

MSU EPC Phase 1 Project Summary for Dorsey & Whitney

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Notes:

- 1) 20-yr Energy Saving Estimates in process; Funding Gap will be updated after available
- 2) IESNA LM-80 standard, L70 life
- 3) Median Service Life from 2023 ASHRAE Handbook - HVAC Applications Chapter 38 Owning and Operating Costs Table 3 and Table 4
- 4) - reserved -
- 5) Marshal Valuation Service - Life Expectancy Guidelines; DCA Office of Affordable Housing - 2011 Architectural Manual, Expected Useful Life Table
- 6) <https://algas-sdi.com/frequently-asked-questions-faqs/>
- 7) - reserved -

MSU Energy Performance Contracting Phase 1 Summary - \$20-30M							
Project Name	Project Type	Median Service Life (Yrs)	Construction Cost Est. (\$)	Payback Est.	20-yr Energy Savings Est. (\$)	Deferred Maintenance Retirement	
						%	Amount (\$)
Lighting							
Indoor Lighting Retrofits - High Priority	Energy Savings, Deferred Maint.	20 ²	\$ 3,000,000	15 - 20 yrs	TBD	75%	\$ 2,250,000
Indoor Lighting Retrofits - Additional Projects	Energy Savings, Deferred Maint.	20 ²	\$ 2,000,000	15 - 20 yrs	TBD	75%	\$ 1,500,000
Barnard Hall							
Lab Airflow/Exhaust Upgrades	Deferred Maint, Safety	20 ³	\$ 4,000,000	20 + yrs	TBD	100%	\$ 2,250,000
Cooling System Upgrades	Energy Savings, Deferred Maint.	25 ³	\$ 500,000	15 - 20 yrs	TBD	100%	\$ 500,000
Plant Growth Center							
Chilled & Condenser Water System Upgrades	Deferred Maint.	25 ³	\$ 3,000,000	20 + yrs	TBD	100%	\$ 3,000,000
Visual Communications/Black Box							
Chilled & Condenser Water System Upgrades	Deferred Maint.	22 ³	\$ 2,000,000	20 + yrs	TBD	100%	\$ 2,000,000
Heat Plant							
Surge Tank Replacement	Deferred Maint.	20	\$ 1,000,000	+ 20 years	TBD	100%	\$ 1,000,000
Emergency Generator Replacement	Deferred Maint.	20 ⁵	\$ 3,000,000	+ 20 years	TBD	100%	\$ 3,000,000
Backup Propane System Upgrade	Deferred Maint.	20 ⁶	\$ 5,000,000	+ 20 years	TBD	100%	\$ 5,000,000
DA #1 & #2 Controls Upgrade	Deferred Maint.	10 ³	\$ 250,000	+ 20 years	TBD	100%	\$ 250,000
Upgrades for Class 2 Operation	Deferred Maint.	20 ⁷	\$ 1,000,000	+ 20 years	TBD	100%	\$ 1,000,000
Boiler #3 Upgrade	Deferred Maint.	30 ³	\$ 5,000,000	+ 20 years	TBD	100%	\$ 5,000,000
PHASE 1 TOTAL			\$ 29,750,000	20 + yrs	\$ -	80%	\$ 26,750,000