

**CITY OF KEY WEST
MONTHLY ENERGY MANAGER (EM) REPORT**

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Date: November 6, 2017

Reporting for October 2017.

Current vs. Baseline Energy Use for City-operated Facilities:

Summary - All City meters/accounts including street lights:

October 1-31, 2017

MWh used: 639

Energy cost: \$100,188*

October 1-31, 2016

MWh used: 694

Energy cost: \$96,922

*Keys Energy rates for Oct. 2017 billing cycles have increased compared to Oct. 2016 rates as follows:

Large Commercial accounts \$0.1052 per kWh raised from \$0.0777 a 35% increase.

Small Commercial accounts \$0.1254 per kWh raised from \$0.0979 a 28% increase.

Current vs. Baseline Water Use for City-operated Facilities:

Summary - All City meters:

October 1-31, 2017

Gal used: 4.31M

Water cost: \$30,172

October 1-31, 2016

Gal used: 3.22M

Water cost: \$27,911

Note: Current water usage includes new irrigation and dust control associated with Truman Waterfront Park and Amphitheater construction.

Street Lighting:

- Keys Energy is continuing with storm damage repairs to street lighting. Incidental requests are voluntarily suspended until those repairs are completed (estimated completion early December).

Priority Assessments:

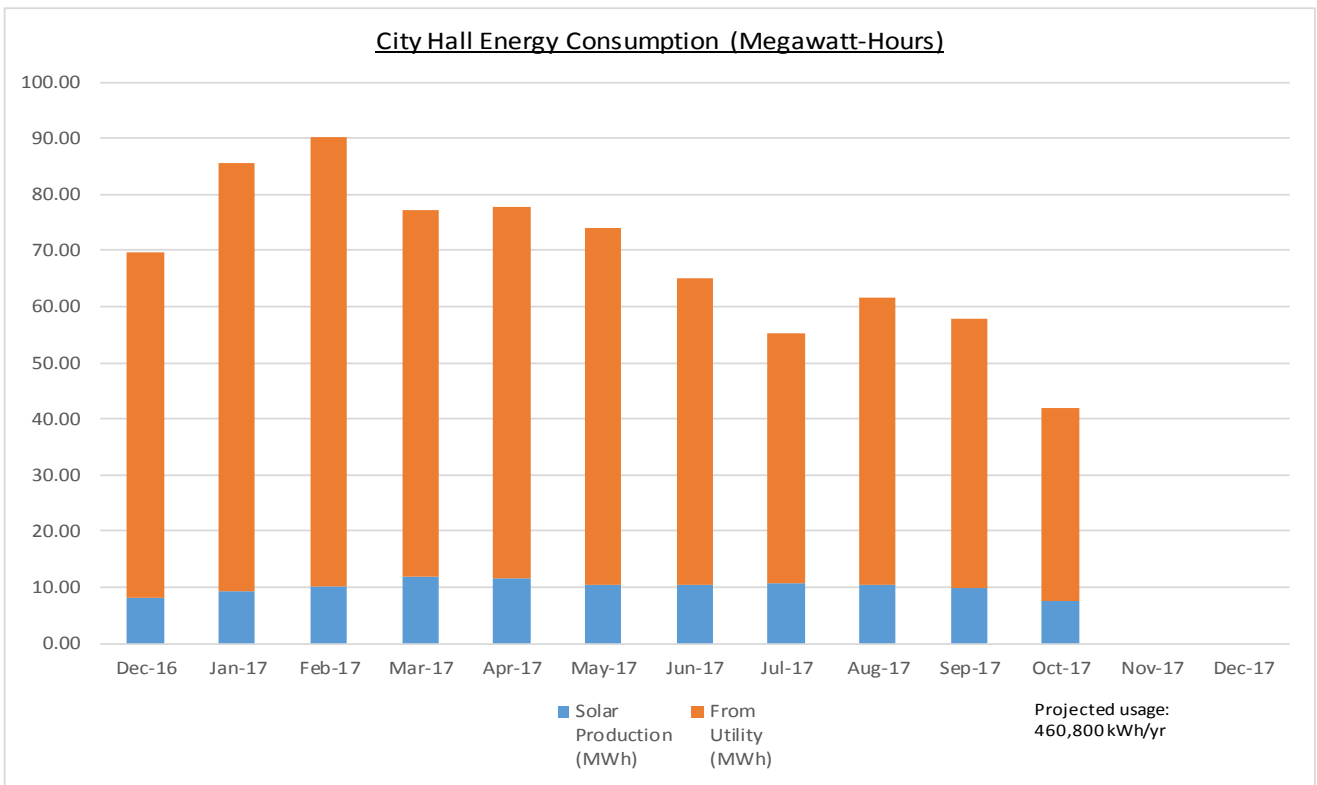
- City Hall Commissioning (HVAC, Lighting Controls).
- City Hall high demand factor (180kW) – energy audit.

City Hall at Glynn Archer (4302373-00):

- October electric usage (September 8 – October 6):
 - KEYS: 34,320 kWh 182kW Demand Cost: \$5,379
 - Solar: 8,980 kWh 21% of total energy consumption from utility.
 - Savings due to solar: \$945

Note: Hurricane Irma impacts are reflected in this billing cycle: Generator power was utilized for 10 to 11 days. HVAC was operated on a 24/7 schedule from September 10 through October 2.

- Monthly Water Usage for October: 44,700 gal. (\$307).



- Total electrical consumption for this period excludes the extended use of generator power and does not reflect total consumption.
- HVAC schedule for this period was set for 24-hour occupancy during EOC operations (approximately three weeks).
- City Hall current concerns and target areas:
 - Demand billing remains high at a peak of 182kW. We believe the primary issue is with programmed HVAC control logic, particularly fan and pump motor start-ups. Energy monitoring equipment will be deployed to investigate further.

Action Items for November 2017:

- City Hall (HVAC, lighting controls, energy audit).
- City Hall commissioning and warranty walk-through.
- Catalog inventory of emergency power equipment both fixed and portable including fuel capacity and consumption, electrical configuration, connective capabilities, transfer switch, and service requirements.
- Generator issues identified during Hurricane Irma and subject to potential FEMA reimbursement include:
 1. Fire Station No. 1 – Automatic Transfer Switch (ATS)
 2. Transit Facility - Generator failure
 3. WWTP – New Backup Generator & power fluctuation across Trumbo grid

Action Items for FY 2018

- Implement a City-wide generator maintenance and testing contract. Include under Engineering 001-1906 budget.