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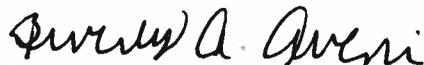
**ADDENDUM NO. 3
(August 15, 2014)**

**RFP No. 649
Government Center Microgrid
and Enhancements to Public Shelters**

Addendum No. 3 is being issued to all potential proposers to provide the attached information:

- Responses to inquiries received, and documented as Questions and Answers # 7 through # 45.
- 6th Floor Chiller Trend Log.
- Government Center sample Meeting Schedule.
- Verdiem Computer Management Savings Report – BOE.

All other terms and conditions of RFP No. 649 remain the same.


Beverly A. Aveni
Purchasing Agent

Cc: Nancy Pipicelli, Energy/Utility Manager
Purchasing Department File

AMENDMENT #3 TO CITY OF STAMFORD RFP #649 ESPC WITH MICROGRID AND RESILIENCE



This amendment contains ESCO questions and City answers; a representative Government Center meeting schedule; a Verdiem Savings Report for PC energy use management in the schools; and operating information for the Government Center “loading dock” chiller dedicated to the 6th floor server room.

ESCO QUESTIONS AND CITY ANSWERS

[Please note: Questions #1–6 were answered in Amendment #2.]

Q7: At Roxbury school there appears to be two sets of heating system piping; is this accurate? If so, is one for steam and the other for hot water?

A7: Roxbury has both steam and hot water heat.

Q8: In order to determine Westhill high school pool heating requirements, please verify that the water temperature is 82°F and provide further information on heating energy if available. What is the capacity (in kW) of the electric water heater, and what are the dimensions of the pool?

A8: Pool temperature is 82°F. Pool Heater general data: Paterson Kelly Co. Instantaneous electric water heater 268006 A-100874. Power supply: 480/3/60. The coil specs can be verified by contacting Power & Process Gary Gagnon sales engineer @ 203-723-6645 or 860-637-7472. The hot water heat exchanger is a Bell & Gossett #5-286-08-096-009 DWU-88-22 Pool heat exchanger. Pool dimensions and other data were provided during the Q&A meetings on July 23rd 2014.

Q9: It appears that Air Handler Units (AHU) are being replaced at Westhill high school. Please provide further information and specifications about the AHU replacement project.

A9: The Westhill AHU replacement project scope includes the following. During 2014-2015: Gym/Cafeteria/Pool Air Handler Replacement. Proposal to change out pool air handler to AC with pool water heating is under evaluation as part of current project. Drawings

pending. During 2015 Summer/Fall: Wing A & B Penthouse Equipment air handler, bonding pending. Drawings also pending in fall.

Q10: Do you know if there are copies of asbestos studies filed within the Engineering Dept. for the schools involved in the project (Westhill, Stamford High, Rippowam, and Roxbury)?

A10: There is an asbestos-related report for Westhill in selected project specific areas only. The Westhill AHERA Report was made available during the Q&A meetings on July 23rd 2014. Each contractor must first-hand test each item to be potentially disturbed and have it tested for ACM/lead paint/PCB's etc. The Penthouse contractor's ACM report is suspect, and is currently being retested.

Q11: Please provide asbestos surveys (if any) for the facilities.

A11: See Q10.

Q12: Please provide a count of desktop computers by school and operating system.

A12: This information is not available at this time. If an ESCO wishes to make an assumption about the existing conditions, please clearly state those assumptions.

Q13: Please provide a count of monitors by school and type, i.e., LCD, CRT, etc.

A13: This information is not available at this time. If an ESCO wishes to make an assumption about the existing conditions, please clearly state those assumptions.

Q14: Has a computer power management system been deployed across the schools?

A14: The schools have Verdiem PC Power Manager Software which manages computers and monitors only. A sample savings report is attached in this amendment (please ignore the \$.10/kWh rate the form uses for savings calculations, that is old).

Q15: Please provide a count of white/smart boards by school.

A15: This information is not available at this time. If an ESCO wishes to make an assumption about the existing conditions, please clearly state those assumptions.

Q16: Please provide JCI control drawings and sequences of operation for Rippowam, Roxbury, and Westhill, and Alerton drawings and sequences of operation for Stamford High School. Siemens drawings and sequences of operation for Government Center.

A16: The JCI control drawings and sequences of operation were made available during the Q&A meetings on July 23rd 2014. The Alerton drawings for the Stamford High energy management system are not available at this time. Please note that plan file drawing checks will be required. Any information that may have been on file may now potentially be obsolete. Each Contractor is responsible for first hand verifications and confirmations of ATC control Systems. Early Noresco info available for each contractor on each contractor's sole responsibility for accuracy.

Q17: Do you know if there are copies of the JCI/Alerton/CSI control drawings and sequences of operation, etc. for the same schools filed within the Engineering Dept?

A17: See A16.

Q18: Is there a utility summary for the tenants at Post House who are metered separately? This information is required to support development of a microgrid including this building.

A18: This topic was discussed during the pre-bid meeting and the Q&A meetings on July 23rd 2014. The City does not expect the proposing ESCOs to include the individually-metered apartments in the proposals due to the administrative and potential regulatory challenges of including each apartment in a microgrid design or agreement that provides power to Post House. The City welcomes proposals that provide power to other parts of that building, for example to power common areas that could provide shelter during prolonged grid power outages, or to the existing emergency circuit. If an ESCO wants to propose a plan to include powering the apartments, the City will consider that proposal. If an ESCO wants to make assumptions about the apartments' electricity use based on experience in other buildings, please describe the basis for those assumptions. Please note that Clinton Manor is different from Post House in this regard, because the Clinton Manor apartments are not individually metered.

Q19: Please provide sewer billing data for the facilities.

A19: This information was provided during the Q&A meetings on July 23rd 2014.

Q20: Are the solar power panels on the Rippowam school roof owned by the City, or a Power Purchase Agreement (PPA) provider (and if so, who is the PPA provider)?

A20: The solar power panels were installed via a PPA with SunEdison. The system went live on 12/7/2009. Power rate and billing information was provided during the Q&A meetings on July 23rd 2014.

Q21: Confirm natural gas supply pressure after the meter for all buildings.

A21: Gas supply pressures after the meter are not available at this time. City and school buildings need high pressure to all burner regulators where the supply is reduced to working pressure of 9–12" water column for the Power Flame burners to operate. The low pressure gas piping is no more than 7" water column. This was discussed during the Q&A meetings on July 23rd 2014.

Q22: For Stamford High provide base mechanical and electrical drawings including mechanical schedule sheets and electrical one-lines, and drawings for the renovation completed 2006 (?). Piping drawings for the dual temp system and heat exchangers are needed.

A22: Architectural and engineering plans and drawings are available at the City Engineering Department on the 7th floor of Stamford's Government Center. ESCOs can request copies that are made available for purchase at County Reproductions in Stamford. Please note that the City does not necessarily possess all of the drawings requested, but all relevant drawings that can be located are made available.

Q23: For West High, Rippowam, and Roxbury, provide mechanical and electrical drawings with mechanical schedule sheets, and electrical one-line or riser diagrams.

A23: See A22.

Q24: For all buildings, include mechanical and electrical drawings of last major renovation.

A24: See A22.

Q25: Do the ESCO's need to carry maintenance of the systems/equipment installed as part of the cash flow within the 15 year project term?

A25: The City allows ESCOs to claim O&M savings as a particular Energy Conservation measure (ECM) where applicable. The ESCOs should describe what O&M expenses will be required for new equipment installations that are not part of the existing facility, whether or not the ESCO proposes to perform those O&M services. This does not mean that the ESCO has to provide this level of O&M for that cost, but it should reflect the expected amount that owner will have to spend based the equipment manufacturer's O&M requirements. This could be a repeated annual line item or other applicable intervals (such as overhaul intervals based on hours of operation). If an ESCO includes costs in its pro forma, then tell us whether you propose to provide the service. PLEASE NOTE: The City prefers that the ESCOs propose to provide O&M services on combined heat and power (CHP) and microgrid systems in particular. The ESCOs

may choose whether or not to propose to provide O&M services on other new equipment, but the City requires the ESCOs to provide O&M costs and savings calculations where applicable to specific ECMs.

Q26: We are inquiring to see if there could be a cost/savings required accuracy of +/- 10% on the proposal submission such that submitters do not artificially inflate their savings or deflate their costs to get chosen. This would help to adhere to a standard where the vendor could be rejected later in the IGA phase if their numbers come out very differently than submitted and the City could go to the second most qualified vendor.

A26: The City does not require an explicit cost/savings accuracy parameter. The City will determine cost reasonability of ESCO proposals. ESCOs should be prepared to justify their costing calculations in response to questions from the City and/or during interviews.

Q27: The billing summary leaves out a lot of information. We would like a copy of at least one (1) utility bill – electric and gas – for each account for each building. Preferably two (2), one (1) summer and one (1) winter.

A27: This billing information was provided during the Q&A meetings on July 23rd 2014.

Q28: At Government Center, confirm refrigerant in package air handling units on each floor, and in new systems serving the 6th floor.

A28: The refrigerant in the package air handling units on each floor is R-22. The refrigerant in the 25 ton “loading dock” chiller dedicated to the servers on the 6th floor in 410A.

Q29: Stamford Government Building – Trending request:

1. Trend cooling water pump run-times – Penthouse pumps
2. Trend AHU chiller run-times – if I/O available.

A29: Trending request:

1. This information was provided during the Q&A meetings on July 23rd 2014.
2. The only chiller is located on the loading dock roof and is dedicated to the 6th floor server room. Representative operating information is provided in this amendment (attached). For information about Government Center AHU package unit operating parameters see A30 #1.

Q30: Please provide the following information, if available, listed below for Stamford Government Building:

1. Summer & Winter & Winter Temperature Set points for Occupied and Unoccupied schedules

2. Power System One-Line Diagram w/ Utility Disconnects, Two Main Transformers and Main Switchboard.
3. Siemens BAS drawings from document 511-PE-0929 including LEG, 001–038 and product data sheets from the binder.
4. Siemens BAS drawings from document 511-PE-0873 including LEG and 001–020.
5. Trane schematics: Document “E-2306-1960 A” including Schematic Diagram W/VAV; VAV-Night Set Back, SWUA – 20 thru 60 Ton; GTE units. Document “E-2306-1961 A” Elec. T&D Actual Bills for 12 Months – kW, kWh & Tot. cost
6. Elec. supply Actual Bills for 12 Months – kW, kWh & Tot. cost
7. Elec. 15 min. Interval Data for same 12 Months kW & kWh (used to determine potential savings during peak usage)
8. NG T&D Actual Bills for 12 Months – Usage, \$/unit & Tot. cost
9. NG supply Actual Bills for 12 Months – Usage, \$/unit & Tot. cost
10. NG 30 or 60 min. Interval Data for same 12 Months (used to determine potential savings during peak usage)

A30: Information requested for Stamford Government Center:

1. Summer and winter temperature set points for occupied space are the same: 74°F. The winter setpoint for unoccupied space is 60°F, for the summer there is no unoccupied space setpoint, *i.e.*, no setpoint for “too hot”. On a typical weekday at 6:00 AM the Government Center starts staging units on in staggered start sequence to prepare for the 8:00 AM to 5:00 PM operating period. When the units are scheduled off, the only night set point is to maintain above 60°F. The Siemens BAS program has “warm up” and “cool down” modes for pre start into occupied mode, with occupied space air temperature parameters of 68°F and 80°F. If the space temp is below 68°F the BAS starts the HVAC equipment early to warm up the space to reach the 74°F occupancy set point; if the space temp is above 80°F the BAS starts the equipment early to cool down the space to 74°F. Areas of the building that operate 24/7 year round include the lobby and Floor 1 South (security personnel), and Floor 6 South (ECC & server areas). Floor 7 South (Fire Marshal) runs Monday through Thursday until 10:00 PM. On a frequent yet variable basis there are scheduled meetings in the evening and on weekends; see the sample week of meeting schedules attached in this amendment.
2. The City is not able to locate a copy of the Government Center power system one-line diagram other than drawing number E26 that was provided on the CD issued with the RFP. However that E26 drawing file on the CD was partially corrupted, so an original version is available at the City Engineering Department on the 7th floor of Stamford’s Government Center and at County Reproductions, as described during the Q&A meetings on July 23rd 2014. ESCOs can request copies that are made available for purchase at County Reproductions in Stamford. Drawing E4 “power riser diagram” might also be informative and is available at Government Center. ESCOs were provided access to the switchgear during facility tours and access periods; some diagrams are posted on the panels and main switchboard. The two original main transformers are depicted on drawing E26. Please note that those transformers were subsequently replaced following a fire and this drawing is not current. An updated version of this drawing is not available. ESCOs can assume that the transformers have equivalent characteristics.

3. Access was provided to the Siemens BAS and its documentation 511-PE-0929 including the ability to make copies during facility access periods and the Q&A meetings on July 23rd 2014.
4. Access was provided to the Siemens BAS and its documentation 511-PE-0873 including the ability to make copies during facility access periods and the Q&A meetings on July 23rd 2014.
5. Access was provided to the Trane schematics and documentation including the ability to make copies during facility access periods and the Q&A meetings on July 23rd 2014.
6. This billing information was provided during the Q&A meetings on July 23rd 2014.
7. Signed permission for ESCOs to submit Interval Data Requests to CL&P for Government Center and the four schools was provided during the Q&A meetings on July 23rd 2014.
8. This billing information was provided during the Q&A meetings on July 23rd 2014.
9. This billing information was provided during the Q&A meetings on July 23rd 2014.
10. The City cannot guarantee that this information is available. The only interval data available is daily usage as recorded through the customer's metscan devices. The natural gas account number for Stamford's Government Center is 57447120072, and for Westhill High School is 57423220029. The ESCOs can access available data via an online registration by following the directions from this link:
https://www.yankeegas.com/Forms/Natural_Gas_Consumption_Data_Requests/

Q31: Please provide the following information, if available, listed below for Clinton Manor and Post House:

1. Elec. T&D Bills for 12 Months – kW, kWh & Tot. cost
2. Elec. supply Bills for 12 Months – kW, kWh & Tot. cost
3. Elec. Bill – Typical Resident – T&D and Supply combined
4. NG T&D Actual Bills for 12 Months – Usage, \$/unit & Tot. cost
5. NG supply Actual Bills for 12 Months – Usage, \$/unit & Tot. cost
6. NG 30 or 60 min. Interval Data for same 12 Months (used to determine potential savings during peak usage)

A31: Information requested for Clinton Manor and Post House:

1. This billing information was provided during the Q&A meetings on July 23rd 2014.
2. This billing information was provided during the Q&A meetings on July 23rd 2014.
3. Clinton Manor residents are not provided with individual electricity bills. Post House resident bills are not available; please see discussion in A18.
4. This billing information was provided during the Q&A meetings on July 23rd 2014.
5. This billing information was provided during the Q&A meetings on July 23rd 2014.
6. The City cannot guarantee that this information is available. The only interval data available is daily usage as recorded through the customer's metscan devices. The natural gas account number for Clinton Manor is 57140300088, and for Post House is 57589480045. The ESCOs can access available data via an online registration by following the directions from this link:
https://www.yankeegas.com/Forms/Natural_Gas_Consumption_Data_Requests/

Q32: Please provide the following information, if available, listed below for Westhill High School. From document set Project No 135-168 (10JAN94): Drawings M1, M2, M4, P1, E1. From document set Project No No 91A (4/15/69): HVAC 1 thru HVAC 15. From document set Project No 13D2234 (06/21/213): M-101, M-102, and M-104.

A32: Architectural and engineering plans and drawings are available at the City Engineering Department on the 7th floor of Stamford's Government Center; copies can be purchased by the ESCOs. See A22.

Q33: Please provide the following information, if available, listed below for Stamford High School. From document set SDE Project 135-174 CV, Phase II (9OCT2000): Drawings M1.1, M1.2, M2.1, E1.2. From document set Contract No 3A (4-29-68): HV 10, HV 11, HV 11A, E 19.

A33: Architectural and engineering plans and drawings are available at the City Engineering Department on the 7th floor of Stamford's Government Center; copies can be purchased by the ESCOs. See A22.

Q34: Please provide the following information, if available, listed below for Roxbury School. From document set No 135-161RE (5-4-93): Drawings E-1, E-2, H-1. From document set Project No 91-09415: Drawings E-3, H-1, H-2, H-3.

A34: Architectural and engineering plans and drawings are available at the City Engineering Department on the 7th floor of Stamford's Government Center; copies can be purchased by the ESCOs. Drawing H-3 is not available at this time. See A22.

Q35: Please provide the following information, if available, listed below for Rippowam School. From document set REC 12-16-03: Drawings HV-1 thru HV-12. From document set Project No 2345.02 (May17, 2002): Drawings TM-1, TM-2.

A35: Architectural and engineering plans and drawings are available at the City Engineering Department on the 7th floor of Stamford's Government Center; copies can be purchased by the ESCOs. See A22.

Q36: During the Q&A session [on July 23rd we] requested the one line electrical drawing for Stamford Government Center. When do you expect that this drawing will be made available?

A36: See A30 #2.

Q37: Regarding the subject RFP, shall our energy calculations be based on "bundled" kWh and kW rates or "unbundled" kWh and kW rates?

A37: The City will consider proposed ECMs with both “bundled” and “unbundled” rates, as appropriate. ECMs that relate directly to differences in time of use rates or to demand charges should explicitly describe the proposed impact on both energy use (kWh) and demand (kW) or demand charges. For example, facilities with combined heat and power (CHP) systems are eligible different demand charge structures than are facilities without distributed generation, and also can potentially realize REC revenue on a per-kWh basis. Therefore proposed CHP ECMs should address both of those issues separately and clearly. In order to make the CHP economics more accurate it is recommended that actual tariff charges be used, as opposed to a general bundled \$/kWh rate.

Q38: If we propose PPA (Power Purchase Agreement) can we use the difference in commodity as savings?

A38: Yes, it is encouraged.

Q39: Can we use cost avoidance in our savings calculation?

A39: The ESCOs cannot use capital cost avoidance for avoided equipment replacement. The only cost avoidance that can be used is O&M material changes such as lighting lamps and ballasts; see A25 for further discussion. Future “potential” capital cost avoidance due to replacing existing equipment (for example, a cooling tower or a chiller) is not allowed.

Q40: We plan on offering a “base case” and an alternate. Would this be acceptable to the city?

A40: Yes.

Q41: Please clarify if the Celtic Energy fees listed in the markup tables would be paid directly by the City and just accounted for by the ESCO as part of the performance contract cash flow, or would the ESCO pay Celtic directly their fees as a subcontractor to the ESCO working on the City’s behalf.

A41: The City will pay Celtic Energy directly for third party consultant services. The cash flow only needs to carry the costs for the Celtic Energy fees. The selected ESCO will not be paying Celtic Energy for anything and will not be marking up their fees.

Q42: We would like to confirm the following item: Labor wage rate (prevailing, Union?)

A42: Any project over \$100,000 (regardless of ESCO) requires prevailing wages – which are also required if the City gets any State or Federal funds for the project. Union is not required, however.

Q43: Stamford Gov't Center: Please provide garage fan operating hours.

A43: ESCOs can assume the fan is not operated. The garage fans do not run on a regular schedule or CO₂ basis and can only be turned on and off manually at this time. The last period of any significant garage fan operation was during construction in the parking garage when the workers were running a generator. That was short lived because the exhaust was near the loading dock and the exhausted air was being pulled into the building. Otherwise the fan is rarely operated.

Q44: Westhill High School: Please provide daily use with approximate hours during the school season and summer.

A44: The RFP Technical Facility Profile describes Westhill High School's operating hours as 6:00 AM to 6:00 PM during both the school year and the summer. ESCOs can assume that each school's operating hours extend to 9:00 PM two nights per week to include evening activities, and extend to include one 12 hour weekend day per month for activities.

Q45: Would be possible to walk mechanical/electrical contractors early next week to firm up pricing? We would like to visit mechanical rooms for the schools and Stamford Government Center.

A45: Extended facility access is not available at this time.

SIEMENS UNIT: CHILLER-1 & DRY COOLER-1 SERVES: 6TH FLOOR SERVER ROOM LOCATION: 3RD FLOOR PARKING GARAGE

SYSTEM STATUS
OPER: ENABLE
78.00 DEG F

OAT ENABLE STP
40.00 DEG F

OUTSIDE AIR TEM
78.00 DEG F

CHILLER-1
78.00 DEG F

CHILLER-1
NONE
DISABLED

CHILLER-1
NORMAL

CHILLER-1
78.00 DEG F

OAT enable - dry cooler

CHILLER-1
NONE
DISABLED

CHILLER-1
78.00 DEG F

OUTSIDE AIR TEM
78.00 DEG F



CHILLER-1
78.00 DEG F

DC CHW SETPOINT
45.00 DEG F

CHILLER-1
78.00 DEG F

100% OPEN -
THROUGH
DRY COOLER

CHILLER-1
78.00 DEG F

CHILLER-1
78.00 DEG F

CHILLER-1
78.00 DEG F

CWS CWR
TO/FROM 6TH
FLOOR CRAAC UNITS

HOME PAGE

CLG TOWERS

HW SYSTEM

7/24/2014

Stamford Government Center
Trend Interval Report

01:02 PM

Selection: B888W.6F.CH1.OAT, B888W.6F.CH1.CWST, B888W.6F.CH1.CWRT, ...
(5 Points)

Key	Name: Suffix	Trend Definitions Used
Point_1:	B888W.6F.CH1.OAT	COV 5 minutes
Point_2:	B888W.6F.CH1.CWST	COV 5 minutes
Point_3:	B888W.6F.CH1.CWRT	COV 5 minutes
Point_4:	B888W.6F.CH1.CWP02.ST	COV 1 hour
Point_5:	G6SRT	1 hour
Time Interval:	1 Hours	
Date Range:	7/1/2014 00:00:00 - 7/23/2014 23:59:59	
Report Timings:	All Hours	

<>Date	Time	Point_1	Point_2	Point_3	Point_4	Point_5
7/1/2014	00:00:00	75.0	44.4	48.3	ON	68.75
7/1/2014	01:00:00	74.0	44.4	48.3	ON	68.65
7/1/2014	02:00:00	74.0	44.4	48.3	ON	68.55
7/1/2014	03:00:00	74.0	44.4	48.3	ON	68.60
7/1/2014	04:00:00	73.0	44.4	48.3	ON	68.65
7/1/2014	05:00:00	73.0	43.4	48.3	ON	68.65
7/1/2014	06:00:00	72.0	44.4	48.3	ON	68.65
7/1/2014	07:00:00	72.0	44.4	48.3	ON	68.65
7/1/2014	08:00:00	72.0	44.4	48.3	ON	68.65
7/1/2014	09:00:00	73.0	44.4	48.3	ON	68.90
7/1/2014	10:00:00	75.0	44.4	48.3	ON	68.90
7/1/2014	11:00:00	77.0	44.4	48.3	ON	69.05
7/1/2014	12:00:00	79.0	44.4	48.3	ON	68.95
7/1/2014	13:00:00	81.0	44.4	48.3	ON	68.80
7/1/2014	14:00:00	86.1	44.4	48.3	ON	68.90
7/1/2014	15:00:00	87.1	44.4	48.3	ON	68.90
7/1/2014	16:00:00	86.1	44.4	48.3	ON	68.80
7/1/2014	17:00:00	85.1	45.5	49.3	ON	68.75
7/1/2014	18:00:00	85.1	44.4	49.3	ON	68.80
7/1/2014	19:00:00	84.0	44.4	48.3	ON	68.80
7/1/2014	20:00:00	83.0	44.4	48.3	ON	68.80
7/1/2014	21:00:00	81.0	44.4	48.3	ON	68.75
7/1/2014	22:00:00	80.0	44.4	48.3	ON	68.85
7/1/2014	23:00:00	79.0	44.4	48.3	ON	68.80
7/2/2014	00:00:00	78.0	44.4	48.3	ON	68.60
7/2/2014	01:00:00	77.0	44.4	48.3	ON	68.90
7/2/2014	02:00:00	76.0	44.4	48.3	ON	68.85
7/2/2014	03:00:00	76.0	44.4	48.3	ON	68.70
7/2/2014	04:00:00	76.0	44.4	48.3	ON	68.80
7/2/2014	05:00:00	76.0	44.4	48.3	ON	68.75

7/24/2014

Stamford Government Center
Trend Interval Report

01:02 PM

Selection: B888W.6F.CH1.OAT, B888W.6F.CH1.CWST, B888W.6F.CH1.CWRT, ...
(5 Points)

7/2/2014	13:00:00	83.0	44.4	48.3	ON	69.00
7/2/2014	14:00:00	87.1	44.4	48.3	ON	69.05
7/2/2014	15:00:00	89.1	44.4	48.3	ON	69.00
7/2/2014	16:00:00	88.0	44.4	48.3	ON	68.75
7/2/2014	17:00:00	87.0	44.4	48.3	ON	69.00
7/2/2014	18:00:00	86.0	44.4	48.3	ON	68.75
7/2/2014	19:00:00	84.0	44.4	48.3	ON	68.85
7/2/2014	20:00:00	74.8	44.4	48.3	ON	68.95
7/2/2014	21:00:00	74.8	44.4	48.3	ON	68.85
7/2/2014	22:00:00	73.8	44.4	48.3	ON	68.95
7/2/2014	23:00:00	73.8	44.4	48.3	ON	68.90
7/3/2014	00:00:00	72.8	44.4	48.3	ON	68.75
7/3/2014	01:00:00	72.8	44.4	48.3	ON	68.80
7/3/2014	02:00:00	72.8	43.4	48.3	ON	68.85
7/3/2014	03:00:00	72.8	44.4	48.3	ON	68.85
7/3/2014	04:00:00	73.8	44.4	48.3	ON	68.90
7/3/2014	05:00:00	73.8	43.4	48.3	ON	68.85
7/3/2014	06:00:00	73.8	44.5	48.3	ON	68.95
7/3/2014	07:00:00	73.8	44.5	48.3	ON	68.85
7/3/2014	08:00:00	73.8	44.5	48.3	ON	68.85
7/3/2014	09:00:00	74.8	43.5	48.3	ON	69.15
7/3/2014	10:00:00	75.8	44.5	48.3	ON	68.95
7/3/2014	11:00:00	76.8	44.5	48.3	ON	68.75
7/3/2014	12:00:00	76.8	44.5	48.3	ON	68.90
7/3/2014	13:00:00	77.9	44.5	48.3	ON	67.95
7/3/2014	14:00:00	82.9	44.5	49.3	ON	68.25
7/3/2014	15:00:00	84.9	44.5	48.3	ON	68.30
7/3/2014	16:00:00	82.9	44.5	48.3	ON	68.40
7/3/2014	17:00:00	82.9	44.5	48.3	ON	68.55
7/3/2014	18:00:00	83.9	44.5	48.3	ON	68.60
7/3/2014	19:00:00	82.9	44.5	48.3	ON	68.55
7/3/2014	20:00:00	80.9	44.5	48.3	ON	68.45
7/3/2014	21:00:00	79.9	44.5	48.3	ON	68.15
7/3/2014	22:00:00	70.8	44.5	48.3	ON	67.95
7/3/2014	23:00:00	70.8	43.5	48.3	ON	67.95
7/4/2014	00:00:00	70.8	43.5	48.3	ON	67.95
7/4/2014	01:00:00	70.8	43.5	48.3	ON	68.20
7/4/2014	02:00:00	70.8	44.5	48.3	ON	68.00
7/4/2014	03:00:00	70.8	44.5	48.3	ON	68.10
7/4/2014	04:00:00	71.8	44.5	48.3	ON	67.95
7/4/2014	05:00:00	71.8	43.5	48.3	ON	68.30



Muway

**STAMFORD GOVERNMENT CENTER
BUILDING MANAGEMENT OFFICE
888 WASHINGTON BOULEVARD
PHONE (203) 977-4200**

Scheduled Meetings From 08/02/14 To 08/08/14

Saturday, 08/02/14

09:00 AM - 12:00 PM	SARA Exam	4th Floor	Café
01:00 PM - 03:00 PM	Stamford Softball Meeting	4th Floor	Café

Sunday, 08/03/14

10:00 AM - 03:00 PM	Chile Groupo	4th Floor	Café
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Monday, 08/04/14

03:30 PM - 07:00 PM	HR - Account Clerk II Exam	4th Floor	Café
04:00 PM - 08:00 PM	URC Commission Meeting	9th Floor	URC Conference Room
05:00 PM - 06:00 PM	Zumba	2nd Floor	Senior Center Auditorium
08:00 PM - 09:00 PM	Recreation Adult Sport Meeting	6th Floor	Safety Training Room
07:00 PM - 11:00 PM	Zoning Board Meeting	4th Floor	Café
08:00 PM - 11:00 PM	BOR - Regular Board Meeting	4th Floor	Legislative Chambers

Tuesday, 08/05/14

07:30 AM - 09:00 AM	BNI- Local Business Leaders	4th Floor	Café
11:00 AM - 03:30 PM	WIC - Breast Feeding Event	4th Floor	Café
04:00 PM - 08:00 PM	BOE - Registration	Lobby	Lobby
04:00 PM - 08:00 PM	BOE - Registration	4th Floor	Café
05:00 PM - 08:00 PM	Hispanic Womens Support Group	7th Floor	Conference Rm. 7-H
06:00 PM - 11:00 PM	BOE Committee Meeting	5th Floor	5th Floor Board Room
07:00 PM - 09:00 PM	Literacy Volunteers	2nd Floor	Senior Center Seminar Room
07:00 PM - 11:00 PM	Planning Board Regular Meeting	4th Floor	Café

Wednesday, 08/06/14

07:30 AM - 09:00 AM	BNI- Local Business Leaders	4th Floor	Café
11:30 AM - 01:30 PM	CT Rides	4th Floor	Café
04:00 PM - 05:30 PM	YSB - Reading Club	6th Floor	Safety Training Room
04:00 PM - 08:00 PM	BOE Registration	4th Floor	Café
04:00 PM - 08:00 PM	BOE Registration	Lobby	Lobby
05:00 PM - 08:00 PM	Kick Boxing	2nd Floor	Senior Center Auditorium
05:30 PM - 08:30 PM	NAACP	2nd Floor	Senior Center Seminar Room
06:30 PM - 09:30 PM	The Fairfield County Camera/Photography Club	2nd Floor	Senior Center
07:00 PM - 11:00 PM	Misc. Meeting	4th Floor	Café

Thursday, 08/07/14

08:00 PM - 08:00 PM	Recreation - Volleyball / Flag Football Meeting	Lobby	Lobby
06:30 PM - 09:30 PM	Literacy Volunteers	2nd Floor	Senior Center Mural Room
07:00 PM - 09:00 PM	Literacy Volunteers	2nd Floor	Senior Center Library
07:00 PM - 11:00 PM	Misc Meeting	4th Floor	Café
07:45 PM - 10:00 PM	Stamford Radio Assoc. (SARA)	6th Floor	Safety Training Rm.

Friday, 08/08/14

No Meetings

SURVEYOR

**Stamford Public Schools
Annual SURVEYOR Audit Report**

v. 101201

Introduction

This report details the status of the Surveyor system at Stamford Public Schools from data provided 5/22/2014. The analysis contrasts the baseline consumption rate against the enforcement consumption rate. This report specifically looks at how energy consumption rates have been affected by the Surveyor product and what further energy savings may be realized.

Overview

Surveyor was deployed at Stamford Public Schools in 2012. At the time of this report 4424 computers had reported into Surveyor in the past month.

Report Assumptions

All reports and data contained in this report used the following assumptions unless otherwise stated.

Energy Rate: Based on location settings in UI

Watt Draw: Based on watt values for each device in UI

Current Consumption report dates: 5-1-2013 to 4-30-2014

Baseline Energy Consumption

The baseline energy consumption is the average annualized energy consumption rate of PC's prior to the introduction of Surveyor policies.

- **Weighted Average for all PC's**

Default Baseline

Manually enter baseline values below:

System is on	<input type="text" value="70"/>	%	Display is on	<input type="text" value="81"/>	%
System is off	<input type="text" value="26.5"/>	%	Display is off	<input type="text" value="19"/>	%
System is asleep	<input type="text" value="3.5"/>	%			

Savings

Simply comparing the pre-Surveyor consumption rate to the current (enforced) consumption rate indicates an energy savings rate of 786,006 and a monetary savings of \$78,607.76. These are the actual numbers for the reporting period of 5-1-2013 to 4-30-2014. The following table shows the total savings.

Savings Summary with Equivalents (Fuel, Trees, Cars) - [Run]

Description
Savings summary including metrics such as fuel equivalents and equivalent cars off the road for one year.

- Date Range

Range: Custom
 Start: 05/01/2013
 End: 04/30/2014

+ Locations
 + Groups
 + Policies
 + Device Families

Cost Savings (USD):	\$78,607.76
Energy Savings (kWh):	786,078
CO2 Savings (Pounds):	786,006
Fuel Savings (Gallons):	616,148
Tree Carbon Sequestration:	11,237
Cars Off the Road for One Year:	84

Summary

Stamford Public Schools is using a power management policy controlled by Surveyor resulting in energy savings of 786,078 kWh. Based on a \$ 0.10 energy rate this is a monetary savings of \$ 78,607.76 for the year. .

Below are some graphs that show the power states for the reporting period as well as the policy assignment breakdown.

Computer Power States by Time - [Run]

Description
 Shows percent of time in CPU and Display power states along with user activity

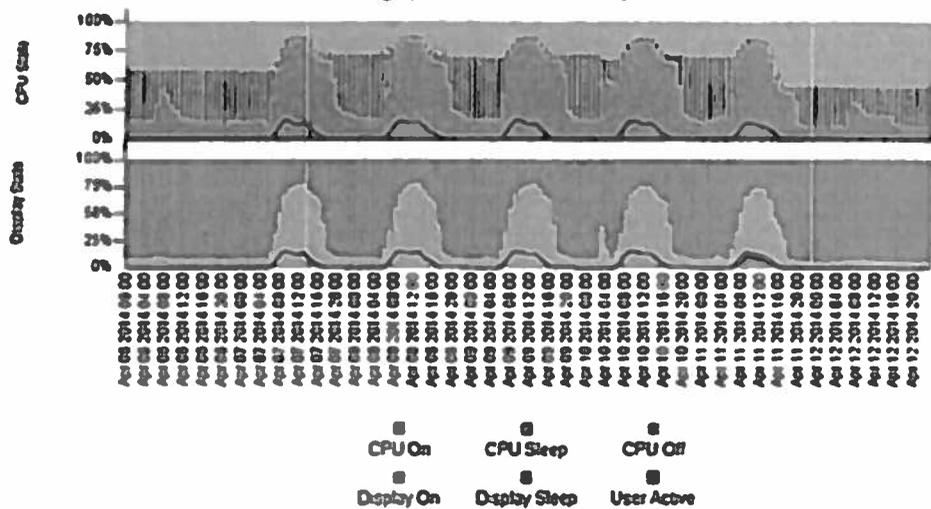
- Date Range

Range: Custom
 Start: 04/06/2014
 End: 04/12/2014

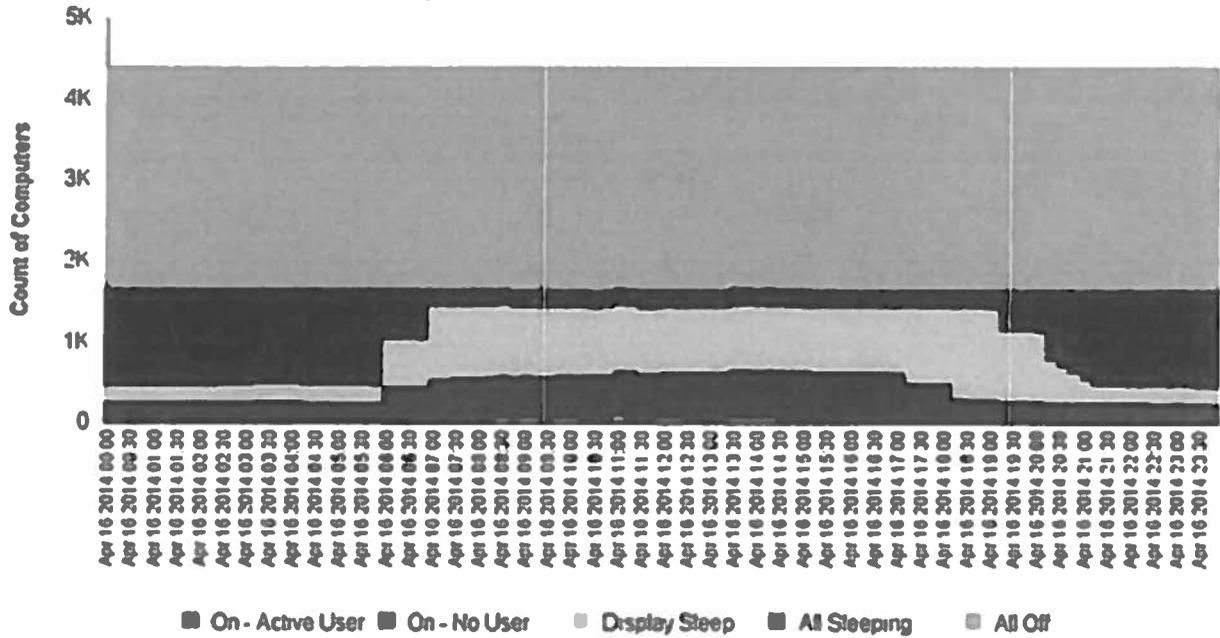
Granularity: Hourly

+ Locations
 + Groups
 + Policies

Computer CPU and Display Power States
 average percent of time in each power state



Computer Power State - 15 Minute Detail



One should note the red area displayed in the graph above. This indicates clear areas for improvement in energy efficiency by altering the policies to drive the machines into low power states during this time. The IT administrator can click on these red areas on the graph (on the Analytics report) and drill down to find out which machines are being left on during these periods – then can make the appropriate policy adjustments.

In looking at the weekly device count, it should be noted that there was a device count started growing from near zero at the beginning of this reporting period – plateauing at current levels by the end of September of 2013. Currently the system seeing an average of about 4,400 machines in reporting in.

Description
Shows the number of devices that have reported data by time

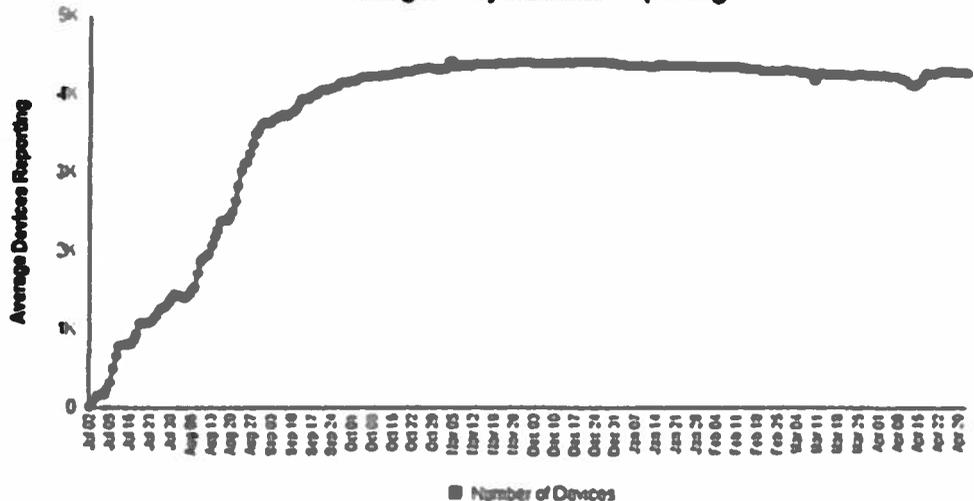
Date Range

Range: Custom
 Start: 04/02/2013
 End: 05/01/2014

Granularity: Daily

• Locations
 • Groups
 • Policies

Average Daily Devices Reporting



Recommendations

- When convenient it is suggested that you upgrade your Surveyor clients to the current version (6.1.126). This package is available at ftp.verdiem.com.
- Your Surveyor server is performing well and providing savings, though policies could be improved to provide more. In particular, if you review the Computer and Display power states chart you can see that the user activity line is much below the CPU On line – meaning a large opportunity for improvement. However, your savings per PC numbers are good so you may not need to consider more stringent policies.
- Surveyor is on 4424 machines – at or near your licensed limit.

Report was provided by:

James Tatham

Director - Customer Success Group

Verdiem - The Leader in IT Energy Management

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