

CITY OF KEY WEST  
ENERGY  
MANAGEMENT  
“DEEP DIVE”

SEPTEMBER 12, 2019

PRESENTATION BY JOHNNIE YONGUE P. E.

# What does the energy manager do?

- The certified Energy Manager is an individual who optimizes the energy performance of a facility, building or industrial plant.



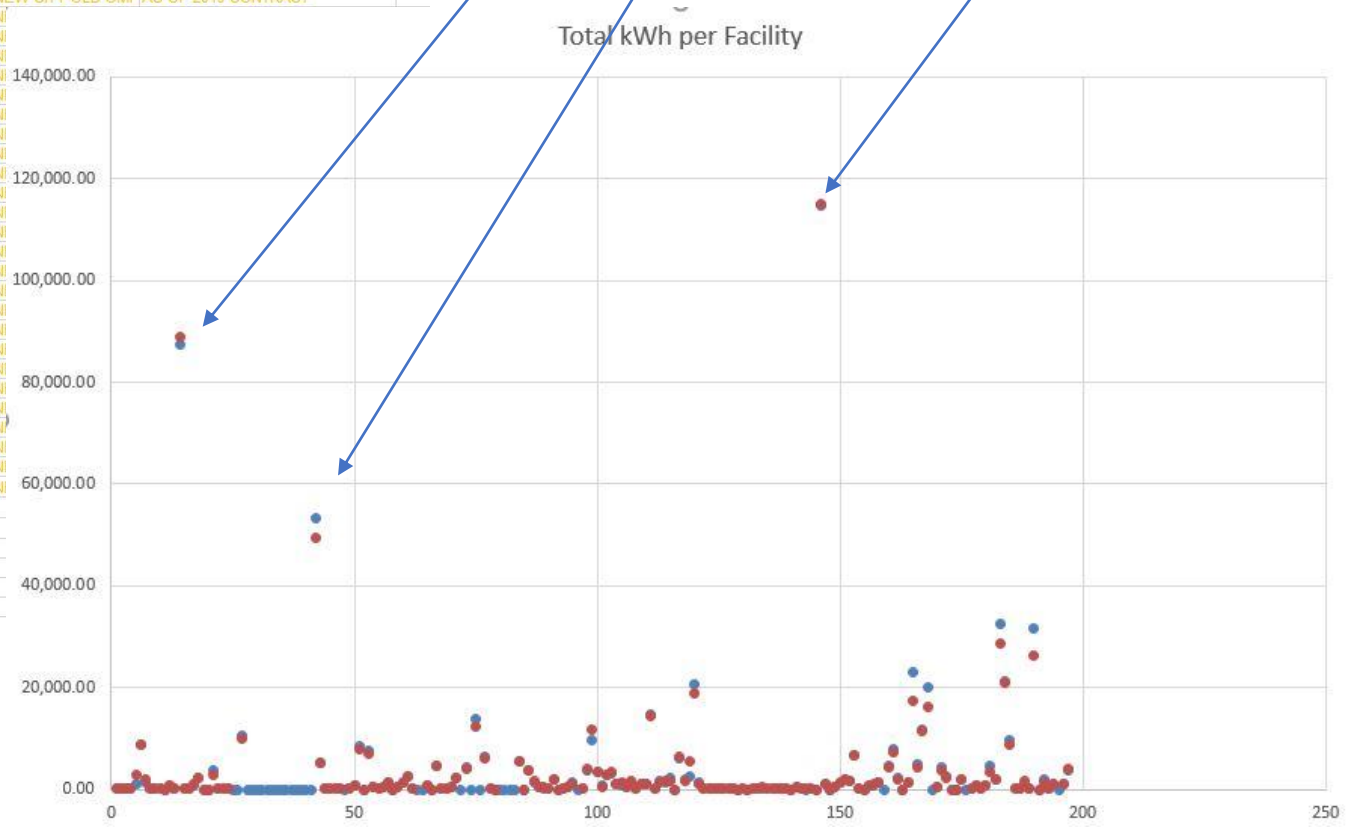
# Past Objectives of the City Energy Manager

- Eliminate excess electrical meters that only accrue monthly base fees
- Eliminate unnecessary or failing street lights
- Identify peak demand charges
- Work with Energy utility to reclassify electrical systems for different properties such as athletic fields that impact the energy grid at low usage times.
- Identify power fluctuations in usage and identify causes
- Hurricane Irma Recovery tested facility resilience and alternate power usage, which resulted in the need for a preventative maintenance program for critical infrastructures backup generators and systems routine testing.



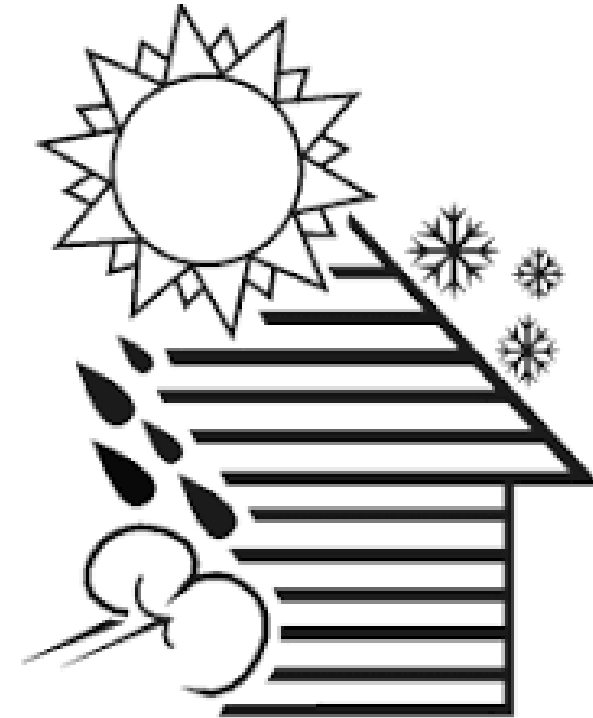
	A	B	C	D	E	F	G	H	I	J	
195	1801 N Roosevelt Blvd	3204074-00	773.25		5,840	413-7551-575.43-02	413-0000-104.00-00				
196	1801 Saiffish Pier	3202112-01	40.91		98	413-7551-575.43-02	413-0000-104.00-00				
197	1801 N Roosevelt Blvd Wahoo	3204096-00	2,807.52		22,723	413-7551-575.43-02	413-0000-104.00-00				
198	A Palm Ave	3202110-10	33.98		40	413-7551-575.43-02	413-0000-104.00-00				
199	Garrison Bight	3202100-01	228.49		1,672	413-7551-575.43-02	413-0000-104.00-00				
200	Garrison Bight	3202105-01	35.55		53	413-7551-575.43-02	413-0000-104.00-00				
201	Garrison Bight Chart	3202102-01	128.74		835	413-7551-575.43-02	413-0000-104.00-00	NEW			
202	R Garrison Bight Tr	3202104-10				413-7551-575.43-02	413-0000-104.00-00				
203	1801 N Roosevelt Blvd Sign	3204097-00	209.30		1,511	413-7551-575.43-02	413-0000-104.00-00	NEW			
204	811 Palm Ave	3200020-00	624.78		4,425	413-7554-575.43-02	413-0000-104.00-00				
205	5210 College Rd 2	7670002-00				401-3504-535.43-02	401-0000-104.00-00	NEW CITY-OLD DMI	AS OF 2019 CONTRACT		
206	205 Amelia St LS A	1030665-10	1,476.54		11,600	401-3504-535.43-02	401-0000-104.00-00	NEW CITY-OLD DMI	AS OF 2019 CONTRACT		
207	E Water Plant	2100020-01	51,546.26		444,150	401-3504-535.43-02	401-0000-104.00-00	NEW CITY-OLD DMI	AS OF 2019 CONTRACT		
208	613 Greene St LS B	2100188-01	2,603.88		17,000	401-3504-535.43-02	401-0000-104.00-00	NEW CITY-OLD DMI	AS OF 2019 CONTRACT		
209	1329 Seminary St LS D	4361115-01	1,206.21		7,040	401-3504-535.43-02	401-0000-104.00-00	NI			
210	691 Palm Ave LS C	3202117-01	966.39		6,240	401-3504-535.43-02	401-0000-104.00-00	NI			
211	1391 Atlantic Blvd D/A	4321117-10	725.26		5,200	401-3504-535.43-02	401-0000-104.00-00	NI			
212	627 Palm Ave Maint	3202118-01	186.19		1,317	401-3504-535.43-02	401-0000-104.00-00	NI	140,000.00		
213	99 Hilton Haven Rd LS S	3207005-00	84.05		460	401-3504-535.43-02	401-0000-104.00-00	NI			
214	250 Trumbo Rd LS H	2100173-01	79.65		423	401-3504-535.43-02	401-0000-104.00-00	NI			
215	Virginia & Jose Marti	4361001-00	29.35		1	401-3504-535.43-02	401-0000-104.00-00	NI			
216	3380 Donald Ave LS R	5451813-00				401-3504-535.43-02	401-0000-104.00-00	NI			
217	2430 Government Rd LS E	5483047-10				401-3504-535.43-02	401-0000-104.00-00	NI	120,000.00		
218	3545 Flagler Ave LS G	5470181-00				401-3504-535.43-02	401-0000-104.00-00	NI			
219	1559 5th St	5483539-00				401-3504-535.43-02	401-0000-104.00-00	NI			
220	2001 S Roosevelt Blvd LS N	5485702-01				401-3504-535.43-02	401-0000-104.00-00	NI			
221	2700 Venetian Sr LS O	5483048-01				401-3504-535.43-02	401-0000-104.00-00	NI			
222	3127 Flagler Ave LS F	6561493-00	2,980.56		17,440	401-3504-535.43-02	401-0000-104.00-00	NI	100,000.00		
223	3900 S Roosevelt Blvd LS J	5488539-01				401-3504-535.43-02	401-0000-104.00-00	NI			
224	3485 S Roosevelt Blvd LS K	5488542-01				401-3504-535.43-02	401-0000-104.00-00	NI			
225	3557 S Roosevelt Blvd LS L	5488541-01				401-3504-535.43-02	401-0000-104.00-00	NI			
226	3805 S Roosevelt Blvd LS M	5488540-01				401-3504-535.43-02	401-0000-104.00-00	NI			
227	Front & Simonton	2072301-00				402-3804-538.43-02	402-0000-104.00-00	NI	80,000.00		
228	482 Wall St	1063819-00				402-3804-538.43-02	402-0000-104.00-00	NI			
229	466 Front St	1060050-00				402-3804-538.43-02	402-0000-104.00-00	NI			
230	Patricia & Ashby	4323001-00	1,866.01		15,200	402-3804-538.43-02	402-0000-104.00-00	NI			
231	White St	4320022-00	495.16		2,685	402-3804-538.43-02	402-0000-104.00-00	NI			
232	N End Ashby & Catherine	4361932-00	164.38		1,134	402-3804-538.43-02	402-0000-104.00-00	NI			
233	SE Dennis & Venetian	5483502-00				402-3804-538.43-02	402-0000-104.00-00	NI	60,000.00		
234			<b>167,601.11</b>		<b>1,224,717</b>						
235											
236											
237	CLOSED ACCT=NO LONGER IN SERVICE										
238											
239	111 Olivia Street	1040978-01				001-7201-572.43-02	001-0000-104.00-00				

N Roosevelt Police/Fire Station  
Municipal Street Lights  
City Hall



# New Focuses of the Energy Manager

- New energy saving techniques for small commercial buildings
- Weatherizing city buildings
- Update lights and electrical systems to newer more efficient technology.
- Seek new grant opportunities for insulating and upgrading City facilities to improve energy performance.
- Perform internal energy audit to identify unusual usages and spikes.
- Seek consultant to perform detailed audit of critical facilities or facilities with most aberrant usages.
- Implement new programs and performance goals
- Harden buildings wherever possible



*Weatherization  
Works*

# Thoughts

- Many Energy Management programs succeed with simple efforts that start with policy and how occupants treat the building and consider how they use their space.
- Simple power usage reductions start with “Plug Loads” - By eliminating every employee’s need for a blender, microwave, coffee maker, heater, fan, or minifridge at their desk; an organization can save a lot of energy just by eliminating unnecessary resistance in the buildings electrical system caused by so many plugged in elements.
- Even when things aren’t plugged in they can still draw power, like power converters for phones and computers.
- Electrical systems can become more advanced using monitoring devices that track typical usages and identify trends, while also identifying occupancy and making adjustments for needs in real time.

