Roaring Fork Transit Authority – Aspen Maintenance Facility – Building Energy Performance March 2006 – March 2015

1. Energy Intensity (EUI) = Building performance gauge

Total energy inputs required divided by floor area (kBtu/Sq ft)

2. Original Engineers Estimates of Energy Savings:

Environmental Impact Comparison Table – Building Systems						
Energy Type	Baseline			Proposed System		
	Greenhouse Gases (lbs/yr)	Energy Consumption (kBtu/yr)	Energy % of Total	Greenhouse Gases (lbs/yr)	Energy Consumption (kBtu/yr)	Energy % of Total
Building Natural Gas	286,331	8,729,602	73.6%	103,932	3,168,658	49.4%
Building Electrical	658,091	3,134,556	26.4%	680,721	3,241,529	50.6%
Totals	**944,588**	11,864,158	-	**784,653**	**6,410,187**	-
Summary of Annual Savings				**159,935**	**5,453,971**	-
Lifetime Savings (20 Year Estimated Life)				**3,198,691**	**109,079,411**	

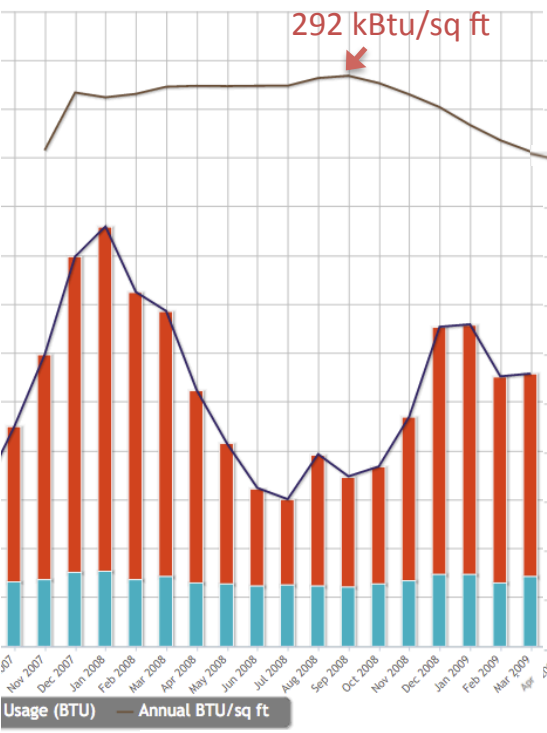
Farnsworth Group report estimate of savings = 45%

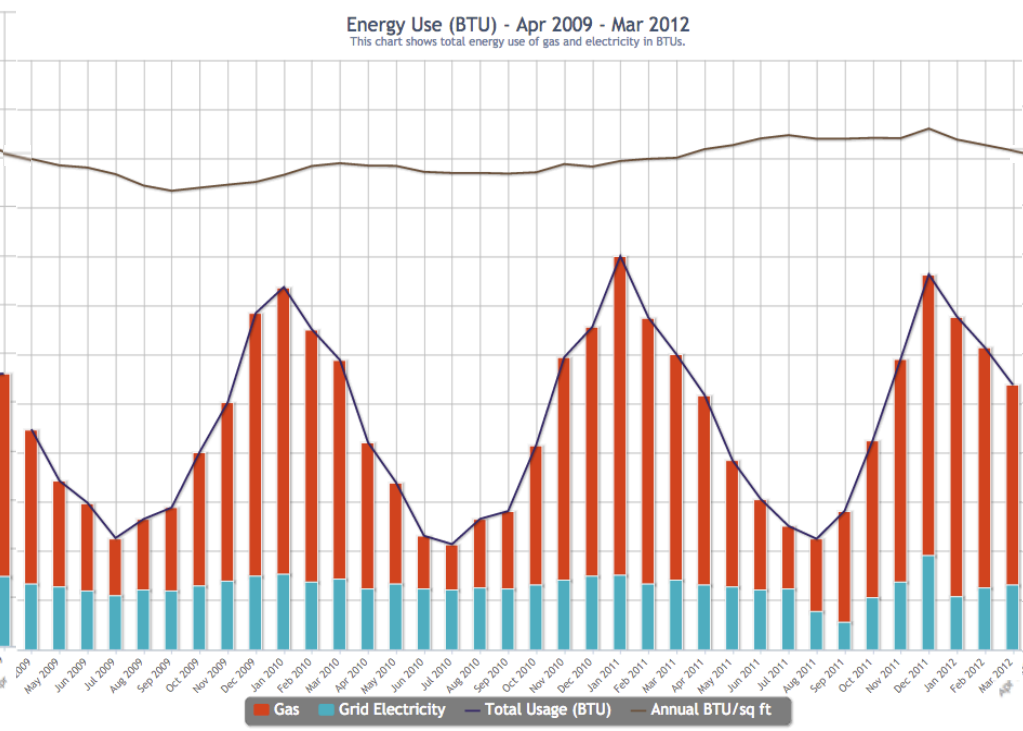
3. Actual Performance:

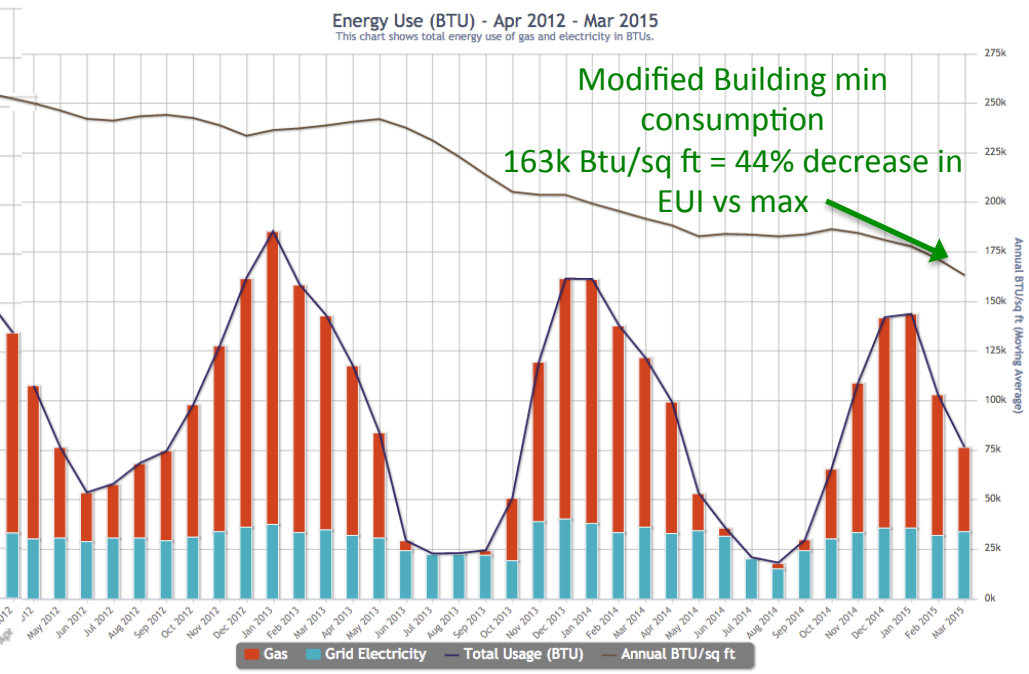
AMF Consumption - Comparison of baseline usage vs current					
	Baseline (2008)		Current (2015)		Results
Energy Type	Greenhouse Gases (lbs/yr)	Energy Consumption (kBtu/yr)	Greenhouse Gases (lbs/yr)	Energy Consumption (kBtu/yr)	Percent Change
Natural Gas	286,331	8,943,301	137,257	4,287,100	52%
Electrical	658,091	3,203,756	595,445	2,898,780	10%
Total	944,422	12,147,057	732,702	7,185,880	41%
Summary of Energy Savings			211,720	4,961,177	
Lifetime Savings			4,234,399	99,223,540	

Actual building energy savings performance = SUCCESS!

Unmodified Building Max consumption 292 kBtu/sq ft







ADDITIONAL ENERGY SAVINGS SPENT ON IMPROVED BUILDING PERFORMANCE BY:

1. Improved Air Quality
2. Improved Quality of Heating
3. Added Cooling to the Building
4. Facility is significantly busier since 2006

- Note: Usage data above based on actual billed consumption from utility provider & billing periods for all data are adjusted to reflect calendar day and month usage

- Comparing the RFTA AMF facilities energy use intensity to other facilities suggests that consumption is at 50% or below a comparable facility. In looking at New York State's benchmarking report the MTA and NFTA both show EUI of ~400 kBtu/sq ft across their building portfolio. This suggests the AMF is performing at or near the best performing transit facilities.

Source: http://www.nypa.gov/BuildSmartNY/BaselineEnergyReport08-2013.pdf)

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