

DCEO DATA CENTER PILOT PROGRAM OVERVIEW

Scope

- Pilot project with Willdan and MEEA designed to show value of a targeted program
- Small study of two facilities

Deliverables

- Identify five potential data center participants from diverse communities
- Analyze five sites and select two for participation
- Facility Audits and walkthroughs
- Three year roadmap of energy conservation measures (ECMs) including guide to implementation and incentive process



SITE SELECTION

Hines ITC and Calumet Park 911 Center selected to exemplify diverse project scenarios

- Hines ITC – Existing federal data center serving multiple VA administration offices with significant efficiency potential
- Calumet Park 911 Center – New construction project for municipal building including regional data center to provide consolidation from less efficient facilities



ESTIMATED PROGRAM SAVINGS

Hines ITC

Measure No.	Measure Description	Est. Peak Demand Reduction (kW)	Est. Annual Electricity Savings (kWh)	Est. Annual Cost Savings
ECM-1	Main Data Center CRAC EC/VFD & Controls (with Containment)	150.2	1,315,876	\$ 92,111
ECM-2	Condenser Water Loop Reset	33.2	291,019	\$ 20,371
ECM-3	Waterside Economizer	-	728,804	\$ 51,016
ECM-4	UPS Room RTU Adjustment	13.2	115,590	\$ 8,091
Total Energy Savings Potential		196.6	2,451,289	\$ 171,590

- Estimates based upon walk thru results
- Lighting not included, project implemented in 2013 at facility



ESTIMATED PROGRAM SAVINGS

Calumet Park 911 Center

Measure No.	Measure Description	Est. Peak Demand Reduction (kW)	Est. Annual Electricity Savings (kWh)	Est. Annual Cost Savings
ECM-1	New Data Center (50% Net New IT Equipment)	16.0	140,160	\$ 9,811
ECM-2	New Data Center (50% Existing Site Consolidation)	36.0	315,360	\$ 22,075
ECM-3	Server Virtualization*	11.4	100,000	\$ 7,000
Total Energy Savings Potential		63.4	555,520	\$ 38,886

- *Server Virtualization up to ~500,000 kWh potential
- Lighting potential energy savings estimated at 30,000 kWh
- Heat Recovery: Heat output of data center equipment may be used to provide significant portion of building heating requirements
- Estimates based upon analysis of pre-construction drawings



MORE INFORMATION

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