

Maple Manor – Energy Improvement Project

42 Units of Senior Affordable Housing – Newport, NH

Joe Harrison



Who We Are



The Clean Energy Fund



Maple Manor – Energy Improvement Project



- 42 units
- 28,914 square feet
- 501(c)3
- Heat w/ propane
- 1980's construction
- Senior and disabled affordable housing
- Single level



Energy Audit & Existing Conditions

RESILIENT BUILDINGS — GROUP — *Superior energy performance*

A Comprehensive Energy and Improvement Plan for the Future

Maple Manor

44 Maple Street
Newport, NH 03878

November 11, 2014, presented January 22, 2015

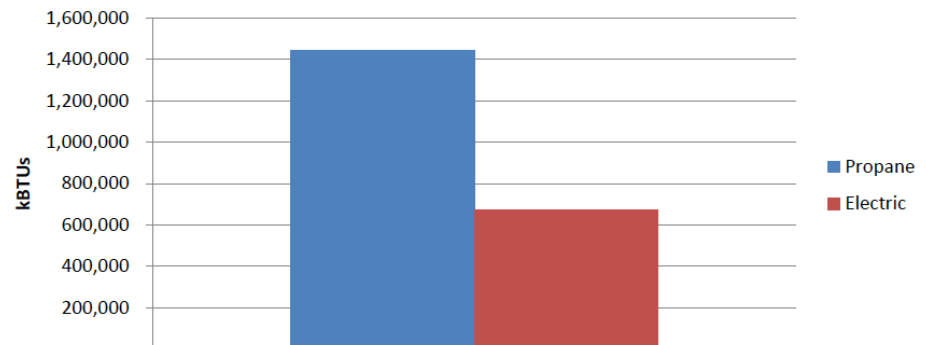


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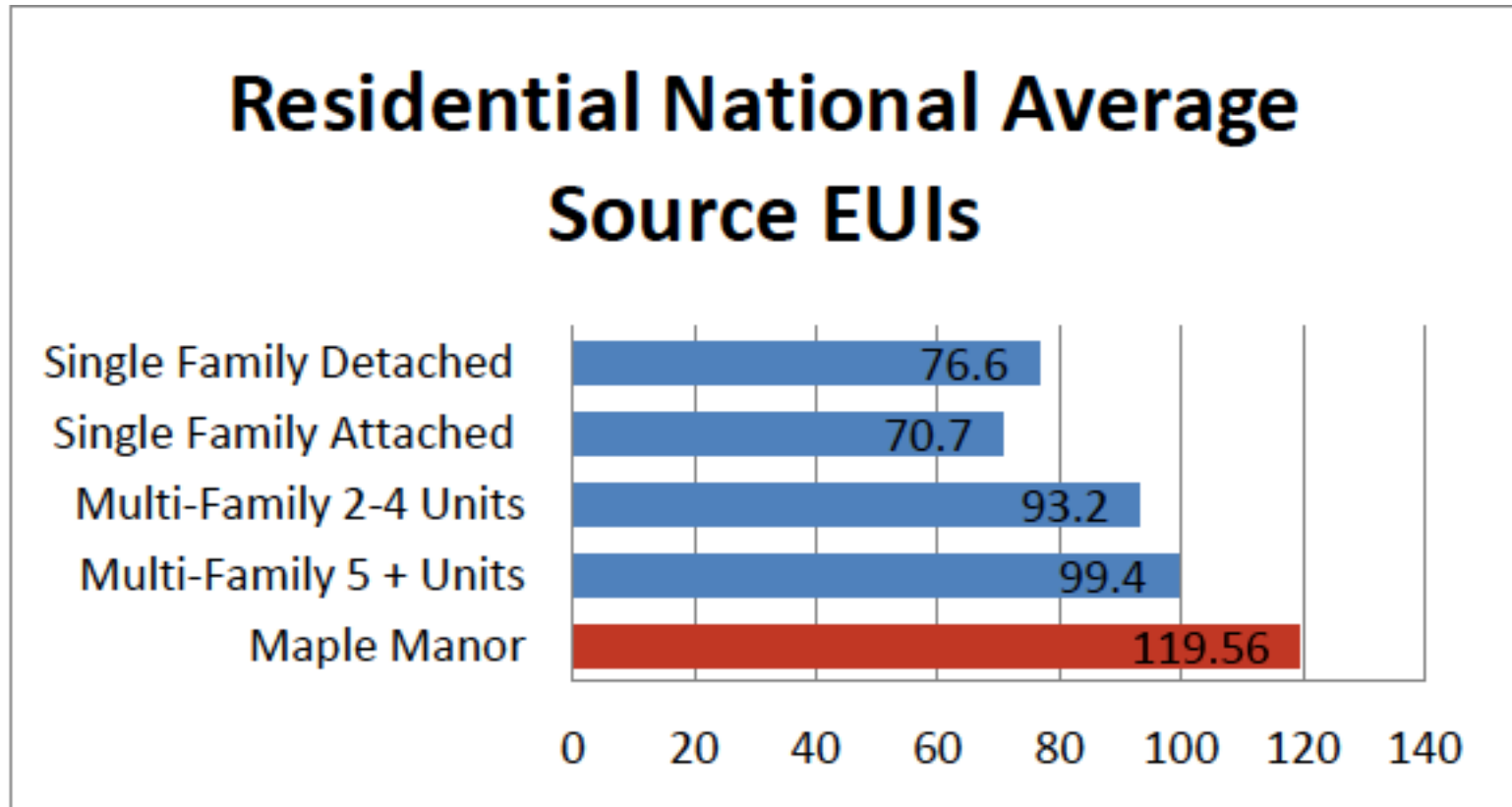
Energy Cost:

Fuel Type	Annual Cost	Cost Per Unit	Current State Wide Average*
Electricity	\$35,540	\$0.18/kWh	\$0.177/kWh
Propane	\$27,652	\$1.66/Gallon	\$3.24/Gallon
Water/Sewer	\$10,662	\$0.009/Gallon	N/A
Total Energy Costs (Water/sewer not included)	\$63,192		
Total Including Water/Sewer	\$73,854		

Maple Manor Yearly Energy Use



Maple Manor – Existing Conditions



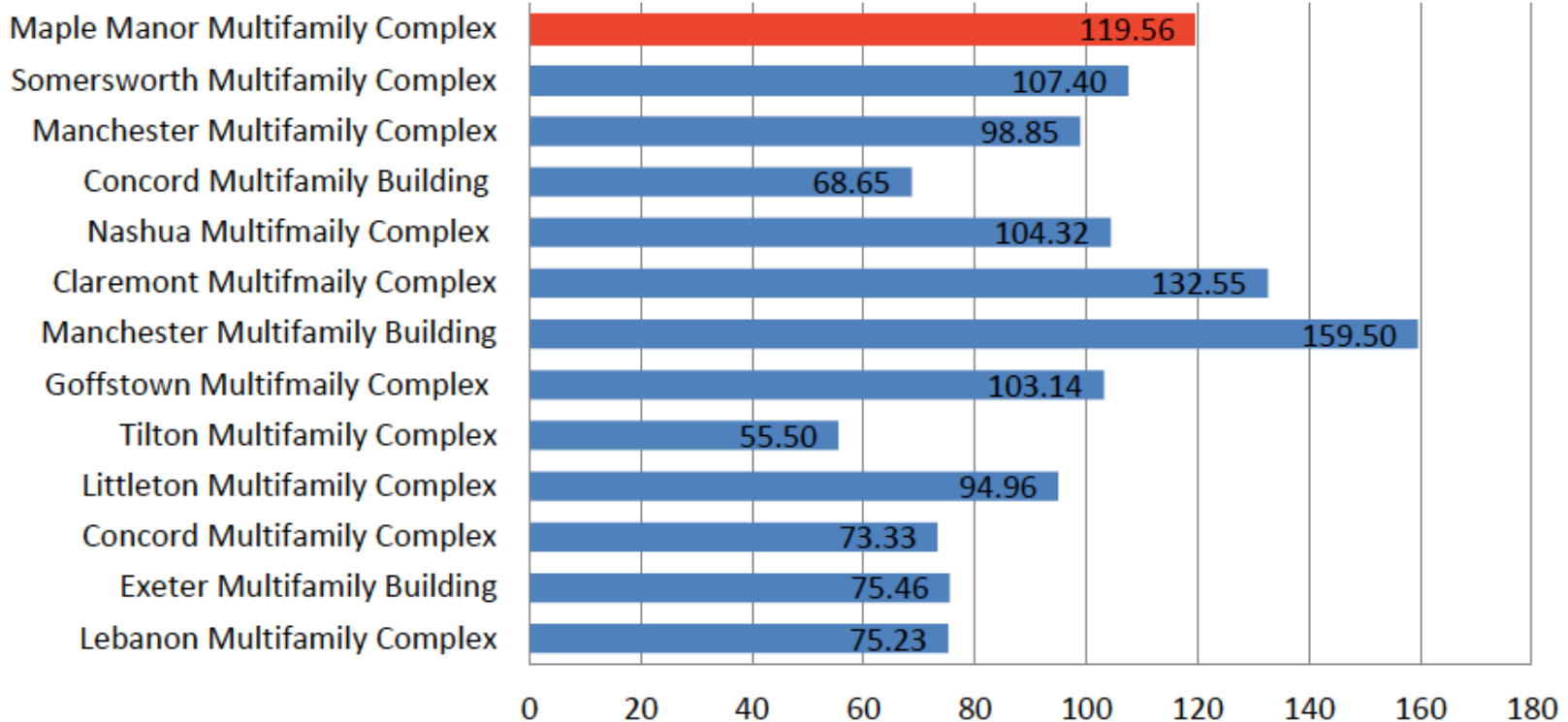
(Residential national average source EUI numbers from Architecture 2030 Data)

Maple Manor used 17% more energy than the national average



Maple Manor – Existing Conditions

New Hampshire Multifamily Source EUI Examples



Maple Manor used 20% more energy than the average multi-family in NH



Maple Manor – Energy Improvement Plan

Scope of Work
ENERGY STAR refrigerators
Electric heat pumps, hot water heaters, low flow fixtures
Air sealing & blown in insulation in all attics
Solar installation
LED lighting interior/exterior
Site Improvements (driveway and walkway paving)
Total Project Cost



Sources	CDBG	Utility Rebates	Clean Energy Fund Loan	Total
	\$407,100	\$135,100	\$270,000	\$812,200



Maple Manor – Construction



Maple Manor – Actual Energy Savings

<u>Energy Source</u>	<u>Pre Project</u>	<u>Post Project</u>	<u>Savings</u>
Propane	\$27,600	\$2,760	\$24,840
Electricity (ASHP added)	\$33,700	\$56,000	-\$22,300
Electricity (Ext LEDs)	\$1,800	\$750	\$1,050
Electricity (PV Solar)	\$0	-\$23,100	\$23,100
TOTAL	\$63,100	\$36,410	\$26,690



Affordable



Quality



Friendly



Safe





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