

MCLA Comprehensive Energy Project No. NAC1102 EC1:

ECM Number and Name	Description	Contract Value	Notes
ECM 1.08 Install LED Down Lights and Track Lights	Replace selected walkway and building exterior lights with LED		Will reduce energy consumption and maintenance costs.
ECM 4.07 DDC Controllers	Direct Digital Control for Venable Hall HVAC equipment.		Reduce energy consumption with better comfort control.
ECM 8.00 Steam Heating Improvements – Steam Pipe Jacket Insulation Upgrades	Removable insulated jackets for Power Plant high-temperature valves, fittings, etc.		Reduce heat loss form high-temperature equipment and reduce burn hazards.
ECM 9.00 VFDs	Install seventeen (17) variable speed drives and high-efficiency motors on selected HVAC equipment.		Install VFDs and motors to reduce energy usage for HVAC air handling equipment.
ECM 14.05 – High Pressure Boiler with Steam Turbine Cogeneration	Upgrade Power Plant to include new boiler and 500 kW steam turbo-generator.		Combined heat and power plant will provide on-site electricity generation, improve energy use efficiency, reduce energy costs and carbon emissions.
ECM 18.00 Retro Commissioning	"Re-commission" Murdock Hall to evaluate for energy usage improvements.		Evaluate building systems and provide recommendations for improvements/new technologies.

<p>ALT ECM 1.01 Lighting – Lighting Survey + Upgrades</p>	<p>Survey existing conditions and upgrade selected lighting.</p>		<p>Identify and implement lighting upgrades, e.g. fluorescent to LED.</p>
<p>ALT ECM 2.00 Lighting Survey + Controls Upgrades</p>	<p>Upgrade selected lighting and lighting controls.</p>		<p>Identify and implement lighting and lighting controls upgrades.</p>
<p>ALT ECM 19.01 Install Electric Sub meters</p>	<p>Install revenue-grade meters in Berkshire Towers, Church Street Center, Freel Library and Murdock Hall.</p>		<p>Install sub-metering for data collection, load shed monitoring and Demand Response</p>
<p>ALT ECM 19.04 Install Steam Condensate Sub meters</p>	<p>Install condensate meters to accurately measure steam usage in Berkshire Towers, Hoosac Hall and Townhouse Phase 1 & 2.</p>		<p>Install condensate meters for data collection and more accurate billing for residential areas.</p>