# Sustainability Committee Meeting

May 15, 2019

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- Recycling Summary and Next Steps
- Solar Options
- Data Review/Recommendations
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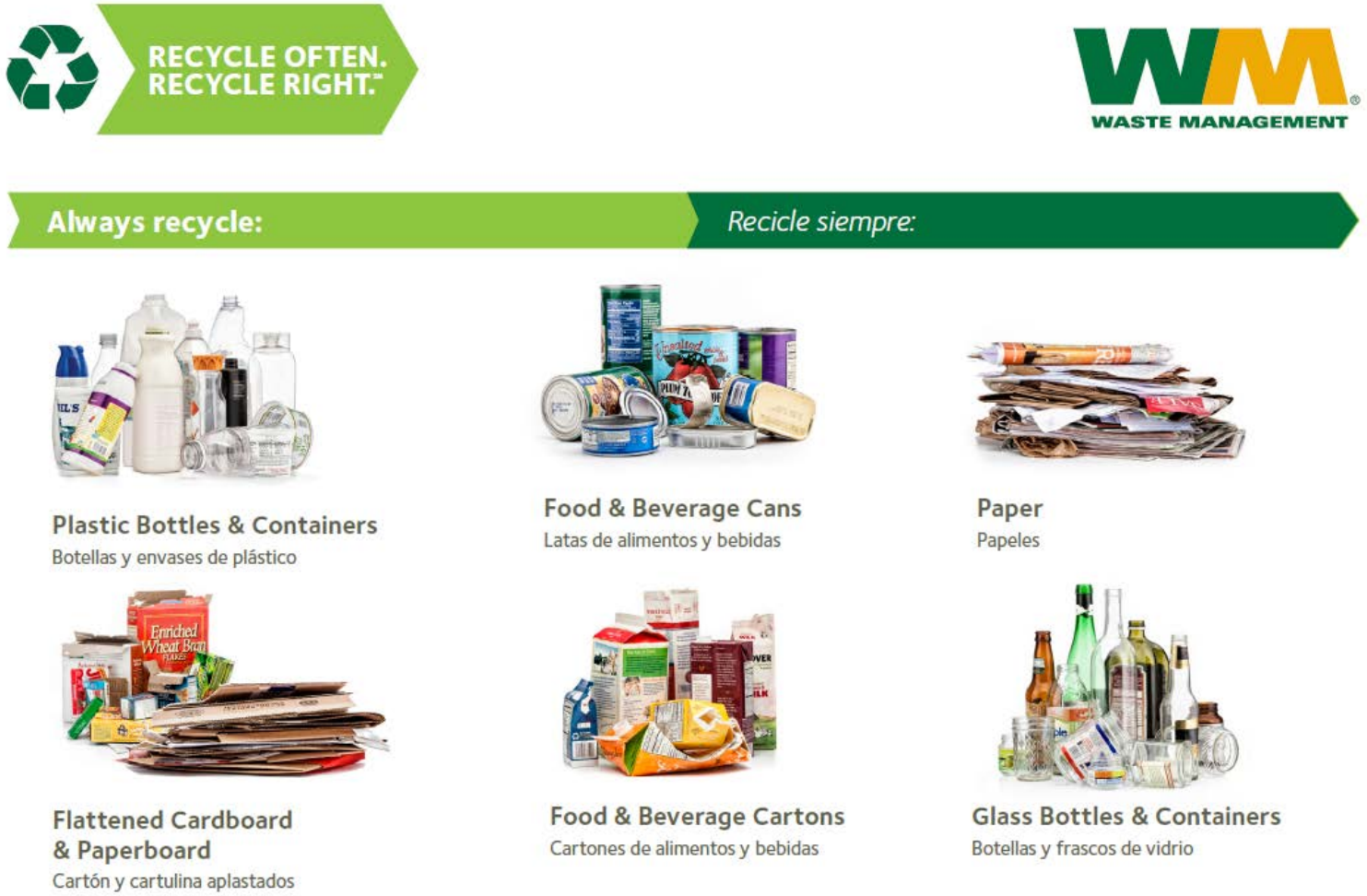
# Recycling - Summary

- Grossmont College
  - Signed with Waste Management
  - Service to start June 1st
  - Cancelled Quiroz – will remove dumpsters on May 31st
- Cuyamaca College
  - Will move forward with Waste Management for both trash and recycling service
  - Service to start July 1st
  - Edco to remove dumpsters on June 30th
  - Saving $3,078/year in trash service costs

# Recycling – Next Steps

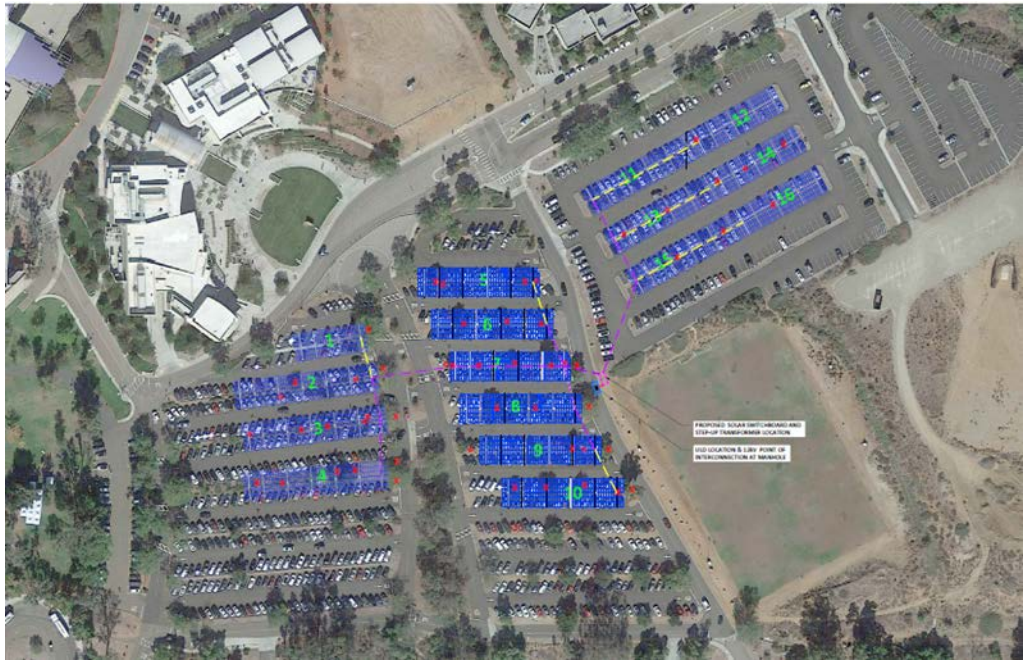
- Outreach
  - ✓ Operations Training
  - Staff Outreach
  - Student Outreach
  - Labeling

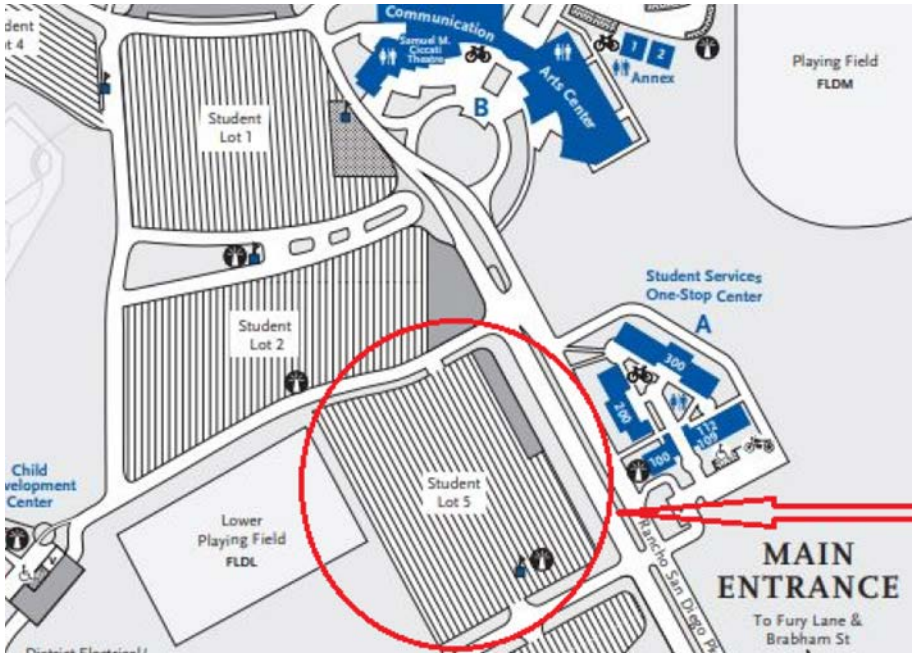


# Consider


# Solar Options - Update

- Cuyamaca College firmly supports moving forward with the smaller scale PV system – via PPA and ForeFront Solar





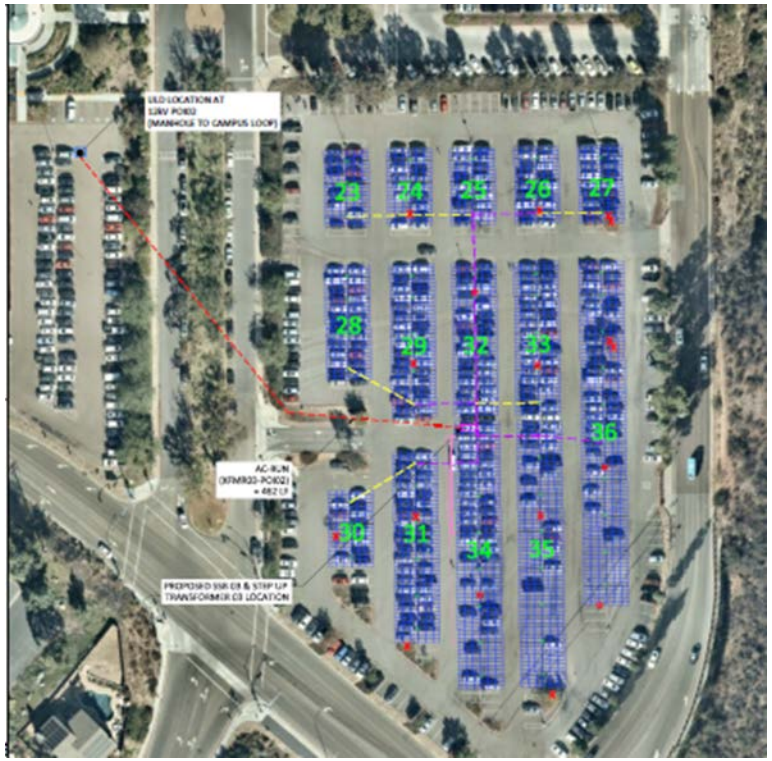
# Solar Options – Cuyamaca College

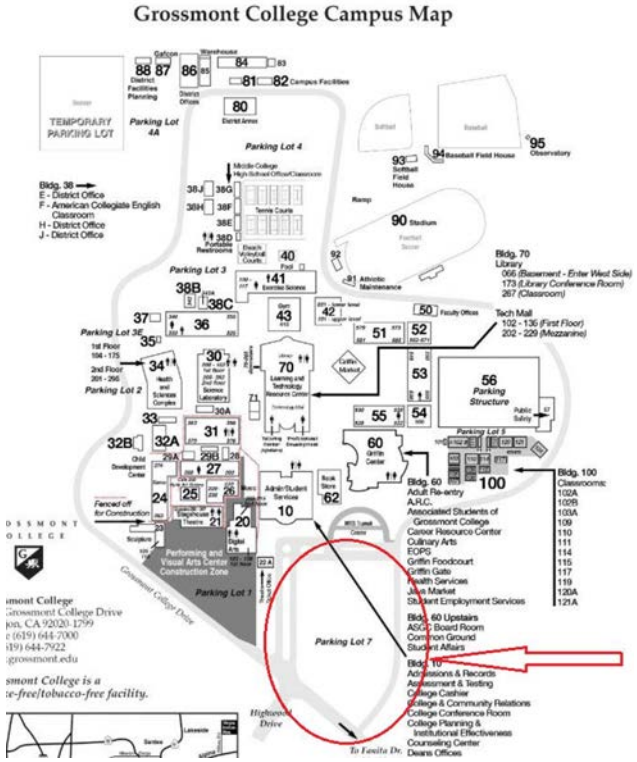
| | Power Purchase Agreement | | Cash Purchase | |
|---|---|---|---|---|
| **System Size** | Larger | Smaller | Larger | Smaller |
| | | | | |
| **PV System Size** | 1,925 KW | 1,285 KW | 1,925 KW | 1,285 KW |
| **Storage System Size** | 240 KW | 240 KW | 240 KW | 240 KW |
| **Electric Offset** | 81% | 55% | 81% | 55% |
| | | | | |
| **Rate** | $0.115/kWh | $0.115/kWh | $5,028,581 | $3,520,393 |
| **Escalator** | 0 | 0 | 0 | 0 |
| | | | | |
| **Payback Period** | Immediate | Immediate | 14 years | 14 years |
| | | | | |
| **PV Savings Projection year 1** | $64,149 | $50,225 | ($4,964,927)) | ($3,724,283) |
| **Assumed rate increase** | 2.7% | 2.7% | 2.7% | 2.7% |
| **Assumed demand increase** | 5% | 5% | 5% | 5% |
| **Cumulative 10 years savings projection** | $1,575,020 | $1,329,293 | ($1,620,326)) | ($1,097,375) |
| **Cumulative 20 years** | $5,900,103 | $5,151,353 | $4,838,638 | $4,271,542 |
| | | | | |
| **Production Guarantee** | yes, 100% | Yes, 100% | 90% | 90% |
| **Panel Degradation Rate** | 0.25%/year | 0.50%/year | .50%/year | .50% |
| **Length of Contract** | 20 years | 20 years | n/a | n/a |
| | | | | |
| **O&M Cost** | included | Included | Included | Included |
| **O&M Contract length** | 20 years | 20 years | 10 years | 10 years |
| **RFP Required** | no | no | no | no |

# Solar Options – Grossmont College

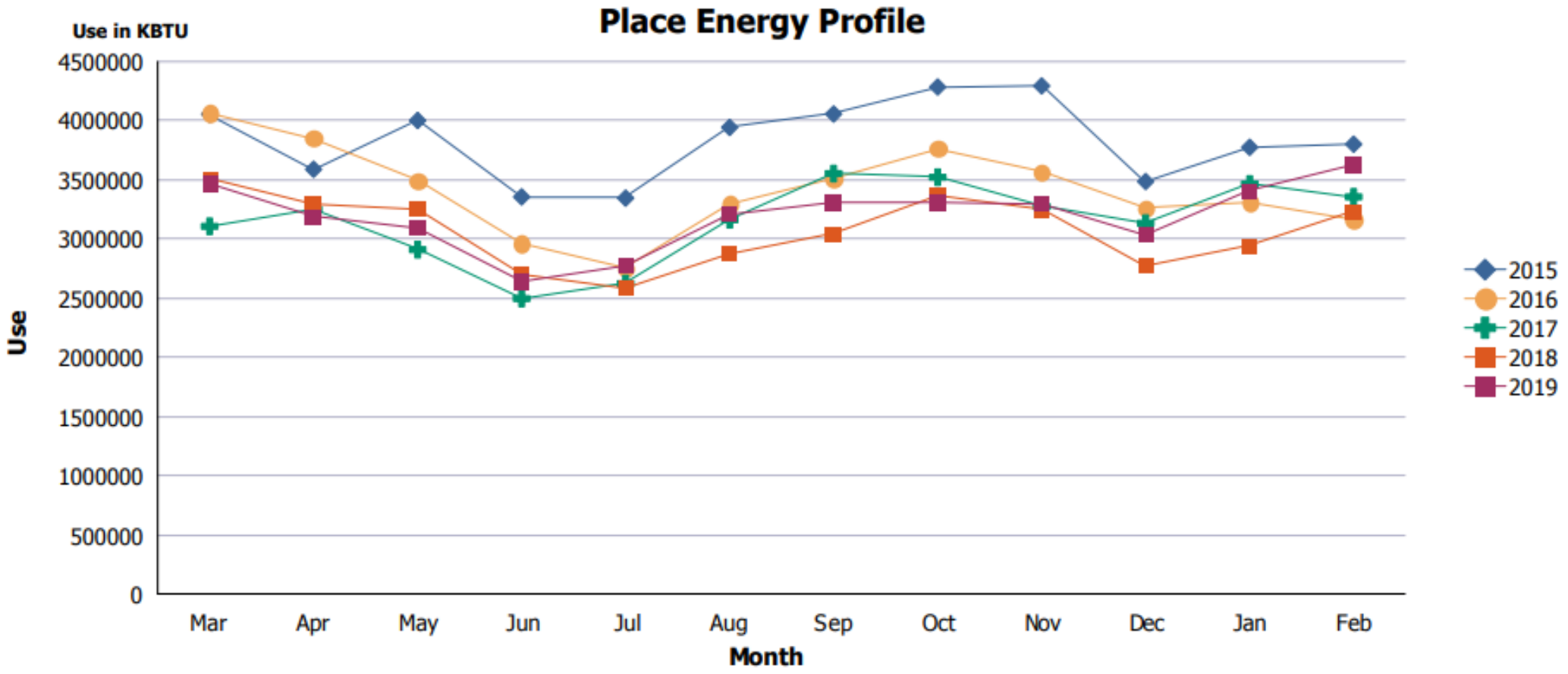
| | Power Purchase Agreement | | Cash Purchase | |
|---|---|---|---|---|
| **System Size** | Larger | Smaller | Larger | Smaller |
| | | | | |
| **PV System Size** | 3,765 kW DC | 1,460 kW DC | 3,765 kW DC | 1,460 kW DC |
| **Storage System Size** | 600 KW | 500 KW | 600 KW | 500 KW |
| **Electric Offset** | 85% | 33% | 85% | 33% |
| | | | | |
| **Rate** | $0.115/kWh | $0.115/kWh | $9,793,160 | $4,206,174 |
| **Escalator** | no | No | No | No |
| | | | | |
| **Payback Period** | Immediate | Immediate | 12 years | 12 years |
| | | | | |
| **PV Savings Projection year 1** | $154,932 | $115,808 | ($9,702,684) | ($4,349,628) |
| **Assumed rate increase** | 2.7% | 2.7% | 2.7% | 2.7% |
| **Assumed demand increase** | 5% | 5% | 5% | 5% |
| **Cumulative 10 years savings projection** | $2,805,921 | $2498,971 | ($3,040,216)) | ($308,225) |
| **Cumulative 20 years** | $9,701,373 | $9,465,129 | $7,632,241 | $8,511,326 |
| | | | | |
| **Production Guarantee** | yes, 100% | Yes, 100% | 90% | 90% |
| **Panel Degradation Rate** | 0.25%/year | 0.50%/year | .50%/year | .50% |
| **Length of Contract** | 20 years | 20 years | n/a | n/a |
| | | | | |
| **O&M Cost** | included | Included | Included | Included |
| **O&M Contract length** | 20 years | 20 years | 10 years | 10 years |
| **RFP Required** | no | no | no | no |

# Solar Options - Grossmont College Renderings

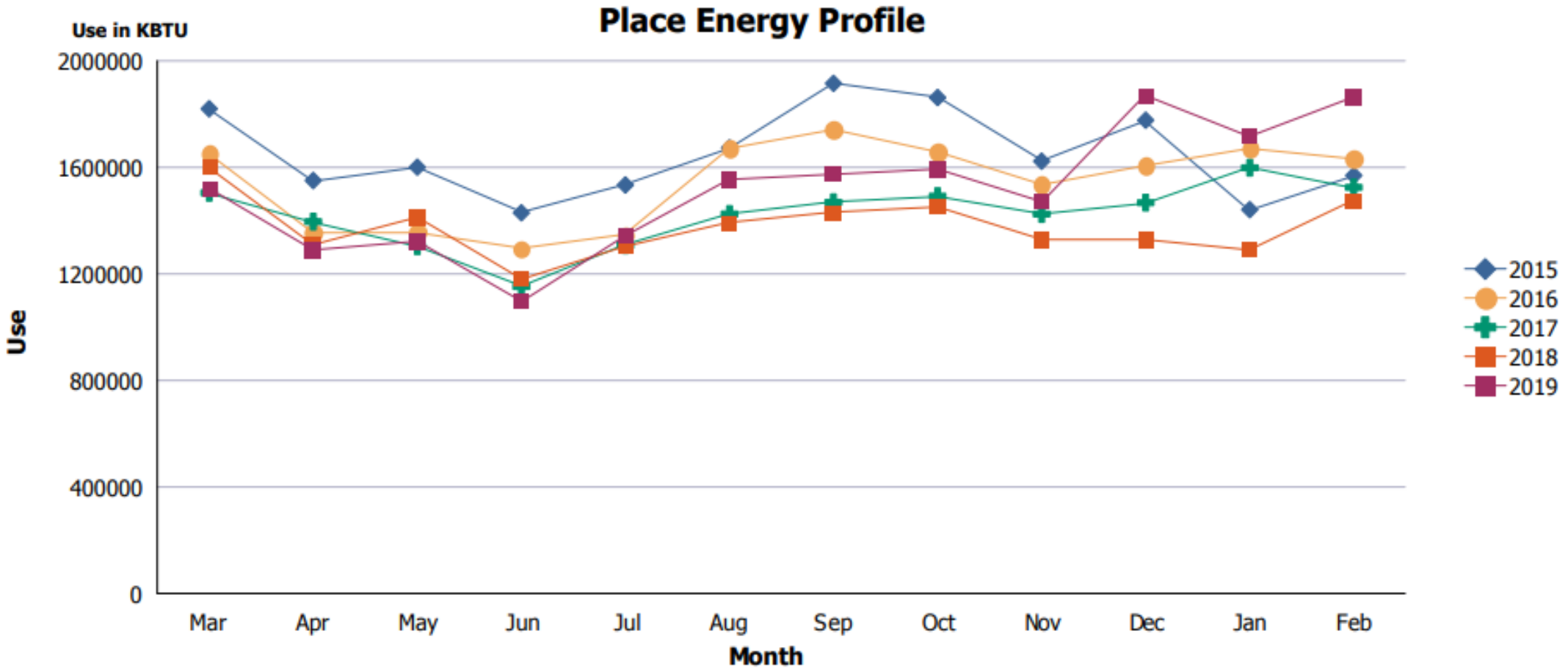



# Data Review – Grossmont College



# Data Review – Cuyamaca College

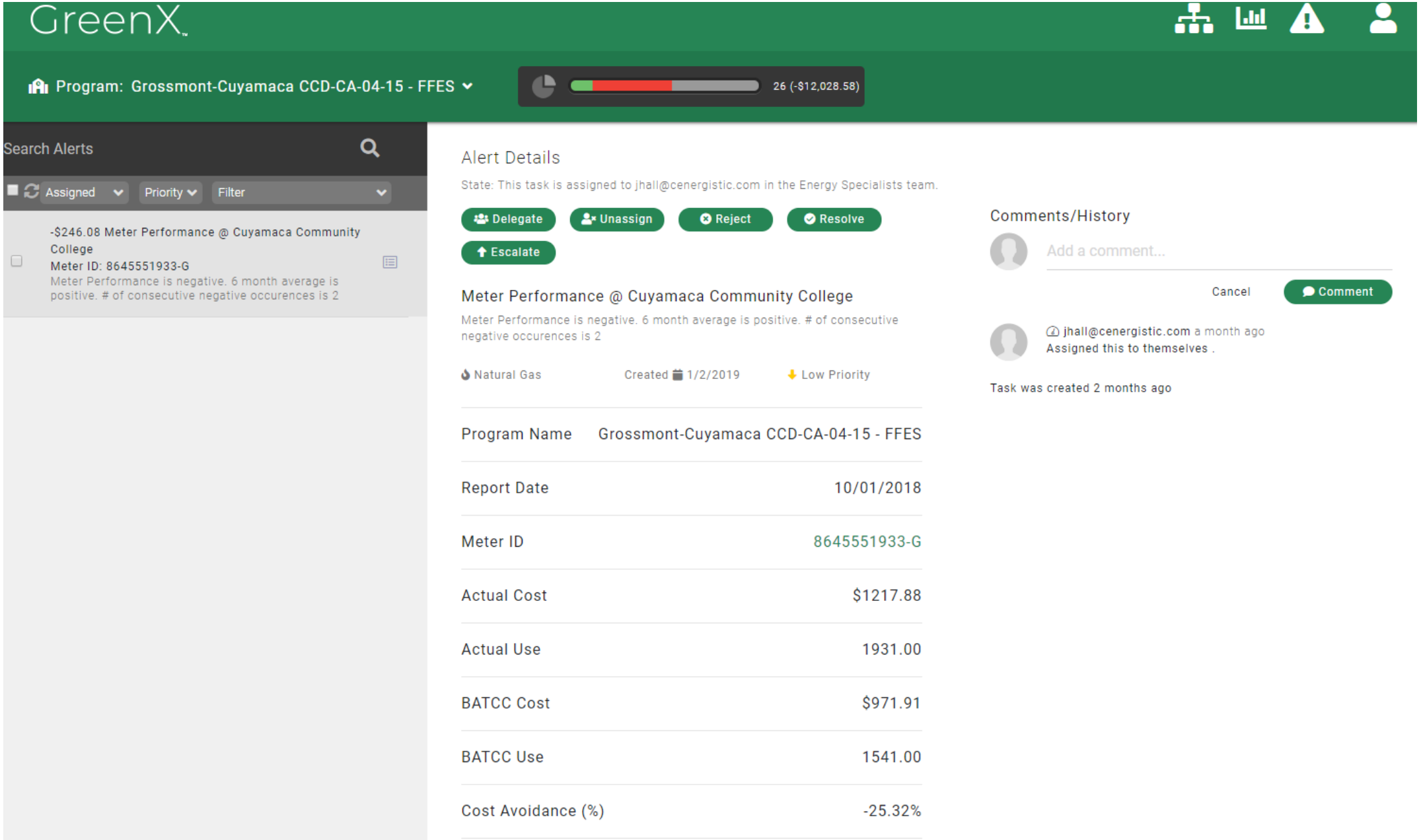


# Recommendations

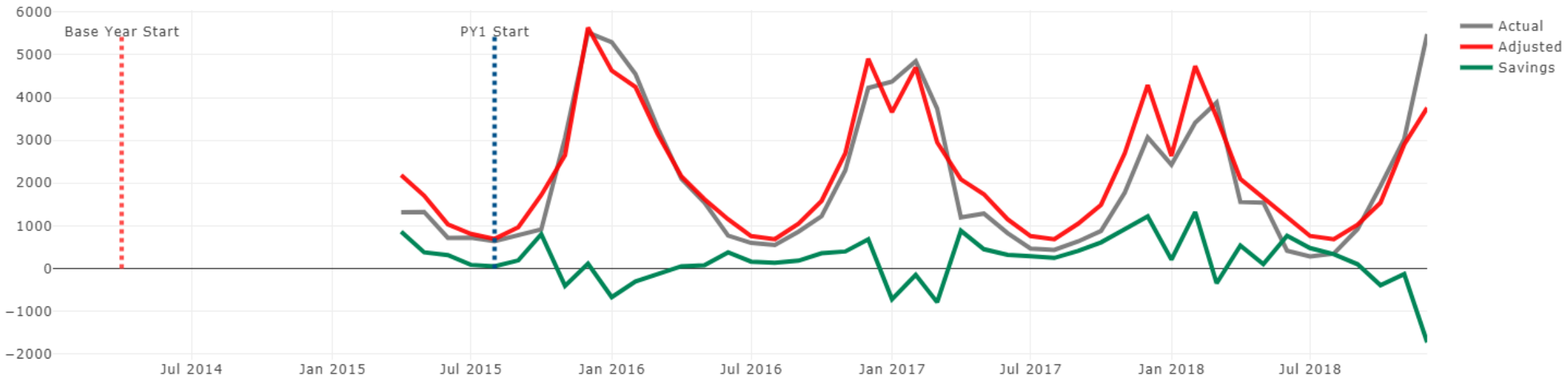
- Recognize there is a trend upwards – losing savings
- Review temperature set points – align with Districtwide Standards
  - This may require revisiting comfort complaint processes
- Review time of day scheduling – HVAC
  - Use data loggers to confirm necessity of starting buildings early
- Review static pressures weekly, based on OAT

# GreenX

- Online platform developed by Cenergistic
- Extremely helpful in managing real time energy expenditures
- Real time alerts for
  - Trends
  - Interval Data


GreenX
Program: Grossmont-Cuyamaca CCD-CA-04-15 - FFES
26 (-$12,028.58)
Search Alerts
Assigned
Priority
Filter
-$246.08 Meter Performance @ Cuyamaca Community College
Meter ID: 8645551933-G
Meter Performance is negative. 6 month average is positive. # of consecutive negative occurences is 2
Alert Details
State: This task is assigned to jhall@cenergistic.com in the Energy Specialists team.
Delegate
Unassign
Reject
Resolve
Escalate
Meter Performance @ Cuyamaca Community College
Meter Performance is negative. 6 month average is positive. # of consecutive negative occurences is 2
Natural Gas
Created 1/2/2019
Low Priority
Program Name Grossmont-Cuyamaca CCD-CA-04-15 - FFES
Report Date 10/01/2018
Meter ID 8645551933-G
Actual Cost $1217.88
Actual Use 1931.00
BATCC Cost $971.91
BATCC Use 1541.00
Cost Avoidance (%) -25.32%
Comments/History
Add a comment...
Cancel
Comment
jhall@cenergistic.com a month ago
Assigned this to themselves .
Task was created 2 months ago

## Actual Use vs Baseline Adjusted to Current Conditions(THERM)



Grossmont-Cuyamaca Community College District

April 2019

# SUSTAINABLE focus

## Thank You for participating in Earth Month

***April was Earth Month- Here is how to have a positive impact on the environment all year long:***

### *Eat for the Environment!*

1. Choose organic
2. Avoid processed foods
3. Eat less meat and dairy
4. Shop local

### *Why is organic food better for the environment?*

Organic food production avoids pesticides and toxic fertilizers, which:

- Reduces soil and water contamination
- Reduces reliance on fossil fuels (used to make pesticides)
- Encourages biodiversity and supports natural ecosystems
- Helps fight global warming through healthier soil (carbon sequestering)

### *Why Should We Shop Locally?*

- Reduce the distance food travels which reduces the carbon footprint & air pollution associated with shipping.
- Protects the local environment and workforce – keeps local farms in operation.

### *Why Avoid Processed Foods?*

Processed foods involve packaging, production, storage, transportation, distribution and marketing – all of which require fossil fuels and produce waste.

Reducing consumption reduces toxic air emissions as well as contributions to landfills.

### *How does reducing meat and dairy consumption help the environment?*

The meat and dairy industries generate significant – stockyard, slaughterhouse, packaging house, and byproduct – waste.

- Most of this waste is discarded in sewers, which damage sewer systems and toxify water supply.
- Processing centers are energy intensive and release powerful, malign chemicals, which intensify global warming.
- Meat packaging is rarely recyclable- leading to an excessive amount of plastic and Styrofoam landfill.

Questions? Contact: Jacqueline.Hall@gcccd.edu
Districtwide Facilities: 619-644-7761

Brought to you by the sustainability committee: Anne Krueger ▫ Bill McGreevy ▫ Francisco Gonzalez ▫ Jacqueline Hall ▫ Loren Holmquist ▫ Ken Emmons ▫ Natalie Yturralde ▫ Nicole Conklin ▫ Sahar Abushaban ▫ Sue Rearic