



Project/Run: don reed 8.543 Bradford - Baseline Design Run Date/Time: 11/27/11 @ 22:46



Electric Consumption (kWh x000)													
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Space Cool	-	-	0.02	0.19	0.42	1.44	2.02	2.20	1.08	0.10	0.03	-	7.49
Heat Reject.	-	-	-	-	-	-	-	-	-	-	-	-	-
Refrigeration	-	-	-	-	-	-	-	-	-	-	-	-	-
Space Heat	-	-	-	-	-	-	-	-	-	-	-	-	-
HP Supp.	-	-	-	-	-	-	-	-	-	-	-	-	-
Hot Water	-	-	-	-	-	-	-	-	-	-	-	-	-
Vent. Fans	0.47	0.43	0.50	0.49	0.47	0.49	0.47	0.50	0.47	0.45	0.49	0.49	5.67
Pumps & Aux.	0.04	0.03	0.03	0.02	0.01	0.01	0.00	0.00	0.01	0.03	0.03	0.04	0.26
Ext. Usage	-	-	-	-	-	-	-	-	-	-	-	-	-
Misc. Equip.	1.55	1.42	1.62	1.56	1.55	1.56	1.55	1.62	1.53	1.55	1.50	1.58	18.59
Task Lights	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.13
Area Lights	2.78	1.63	1.91	1.84	1.78	1.86	1.78	1.91	1.77	1.78	1.71	1.84	21.53
Total	3.84	3.52	4.09	4.11	4.24	5.34	5.83	6.24	4.87	3.94	3.72	3.96	53.68

Gas Consumption (Btu x000,000)													
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Space Cool	-	-	-	-	-	-	-	-	-	-	-	-	-
Heat Reject.	-	-	-	-	-	-	-	-	-	-	-	-	-
Refrigeration	-	-	-	-	-	-	-	-	-	-	-	-	-
Space Heat	57.70	47.84	32.59	10.65	0.68	-	-	-	0.21	8.77	23.47	52.58	234.49
HP Supp.	-	-	-	-	-	-	-	-	-	-	-	-	-
Hot Water	2.58	2.45	2.85	2.70	2.43	2.34	2.12	2.18	2.03	2.12	2.18	2.52	28.50
Vent. Fans	-	-	-	-	-	-	-	-	-	-	-	-	-
Pumps & Aux.	-	-	-	-	-	-	-	-	-	-	-	-	-
Ext. Usage	-	-	-	-	-	-	-	-	-	-	-	-	-
Misc. Equip.	-	-	-	-	-	-	-	-	-	-	-	-	-
Task Lights	-	-	-	-	-	-	-	-	-	-	-	-	-
Area Lights	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	60.28	50.29	35.45	13.35	3.11	2.34	2.12	2.18	2.23	10.89	25.65	55.11	262.99

QUEST 3.64.7130 Monthly Energy Consumption by Enduse Page 1

CASE STUDY

Don Reed's 6800 sq ft small town grocery store built in 1993, climate zone 6, Genesee, PA.

Compare building's actual HVAC energy use with NRG 10" walls to projected HVAC energy use of eQuest energy model of identical building with R-54 walls (10" block exterior, 10" EPS (2.5 density at R-54 per inch) interior).

Don Reed' store has a drop ceiling with a 30" air gap, metal roof, two inches of rigid foam, rubber, and gravel on top.

Actual HVAC Energy Use Intensity (EUI):

28 cu ft/sq ft (33 cents per sq ft). All heating, since no A/C needed.

Projected eQuest model with R-54 walls HVAC EUI :

37.25 cu ft/ sq ft (53 cents per sq ft).

Don Reed's NRG 10" store uses 20% less HVAC energy than identical model built with R-54 walls.

NRG Block enables smaller capacity HVAC systems and demand-shifting of electric HVAC systems to off-peak rate times.