

NIST BLCC 5.3-20: Input Data Listing

Consistent with Federal Life Cycle Cost Methodology and Procedures, 10 CFR, Part 436, Subpart A

General Information

File Name:	C:\Users\jkneifel\BLCC5.3-2020\projects\FEMPEnergy.xml
Date of Study:	Tue Sep 01 08:31:54 EDT 2020
Analysis Type:	FEMP Analysis, Energy Project
Project Name:	Heating/Cooling System
Project Location:	District of Columbia
Analyst:	Courtney Mayer
Comment:	Replacement of Baseboard/ AC System with Heat Pump in Park Service House
Base Date:	April 1, 2020
Service Date:	April 1, 2020
Study Period:	15 years 0 months (April 1, 2020 through March 31, 2035)
Discount Rate:	3%
Discounting Convention:	End-of-Year
Discount and Escalation Rates are REAL (exclusive of general inflation)	

Alternative: Existing System

Comment: Keep existing system

Energy: Electricity

Annual Consumption:	15,000.0 kWh
Price per Unit:	\$0.08000
Demand Charge:	\$0
Utility Rebate:	\$0
Location:	District of Columbia
Rate Schedule:	Commercial
State:	District of Columbia

Usage Indices

From Date	Duration	Usage Index
April 1, 2020	Remaining	100%

Escalation Rates

From Date	Duration	Escalation
April 1, 2020	1 year 0 months	-1.47%
April 1, 2021	1 year 0 months	-0.69%
April 1, 2022	1 year 0 months	-0.46%
April 1, 2023	1 year 0 months	0.62%
April 1, 2024	1 year 0 months	0.92%
April 1, 2025	1 year 0 months	0.99%
April 1, 2026	1 year 0 months	0.53%
April 1, 2027	1 year 0 months	-0.15%
April 1, 2028	1 year 0 months	-0.38%
April 1, 2029	1 year 0 months	-0.45%
April 1, 2030	1 year 0 months	-0.76%

April 1, 2031	1 year 0 months	-0.8%
April 1, 2032	1 year 0 months	-0.08%
April 1, 2033	1 year 0 months	-0.15%
April 1, 2034	1 year 0 months	-0.66%
April 1, 2035	1 year 0 months	-0.47%
April 1, 2036	1 year 0 months	-0.47%
April 1, 2037	1 year 0 months	-0.12%
April 1, 2038	1 year 0 months	-0.39%
April 1, 2039	1 year 0 months	-0.67%
April 1, 2040	1 year 0 months	-0.56%
April 1, 2041	1 year 0 months	-0.96%
April 1, 2042	1 year 0 months	-0.28%
April 1, 2043	1 year 0 months	-0.12%
April 1, 2044	1 year 0 months	-0.45%
April 1, 2045	1 year 0 months	-0.53%
April 1, 2046	1 year 0 months	-0.25%
April 1, 2047	1 year 0 months	-0.25%
April 1, 2048	1 year 0 months	-0.58%
April 1, 2049	1 year 0 months	-0.45%
April 1, 2050	Remaining	-0.41%

Component: Baseboard Heater

Initial Investment

Initial Cost (base-year \$):	\$500
Annual Rate of Increase:	0%
Expected Asset Life:	15 years 0 months
Residual Value Factor:	10%

Cost-Phasing

Cost Adjustment Factor: 0%		
Years/Months (from Date)	Date	Portion
0 years 0 months	April 1, 2020	100%

Component: Window AC Unit

Comment: Existing System

Initial Investment

Initial Cost (base-year \$):	\$1,000
Annual Rate of Increase:	0%
Expected Asset Life:	15 years 0 months
Residual Value Factor:	10%

Cost-Phasing

Cost Adjustment Factor: 0%		
Years/Months (from Date)	Date	Portion

0 years 0 months	April 1, 2020	100%
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Replacement: Fan replacement

Years/Months:	10 years 0 months
Amount:	\$600
Annual Rate Of Increase:	0%
Expected Asset Life:	10 years 0 months
Residual Value Factor:	50%

Recurring OM&R: Routine Maintenance

Amount:	\$50
Annual Rate of Increase:	0%

Usage Indices

From Date	Duration	Factor
April 1, 2020	Remaining	100%

Non-Recurring OM&R: Cleaning

Years/Months:	10 years 0 months
Amount:	\$200
Annual Rate of Increase:	0%

Alternative: New System

Comment:	Replace BB/AC with Heat Pump
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Energy: Electricity

Annual Consumption:	10,250.0 kWh
Price per Unit:	\$0.08000
Demand Charge:	\$0
Utility Rebate:	\$0
Location:	District of Columbia
Rate Schedule:	Commercial
State:	District of Columbia

Usage Indices

From Date	Duration	Usage Index
April 1, 2020	Remaining	100%

Escalation Rates

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April 1, 2020	1 year 0 months	-1.47%
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April 1, 2047	1 year 0 months	-0.25%
April 1, 2048	1 year 0 months	-0.58%
April 1, 2049	1 year 0 months	-0.45%
April 1, 2050	Remaining	-0.41%

Component: Heat Pump

Initial Investment

Initial Cost (base-year \$):	\$3,000
Annual Rate of Increase:	0%
Expected Asset Life:	20 years 0 months
Residual Value Factor:	25%

Cost-Phasing

Cost Adjustment Factor: 0%

Years/Months (from Date)	Date	Portion
0 years 0 months	April 1, 2020	100%

Recurring OM&R: Routine OM

Amount:	\$100
Annual Rate of Increase:	0%

Usage Indices

From Date	Duration	Factor
April 1, 2020	Remaining	100%

Non-Recurring OM&R: Overhaul

Years/Months:	8 years 0 months
Amount:	\$600
Annual Rate of Increase:	0%