ENERGY350

ENGAGING LARGE INDUSTRIALS

Beyond Capital Projects

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Overview

- Introduction
- Foundation of Engagement
- Leveraging Industrial Sites
- Offering O&M and SEM is a Key Tool to Sustained Engagement
- Going Beyond Energy Efficiency

Our Perspective

- We are an energy engineering company based in Portland, OR
- Delivery contractor for industrial energy efficiency programs in Pacific NW

Roles Include-

- Outreach and recruitment
- Facilitate relations w/ sites
- Identifying energy projects
- Conduct energy studies and analysis
- Verifying results

Large Industrials in 2015

- Fewer staff than years previous (per Bureau of Labor Statistics 2015)
- Sophisticated manufacturing plants
- Cost and budget oriented
  - Decisions are made w/ ROI in mind
- Knowledge of utility incentives (maturing market)
  - Few large sites that haven't engaged before

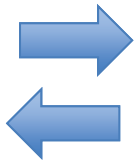
Outreach

Getting in the Door-

- Utility Support
- Trades Organizations
- Vendors
- Training & Education Events
- Cold Calling

Continuous Outreach-

- Establishing a Relationship
- Recruiting for Enrollments



Delivery

- Developing Trust w/ a Customer
- Diversifying Offerings
- Setting Conservation Goals
- Managing Opportunities
- Communicating Program Offerings
- M&V, Project Completion

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Gateway Projects

- Custom O&M
- Lighting
- VFD Retrofits
- Compressed Air Demand Reduction

How can we Leverage an Industrial?

Relational Leverage

- Use Relational Capital
  - Contractors
  - Utility Account Managers
  - Trades Associations
  - Social Influence
  - Peer Groups

Technical Leverage

- Non Energy Benefits
- Equipment Life Cycle
- Process Throughput Improvements
- Deferred Maintenance
- Emissions Reductions
- Increased Safety
- Availability of Data
- Addition of a New Capability

Offering O&M and SEM fills the Gaps Between Capital Projects

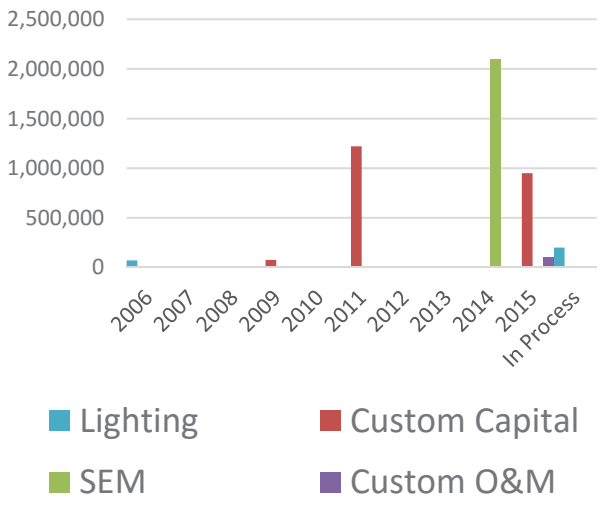
Low Hanging Fruit is Being Harvested

- Each year industry is more energy efficient
- We must weather economic downturns as a program
- In PNW capital projects are now only a part of the portfolio not the majority

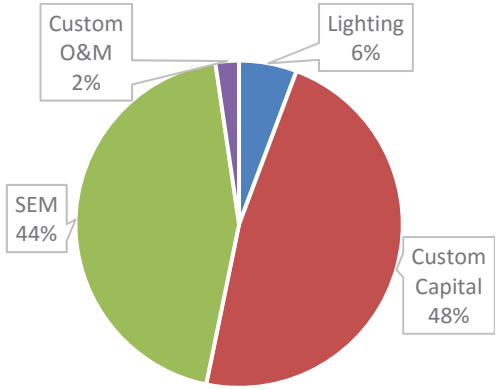
Meeting The Challenge

- We must be flexible and adapt to the needs of industrials yet deliver results and be consistent to the program
- Improving process efficiency has compounding benefits
- SEM & Custom O&M has a lot of future potential

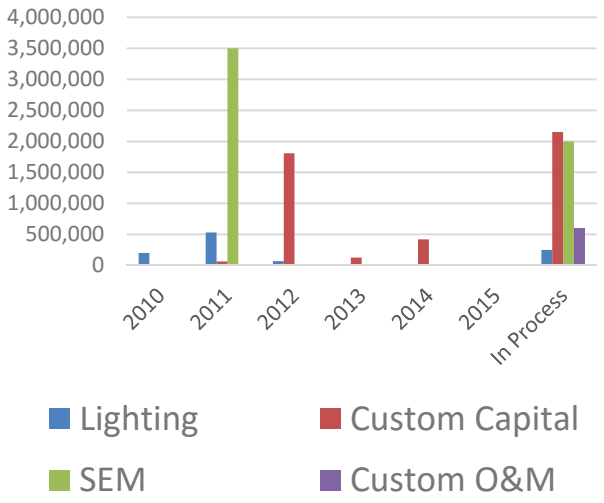
Industrial A (Food Processor)



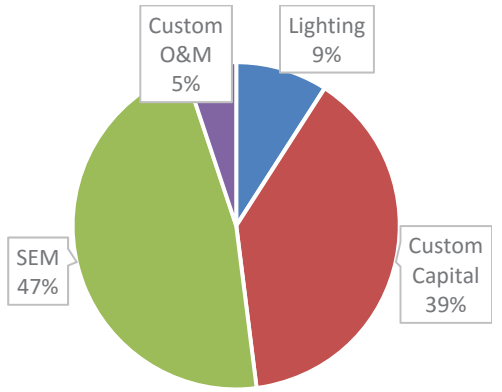
	Total (First yr Savings kWh)
Lighting	270,000
Custom Capital	2,245,000
SEM	2,100,000
Custom O&M	110,000



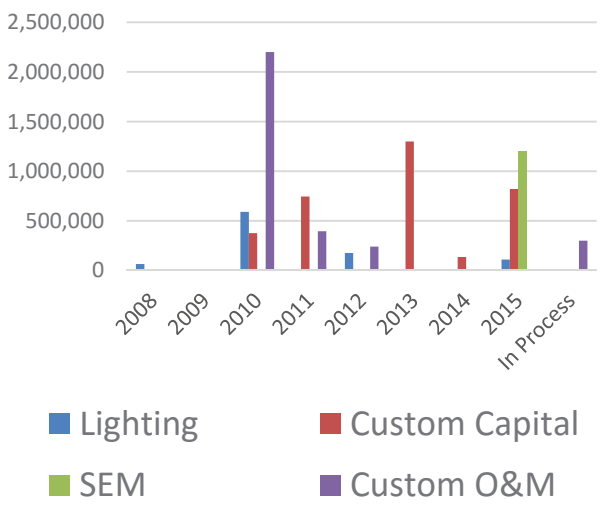
Industrial B (Metals)



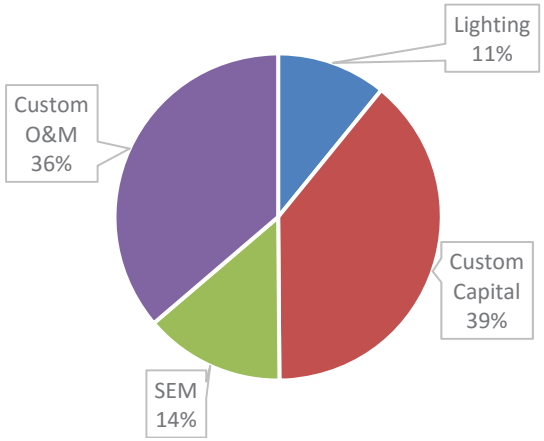
	Total (First yr Savings kWh)
Lighting	1,067,000
Custom Capital	4,566,000
SEM	5,500,000
Custom O&M	600,000



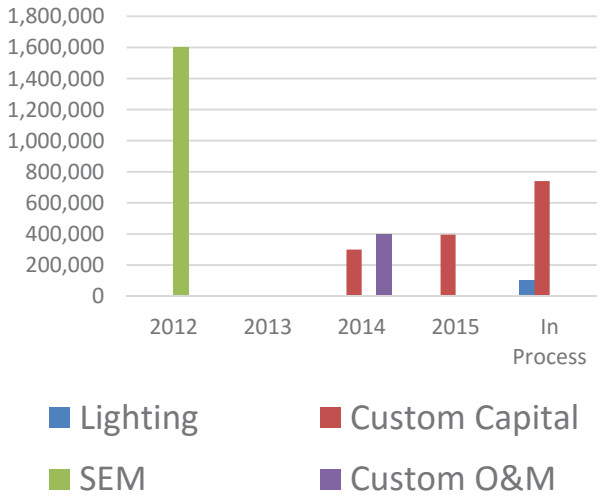
Industrial C (Tools Mfg)



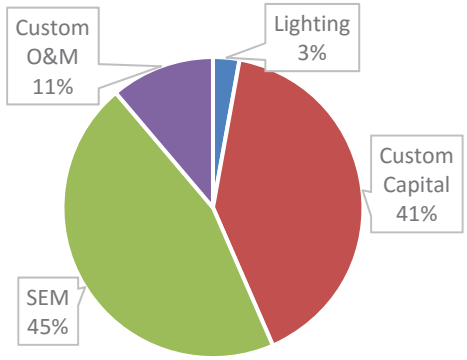
Lighting	940,000
Custom Capital	3,375,000
SEM	1,200,000
Custom O&M	3,135,000



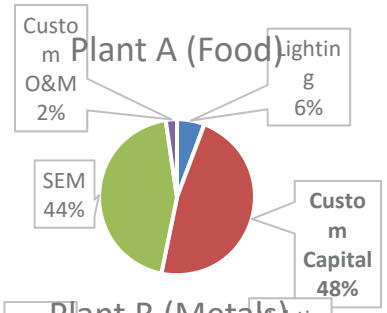
Industrial D (Food Processor)

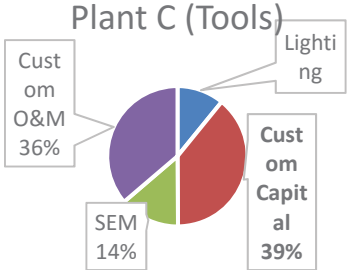


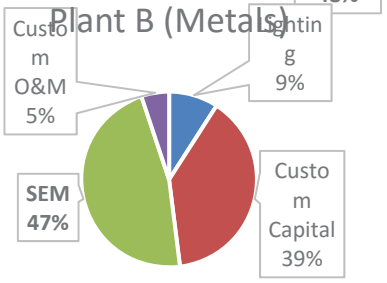
	Total (First yr Savings kWh)
Lighting	100,000
Custom Capital	3,300,000
SEM	1,000,000
Custom O&M	2,895,000

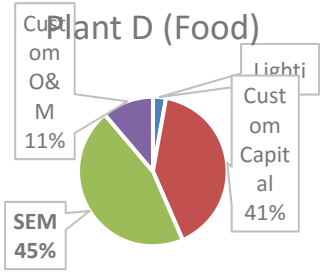


Each Site is Unique

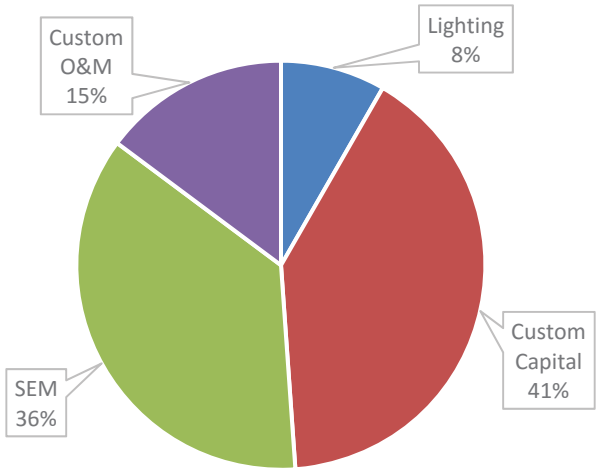






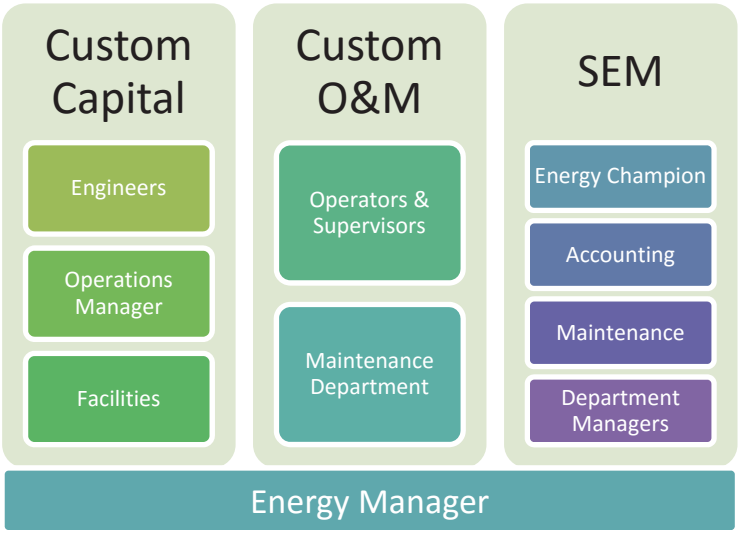


The Portfolio Approach



- Leads to sustained engagement
- Delivering results without capital Investments
- Retains engagement in conservation when site does not have a Budget
- Touches more individuals within an organization
- Better mitigates variability in results year to year.

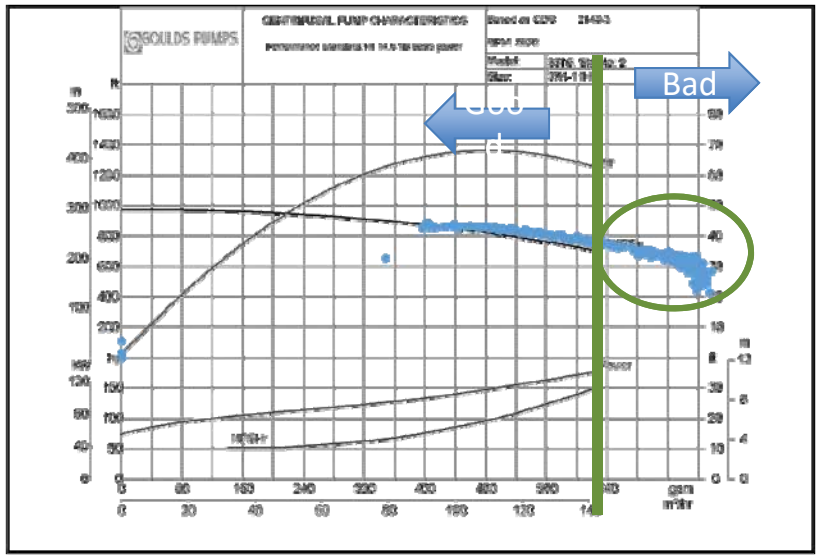
Building Relationships



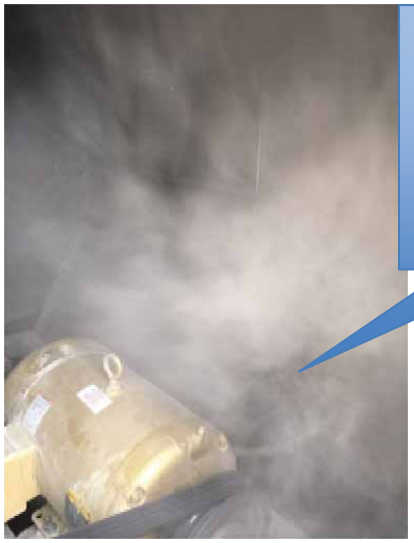
Going Beyond Energy Efficiency

Energy Engineers Bring a New Perspective

Feedwater Pump – Technical Analysis



- Plant experienced reliability problems with this pump
- Trended control system data was being used for an energy analysis
- The energy engineer identified the root cause of failure
- Excess bypass flow was identified as the problem.



The air handler that was NOT supposed to be Humidifying…unit supports a drying tunnel

Belts are broken, gas pack still ON…

HVAC Mishaps Con't

The broken bolt grab a block of wood damper…

Conclusion – Key Takeaways

1. Advocate for diversity in program offerings to include more participants.
2. Engagement takes more than incentive dollars.
3. Be aware of leverage and motivators to accommodate site needs.
4. Delivery staff time at a site is highly productive in identifying new projects.
5. Non energy benefits are very important to industrials

Questions?

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