






Metro Transit Facilities

Energy Conservation

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Transit Energy Costs

	Goal	Target Reduction	Actual Use	Actual Reduction
2008	---	5%	\$5,600,000	---
2009	\$5,300,000	5%	\$4,650,000	17%
2010	\$4,600,000	18%	\$4,200,000	25%
2011	\$3,900,000	30%	\$3,655,000	34%
2012	\$3,700,000	34%		

- Numbers based on 2008 Energy Cost of \$5,600,000
- Excludes LRT Traction Power and Signals

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Lighting Retrofits

Better lighting with less energy consumption!




OHB Before




OHB After

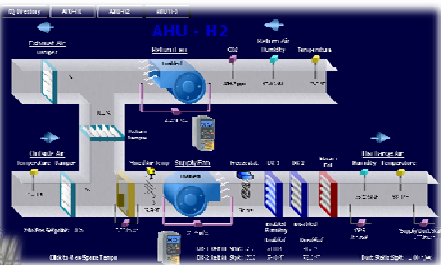
3




Mechanical Systems Upgrade



Variable
Frequency
Drives



Mechanical Equipment Computer
Display and Control



Air Quality Sensors

4



Sustainability


Solar Power



Geothermal Systems



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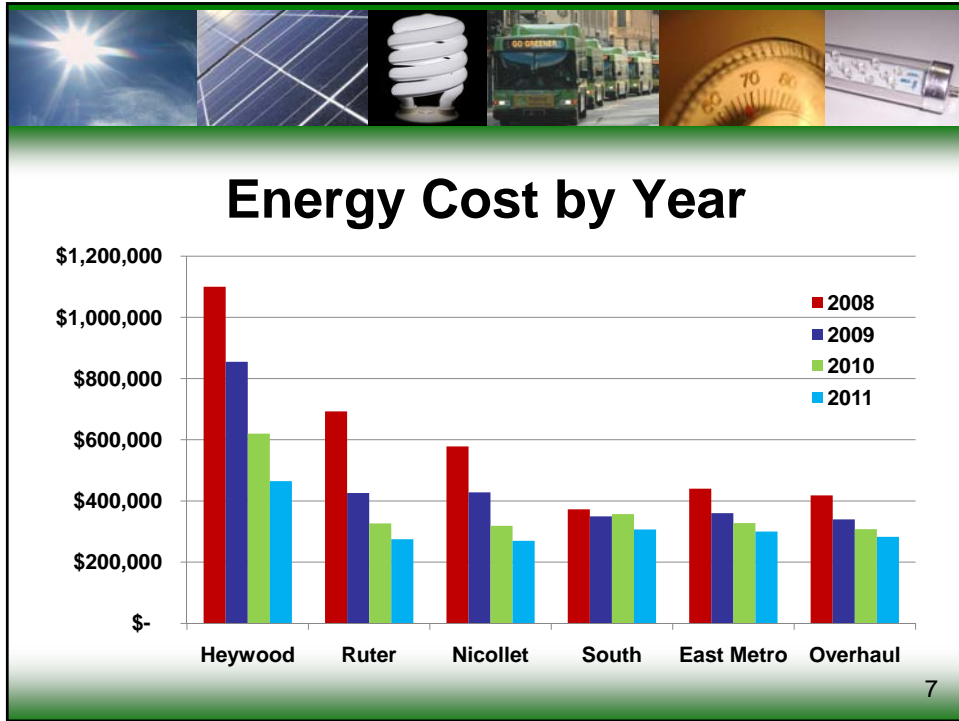


Energy Savings Summary

Years	Project Costs	Energy Reductions	Payback
2008-11	\$6,000,000	\$1,900,000	3 years
2012	\$1,800,000	\$300,000	6 years
Total	\$7,800,000	\$2,200,000	3.6 years

- **\$260,000 in utility rebates**
- **3,400 MWh Electricity Reduction**
- **500,000 Therms Natural Gas Reduction**
- **6,500 tons of CO₂ Reduction**

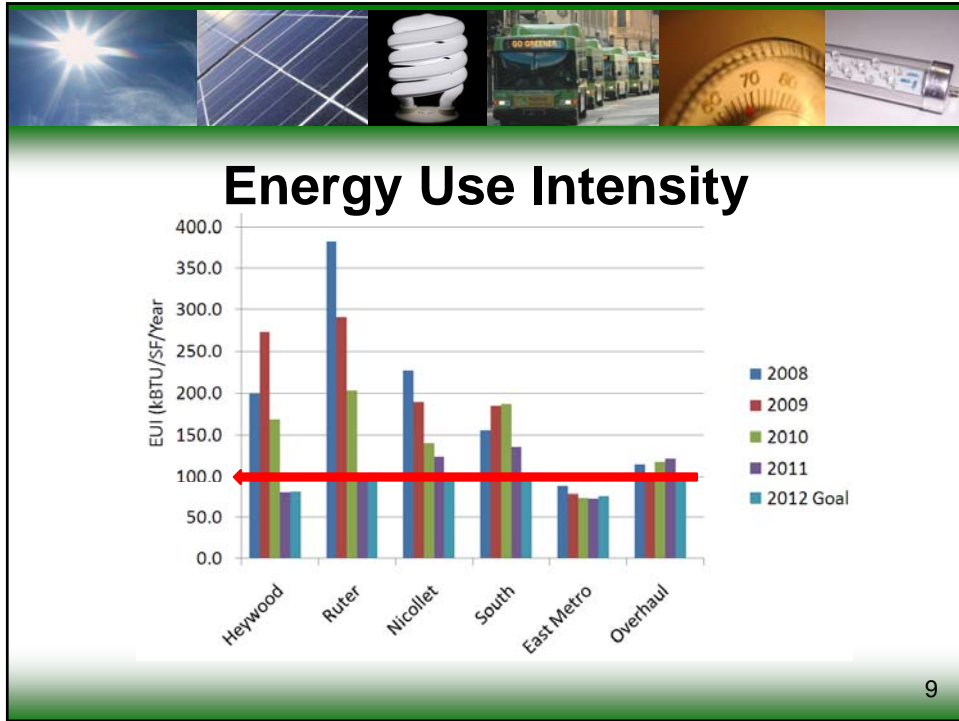
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Energy Use Intensity

- Minnesota B3 Benchmarking Program
- EUI = Energy Use Intensity (kBtu/Sq. Ft./Year)
 - 107 EUI for maintenance repair
 - 117 EUI for office
 - 50 EUI for parking garage
- Weather Normalization

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- 2012 Energy Goals**
- Reduce 2012 utility costs to \$3.7 million.
 - Achieve average EUI of 100 kbtu/sf/yr.
 - Energy conservation program.
 - Sustainability Plan:
 - 2015 Goal of 40% reduction in energy used
 - 2020 Goal of 50% reduction in energy used
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