

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

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Date: August 7, 2017

Reporting for July 2017.

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

Summary - All City meters/accounts including street lights:

July 1-31, 2017

kWh used: 584,055

Energy cost: \$99,429

July 1-31, 2016

kWh used: 568,621

Energy cost: \$85,216

Increase in Keys Energy rates for July 2017 billing cycle as follows:

Large Commercial accounts \$0.0855 per kWh raised to \$0.1052 a 23% increase.

Small Commercial accounts \$0.1120 per kWh raised to \$0.1254 a 12% increase.

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

Summary - All City meters:

July 1-31, 2017

Gal used: 4.53M

Water cost: \$58,470

July 1-31, 2016

Gal used: 1.51M*

Water cost: \$11,019*

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

* FCAA billing for July 2016 was incomplete, several accounts omitted.

Keys Energy (KES) billing adjustments and corrections:

- Field examination scheduled for five athletic fields to determine correct tariff (large commercial 214 or small commercial 210).

Street Lighting:

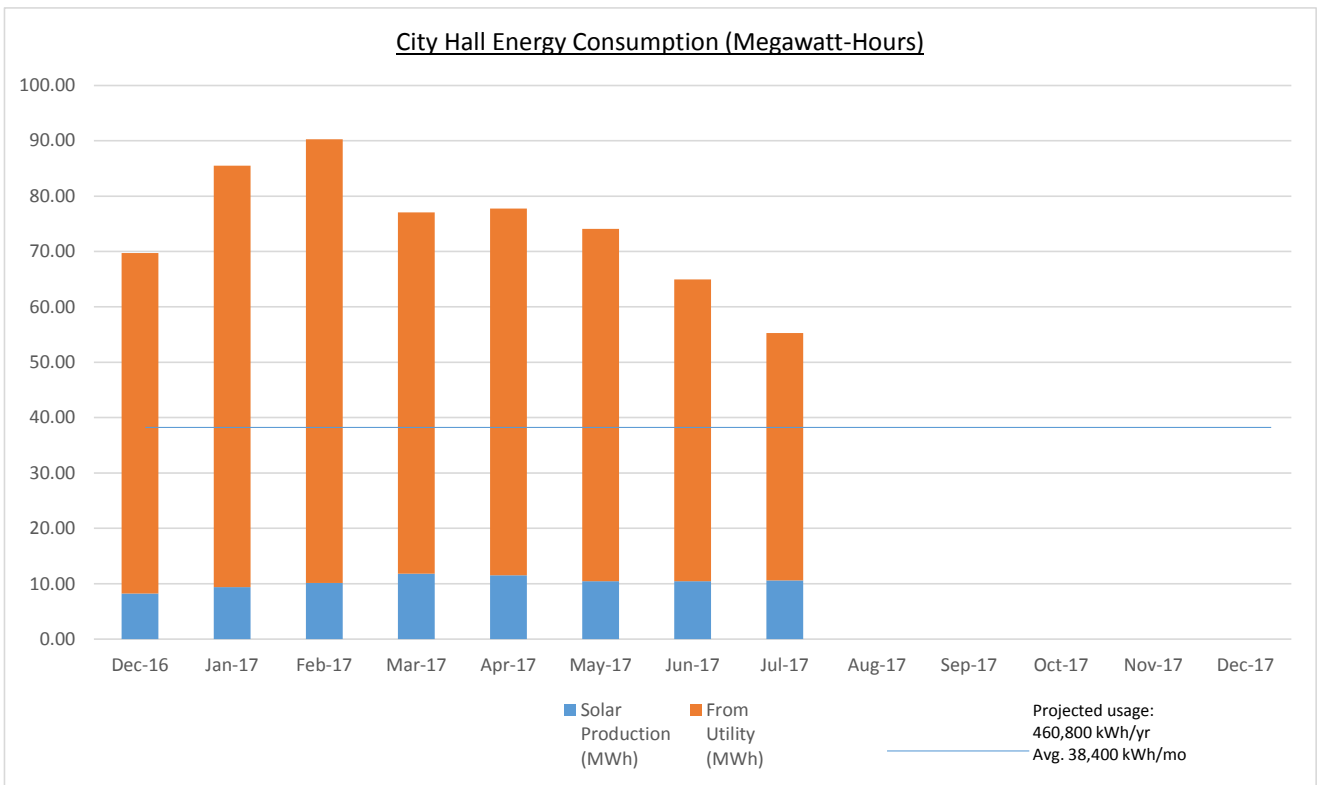
- Requested removal of two redundant street lights (United St.)
- Requested corrections – transfer billing for 37 lights at Poinciana Housing complex to KWHA.
- Requested corrections to billing – remove 7 non-existent street lights.

Priority Assessments:

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

City Hall at Glynn Archer:

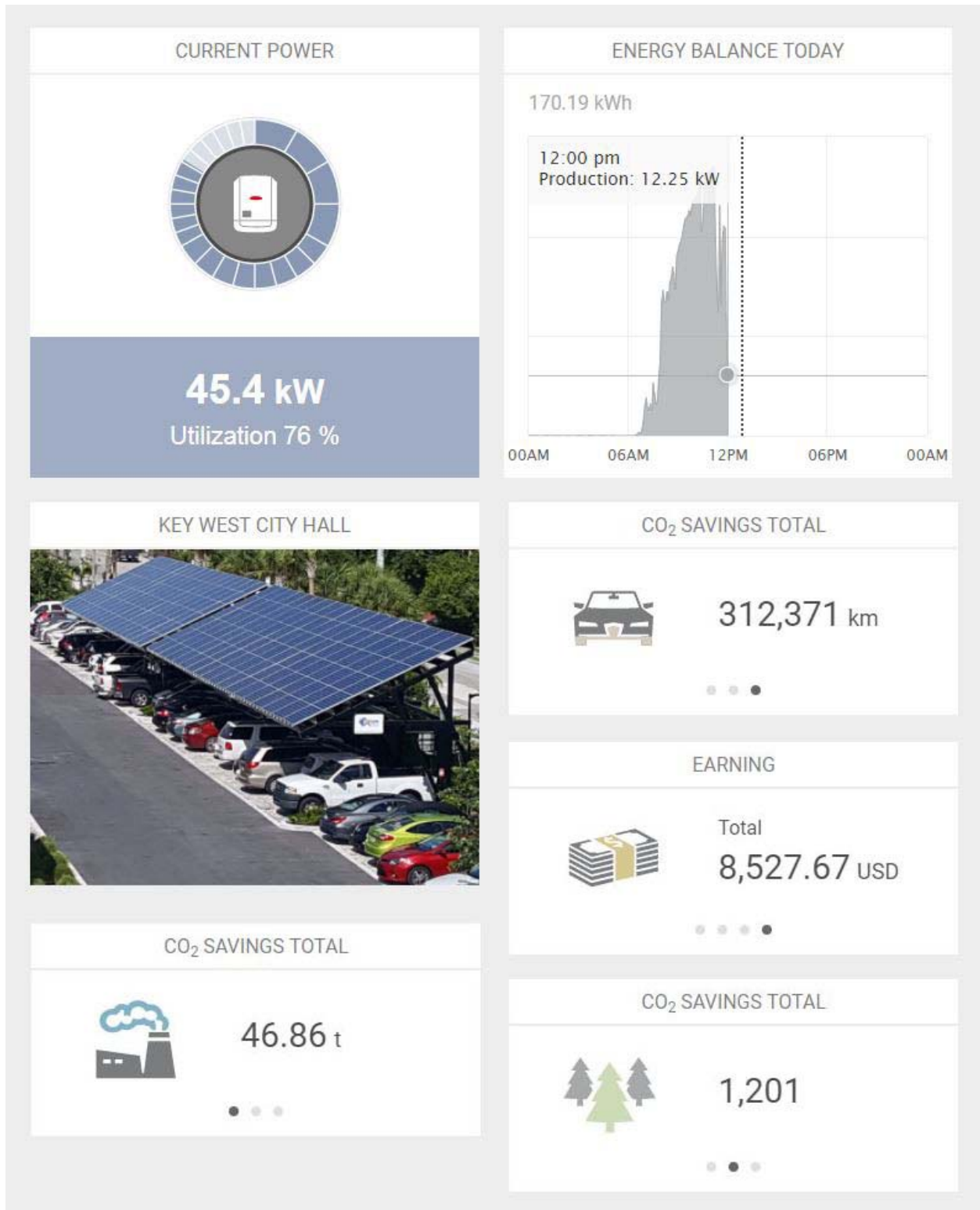
- Monthly Water Usage for July: 263,030 gal. (\$2,660).
- July electric usage (June 8 – July 7):
 - o KEYS: 44,460 kWh 151kW Demand Cost: \$6,263
 - o Solar: 10,208 kWh 19% of total energy consumption (kWh).
 - o Savings due to solar: \$1,074



- Total electrical consumption has been reduced from a peak of 90MWh in February to a new low of 55MWh for June-July, a 39% overall reduction.
- Implemented occupancy schedule for City Hall HVAC on May 28. The full effect of this is apparent in June-July billing period.
- Programming of the Lutron lighting control system has been partially implemented. Scheduled emergency lighting only during overnight periods. Additional refinements and added controls planned.
- Current concerns and target areas:
 - o Demand billing remains high. We believe the primary issue is with programmed HVAC control logic, particularly motor start-ups. Energy monitoring equipment will be deployed within the next two weeks to investigate further.
 - o Consumption continues to improve steadily over recent months. Some additional gains are anticipated through the refinement of motor controls and improvement of pump control stability.

Action Items for August 2017:

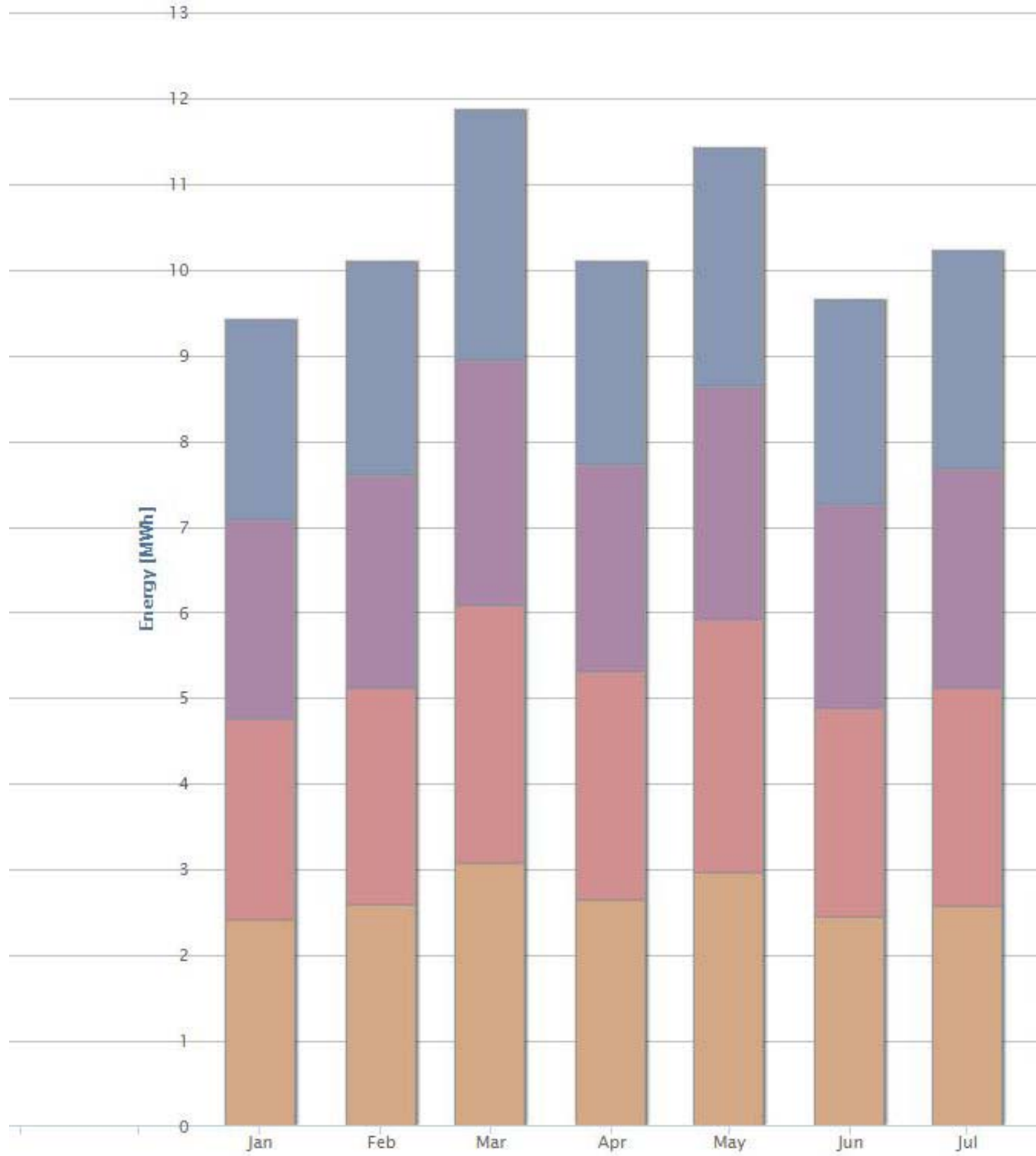
- Primary focus remains on commissioning for City Hall (HVAC and lighting controls).
- Deploy energy monitoring equipment for City Hall.
- Evaluate sports lighting configuration and billing tariffs at five fields:
 - o Rosa Hernandez Field
 - o Pepe Hernandez Field
 - o Gilleran Field (Fort St.)
 - o Bayview Park
 - o 1105 Leon St (HOB Soccer Field)
- Meet with City's property manager:
 - o Investigate properties for which submetering may be appropriate.
- Ongoing review of billing accounts.
- Street lighting/turtle-compliant lighting.
- Energy Manager will provide monthly HTML 'snapshot' of solar reporting page for inclusion on City's website. (Fronius web content is unable to meet City requirements for inclusion of live link.) Sample slides are attached.



City Hall Solar Overview – Totals accrued since system was energized in December 2016.

75.40MWh
2017

FRONIUS Symo 15.0-3 208 (# 1) FRONIUS Symo 15.0-3 208 (# 2)
FRONIUS Symo 15.0-3 208 (# 3) FRONIUS Symo 15.0-3 208 (# 4)



City Hall Solar Production: Year-to-Date 2017

MWh = Mega (Million) Watt Hours