ENERGY PROJECT BRIEFING

John Irish, Acting Director Department of Public Works

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TOWN OF Herndon

LIVE DIFFERENTLY.

Why Now?

- Major systems are outdated and beyond useful life (e.g., 1990s-era HVAC, Lighting, Controls)
- Emergency repairs are becoming more frequent and costly.
- Energy inefficiencies are escalating operational costs.
- Replacing systems now prevents more expensive failures later.
- The ESPC initiative provides a long-term solution using guaranteed savings.

Strategic Alignment & Benefits

- Aligns with Town sustainability, modernization, and lifecycle asset management goals.
- Supports industry-preferred 80/20 preventative-to-reactive maintenance model.
- Enhances comfort, controllability, and operational resilience for Town facilities.
- Prioritizes good governance and environmental stewardship.
- Meets Comprehensive Plan objectives for cost effective infrastructure investments.

Contract Summary

- 20-year performance-based Energy Services Contract with CMTA.
- Covers design support, construction, commissioning, and long-term maintenance.
- CMTA guarantees energy savings; if not met, they pay the shortfall.
- Remote monitoring and real-time adjustments included in the maintenance scope.
- Contract minimizes disruptions through phased implementation and swing space planning.

Phase One Scope and ROI

- HMC HVAC replacement, Town Shop HVAC replacement, 397 Building LED lighting replacements, Town Hall Controls, and EV charging stations
- Total cost: $3.5M (funded via reserves+ $0.5M budget amendment).
- Projected first year energy savings: $150,000; O&M savings: $56,000.
- CMTA guarantees ROI via ongoing Monitoring &Verification (M&V) process
- Full access Building Automation System (BAS) allows CMTA to track performance and proactively recommend adjustments accordingly.

Phase Two and Beyond

- Phase 2 (FY27): HCC HVAC & roof replacements, with solar photovoltaic (PV) potential. ~$4.7M
- Phase 3 (FY28): HPD HVAC & roof replacements ~$3.8M
- Phases 4-5 (FY29>): Town Hall HVAC, Clubhouse, remaining ECMS from audit. ~$5M
- ECM selection based on energy savings, life safety, and system criticality. $~15M identified of ~$30M total.

5 Year Cost & Energy Impact

- Total 5-year implementation cost estimated at ~$15M (prioritized ECMs).
- Energy savings are projected cumulatively by phase; Phase 1 provides baseline.
- Heat map visuals show building-by-building progression over 5 years.
- Those upgrades focus on energy usage intensity (EUI), system age, and deferred maintenance risk.

Mapping Legend	
	Acceptable / Modern- Equipment is within its useful life and does not require immediate action.
	Near End-of-Life – Equipment is aging and should be monitored closely; likely due for replacement in the near term.
	End-of-Life / Critical Age – Equipment is at or beyond its expected service life and needs immediate replacement or upgrade.
	Not Evaluated / Unknown – Data was not available, or system is non-functional or excluded from assessment

Pre-ESPC HVAC Equipment Age Chart

Building	Controls	Terminal Equipment	Air Distribution	Source Equipment
HCC				
HMC				
Public Works				
HPD				
Town Hall				
Golf Clubhouse				
Golf Maintenance				
Train Depot				

Post Phase 1 ('25-'26) ESPC HVAC Equipment Age Chart

Building	Controls	Terminal Equipment	Air Distribution	Source Equipment
HCC				
HMC				
Public Works				
HPD				
Town Hall				
Golf Clubhouse				
Golf Maintenance				
Train Depot				

Post Phase 2 ('26-'27) ESPC HVAC Equipment Age Chart

Building	Controls	Terminal Equipment	Air Distribution	Source Equipment
HCC				
HMC				
Public Works				
HPD				
Town Hall				
Golf Clubhouse				
Golf Maintenance				
Train Depot				

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	Not Evaluated / Unknown – Data was not available, or system is non-functional or excluded from assessment

Post Phase 3 ('27-'28) ESPC HVAC Equipment Age Chart				
Building	Controls	Terminal Equipment	Air Distribution	Source Equipment
HCC				
HMC				
Public Works				
HPD				
Town Hall				
Golf Clubhouse				
Golf Maintenance				
Train Depot				

Post Phase 4 ('28-'29) ESPC HVAC Equipment Age Chart				
Building	Controls	Terminal Equipment	Air Distribution	Source Equipment
HCC				
HMC				
Public Works				
HPD				
Town Hall				
Golf Clubhouse				
Golf Maintenance				
Train Depot				

Post Phase 5 ('29-'30) ESPC HVAC Equipment Age Chart				
Building	Controls	Terminal Equipment	Air Distribution	Source Equipment
HCC				
HMC				
Public Works				
HPD				
Town Hall				
Golf Clubhouse				
Golf Maintenance				
Train Depot				

Financing, Timeline, Milestones

- Phase 1 funded from existing capital reserves plus $500K new allocation.
- Council will vote on amendment and contract approval Sept 23, 2025.
- Future phases may involve bonding, timeline to be refined with updated audits and designs. Pay back of Phase 1 bonding may be considered.
- 2022-2024: ESCO RFP, contractor selection, energy audit, and facility assessments.
- 2024-2025: Phase 1 design finalization, contract award, long-lead procurement.
- January 2026: Phase 1 construction begins, with completion expected mid-year.
- Phases 2-5: Continue through 2030, pending funding availability.

Questions