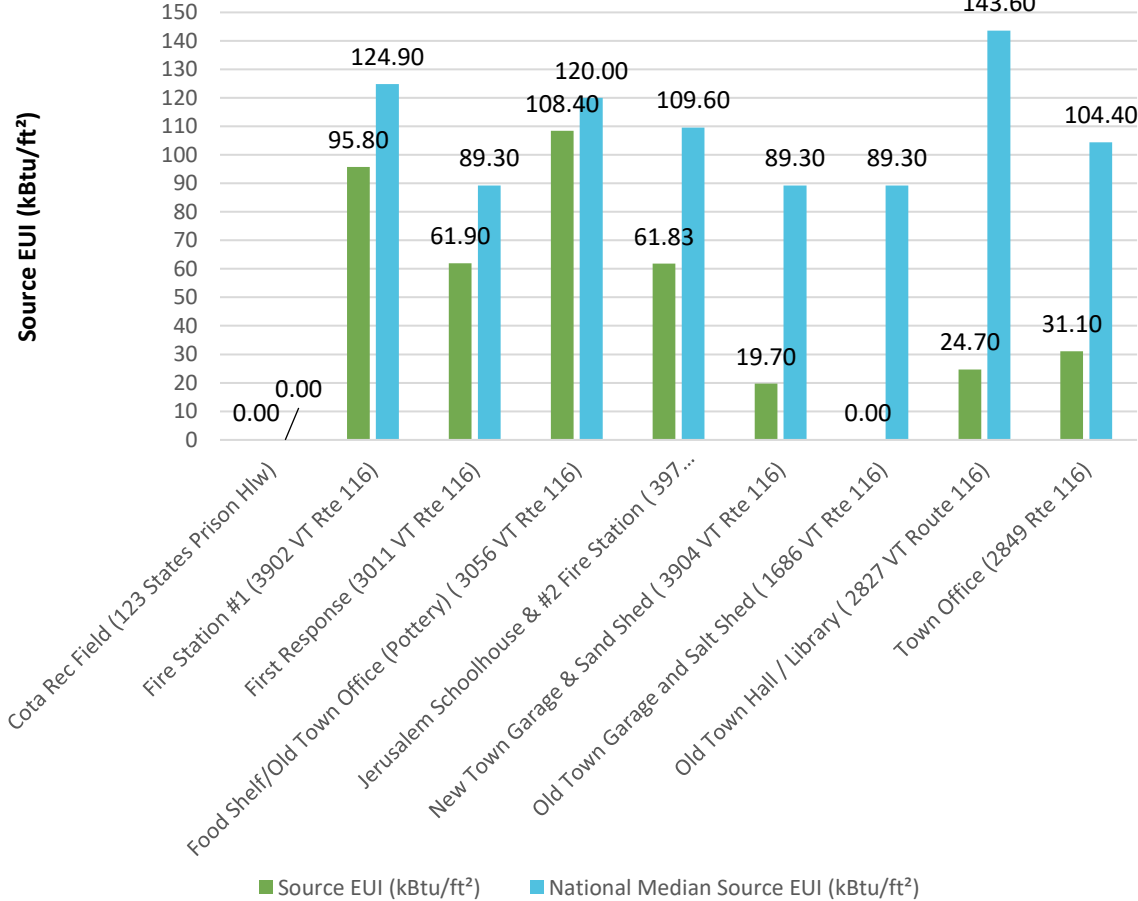
cost-effective balance of insulation, energy performance, and renewables



fewer renewables

disproportionate cost of insulation and energy performance measures

Town of Starksboro Typical Year (pre-Pandemic) 2019



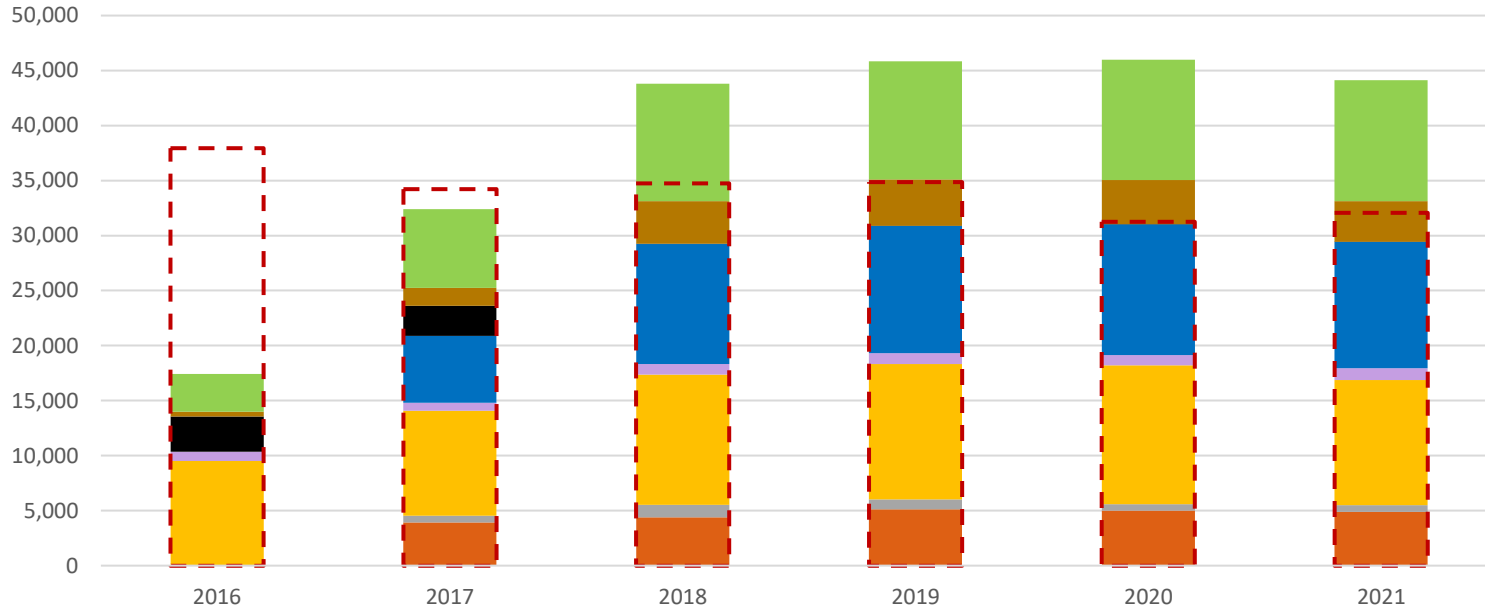
Source EUI

total amount of raw fuel that is required to operate the building. It incorporates all transmission, delivery, and production losses.

Fuels included:

#2 Fuel Oil
Propane
Electricity

Town of Starksboro Electric Consumed vs. Generated (kwh)



- Cota Rec Field (123 States Prison Hlw)
- First Response (3011 VT Rte 116)
- Jerusalem Schoolhouse & #2 Fire Station (397 Jerusalem Rd)
- Old Town Garage and Salt Shed (1686 VT Rte 116)
- Town Office (2849 Rte 116)
- Fire Station #1 (3902 VT Rte 116)
- Food Shelf/Old Town Office (Pottery) (3056 VT Rte 116)
- New Town Garage & Sand Shed (3904 VT Rte 116)
- Old Town Hall / Library (2827 VT Route 116)
- Solar-Town Owned (6-Trackers) (Acct:247)

10-12 kW system

Fixed rack system
Would produce
approximately
12-14,500 kWh/yr

Tracking systems
increase production

Source: NREL PVWatts
Calculator

Assumes:
Starksboro, VT,
20° tilt,
14% system losses,
standard module