CATALYST

The Million-Dollar Mistake: How EnergyCAP Saved the Day

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Agenda

- ✓ About Carly and UC San Diego
- ✓ Life before and after EnergyCAP
- ✓ Our current process
- ✓ Catching the error
- ✓ Working with our vendor
- ✓ More of what UC San Diego does with EnergyCAP
- ✓ Q&A

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About Carly Kupka

University of Oregon, Sustainability

City of Eugene, Stormwater Management

Utility and Energy Analyst at UC San Diego since 2017

Hobbies:

- SUP'ing and snowboarding
- Rising Tableau enthusiast
- Cello
- Raising 2 babies

GO DUCKS™

An overview of UC San Diego

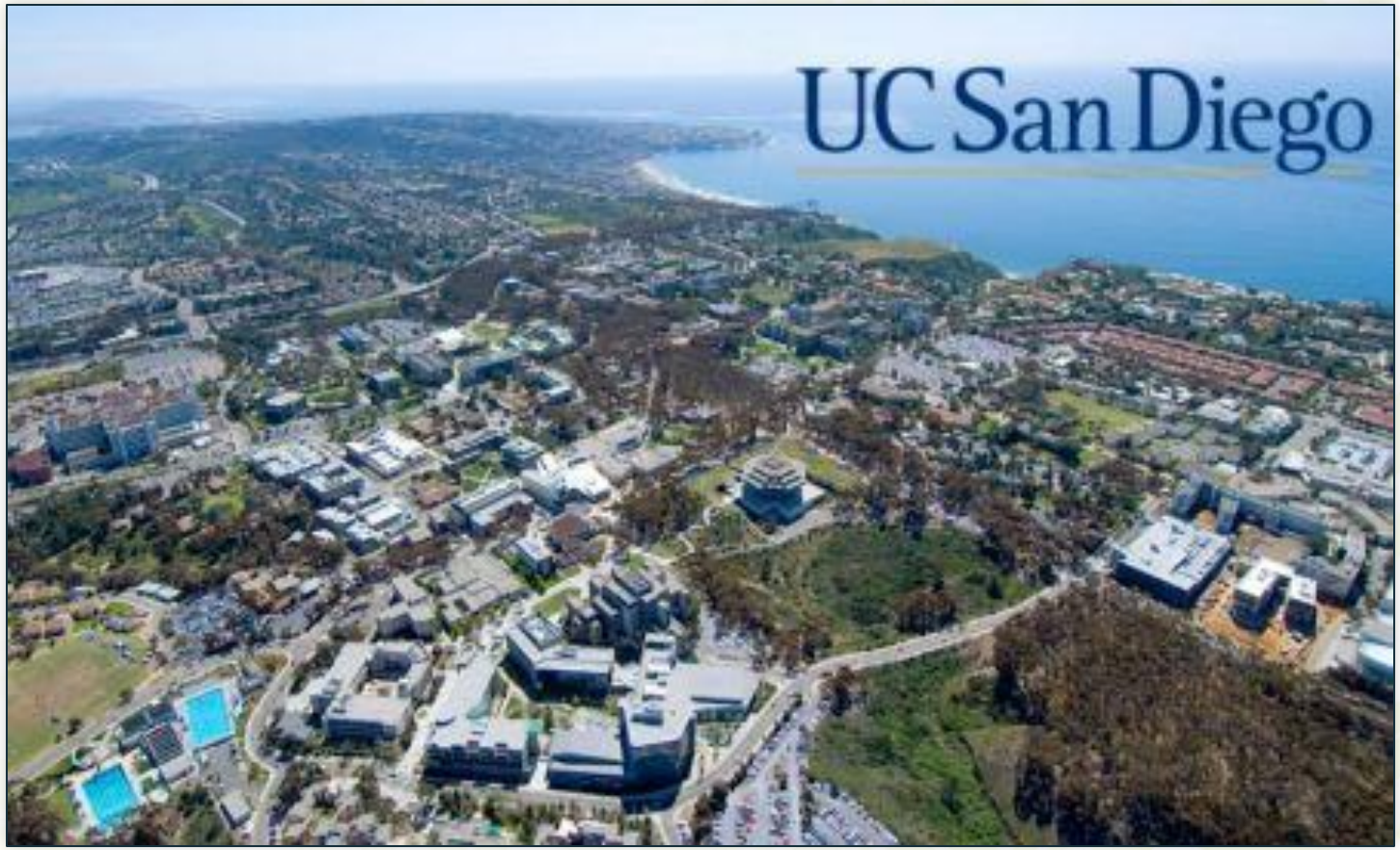
Main campus spans approximately 1,200 acres of coastal woodland in La Jolla, California

761 buildings and counting on the main campus, 3 hospitals, and 30+ off-site clinics

$80 million annual utility budget

$147 million annual recharge operation

The university is built on the un-ceded territory of the Kumeyaay Nation



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Before and After EnergyCAP

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UC San Diego – Utility Management Transformation with EnergyCAP

Before EnergyCAP (Pre-2018):

- Utility data managed entirely in spreadsheets
- 1 FTE handled ~2,000 meter reads, rate assignments, and billing manually
- Separate manual process for AP utility bills
- Entire billing cycle took a full month
- Reports were delayed by nearly 2 months

After EnergyCAP Implementation (2018+):

- All vendor bills uploaded and paid through EnergyCAP
- Internal recharges fully managed within the platform
- Meter data now collected automatically via interval data feeds
- Billing cycle now takes 1 week
- Staff time repurposed from manual billing to data sharing, energy savings, and sustainability reporting
- Stakeholder reports available by the second week of the following month
- Meter reader role consolidated, freeing up an entire FTE, reducing departmental costs

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Questions so far?

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The Million Dollar Mistake

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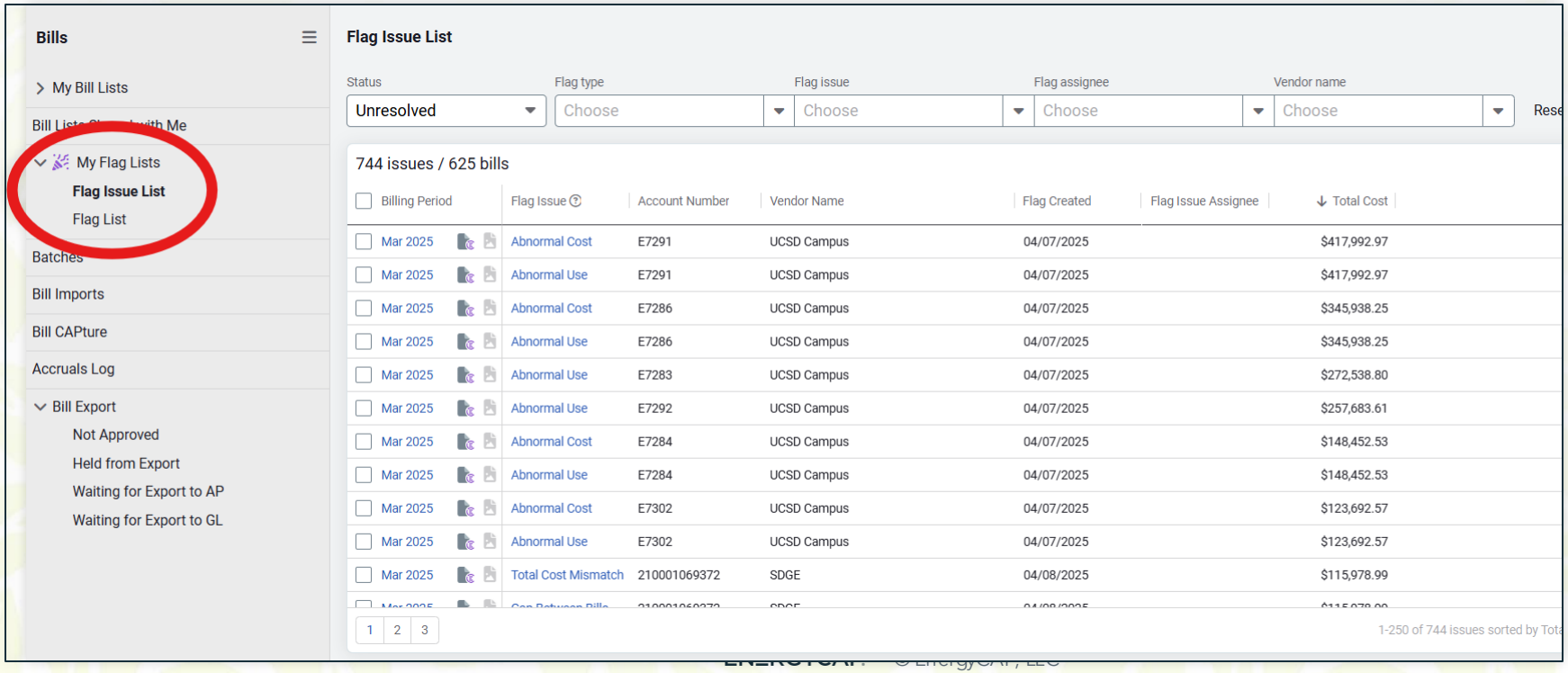
UC San Diego's Monthly Billing Workflow

~ 1000 bills a month via EDI- paid and recharged in ECAP- AP Reformatter

~ 150-200 paper bills monthly- paid via check, uploaded to ECAP for recharge

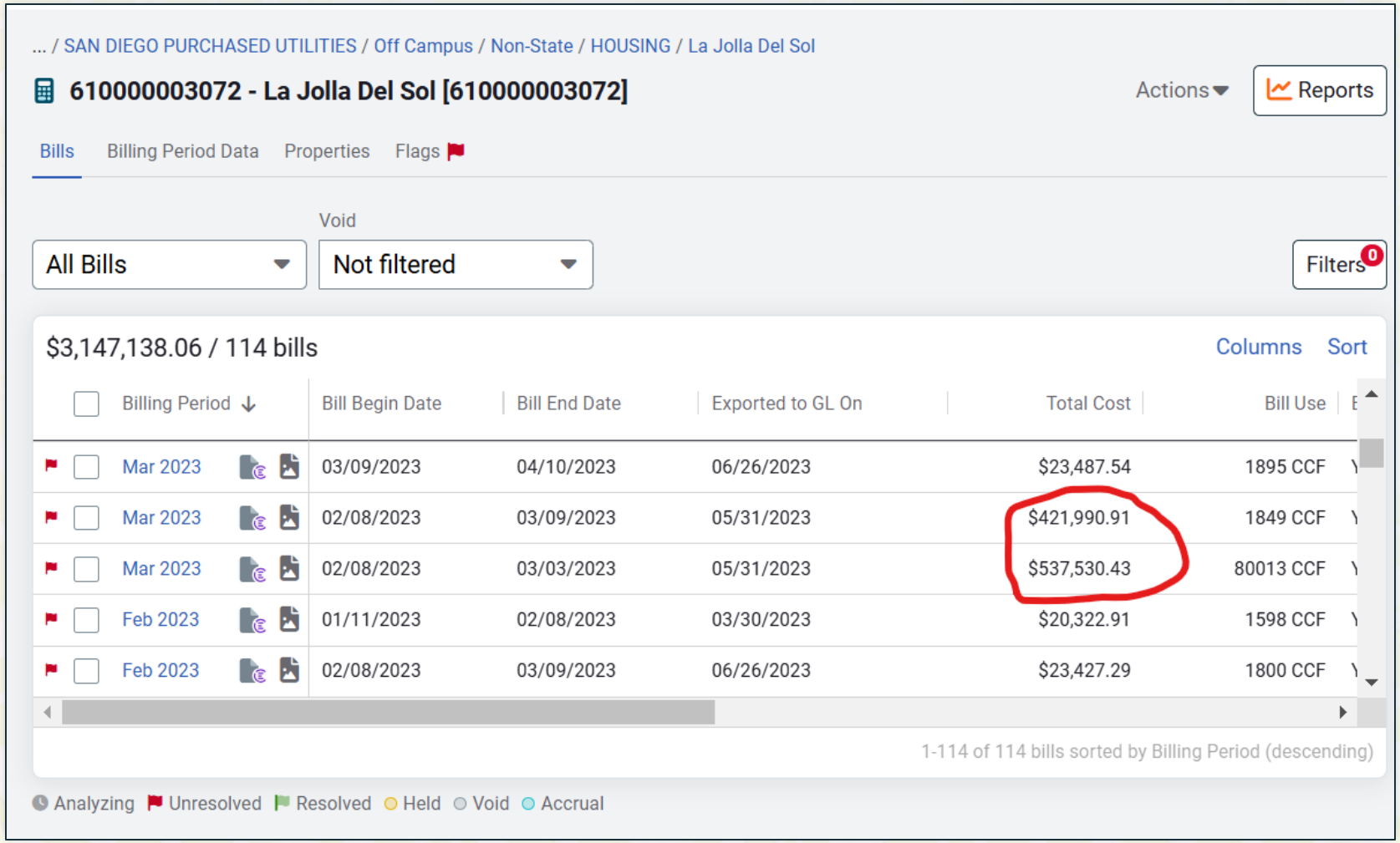
~ 1200-1500 internal chargebacks created- GL Reformatter

~ Internal review relies heavily on audit flags



UC San Diego recovered $1M due to a misbilled leak

EnergyCAP helps track and compare virtual meter data to identify and resolve vendor billing errors.



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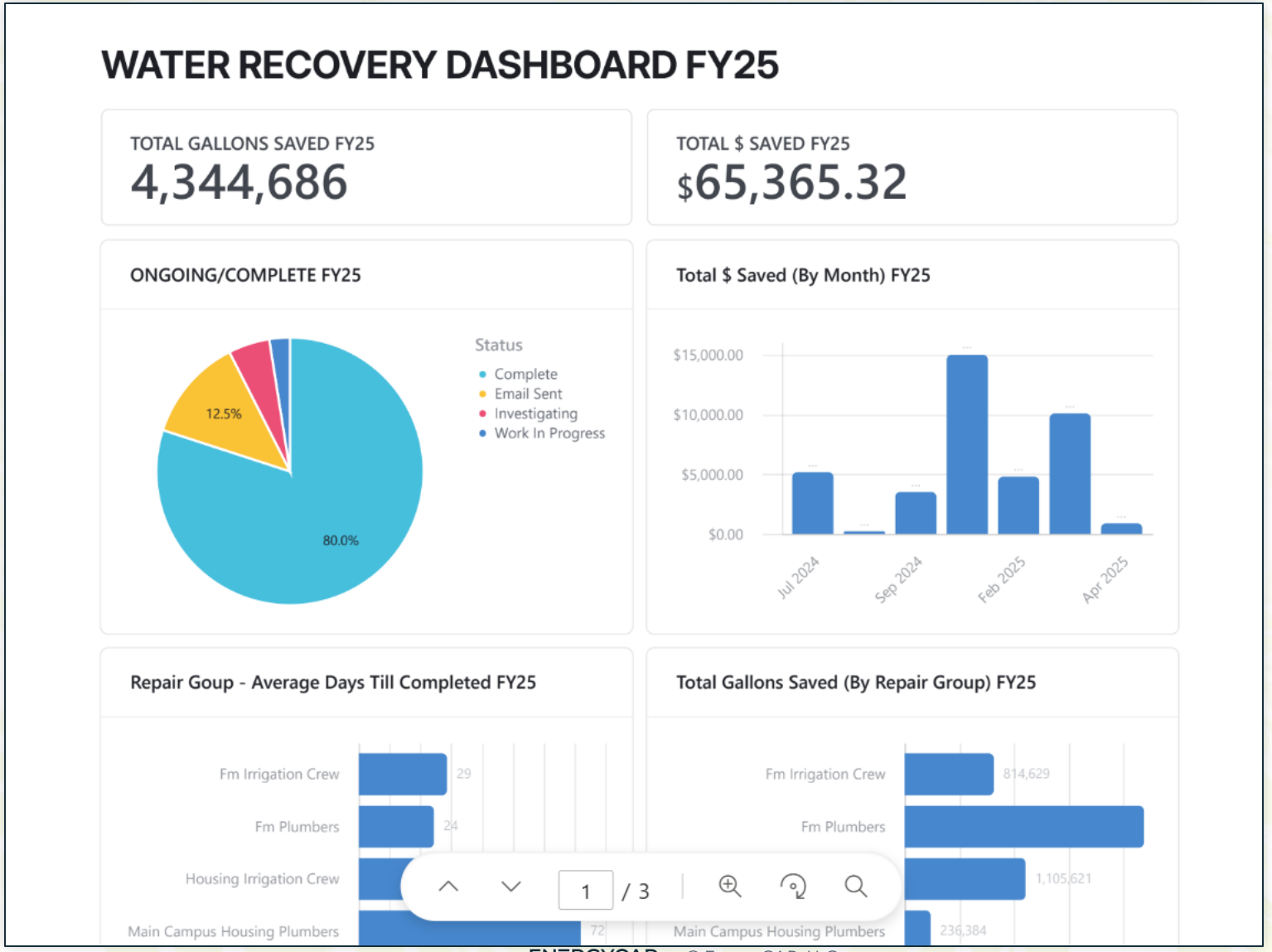
Visualizing water leak savings: water saved and financial impact



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Public Dashboards

👀 **Is anyone else in the room using Public Dashboards?**

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Resources

- Maps and Construction Drawings
- Campus Waypoints
- MyConstructionProjects
- Construction Alerts
- **Energy and Water Dashboards**
- Facilities Management Storehouse
- Transportation and Parking

Energy and Water Use Dashboards

Campus energy and water dashboards display data from more than 1,200 acres on the UC San Diego main campus and La Jolla Medical Center. Users can choose a specific building ("Topmost Place") to view more detailed data or view certain building groups. Building groups, organized by primary use, include:

- Complex (labs, clinics, medical spaces)
- Non-Complex (offices, classrooms, restaurants, etc.)
- Housing and Dining
- Academic Affairs
- School of Medicine
- SIO
- La Jolla Medical Center
- Recreation
- University Centers

Through individual and collective efforts to reduce energy and water use, the UC San Diego community plays an important role in contributing to a more sustainable campus. We invite you to view displayed data for buildings that you visit regularly.

To learn more about simple ways to incorporate energy efficiency and water conservation practices into your laboratories, offices, classroom, and residences, see our Green Programs.

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UCSD Campus Energy and Water Dashboards

Topmost place: Search

Site group: Search

Reset

University of California San Diego Utilities

Most Expensive Meters per Building

SAN DIEGO SUPERCOMPUTER CENTER - ELE	$126,650.94
BIOMEDICAL SCIENCES BUILDING - ELE	$105,154.88
SAN DIEGO SUPERCOMPUTER CENTER - ELE	$104,520.05
ATKINSON HALL - ELE	$92,032.54
TATA HALL - ELE	$91,675.38
PACIFIC HALL - ELE	$90,130.97
SAN DIEGO SUPERCOMPUTER CENTER - ELE	$88,678.18
MCCP USN1 - ELE	$75,893.51
JACOBS MC-BED TOWER-ELE	$75,714.81
SAN DIEGO SUPERCOMPUTER CENTER - ELE	$74,398.46
SAN DIEGO SUPERCOMPUTER CENTER - CHW	$73,066.46

Rolling 12-Month Performance for Building Utilities

Commodity	Cost		Use		Unit Cost	
Total	$ 130,727,063	↑14%		↓3%		
Electric	$ 98,218,552	↑15%		↓2%	$ 0.272 /kWh	↑18%
Chilled Water	$ 11,987,262	↑12%		↓2%	$ 15.993 /MMBtu	↑14%
Water	$ 9,910,225	↑15%		↑7%		

Powered by ENERGYCAP

[UC San Diego's EnergyCAP Public Dashboard]

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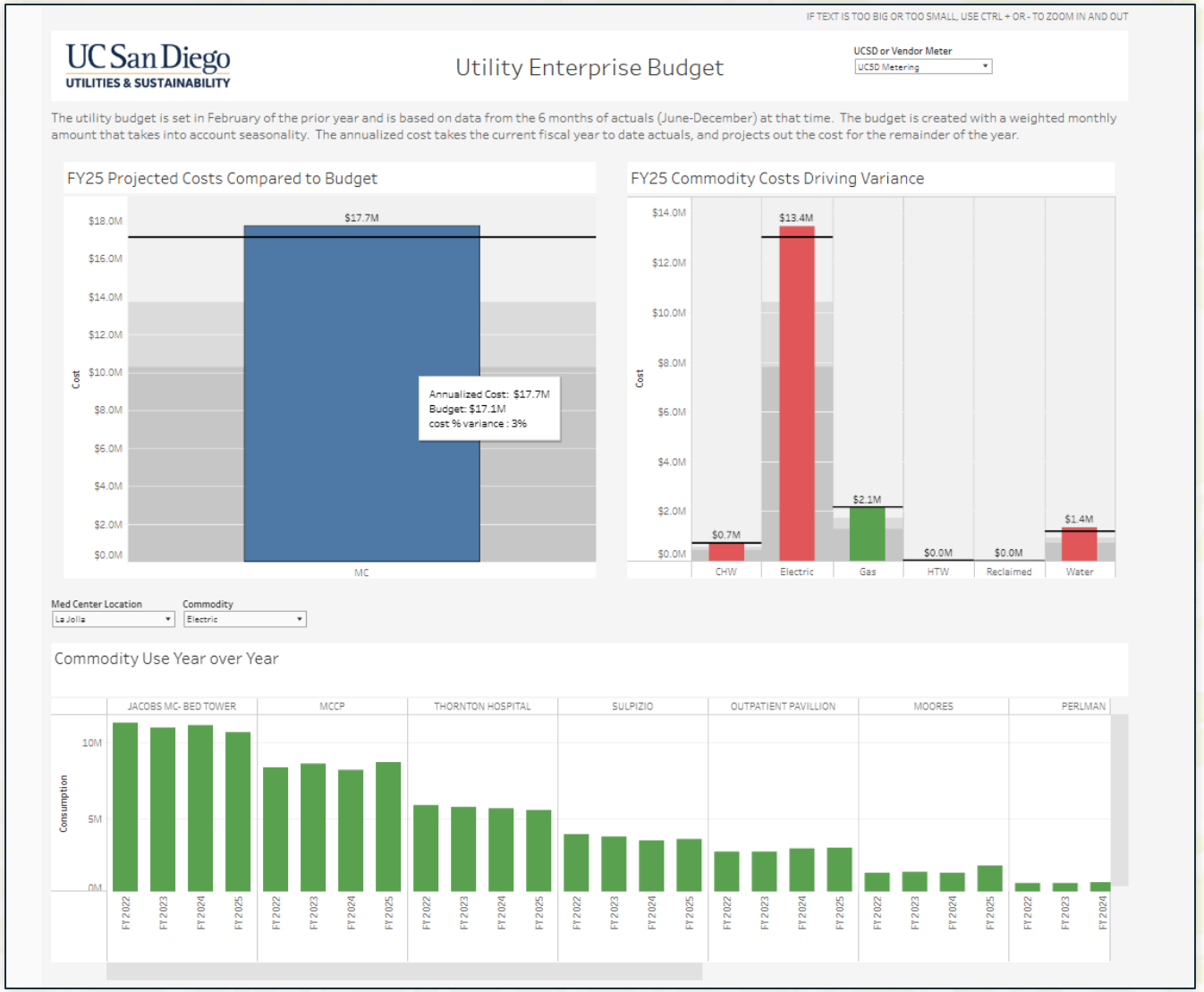
Work in progress...

Leveraging EnergyCAP's API's and hosting data on internal server

Now have seamless ability to generate automatic reports in Cognos, Tableau, OFC

Allows for data blending between our financial platform and EnergyCAP meter data



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Questions?

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