Energy Performance & Savings Analysis

Poindexter Building

330 W 9th Street
Kansas City, MO 64105

Prepared for: Poindexter Building — Arnold Development Group

Prepared by: Arnold Energy, a division of Arnold Development Group

February 2026 | **DRAFT**

Executive Summary

$3.0M–$3.9M	$435,810	$7.9M at 5.5% cap
NET INVESTMENT	ANNUAL NOI INCREASE	VALUE CREATION

The Poindexter Building at 330 W 9th Street, Kansas City, MO 64105 presents an exceptional energy investment opportunity driven by three converging factors: a full gut renovation of the 1901 historic building with end-of-life mechanical systems, a 1.6 MW data center whose waste heat provides a unique thermal synergy, and an extraordinary ITC stacking opportunity (60–70%) that reduces net energy system costs to less than 30 cents on the dollar.

We recommend a comprehensive energy package centered on a 300–400 ton geothermal ground-source heat pump system with data center waste heat recovery, a 286 kW rooftop solar array, LED lighting, heat pump water heaters, and energy recovery ventilation. The total gross investment is approximately $10.6M, reduced to a net investment of $3.0M–$3.9M after ITC credits, MACRS depreciation (100% bonus under OBBBA), and 179D deductions. Combined with zero-capital revenue strategies (RUBS, utility inclusion, and contract demand renegotiation), the package generates $435,810/year in net NOI improvement.

At a 5.5% capitalization rate, the annual NOI increase creates $7.9M in property value — a 2.0–2.6x return on net investment. The 20-year NPV at a 7% discount rate is $4.1M–$5.1M. Every $1 invested in energy improvements creates $2.04–$2.65 in property value.

The cost of inaction is severe: standard-efficiency renovation locks in $9.1M in excess utility spending over the 20-year hold period. Immediate action is recommended to lock current ITC rates through a safe harbor payment in 2026.

Recommendation Summary

Tier	Description	Investment	Annual Savings	Payback
Tier 1	Quick Wins (LED, ERV, Water)	$184,000	$102,435	1.8 yr
Tier 2	Strategic (Waste Heat, HPWH,	$750,000	$204,000	3.7 yr

	BMS)			
Tier 3	Major Capital (Geo, Solar, Envelope)	$9.7M gross	$272,400	ITC-dependent
Revenue	RUBS + Utility Inclusion + Demand Renegot.	$0	$97,910	Immediate
Total	**All Measures (interaction-adjusted)**	**$3.0M–$3.9M net**	**$435,810 NOI**	**6.5–8.4 yr**

Investment Dashboard

Key metrics at a glance

GROSS INVESTMENT **$10.6M** Total capital expenditure	NET INVESTMENT **$3.0M–$3.9M** After ITC (60–70%) + MACRS + 179D
ANNUAL NOI INCREASE **$435,810** Energy savings + revenue enhancement	PROPERTY VALUE CREATION **$7.9M** At 5.5% cap rate
INVESTMENT MULTIPLE **2.0–2.6x** Value created per $ invested	SIMPLE PAYBACK **6.5–8.4 years** Net investment basis
20-YEAR NPV **$4.1M–$5.1M** 7% discount, 3% escalation	POST-RENOVATION EUI **41.9 kBtu/SF** 43% below BAU

Property Overview

The Poindexter Building is a 1901 historic 7-story masonry building located at 330 W 9th Street, Kansas City, MO 64105. Originally a commercial office building, the property is undergoing a full gut renovation to mixed-use residential. The planned program includes 100 residential units (floors 2–6), a ground-floor gym and social club, seventh-floor coworking space, and a 1.6 MW data center. The building is all-electric with master metering through Evergy.

Attribute	Value
Property Type	Mixed-Use (Residential / Commercial / Data Center)
Location	330 W 9th Street, Kansas City, MO 64105
Year Built	1901 (interior renovated 2019)
Stories	7
Gross Building Area	250,000 SF
Net Rentable Area	180,000 SF
Residential Units	100 (planned)
Climate Zone	ASHRAE 4A (Mixed-Humid)
HVAC System	Electric resistance heating + 40-yr central chiller — replacing with geothermal GSHP
DHW System	Electric tank (20 yr) — replacing with HPWH + data center waste heat
Metering	Master metered (all-electric, Evergy)
Fuel Type	All-electric (no gas service)

Current Energy Profile

The building currently consumes 3,018,883 kWh of electricity annually at a cost of $402,392, based on 12 months of Evergy utility bills (September 2024 through August 2025). The building is partially vacant during this period, so current consumption understates the fully-occupied operating profile. The blended electric rate is $0.133/kWh with a contract demand of 1,255 kW.

Annual Utility Summary

Utility	Annual Consumption	Annual Cost	$/SF/Year
Electric	3,018,883 kWh	$402,392	$1.61
Water/Sewer	—	$40,000	$0.16
Total		**$442,392**	**$1.77**

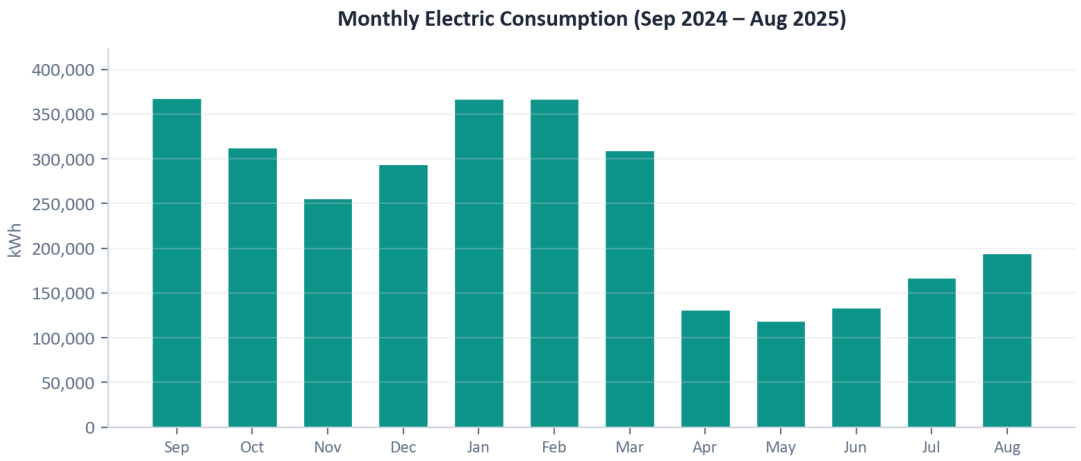

Figure 1: Monthly electric consumption. Winter peaks (Dec–Mar) reflect electric resistance heating; summer peaks (Jul–Sep) reflect aging chiller.

Key observations: (1) Winter demand peaks of 1,063–1,255 kW are driven by electric resistance heating at COP 1.0 — the single largest efficiency opportunity. (2) Baseload of ~4,100–4,400 kWh/day (May–Jun) represents data center, elevators, and always-on loads. (3) The extremely low load factor (27.4%) means the building pays for significant unused demand capacity.

Energy Benchmarking

Metric	Value	Confidence
Site EUI (current, partially vacant)	41.2 kBtu/SF/yr	Not benchmarkable
Site EUI (2019, fully occupied)	82.0 kBtu/SF/yr	MEDIUM (est. from T-12)
Source EUI (current)	115.4 kBtu/SF/yr	HIGH
Post-Renovation BAU	74.7 kBtu/SF/yr	MEDIUM (modeled)
Post-Renovation High Performance	41.9 kBtu/SF/yr	MEDIUM (with all ECMs)

Note: Current EUI reflects a partially vacant building and should not be compared against benchmarks for occupied buildings. The 2019 historical EUI (fully occupied) is estimated from T-12 operating costs and represents the better comparison baseline.

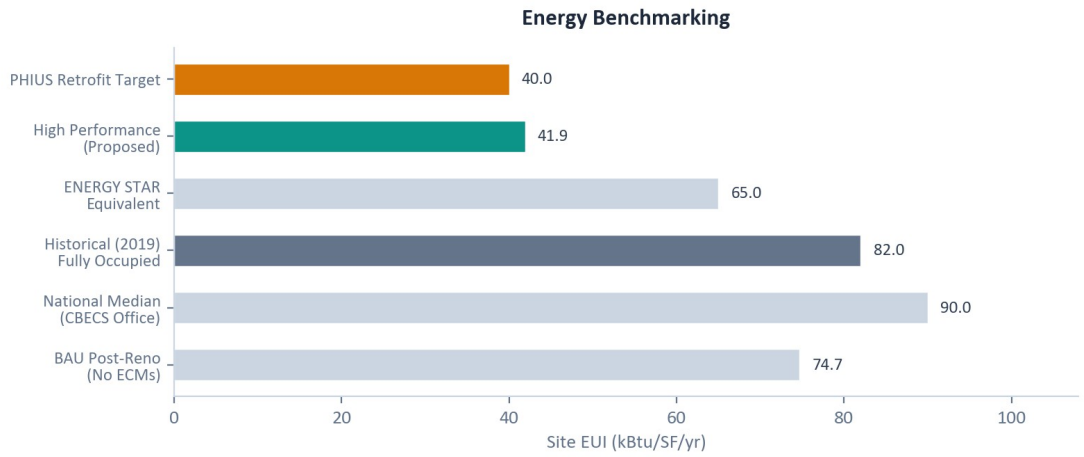

Figure 2: EUI benchmark comparison. The proposed high-performance package achieves near-PHIUS performance levels.

End-Use Breakdown (Post-Renovation BAU)

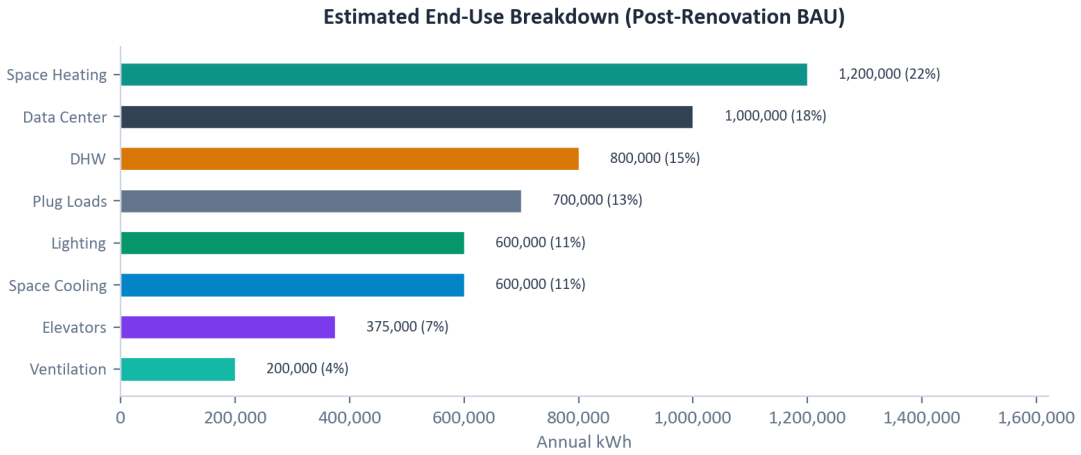

Figure 3: Estimated energy end-use breakdown after renovation without efficiency measures (5.475M kWh/yr).

Space heating (22%) and DHW (15%) represent the largest savings opportunities — both served by electric resistance (COP 1.0) and can be converted to geothermal heat pumps (COP 3.5–5.0), reducing consumption by 70–80%. The data center load (18%) offers unique waste heat recovery potential.

Recommended Improvements

Tier 1: Quick Wins (Payback < 3 Years)

These low-cost, high-ROI measures are included as part of the standard renovation scope. They require minimal additional capital and deliver immediate operating savings from Day 1 of occupancy.

Measure	Investment	Annual Savings	Payback
LED Lighting Retrofit	$115,000	$45,885	2.5 yr
ERV Ventilation	$65,000	$26,650	2.4 yr
Low-Flow Water Fixtures	$4,000	$29,900	0.1 yr
Tier 1 Total	**$184,000**	**$102,435**	**1.8 yr**

Tier 2: Strategic Investments (High ROI)

These measures require meaningful capital but deliver strong returns. The data center waste heat recovery is the standout — capturing free thermal energy from the 1.6 MW data center to offset 75% of building DHW costs and supplement heating.

Measure	Investment	Annual Savings	Payback
Data Center Waste Heat Recovery	$275,000	$90,600	3.0 yr
Heat Pump Water Heaters	$175,000	$70,900	2.5 yr
Building Management System	$300,000	$42,500	7.1 yr
Tier 2 Total	**$750,000**	**$204,000**	**3.7 yr**

Tier 3: Major Capital — ITC-Eligible

The geothermal and solar systems are the core of the investment thesis. Without ITC credits, these have 10–15+ year paybacks. With 60–70% ITC stacking (base 30% + low-income + brownfield + domestic content), paybacks compress dramatically — and the geothermal system may achieve negative net cost in the optimistic scenario.

Geothermal GSHP (300–400 tons): Replaces end-of-life electric resistance heating and the 40-year-old central chiller. COP improvement from 1.0 to 3.5–5.0 reduces HVAC energy by 70–80%. Annual savings of $153,900/year. With data center waste heat integration (ECM-2), the system's economics improve further through reduced bore field sizing and free DHW preheat.

Solar PV (286 kW DC): Maximum rooftop array producing ~400,000 kWh/year, offsetting 12–14% of building load. Net cost after 60–70% ITC and 100% MACRS bonus: $117K–$181K. LCOE of $0.027–$0.036/kWh vs. $0.133/kWh utility rate. Historic review required for rooftop installation.

Measure	Investment	Annual Savings	Payback
Geothermal HVAC System	$8.3M gross	$153,900	17.5 yr
Roof Insulation Upgrade	$197,000 gross	$16,400	12.0 yr
Interior Insulation + Air Sealing	$475,000 gross	$53,200	8.9 yr
Solar PV (286 kW DC)	$715,000 gross	$48,900	5.8 yr
Tier 3 Total	**$9.7M gross**	**$272,400**	**—**

Revenue Enhancement (Zero Capital)

Three zero-capital revenue strategies enhance NOI from lease-up. Water/sewer costs are recovered through RUBS at $35/unit/month. Electric costs are captured through a utility inclusion model at $100/unit/month — the owner's actual cost of ~$70/unit (due to geothermal efficiency) creates a permanent $30/unit spread. Contract demand renegotiation with Evergy (reducing the facilities charge from 1,255 kW to ~700 kW after renovation) saves $23,000/year at zero cost.

Measure	Annual Revenue	Admin Cost	Net Revenue

Water/Sewer RUBS	$41,430	$6,000	$35,430
Electric Utility Inclusion	$33,480	$6,000	$27,480
Contract Demand Renegotiation	$23,000	—	$23,000
Total Revenue Enhancement			**$85,910**

Deferred: Battery Energy Storage (BESS)

A 100 kW / 400 kWh battery system was evaluated for demand charge reduction. At Evergy's current demand rates ($3.48–$6.98/kW), BESS does not generate positive cash flow after O&M costs, even with 60% ITC. The recommendation is to defer BESS installation and instead include BESS-ready provisions during renovation ($3,500 for panel space, conduit stub-out, and structural pad) to preserve the option for future installation when economics improve.

Annual Savings & Revenue by Measure

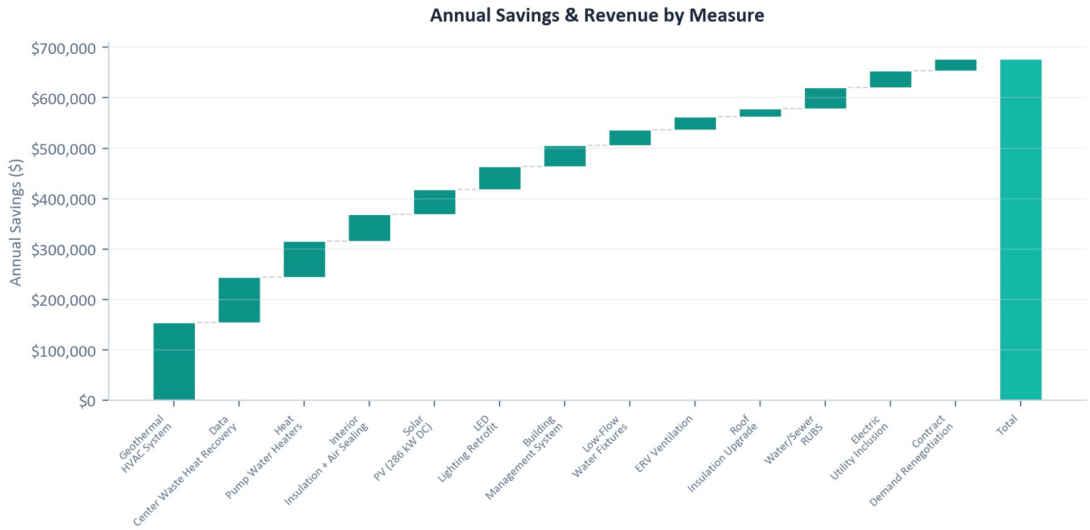

Figure 4: Annual savings and revenue by measure (unadjusted). Interaction-adjusted combined total is $463,000/year.

Financial Summary & Value Creation

Consolidated Investment

Metric	Gross	After ITC	After ITC + MACRS
Total Investment	**$10.6M**	**$4.3M–$5.2M**	**$3.0M–$3.9M**
Annual Savings + Revenue			$463,000
Simple Payback		9.3–11.3 yr	6.5–8.4 yr
20-Year NPV (7%, 3% esc.)			$4.1M–$5.1M

NOI Impact

Source	Annual NOI Increase
Energy cost reduction (interaction-adjusted)	$364,900
Water/Sewer RUBS recovery	$41,430
Electric utility inclusion spread	$33,480
Contract demand renegotiation (1,255→700 kW)	$23,000
Less: Additional O&M for new systems	($15,000)
Less: RUBS/billing administration	($12,000)
Net Annual NOI Increase	**$435,810**

Property Value Creation

Cap Rate	Value Creation
6.0%	$7.3M
5.5%	**$7.9M**
5.0%	$8.7M

Investment Multiple: Every $1 of net investment creates $2.04–$2.65 in property value — a 2.0–2.6x return.

Sensitivity Analysis

Scenario	Util. Esc.	Savings	Cap Rate	Net Invest.	NOI Increase	Value	Multiple
Conservative	2%	80%	6.0%	$3.9M	$330K	$5.5M	1.4x
Base Case	**3%**	**90%**	**5.5%**	**$3.4M**	**$413K**	**$7.5M**	**2.2x**
Optimistic	4%	100%	5.0%	$3.0M	$453K	$9.1M	3.0x

"Do Nothing" Cost

The table below compares cumulative utility costs over the 20-year hold period under standard-efficiency renovation versus the proposed high-performance package.

Year	Standard HVAC Cost	High-Performance Cost	Annual Savings
1	$720,000	$380,000	$340,000
5	$811,000	$428,000	$383,000
10	$940,000	$496,000	$444,000
20	$1,263,000	$667,000	$596,000
20-Year Total	**$19,345,000**	**$10,210,000**	**$9,135,000**

The cost of inaction is $9.1M in excess utility spending over 20 years.

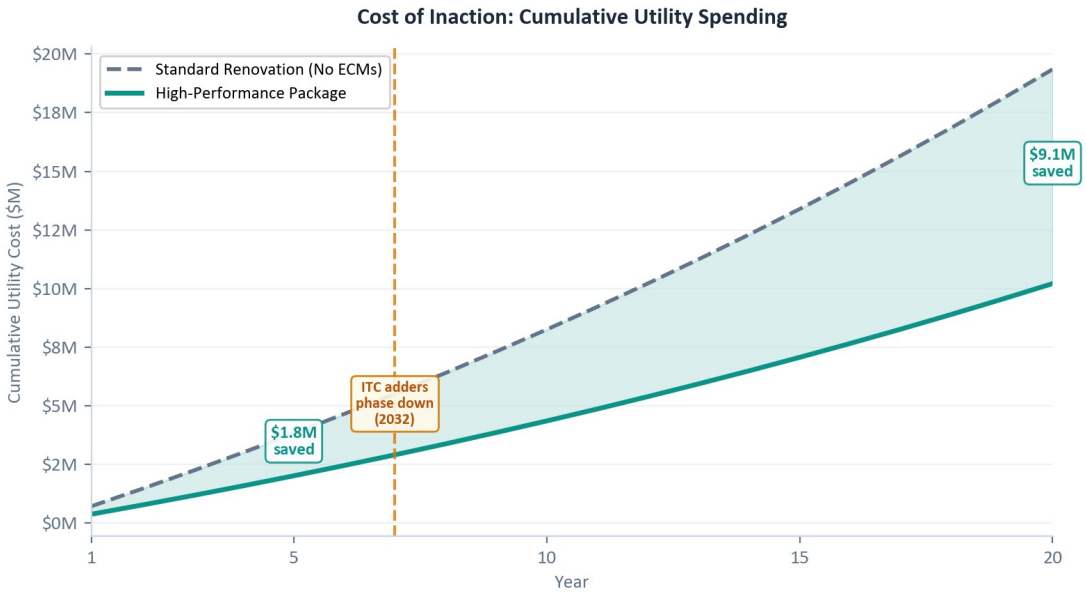

Figure 5: Cumulative utility spending over 20-year hold period. The shaded area represents $9.1M in avoidable costs. ITC adders phase down after 2032 — early action maximizes savings.

Tax Credit Analysis

The Poindexter Building qualifies for an exceptionally strong ITC stacking opportunity. The base 30% Investment Tax Credit is augmented by three adders — low-income community (+10–20%), brownfield/energy community (+10%), and domestic content (+10%) — for an effective rate of 60–70%.

Credit	Conservative	Optimistic
Solar ITC (60–70%)	$429,000	$500,500
Geothermal ITC (60–70%)	$5.0M	$5.8M
Solar MACRS (100% bonus, OBBBA)	$105,105	$105,105
Geothermal MACRS (100% bonus)	$1.2M	$911,400
179D Deduction benefit	$262,500	$262,500
Historic Tax Credits (20% QRE)	$3.2M	$6.2M
Total Tax Benefits	**$10.2M**	**$13.8M**

MACRS Depreciation: Under the One Big Beautiful Bill Act (OBBBA, July 2025), 100% bonus depreciation is permanently reinstated for 5-year MACRS property acquired after January 19, 2025. Solar PV, geothermal, and battery storage systems qualify for full Year 1 expensing of the depreciable basis (cost minus 50% of ITC amount).

Key requirements: Prevailing wage and apprenticeship compliance recommended for all systems as safe harbor. Domestic content requires 100% US-melted/poured steel/iron plus manufactured component thresholds. Low-income and brownfield designations should be confirmed with environmental and tax counsel. The 5% safe harbor payment should be made in 2026 to lock current ITC rates under the IRA.

Tax Disclaimer: This analysis is for informational purposes only and does not constitute tax advice. Tax law changes frequently. ITC rates and adder eligibility should be verified with qualified tax counsel before making investment decisions. Rates shown are as of February 2026.

Implementation Roadmap

Phase	Timing	Key Actions	Capital
Pre-Construction	Q1 2026	ITC safe harbor (5%), test bore, engage HTC/ITC counsel, historic review for solar	$500K
Design	Q2–Q3 2026	Geo bore field design, MEP integration, solar permitting, Evergy interconnection	$400K
Construction 1	Q4 2026	Bore field drilling, waste heat piping rough-in	$4.0M
Construction 2	Q1–Q3 2027	Interior insulation, air sealing, ERV, HVAC distribution, BESS-ready provisions	$3.0M
Construction 3	Q3–Q4 2027	Roof replacement + insulation, solar PV, BMS commissioning	$1.5M
Lease-Up	Q1 2028	RUBS billing, utility inclusion, renegotiate Evergy contract demand (1,255→700 kW)	$50K

Immediate Actions (Next 30 Days)

- Engage ITC/HTC tax counsel to confirm credit stacking and optimize entity structure.
- Commission geothermal test bore ($8K–$15K) to confirm soil thermal conductivity.
- Submit 5% safe harbor payment for geothermal and solar to lock current ITC rates.
- Begin Kansas City Landmarks Commission consultation for rooftop solar and window modifications.
- Engage Evergy for solar interconnection study and preliminary contract demand review.

- Include BESS-ready provisions (panel space, conduit stub-out, structural pad — $3,500) in electrical design.

Appendices A–G

Technical Feasibility & Engineering Data

The following appendices contain detailed engineering analysis, system sizing, and technical feasibility data supporting the recommendations in this report.

(For Facilities & Engineering Teams)

Appendix A: Detailed ECM Analysis

Individual energy conservation measure analysis from Phase 3. Savings shown are unadjusted; the interaction-adjusted combined total ($364,900/yr) is lower than the sum of individual measures due to overlapping load reductions.

Measure	Category	kWh Saved	Annual $	Investment	Payback (yr)	Notes
LED Lighting Retrofit	Lighting	345,000	$45,885	$115,000	2.5	Full LED throughout during renovation; common area, commercial, in-unit, exterior
ERV Ventilation	Ventilation	200,000	$26,650	$65,000	2.4	Individual unit ERVs, 80% heat recovery, code-required ventilation
Low-Flow Water Fixtures	Water	80,000	$29,900	$4,000	0.1	WaterSense fixtures: 1.5 GPM showers, 1.0 GPM faucets, 1.28 GPF toilets
Data Center Waste Heat	HVAC/DHW	680,000	$90,600	$275,000	3.0	Capture 2.7M kBtu/yr waste heat; offset heating +

						DHW preheat to 90°F
Heat Pump Water Heaters	DHW	533,000	$70,900	$175,000	2.5	Central HPWH system COP 3.0; standalone savings (without waste heat preheat)
Building Management System	Controls	150,000	$42,500	$300,000	7.1	Building-wide BMS: HVAC optimization, demand response, load scheduling
Geothermal HVAC	HVAC	1,157,000	$153,900	$8,300,000	17.5	GSHP 300–400 tons, COP 3.5/5.0; replaces resistance heating + chiller
Roof Insulation	Envelope	123,000	$16,400	$197,000	12.0	R-60 rigid polyiso at roof replacement; 35,700 SF roof area
Interior Insulation + Air Sealing	Envelope	400,000	$53,200	$475,000	8.9	R-18 spray foam, air sealing to 3.0 ACH50,

						secondary glazing on historic windows
Solar PV (286 kW DC)	Renewables	400,000	$48,900	$715,000	5.8	Maximum rooftop array; ballasted racking; historic review; 60–70% ITC

Appendix B: Solar PV Analysis

Rooftop solar analysis for the 250,000 SF building. Historic status requires Kansas City Landmarks Commission review. Ballasted racking preferred to avoid roof penetration.

System Sizing Options

Parameter	Option A (Max)	Option B (Conservative)
Usable roof area	22,000 SF	15,000 SF
System size (DC)	286 kW	195 kW
System size (AC)	~230 kW	~156 kW
Module count (~420W)	~681	~464
Annual production	372,000–429,000 kWh	254,000–293,000 kWh
% of building load	12–14%	8–10%

Financial Analysis — Option A (286 kW), OBBBA Bonus Depreciation

Metric	Option A (60% ITC)	Option A (70% ITC)
Gross cost	$715,000	$715,000
ITC credit	$429,000	$500,500
Net cost after ITC	$286,000	$214,500
Depreciable basis (cost − 50% × ITC)	$500,500	$464,750
Year 1 bonus depreciation (100% — OBBBA)	$500,500	$464,750
MACRS tax benefit (@ 21%)	$105,105	$97,598
Net cost after ITC + MACRS	$180,895	$116,902
Year 1 net energy value	$48,900	$48,900
Simple payback (after ITC+MACRS)	3.7 yr	2.4 yr

20-year NPV (7%, 3% esc.)	$393,000	$464,500
LCOE ($/kWh)	$0.036	$0.027
Property value increase (5.5% cap)	$889,000	$889,000

MACRS: Under OBBBA (July 2025), 100% bonus depreciation applies in Year 1. Depreciable basis = cost − 50% × ITC amount.

Appendix C: Geothermal Feasibility

Geothermal GSHP analysis for a hybrid system with data center waste heat recovery. The 1.6 MW data center provides continuous waste heat, dramatically reducing bore field sizing and heating costs.

System Cost Components

Component	400-Ton (Conservative)	300-Ton (Optimistic)
Bore field drilling & loop	$4,200,000	$3,150,000
Header piping & manifolds	$400,000	$300,000
Water-to-water heat pumps	$1,200,000	$900,000
Water-to-air heat pumps (residential)	$600,000	$450,000
Hydronic distribution piping	$800,000	$600,000
Fluid cooler (hybrid supplement)	$150,000	$100,000
Data center heat recovery integration	$350,000	$250,000
Controls & BMS integration	$200,000	$150,000
Engineering & permitting	$400,000	$300,000
Total installed cost	**$8,300,000**	**$6,200,000**

Annual Operating Savings (ECM-1: Geothermal Only)

Load	Current kWh	GSHP kWh	Savings kWh	Savings ($)
Heating (COP 1.0 → 3.5)	1,200,000	343,000	857,000	$114,000
Cooling (old chiller → COP 5.0)	600,000	300,000	300,000	$39,900

Total (ECM-1 only)	**1,800,000**	**643,000**	**1,157,000**	**$153,900**

Financial Summary — OBBBA 100% Bonus Depreciation

Metric	Conservative (60% ITC)	Optimistic (70% ITC)
Gross GSHP cost	$8,300,000	$6,200,000
ITC credit	($4,980,000)	($4,340,000)
Depreciable basis (cost − 50% × ITC)	$5,810,000	$4,340,000
Year 1 bonus depreciation (100% — OBBBA)	$5,810,000	$4,340,000
MACRS tax benefit (@ 21%)	($1,220,100)	($911,400)
Avoided conventional HVAC	($1,500,000)	($2,500,000)
Net incremental cost	**$599,900**	**Negative ($951,400)**
Annual savings (energy)	$153,900	$153,900
Value creation (5.5% cap)	$2,798,000	$2,798,000

Bore field: 150–200 bores at 300–400 ft depth, hybrid config with fluid cooler. Kansas City limestone geology is favorable. Thermal conductivity test bore ($8K–$15K) recommended.

Appendix D: Battery Energy Storage (BESS) Analysis

A standalone BESS system was evaluated for demand charge reduction. At Evergy's current demand rates, BESS does not generate positive cash flow. The primary demand-related recommendation is zero-cost contract demand renegotiation.

BESS Financial Summary

Metric	Value
System evaluated	100 kW / 400 kWh (LFP)
Demand rates (Evergy LGA)	$3.48–$6.98/kW
Viability threshold	> $9/kW
Annual demand savings (at current rates)	$3,764
Annual O&M cost	$4,000
Net annual savings	($236) — negative
ITC (60%)	$96,000
MACRS benefit (100% bonus, OBBBA)	$23,520
Net cost after ITC + MACRS	$40,480
15-year NPV	($53,000)
Recommendation	**NOT RECOMMENDED — defer to Phase 2**

Contract Demand Renegotiation (Recommended Alternative)

Scenario	Contract Demand	Facilities Charge/yr	Savings vs. Current
Current	1,255 kW	$52,637	—
Post-renovation (matched)	700 kW	$29,349	$23,288/yr
Post-renovation (aggressive)	600 kW	$25,157	$27,480/yr

Value creation at 5.5% cap: $423,000–$500,000. Requires no capital — only a conversation with Evergy after renovation is complete and 6–12 months of operating data is established.

BESS Re-Evaluation Triggers

Trigger	Likelihood	Timeline
Evergy demand rate > $12/kW	Medium	3–5 years
TOU rate adoption for LGA customers	Medium	2–4 years
Battery installed cost < $250/kWh	Medium–High	3–5 years
Data center UPS replacement	High	5–10 years

Appendix E: PHIUS Retrofit Analysis

Passive House (PHIUS) feasibility for a 1901 historic masonry building. Full PHIUS certification is constrained by historic preservation requirements. A “PHIUS-Adjacent” approach captures 80–90% of performance at 60–70% of cost.

Envelope: Current vs. Targets

Component	Current	PHIUS Target	Proposed (PHIUS-Adjacent)
Walls	R-2 to R-5 (uninsulated masonry)	R-25 to R-40	R-18 (3" closed-cell spray foam)
Windows	U-0.45 to U-0.55 (double clear)	U-0.18 to U-0.24	U-0.25–0.28 (secondary glazing)
Roof	R-15 to R-20	R-50 to R-70	R-60 (at replacement)
Airtightness	10–18 ACH50 (est.)	1.0 ACH50	3.0 ACH50 (target)
Ventilation	Exhaust-only	ERV 75–90% recovery	ERV 80% recovery

Performance Comparison

Metric	Standard Renovation	PHIUS-Adjacent (Proposed)	PHIUS Certified
Site EUI (kBtu/SF)	65–75	40–50	33–38
Annual energy cost	$580K–$720K	$370K–$440K	$310K–$370K
Incremental cost (net)	—	$472K–$624K	$740K–$1,000K
Simple payback (net)	—	1.8–4.5 yr	2.7–3.7 yr
Historic feasible?	Yes	Yes	Challenging (windows)

Recommendation: Pursue PHIUS-informed (not PHIUS-certified) approach. The proposed ECM package achieves a site EUI of 40–50 kBtu/SF/yr, a 35–45% reduction from standard renovation levels.

Appendix F: Detailed Utility Data

12-month electric data from Evergy bills. Building is partially vacant; post-renovation projections assume full residential and commercial occupancy.

Monthly Electric Consumption & Cost

Month	kWh	Cost ($)	Demand (kW)
Sep	367,642	$47,765	834.8
Oct	312,818	$40,580	772.3
Nov	256,047	$29,089	613.3
Dec	293,986	$40,009	1,255.4
Jan	367,192	$42,341	1,103.4
Feb	367,357	$41,986	1,067.5
Mar	309,445	$38,650	1,063.7
Apr	131,069	$19,250	379.8
May	118,943	$17,438	302.1
Jun	133,155	$19,094	284.9
Jul	167,189	$31,885	739.5
Aug	194,040	$34,306	748.0
Annual Total	**3,018,883**	**$402,392**	**1,255.4 (peak)**

Rate Structure

Parameter	Value
Provider	Evergy (LGA Secondary Voltage)
Customer charge	$1,042.78/month
Facilities charge	$3.494/kW × 1,255 kW = $4,386/month
Metered demand (winter)	$3.476/kW

Metered demand (summer)	$6.978/kW
Blended all-in rate	$0.133/kWh
Load factor	27.4% (spiky — electric heating)

Appendix G: Glossary

Term	Definition
ACH50	Air Changes per Hour at 50 Pascals — airtightness metric
BESS	Battery Energy Storage System
BMS	Building Management System
COP	Coefficient of Performance — heat output per unit energy input
DHW	Domestic Hot Water
ECM	Energy Conservation Measure
ERV	Energy Recovery Ventilator
EUI	Energy Use Intensity — kBtu per square foot per year
GSHP	Ground Source Heat Pump (geothermal)
HPWH	Heat Pump Water Heater
HTC	Historic Tax Credit (federal, 20% of QRE)
ITC	Investment Tax Credit (IRA energy credit, 30% base + adders)
LCOE	Levelized Cost of Energy — lifetime cost per kWh
LFP	Lithium Iron Phosphate (battery chemistry)
MACRS	Modified Accelerated Cost Recovery System — accelerated depreciation
NOI	Net Operating Income — revenue minus operating expenses
NPV	Net Present Value — time-adjusted value of future cash flows
OBBBA	One Big Beautiful Bill Act (July 2025) — reinstated 100% bonus depreciation

PHIUS	Passive House Institute US
PV	Photovoltaic (solar electric)
RUBS	Ratio Utility Billing System — allocates utility cost to tenants
179D	IRS Section 179D — energy-efficient commercial building deduction