

STATEMENT OF LOUIS N. MAGAZZU ON BEHALF OF ADIRONDACK ENERGY CONSERVATION, LLC

The BPU Master Plan would be enhanced if it added another tool for energy savings; clean energy systems which increase the power factor and reduces electricity usage by the type of equipment which used 24/7 and which require tremendous amounts of electricity to power the equipment.

Unlike solar and wind energy, these types of clean energy systems pose no collateral detrimental effects to the environment; have no opposition from other leaders in the green energy movement and are they are affordable and are paid off by savings within two to three years. Also, these clean energy systems provide savings 24/7 and do not need to rely upon either an abundance of sun or wind.

Although there are various power conditioning devices available nationally, I have become involved with a company which manufactures a system in New Jersey and which has a tremendous track record of proven energy savings and longevity.

In 2013, I became involved with Adirondack Energy Conservation, LLC a New Jersey company with a 15 plus year track record of reducing energy costs for high energy users such as utility authorities/waste water treatment facilities, factories and food storage facilities which require refrigeration. The founder of the company, and designer and inventor of the system is Mr. Ed Iuliano and he has designated the system first as a clean energy system and more recently as the Power Management System.

I am attaching a power point of the Power Management System as well as a narrative summarizing the process of installation and the benefits of the Power Management System.

I am also attaching a video from Congressman Donald Norcross when he appeared Adirondack Energy's two year anniversary in its Camden County factory.

You can either use this link to download the video from Congressman Norcross from our servers:
<http://adobe.ly/1JhTEQ6>

This system has been utilized primarily with waste water treatment facilities and cold storage facilities but it will work well in any 24/7 facility which uses inductive load which may also be susceptible to surges and spikes.

Please find some bullet points which summarize the benefits and experiences of the Power Management System described in more detail in the pdf which has been attached.

1) The system has a 16 year track record of success from 1999 until the present. We have attached a summary of those installations and would like to highlight a few to demonstrate the width and breathe of the success of the system;

(a) The Camden County MUA reported that the Power Management System reduced electric bills by 20% per year over the last 16 years;

(b) In 2013 Medford Municipal Utility Authority experienced an 18% improvement in the power factor and resulted in a solar field being 10% smaller than was originally designed, allowing the project to be less expensive and improving the return on investment timeline;

(c) Adirondack installed the system for the Evesham Township MUA in May of 2014. Over the last 12 months since installation, kWh savings 23.3%; kW (demand) savings 12.6%.

(d) Over the last year, Cinnaminson had a 16.5% decrease in kWh/MG.

(e) Over the last two years; the system has saved the Millville Waste Water Treatment Facility 17% a year and was used in conjunction with a solar field.

2) The system has the most recent and unique UL (Underwriters Lab) certification in the industry.

3) Increase of power factor of over 20% and commensurate reduction in electricity costs for Mamacita Inc.

- 3) A former Vice President of US Filter indicated experiencing 10-20% savings (waste water treatment facility). He said of all the contractors he has dealt with in 40 years, Mr. Iuliano was, " the best by far".
- 4) Annual savings of electricity in excess of 13% at CW Dunnet and Co in Philadelphia over the last four years.
- 5) Return of Investment within two to three years .
- 6) Units installed in 1999 are still working fine and reducing energy load.
- 7) Our system has proven record of extending life of machinery by stopping surges and spikes.
- 8) Our boxes are made in USA in a plant in Berlin Township, Camden County NJ.
- 9) Our boxes have a five year unconditional warranty.
- 10) The system (without the cost of installation) costs about the average of three months of electric bills. You are also invited to look at our website [www. adkec.com](http://www.adkec.com).

I respectfully submit that this technology deserves the inquiry of the BPU for insertion into the Energy Master Plan.

Kind personal regards,

Louis N. Magazzu

ADIRONDACK ENERGY CONSERVATION, LLC – POWER MANAGEMENT SYSTEM

Since 1999, Adirondack Energy Conservation (AEC) has saved users at least 10% on annual utility energy bills and has reduced equipment failures by more than 30% while building sustainable green energy initiatives and enhancing efficiencies from within. AEC installs its own proprietary Power Management System to smooth out the power being supplied to the load or process eliminating unwanted signals & variations bringing the current and voltage waveforms in alignment with each other.

AEC works with; Waste Water Treatment Plants, Production Plants, Processing Plants, Bottling Plants, Manufacturing Facilities and other entities which operate 24/7 and generate monthly electric bills in excess of \$5,000 per month.

A) THE PROCESS UNDERTAKEN PRIOR TO INSTALLATION

- 1) AEC obtains 12 months of electrical bills and a unit of measurement; for example MGD for waste water treatment plants. AEC then inspects the prospects current electrical system and advises approximate annual kWh and kW savings which can be expected.
- 2) ANALYZE -AEC works with the prospect to identify and profile significant loads and processes requiring significant use of electricity.
- 3) UNDERSTAND –AEC profiles each load and determines the negative characteristics which cause excessive electrical usage.
- 4) DESIGN –AEC then designs a customized proprietary device that will remove or significantly reduce unwanted power corruption induced by each load.

B) THE BENEFITS OF THE POWER MANAGEMENT SYSTEM

- 1) QUICK RETURN ON INVESTMENT – Paid for in three years in public sector and two years in the private sector.
- 1) UL CERTIFIED –The AEC system is officially UL 1449 3rd Edition Certified.
- 2) SURGE PROTECTED –The AEC equipment is surge protected for lightning strikes.
- 3) FIVE YEAR WARRANTY AND MAINTENANCE AGREEMENT- Complete warranty on equipment.
- 4) PROVEN LONGEVITY – System still working 16 years after installation.
- 5) NO DOWNTIME –The installations take place with no downtime for the user.
- 6) POWER FACTOR CORRECTION –Completed at the source of the corruption (not the meter) which reduces electricity usage and cost. Also by working from the source, the benefits of the power factor correction are realized by the facility.
- 7) FILTER OUT UNWANTED ELECTRICAL NOISES - Dampens the noise allowing the facility equipment to work more efficiently.
- 8) MINIMIZE CURRENT ON MOTORS -Decreasing the current extends the life of your motors.
- 9) REDUCE EQUIPMENT FAILURES -The equipment is protected from electrical anomalies.
- 10) LOWER MOTOR OPERATING TEMPS AND REDUCE OVERALL CURRENT -The system reduces temperature of the facilities equipment as a result of a harmonious system and decreases the amount of current and energy, and as a result extending the life of the equipment.



ADIRONDACK ENERGY
CONSERVATION LLC

609.707.5440

www.ADKEC.com

CREATING EFFICIENCIES FROM WITHIN
575 Rt. 73 North • Building C Suite 1
West Berlin, NJ 08091



SUSTAINABILITY:

We save businesses & government financial resources. This allows businesses the opportunity to channel the resources where they are most needed: whether it is employing more Americans, providing job security, reinvesting in the community or making stockholders happy.

COMMUNITY:

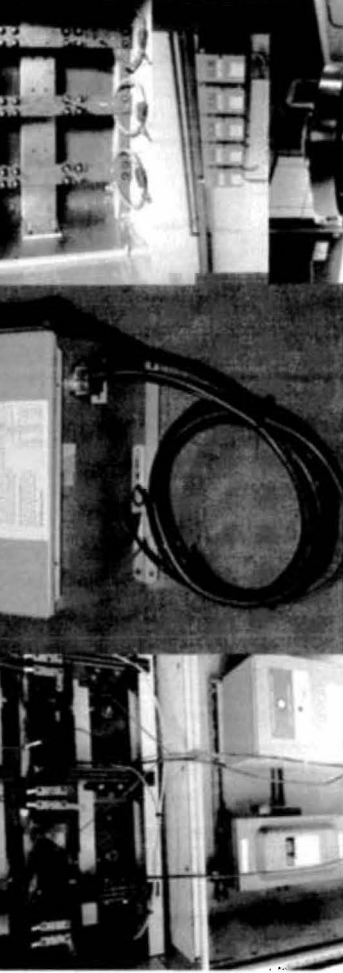
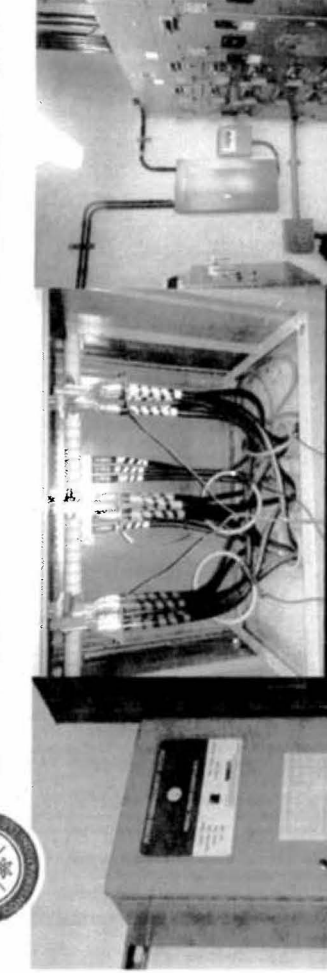
We assist our clients to think about how they impact the community: Implementing sustainable green initiatives resulting in a happier community with cleaner air to breathe.

ENVIRONMENT:

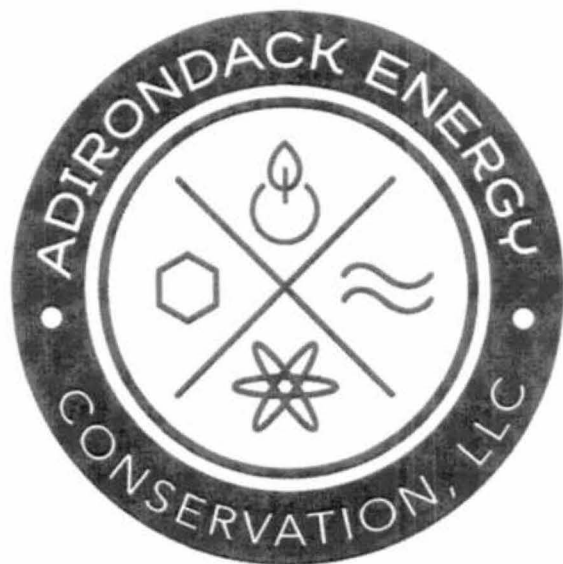
We help businesses save natural resources that help save the environment, making the world a better place to live.

WIN-WIN PARTNERSHIP:

We create ongoing win-win partnerships with our clients.



SECTION 1



Client List
References
Testimonials
UL Certification



PRIOR PROJECTS

Date Delivered	Client	Loc	Contact Name	Phone #
2015	Mamacita Inc	NJ	Jonathan Mangel	856 405-0500
2015	CCMUA	NJ	Jack Connolly	856 583-2339
2014	Aqua New Jersey	NJ	Ron Soto	609 587-5406
2014	Millville	NJ	Frank Hignutt	856 825-7000
2014	Evesham MUA	NJ	Jeff Rollins	856 983-0331
2014	Cinnaminson SA	NJ	Wayne Simpson	609 267-8310
2013	Medford	NJ	Mike Cherry	856 786-9434
2013	Landis Sewer Authority	NJ	Dennis Palmer	856 691-2324
2010	C.W. Dunnet & Co	Pa	Ralph Marta	215 271-1000
2008	Montgomery Twp - Pike	NJ	Eric Reicher	908 874-3144
2008	Montgomery Twp- Stage 2	NJ	Eric Reicher	908 874-3144
2003	USF San Luis Obispo St A	CA	Bob Bane	480 440-4055
2003	USF San Luis Obispo St B	CA	Bob Bane	480 440-4055
2001	Baltimore	MD	Bob Bane	480 440-4055
2001	USF Crossville	TN	Bob Bane	480 440-4055
2001	GCUA - Westwood PS	NJ	Tom Sholders	856 423-3500
2000	USF Bridgeport	CT	Bob Bane	480 440-4055
2000	USF Cranston	RI	Bob Bane	480 440-4055
2000	USF Gatlinburg	TN	Bob Bane	480 440-4055
2000	USF Pigeon Forge	TN	Bob Bane	480 440-4055
2000	USF Wilmington	DE	Bob Bane	480 440-4055
1999	CCMUA	NJ	Jack Connolly	856 583-2339
1999	OMI - Ridgefield	CT	June Succow	203 438-8615
1999	Danbury	CT	Matthew Isles	203 748-9116
1999	Poughkeepsie	NY	Sam DuBoise	845 451-4173
1998	Ocean County UA SPS5	NJ	Bob Dittman	609 597-4676



References:

Jack Connolly – Camden County Municipal Utility Authority Camden, NJ
(856) 583-2339 - jackcon@ccmua.org

Dennis Palmer – Landis SA - Vineland, NJ
(856) 691-2324 - Lsadwp@icdc.com

Ralph Marta – C.W. Dunnet & Co - Philadelphia, Pa
(215) 271-1000 - RMarta@cwdunnet.com

Bob Bane – USFilter (RETIRED) - Scottsdale, Az
(480) 440-4055 - bbaneassociates@yahoo.com

Eric Reichert – Montgomery Twp - Belle Mead, NJ
(908) 874-3144 – reichert@twp.montgomery.nj.us

Mike Cherry – Municipal Maintenance Co - Cinnaminson, NJ
(609) 313-9982 – mcherry@mmc-nj.com

Ed Waters; Vice Chair of Evesham MUA
(609) 707-1049 thewatersgroup@gmail.com

Richard C. Strobel, Chairman of Cinnaminson MUA
(856) 733-0050 rcstrobel@comcast.net

Denny Tulenson – Veolia Water - Cleveland, Oh
(440) 725-2690



Medford TWP - Site Visits.

The Township arranged for site visits to a completed project for each vendor, as well as to talk to users of the dual energy system. On February 18, 2010, the Township visited the Camden County Municipal Utilities Authority for the purpose of a face-to-face meeting with authority representatives to better understand the dual energy conservation system that was installed in this location. The Township met with Jack Connolly at the Authority. Representatives from Adirondack Energy Systems were also present. The CCMUA uses multiple "black boxes" throughout their facility. According to the CCMUA, they have used the devices for over 15 years. They have 55 boxes in use in the CCMUA system (multiple plants, pump stations, etc.) Prior to using the devices their plant electric bills averaged \$4.2 million. Since using the device, they have been able to cut more than \$1.1 million from their electric costs. An estimated 20% savings. SWNJ estimated a 12.5% savings in the Medford proposal. The CCMUA have also made plant upgrades but the staff is convinced the box works. When a black box is off line they see a rise in electric costs. Additionally, the CCMUA and the vendor state that the box helps the equipment run cooler which requires less maintenance and replacement. While the CCMUA could not quantify this soft cost, they are convinced the savings are real. According to Connolly, since the installation of the device the MUA has not had a major motor failure and now spends 92% of its maintenance budget on preemptive maintenance rather than reaction repairs. Finally, the black box can be designed and located to serve as a surge protector to protect against lightning strikes. This is a positive enhancement for Medford because the sewer plant has been struck on several occasions and caused considerable damage. The \$195,000 black box addition in the SWNJ proposal would purchase several boxes. The box use and locations would be specifically identified for the plant after the current plant upgrades are complete. Overall, the committee members in attendance were surprised, but impressed, with the comments made by the CCMUA officials and the demonstration of cost savings. An additional call was made to another utility authority that uses the devices and a similar testimonial as to cost reductions and product use was provided. This site visit and follow-up action gives reliable credence to the savings claims proposed by SWNJ and reason to reject the earlier skepticism of the committee.

MAMACITA
—INC—

July 13, 2015

I am the President of Mamacita, Inc. located in Vineland, New Jersey. Our company uses a significant amount of energy due to the various motors, pumps, mixers, air handlers, compressors and refrigeration units required for the preparation and storage of our food products.

I am delighted to fully endorse the work done by Adirondack Energy Conservation, LLC. By installing its Power Management System, we have increased our power factor efficiency by 20% and reduced our electricity load and costs by a corresponding amount.

Adirondack Energy did exactly what was promised during our first meeting. They reviewed and analyzed our electric bills, audited our equipment and provided a detailed analysis of our electricity usage. All of this was done at no cost to my company.

After the audit and review, Adirondack provided a comprehensive analysis of the audit which included a description of the cost of the system, the guaranteed electricity savings and a spreadsheet describing the time it would take for the system to pay for itself as well as our return on investment. The system comes with a five year warranty and an anticipated life of 15 years.

Once we agreed to install the system, Adirondack worked closely with our electrician. Our electrician installed the system and Adirondack energized the system. The entire process of doing the audit and installation was seamless and without any interruption of our normal business day.

After the installation, Adirondack came to my site and did monthly inspections for the first three months after the system was energized. They have committed to doing three more inspections during the next nine months. During the inspections, Adirondack and our company electrician confirmed that the Power Management System increased my power factor by 20%. The positive impact of the Power Management System has also been confirmed in the electric bills I have received since the installation.

My company has enjoyed this power factor improvement even though my company at the same time increased the size of our factory by 60% with new energy consuming equipment. The efficiencies received by the Power Management System exceed what Adirondack had predicted.

I enthusiastically recommend Adirondack Energy Conservation for consideration by your company.

Sincerely,

Jonathan Mangel, President
Mamacita, Inc.

USFilter

December 4, 2009

Dear Gentlemen;

My name is Bob Bane and I was the Vice President of U S Filters Energy and Performance Contracting Group from March 1999 – October 2004. My responsibilities were to lower existing utility budgets. I met Mr. Edward Iuliano in June of 1999. We began installing the Powermax Clean Energy System (CES) at our Waste Water and Water Pumping Facilities across the United States. As these were older facilities we found that we exceeded the savings promised, ranging from 10% to in excess of 20%. The facilities were scattered up and down the Eastern seaboard and in California.

In addition to the savings created by the CES systems we experienced a substantial increase in motor life. This dramatically reduced unbudgeted repair and replacement costs. We also found that not only did our power consumption go down but we were able to substantially increase our safety budget with the monies saved. We were able to add better lighting in working areas and pipe alleys, which in turn saved some additional money because of fewer accidents, resulting in fewer lost man hours and lower lighting cost.

I can't recommend the Clean Energy System (CES) strongly enough. Mr. Iuliano has a proven product that in today's economy is priceless. The engineering studies and services that they provide overlook nothing. Of all the vendors and contractors I have dealt with over my 40 year career I must say they were the easiest to work with and best by far. They are a total turn key operation from survey through design and installation. Please feel free to contact me if I can be of any further assistance.

Sincerely,

Bob Bane
Vice President U S Filter (retired)

4923 E. Justica Street
Cave Creek, AZ 85331
(480) 440-4055
bbaneassociates@aahow.com

SECTION 2

NOTICE OF COMPLETION
AND
AUTHORIZATION TO APPLY THE UL MARK



Adirondack Energy Conservation L L C
Mr. Ed Iuliano
Suite 1
Bldg C
575 Rte 73 N
West Berlin Nj 08091, Us

Our Reference: E227583, V1, S1, SPD 2 Project Number
13CA41589
Project Scope: UL 1449 (VZCA) – SPD TYPE 2 – Cat. Nos. 480Y and 480D

Dear Mr. Ed Iuliano:

Congratulations! UL's investigation of your product(s) has been completed under the above Reference Number and the product was determined to comply with the applicable requirements. This letter temporarily supplements the UL Follow-Up Services Procedure and serves as authorization to apply the UL Mark at authorized factories under UL's Follow-Up Service Program. To provide your manufacturer(s) with the intended authorization to use the UL Mark, you must send a copy of this notice to each manufacturing location currently authorized under E227583, V1, S1, SPD 2, Cat. Nos. 480Y and 480D and including any special instructions as indicated in the addendum to this letter.

Records in the Follow-Up Services Procedure covering the product are now being prepared and will be sent in the near future. Until then, this letter authorizes application of the UL Mark for 90 days from the date indicated above.

Additional requirements related to your responsibilities as the Applicant can be found in the document "Applicant responsibilities related to Early Authorizations" that can be found at the following web-site:
<http://www.ul.com/EAResponsibilities>

Any information and documentation provided to you involving UL Mark services are provided on behalf of UL LLC (UL) or any authorized licensee of UL.

We are excited you are now able to apply the UL Mark to your products and appreciate your business. Feel free to contact me or any of our Customer Service representatives if you have any questions.

Very truly yours,

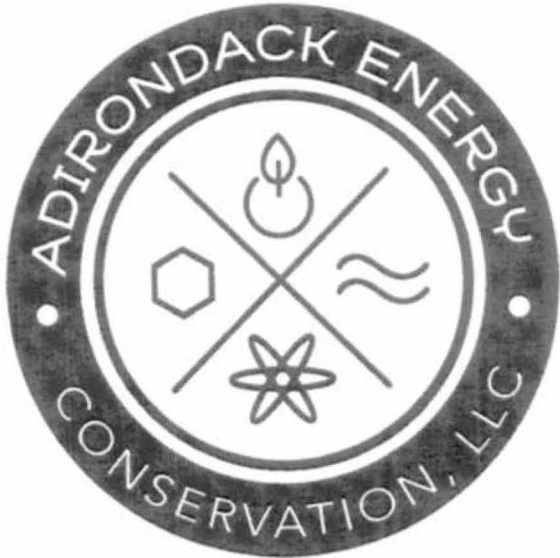
Stephen C. Billings

Senior Project Engineer
Stephen.C.Billings@ul.com

Reviewed by:

Joseph D'Angeli
Staff Engineer

MELF45B-9607B3



Overview

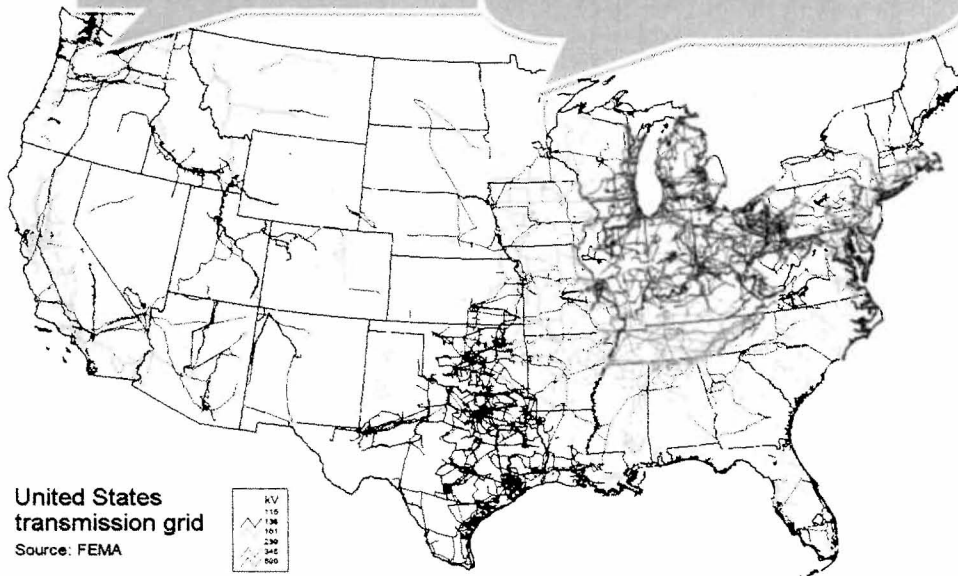


Over \$16 Billion of electricity is unusable but billable energy in the United States."

U.S. Dept of Energy

"Up to 25% of billable electricity consumed in homes and businesses is non-productive and unusable."

U.S. Department of Energy



United States transmission grid

Source: FEMA



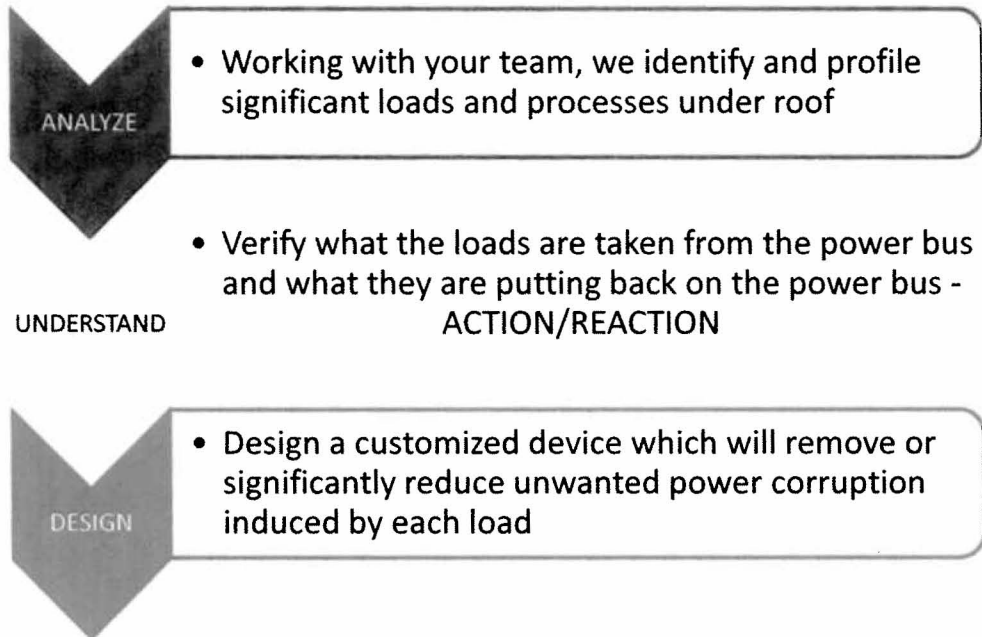
THE SOLUTION IS TO CREATE EFFICIENCIES FROM WITHIN

Using our proprietary Power Management System, smoothing out the power being supplied to the load or process, eliminating unwanted signals and variations, bringing the current and voltage waveforms more in align with each other (PF), reducing un-needed current on the power bus and more, improves your overall efficiency. This means your kwh/widget has little or no waste giving you a leg up on your competition or allows you to provide the optimum service for your clients.





PROCESS



Benefits

- reduces overall current
- filter out unwanted electrical noises
- minimizes starting current on motors
- Power Factor correction
- lower motor operating temps
- reduces transformer saturation
- and more

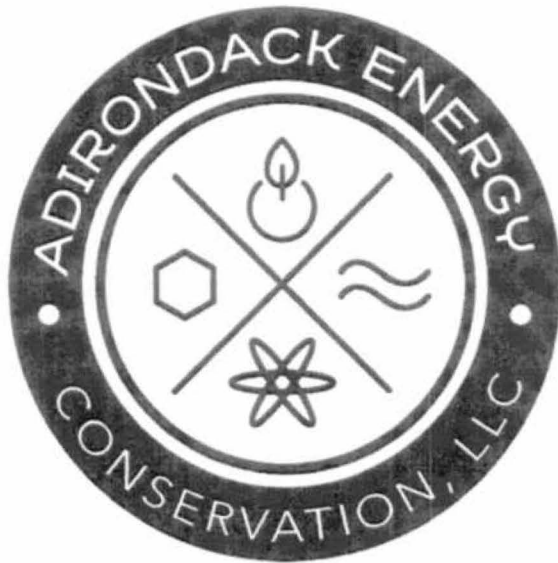
Installation

- No downtime in most application
- Installed by licensed electrician
- 2 year warranty on equipment

Cost Savings

- Reduction in Electrical Bills
- Reduction in Equipment Failure and Maintenance
- Proven Longevity

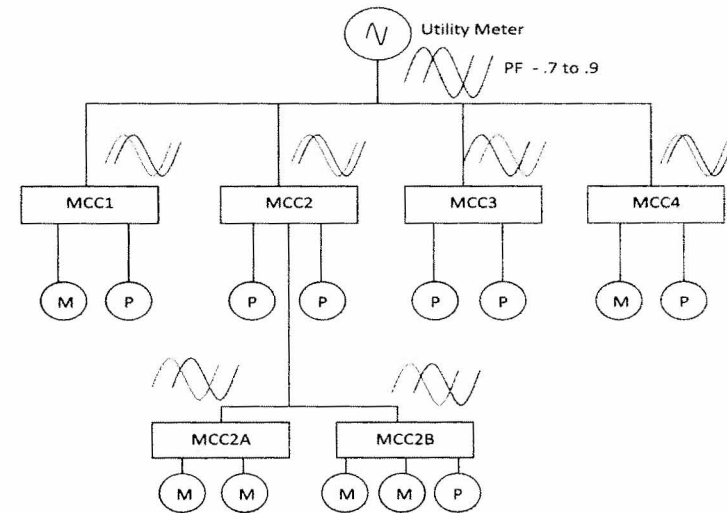
SECTION 3



POWER FACTOR CORRECTION VS. ENGINEERING SOLUTIONS



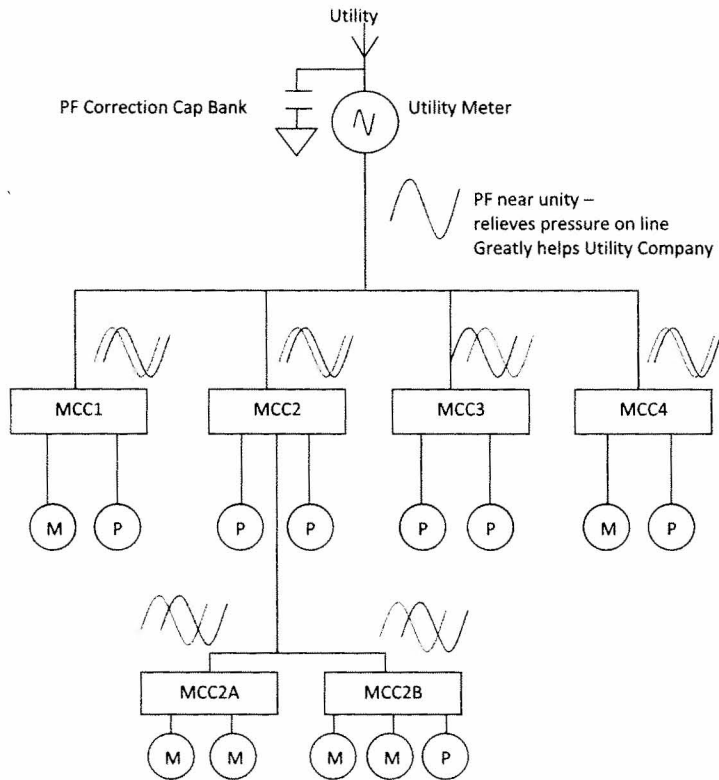
Typical Facility





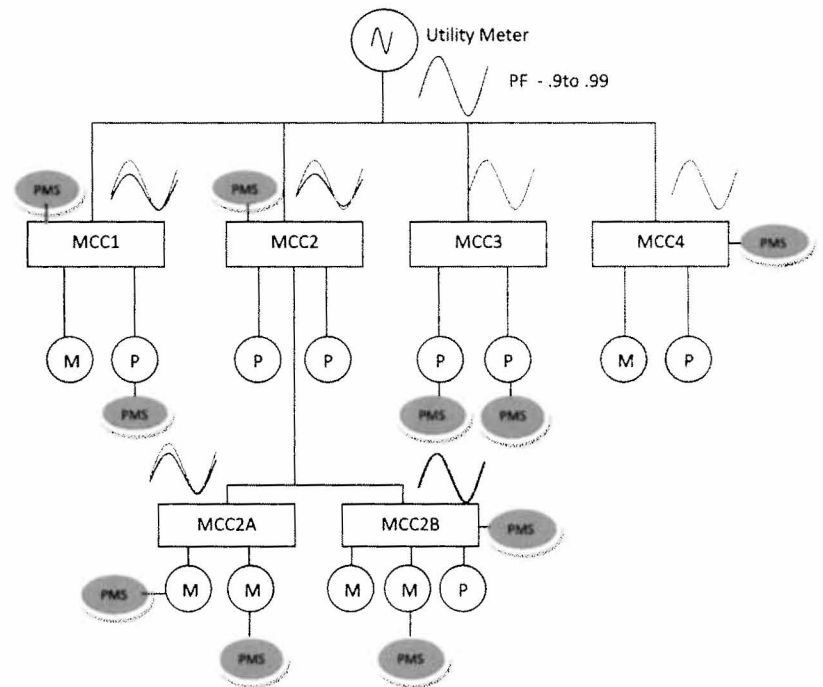
Using Capacitors at the Main

USING POWER FACTOR CAPACITOR BANKS



ENGINEERING SOLUTIONS AT THE SOURCE CAUSING THE DISTORTION

USING THE CLEAN ENERGY SYSTEM



SECTION 3



CREATING EFFICIENCIES FROM WITHIN

Power Management System

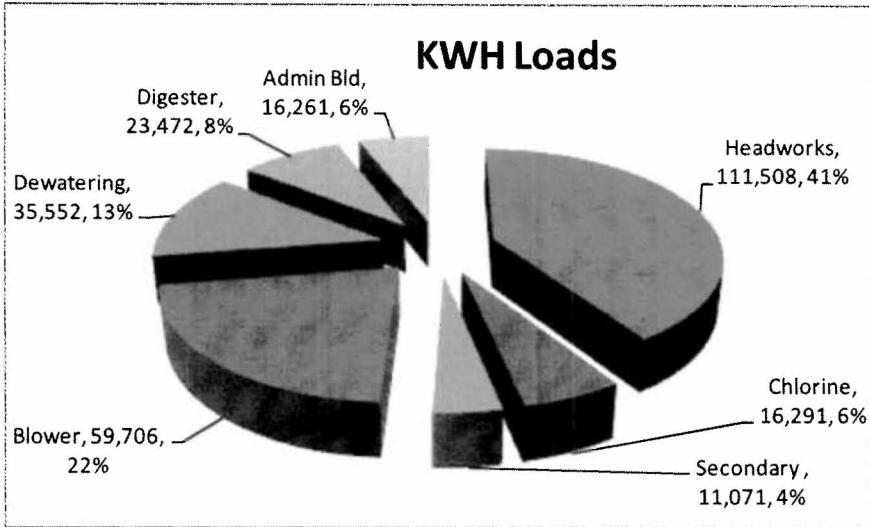


Initial Report

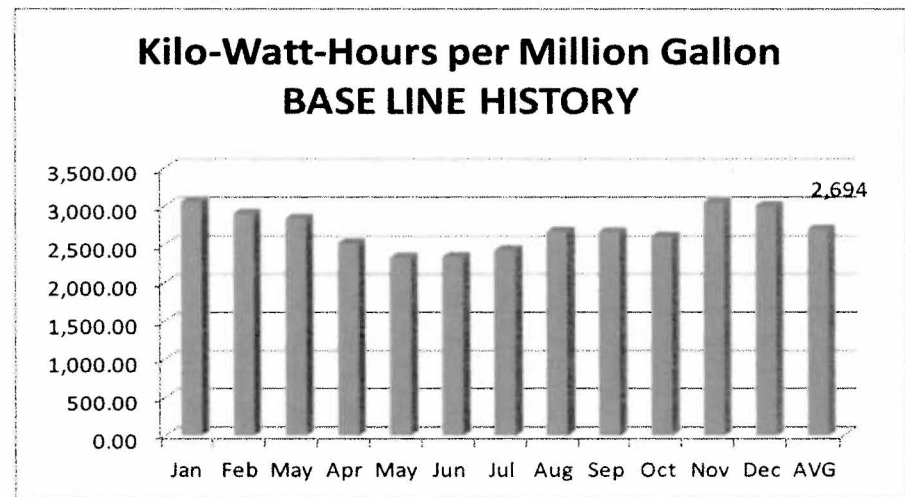
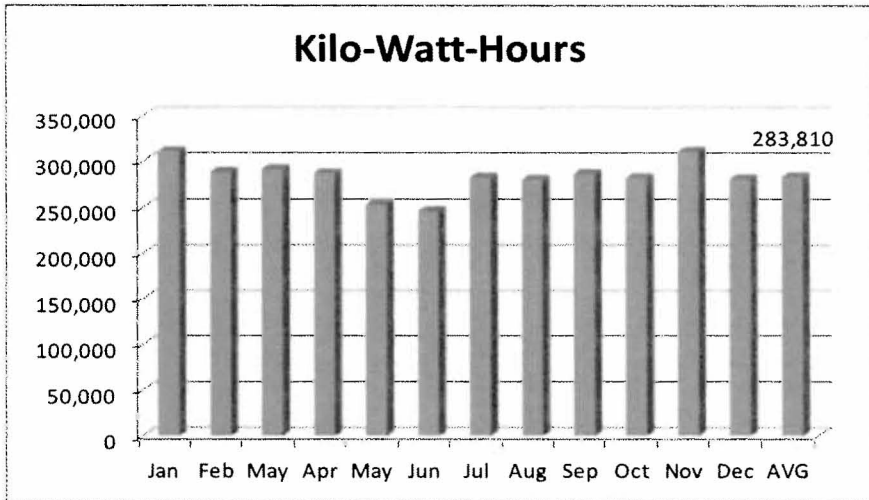
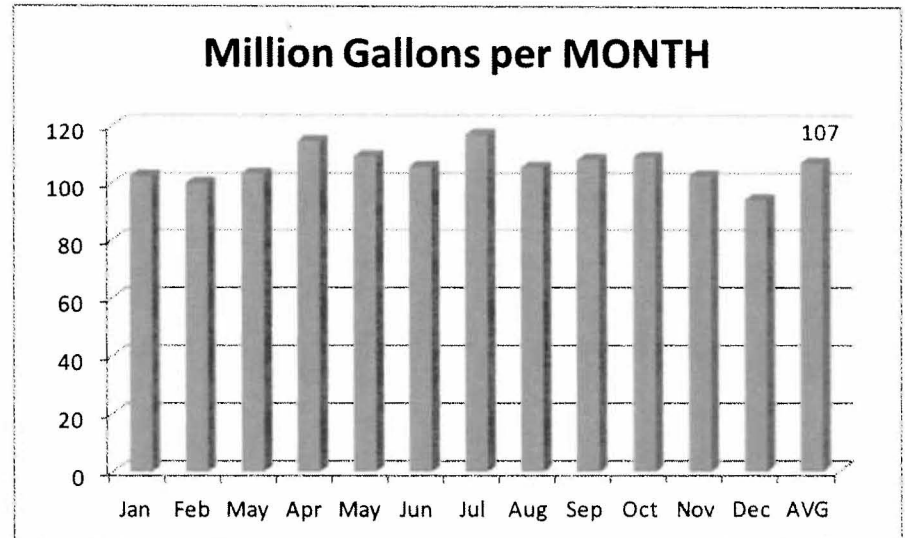




LOAD DISTRIBUTION to KWH's



FLOW to KWH's

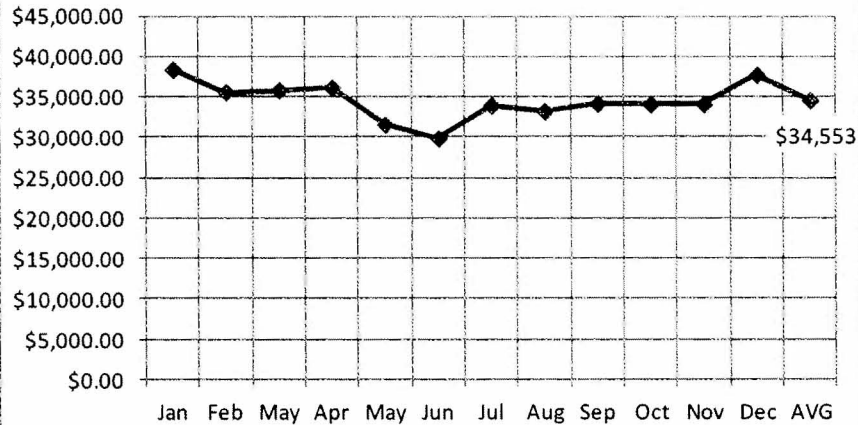




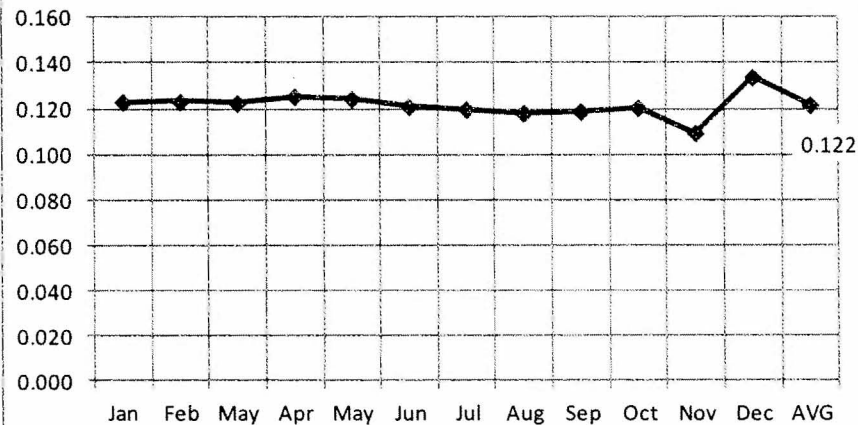
COST TO OPERATE



Monthly Bill



Blended Rate (\$/kWh)



FINANCIAL SUMMARY & TEN YEAR PROJECTION

Monthly Energy Cost:	\$34,553		
Annual Energy Cost:	\$414,638	10.37%	Energy Savings:
Equipment	\$96,936	\$42,983.44	Annual Energy Saving
Tax:	0%		
Projected Cost:	\$96,936	\$141,629	5 Year Benefit
		\$424,969	10 Year Benefit
Total Projected Cost:	\$96,936	\$856,919	15 Year Benefit

Table of Project Savings and Financial Return

Year	Project	Annual Saving	Inflation 3.5%	Savings Before Taxes	Annual Saving	Saving
0	\$96,936			-\$96,936		-\$96,936
1		\$42,983	\$44,488	\$44,488		-\$52,448
2			\$46,045	\$46,045		-\$6,403
3			\$47,657	\$47,657		\$41,253
4			\$49,324	\$49,324		\$90,578
5			\$51,051	\$51,051		\$141,629
6			\$52,838	\$52,838		\$194,466
7			\$54,687	\$54,687		\$249,153
8			\$56,601	\$56,601		\$305,754
9			\$58,582	\$58,582		\$364,336
10			\$60,632	\$60,632		\$424,969
11			\$62,755	\$62,755		\$487,723
12			\$64,951	\$64,951		\$552,674
13			\$67,224	\$67,224		\$619,898
14			\$69,577	\$69,577		\$689,475
15			\$72,012	\$72,012		\$761,488

Internal Rate of Return	39%	5 Year Benefit
Internal Rate of Return	48%	10 Year Benefit
Internal Rate of Return	49%	15 Year Benefit

	Years	Months
Return-On-Investment	2.26	27.06

Note: The cost of installation is NOT included in the above ROI. Installation can be performed by client's personnel, client's electrician or an outside electrical company and is therefore difficult to calculate. We estimate about \$2,500/unit is a reasonable number for budgetary purpose



PRIVATE SECTOR ... with DEPRECIATION

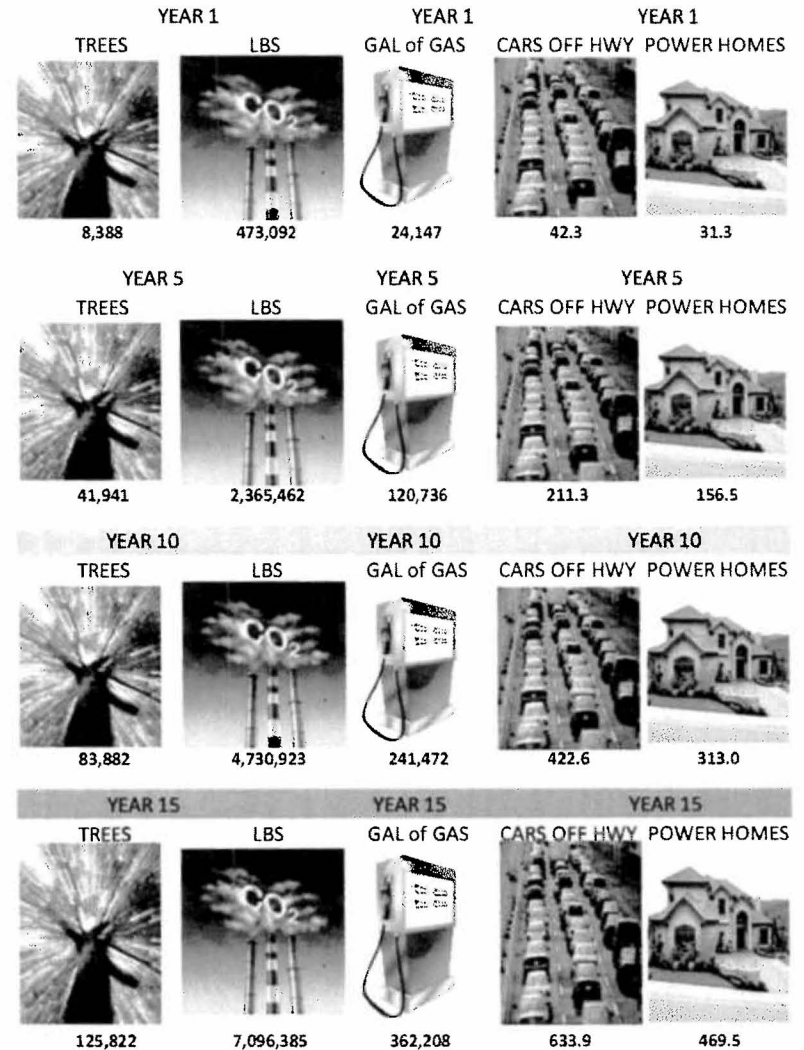
Internal Rate of Return with a 10 Year Depreciation

\$188,592 5 Year Benefit
\$520,400 10 Year Benefit
\$856,919 15 Year Benefit

10 YEAR DEPRECIATION SCHEDULE

Year	% Depr	Depreciation Expense	Annual Savings	Inflation 3.5%	Annual Savings	Project Return
0						
1	10.00%	\$9,694	\$42,983		\$52,677	(\$44,259)
2	10.00%	\$9,694		\$46,045	\$55,739	\$11,480
3	10.00%	\$9,694		\$47,657	\$57,350	\$68,830
4	10.00%	\$9,694		\$49,324	\$59,018	\$127,848
5	10.00%	\$9,694		\$51,051	\$60,744	\$188,592
6	10.00%	\$9,694		\$52,838	\$62,531	\$251,123
7	10.00%	\$9,694		\$54,687	\$64,381	\$315,504
8	10.00%	\$9,694		\$56,601	\$66,295	\$381,799
9	10.00%	\$9,694		\$58,582	\$68,276	\$450,074
10	10.00%	\$9,694		\$60,632	\$70,326	\$520,400
11				\$62,755	\$62,755	\$583,155
12				\$64,951	\$64,951	\$648,106
13				\$67,224	\$67,224	\$715,330
14				\$69,577	\$69,577	\$784,907
15				\$72,012	\$72,012	\$856,919
					\$953,855	

353,054 kWh's





SECTION 4

CALCULATED ENERGY REDUCTIONS (ANNUALLY): **353,054** kWh

Fossil Fuel Energy Chart	U.S. Energy Information Administration		
	http://www.eia.gov/tools/faqs/faq.cfm?id=667&t=2		
Coal (1 Ton)	1,870	kWh	
Gas (1k cubic ft)	125	kWh	
Barrel of Oil	542	kWh	(42 gal barrels)

U.S. Dept of Energy and the EPA
 CO2 1.34 LBS of CO2 are generated for each kWh produced

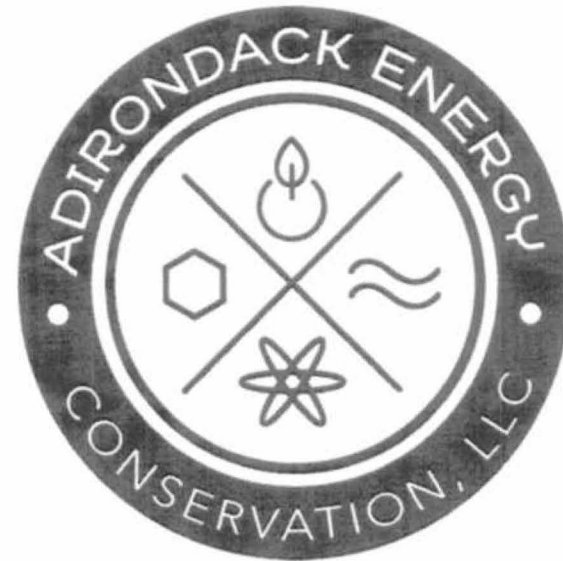
SAVINGS	YEAR 1	YEAR 5	YEAR 10	YEAR 15
TONS OF COAL	188.8	944.0	1,888.0	2,832.0
1000 CUBIC FEET OF GAS	2824.4	14,122.2	28,244.3	42,366.5
BARRELS OF OIL	651.4	3,257.0	6,513.9	9,770.9
CO2 not released into the air	473,092	2,365,462	4,730,923	7,096,385

<http://www.newenglandcleanenergy.com/energymiser>

TREES (assumes 'mature tree' - best case)				
Acre of Trees	271,580	LBS of CO2 (eliminates)		
Trees/Acre	4,816			
Each tree eliminates	56.4	LBS of CO2 (eliminates)		
SAVINGS	YEAR 1	YEAR 5	YEAR 10	YEAR 15
TREES SAVED	8,388	41,941	83,882	125,822
ACRES OF TREES SAVED	1.7	8.7	17.4	26.1

GALLON OF GASS		
1 Gallon of Gas Produces	8,887	grams of CO2 or
1 Gallon of Gas Produces	19,592	Lbs of CO2

SAVINGS	YEAR 1	YEAR 5	YEAR 10	YEAR 15
GALLONS OF GASOLINE	24,147	120,736	241,472	362,208
CARS OFF THE ROAD	42.3	211.3	422.6	633.9
HOMES (11,280 kWh)	31.3	156.5	313.0	469.5

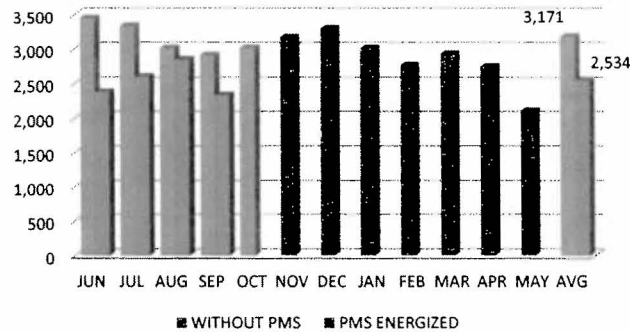


History of Savings

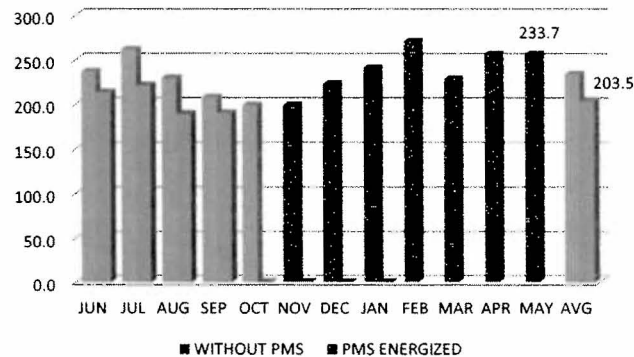


Latest Results (4 Months)

20.01 % Less kWh/MG



12.9% Reduction in KW



In 2012 Adirondack audited the CCMUA to do a comparison of the savings in those pumping stations which utilized the CES/PMS versus those without the CES/PMS devices.

Audit 15 Years later - 21 Pumping Station Analysis

Energy Consumption With and Without CLEAN ENERGY SYSTEMS

Pumping Stations with at least 1 CES

	\$/kWh	kWh/MGD
Balwin Run	0.143	12,462
Bellmawr	0.159	15,178
Blackwood	0.144	53,899
Catlina Hills	0.134	50,821
Collingswood	0.134	19,792
Columbia Lakes	0.138	35,822
Kingston	0.156	30,154
Lawnside	0.171	15,100
W. Collingswood	0.141	13,795

Average: 0.147 27,447

of Stations with CES: 9

Pumping Stations NO CES

	\$/kWh	kWh/MGD
Berlin Boro	0.125	21,283
Berlin Twp	0.131	12,957
Brookfield	0.147	35,007
Cedarbrook	0.157	34,173
Chesilhurst	0.168	65,723
Clementon	0.130	31,213
Colwick	0.130	37,973
LakeLand	0.183	72,068
Mardale	0.178	50,134
Pennsauken Creek	0.149	29,504
Stratford	0.129	47,917
Waterford	0.126	35,157

Average: 0.146 39,426
of Stations without CES: 12

	\$/kWh	kWh	
Average \$ to Operate without CES:	0.146	39,426	\$5,749
Average \$ to Operate with CES:	0.147	27,447	\$4,031
Average Cost per mth not using CES:	0.146	11,979	\$1,747 Per Station

Annual \$ Wastes NOT using CES Units: \$251,520



ADIRONDACK ENERGY CONSERVATION, LLC

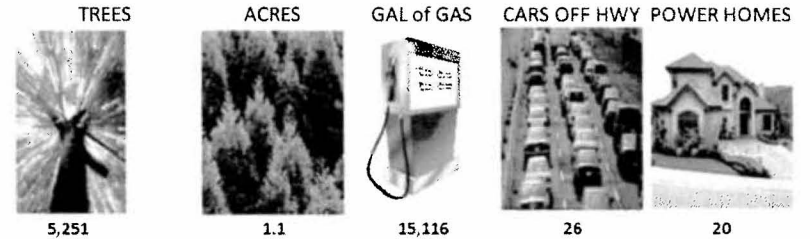
SALUTE THE FOLLOWING FOR THEIR COMMITMENT TO REDUCE ENERGY USAGE

Date of Report: May-15

	Annual kWh	Annual Savings	Installation Month & Year	Annual Savings	kWh Saved Since Installation
Aqua New Jersey, Inc Pumping Station	28,019	10.26%	Sep-14	2,875	1,932
*Camden County Municipal Utilities Authority 9 Pumping Station	247,023	30.49%	Jun-99	75,317	1,216,165
Cinnaminson Sewerage Authority WWTP	127,103	16.50%	May-14	20,972	21,263
City of Millville - Sewer Utility WWTP/Solar Field	185,876	13.15%	Jun-14	24,443	22,677
Evesham Municipal Utilities Authority Kings Grant	70,632	23.30%	May-14	16,457	16,686
Medford WWTP	257,307	11.50%	Jan-13	29,590	69,866
Millville WWTP	185,876	11.15%	Mar-13	20,725	45,538
Montgomery Township Sewer Utility Pike Brook	111,301	11.21%	Jun-99	12,477	201,466
Stage 2	100,359	9.04%	Jun-99	9,072	146,495
The Landis Sewerage Authority Headworks	94,268	9.64%	Sep-13	9,087	15,322
TOTALS:				221,016	1,757,412



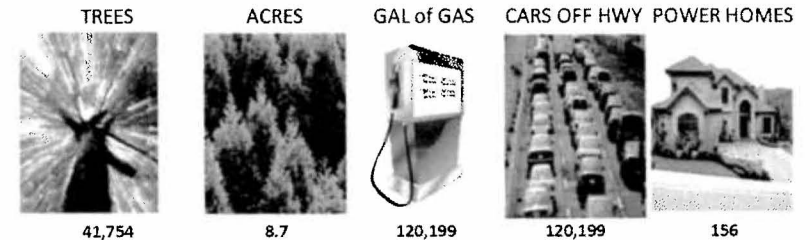
221,016 kWh ANNUAL EFFECTS



WHAT DOES THIS ELIMINATE IN FOSSIL FUELS???

TONS OF COAL	118
1000 CUBIC FEET OF GAS	1,768
BARRELS OF OIL	408
CO2 LBS not released into the air	296,162

1,757,412 kWh NEW JERSERY YEAR TO DATE



WHAT DOES THIS ELIMINATE IN FOSSIL FUELS???

TONS OF COAL	940
1000 CUBIC FEET OF GAS	14,059
BARRELS OF OIL	3,242
CO2 LBS (not released into the air)	2,354,932

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August 24, 2015

VIA ELECTRONIC MAIL

Irene Kim Asbury
Secretary of the Board
New Jersey Board of Public Utilities
44 South Clinton Avenue
Trenton, NJ 08625
EMPUupdate@bpu.state.nj.us

Re: **Comments on updates to 2011 Energy Master Plan**

Dear Secretary Asbury:

This firm represents Jersey Central Power & Light Company ("*JCP&L*" or the "*Company*") in providing the following comments in the above-referenced matter. The New Jersey Board of Public Utilities (the "*Board*") has requested comments for an update to the 2011 New Jersey Energy Master Plan (the "*EMP*"). More specifically, the Board has requested comments focused on the specific Goals and Recommendations of the EMP and with respect to several emerging areas as summarized in the Board's Notice. Board Notice dated July 22, 2015.¹ JCP&L appreciates this opportunity to provide these comments for consideration in the important process of updating the EMP, which establishes the direction for New Jersey's energy policy over the remainder of, and beyond, the current decade.

¹ We note that JCP&L has also joined in comments with respect to the EMP submitted by the New Jersey Utilities Association ("*NJUA*"), in a comment letter dated August 14, 2015 ("*NJUA Comment Letter*") in this proceeding representing the consensus views of seven participating NJUA member companies. The comments provided herein elaborate upon JCP&L's views regarding EMP-related items that were addressed in the NJUA Comment Letter, or discuss the Company's views regarding certain additional matters not addressed in the NJUA Comment Letter.

Board Secretary Kim Asbury
August 24, 2015
Page 2

As was the case with the issuance of the EMP in 2011, the Company continues to support the high-level goals of the EMP. The Company continues to believe that the EMP generally puts forth an approach that strikes an appropriate balance among the sometimes competing objectives of lower costs, economic growth, energy security and diversity, and environmental protection.

The Company continues to agree with the EMP's objective that renewable or energy efficiency programs or projects should be expected to produce net benefits that will outweigh the costs of the initiatives and continues to support the use of properly structured cost-effectiveness tests to help New Jersey achieve the EMP objective of reducing costs to utility customers while maintaining a strong delivery infrastructure. Sustainable and affordable programs that do not impose excessive or unnecessary costs on utility customers remain essential to successfully pursuing and achieving the objectives of the State's clean energy initiatives.

JCP&L also continues to support the concept of a diverse portfolio of generating assets to meet the electricity needs of New Jersey. Experience since the issuance of the EMP in 2011 has borne out the view that the output from renewable generating resources, which is characteristically intermittent, requires base load generation to maintain the integrity and stability of the electric grid. Even as battery technology improves, the availability of and interconnection to a stable electric grid will remain a key enabler for solar and wind energy projects. The EMP's goal of promoting lower energy costs for customers requires a balanced view that recognizes the role of existing base load generation in bridging the State to the greener future envisioned in the EMP where 70% of the energy provided in the State is envisioned to be from "clean" sources by