

COMMERCIAL STRATEGIC ENERGY MANAGEMENT PROGRAM



PROGRAM SUMMARY

| Participants: | Existing commercial and institutional buildings customers of the investor-owned gas and electric utilities in Oregon: Portland General Electric, Pacific Power, NW Natural Gas, Cascade Natural Gas, and Avista Gas. | | | | | | | | | | | | | |
|--|---|--|---------|--------------|-----------------------------|---------------------|-------------------------------|-------------|-------------------|---|---------------|--|--|--|
| Customers are incentivized to: | Practice strategic energy management through behavioral/operational changes | | | | | | | | | | | | | |
| Incentives: | <table border="1"> <thead> <tr> <th>Benefit</th> <th>Action Taken</th> </tr> </thead> <tbody> <tr> <td>\$0.02 per annual kWh saved</td> <td>Electricity savings</td> </tr> <tr> <td>\$0.20 per annual therm saved</td> <td>Gas savings</td> </tr> <tr> <td>\$1,000/milestone</td> <td>For achieving each key milestone in the SEM program, which may include: <ul style="list-style-type: none"> ✓ Establishing an annual energy plan; ✓ Developing an energy policy; ✓ Developing an energy management assessment action plan; and/or ✓ Tracking energy performance, i.e. maintaining their energy model </td> </tr> <tr> <td>Up to \$7,000</td> <td>To put toward the cost of hiring an intern who spends their time on SEM activities</td> </tr> <tr> <td>Funding for certification and educational opportunities¹</td> <td>E.g., \$1,600 per employee for Building Operator Certification, \$1,000 per employee for Energy Management Certification</td> </tr> </tbody> </table> | | Benefit | Action Taken | \$0.02 per annual kWh saved | Electricity savings | \$0.20 per annual therm saved | Gas savings | \$1,000/milestone | For achieving each key milestone in the SEM program, which may include: <ul style="list-style-type: none"> ✓ Establishing an annual energy plan; ✓ Developing an energy policy; ✓ Developing an energy management assessment action plan; and/or ✓ Tracking energy performance, i.e. maintaining their energy model | Up to \$7,000 | To put toward the cost of hiring an intern who spends their time on SEM activities | Funding for certification and educational opportunities ¹ | E.g., \$1,600 per employee for Building Operator Certification, \$1,000 per employee for Energy Management Certification |
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| Up to \$7,000 | To put toward the cost of hiring an intern who spends their time on SEM activities | | | | | | | | | | | | | |
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| Support provided to customers: | Free energy expertise is provided through energy coaches and peer-to-peer engagement opportunities – including workshops and monthly calls – that motivate customers to continually improve their energy management. | | | | | | | | | | | | | |

¹ Available to all Energy Trust commercial customers, including those who do not participate in the SEM Program.

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|----------------|---|----------------------------------|-------------------------------------|
| Impact: | Due to operations and maintenance improvements, a typical participant cuts about 5% of its energy consumption in the first year, while some participants have reported savings of up to 20% in the first year. Total savings across all participants in 2018 amounted to: | | |
| | Year: 2018 | Electricity Savings (kWh) | Natural Gas Savings (therms) |
| | Total | 16,507,797 | 512,948 |
| | As percentage of all Energy Trust's energy efficiency programs | 3% | 7% |
| | As percentage of all Energy Trust's commercial energy efficiency programs | 8% | 21% |
| | As percentage of all Energy Trust's existing buildings energy efficiency programs | 14% | 36% |

The Energy Trust of Oregon’s (Energy Trust) Strategic Energy Management (SEM) Program² teaches customers best energy management practices while providing financial incentives for energy savings achieved. With education embedded into the program, the typical cycle of activities for participants involves:

- ✓ Making an SEM plan, which involves developing an energy reduction goal, energy policy, and energy management action plan.
- ✓ Participating in workshops to learn from energy experts and other SEM program participants.
- ✓ Increasing employee participation, e.g., through establishing a dedicated energy team.
- ✓ Tracking energy performance with guidance from an energy coach.
- ✓ Repeating the cycle.

Energy Trust assesses the potential benefits, financial or otherwise, before engaging participants in recruitment meetings.

Systems Efficiency Benefits. Through workshops, engaging with energy coaches, and energy champion calls, customers are encouraged to create holistic energy management plans that consider multiple systems and are inclusive of behavioral changes, operational improvements, and capital upgrades. While the scope and depth of the participants’ involvement is largely up to the customer and their capacity, the program’s educational platforms illustrate the greater savings possible from taking a broad-based approach that deploys multi-pronged strategies to tackle energy management, which ultimately improves building systems efficiency.

Background. This Commercial SEM Program was originally modeled on the successful Industrial SEM Program. Whereas the industrial program provided an approach to address plants individually, the

² Energy Trust of Oregon (2020), [Strategic Energy Management](#)

commercial program is portfolio-focused, offering recommendations for SEM practices to implement across multiple buildings.

Energy Trust is an independently operated non-profit and is funded by investor-owned utilities through a public purpose charge, which is used to provide its customers cash incentives, technical assistance and information to encourage energy efficiency and installation of renewable energy technology.³ This funding structure allows Energy Trust to develop robust programs to achieve its energy efficiency directives with the support of various program management contractors. Energy Trust operates within the territories of two electric utilities (Pacific Power and Portland General Electric) and three gas utilities (NW Natural, Cascade Natural Gas, and Avista)⁴ which cover most of Oregon's population. As a result, Energy Trust can offer efficiency strategies for both gas and electric equipment systems for customers that use either or both energy sources.

INCENTIVES & CUSTOMER SUPPORT

With an integrated platform of incentives and educational opportunities, Energy Trust of Oregon offers a comprehensive set of resources to help participants achieve their energy reduction goals.

In addition to offering financial incentives for electricity savings, gas savings, key milestone achievements, and intern support, the SEM program also provides free educational resources. Publicly available resources include employee engagement presentations and handouts, a Commercial SEM Guide, and a Tool Lending Library for short-term energy troubleshooting and data collection.⁵ Participants also receive personal energy expertise through several avenues, detailed below. These avenues focus on making participants self-sufficient and on developing an accountability structure for prioritizing energy management.

"We've been able to put together a business case to demonstrate savings. We have a lot of tools now that we didn't have before, and we've seen a difference financially."⁵

*– Matt Uchtman, Director of Operations,
Oregon Convention Center*

Workshops. Energy Trust organizes a set of workshops each year for participants to attend and learn about SEM from energy experts.

- ✔ At workshops, participants can consult their energy coaches and network and engage with their peers to learn about best practices. The Energy Trust team works with participants each year to design and facilitate workshops with content of interest to participants. The Energy Trust team also often helps connect participants with one another to work through a new energy strategy or learn from others who have mastered the strategy and are willing to share their experiences.
- ✔ The set of first-year workshops typically covers the following topics after a Kickoff Event: Organization Fundamentals; Energy Tracking and Performance Monitoring; Waste and Opportunities; Engagement; and Sustaining Strategic Energy Management. The completion of the series is then marked with a Recognition Event.

³ Oregon Department of Energy (2020), [Public Purpose Charge](#)

⁴ Energy Trust of Oregon (2020), [Strategic Energy Management](#)

⁵ Energy Trust of Oregon (2020), [Strategic Energy Management](#)

Energy coaches. Energy coaches aid participants step-by-step through the SEM Program, using a hands-on approach that encourages accountability in following through on program goals. Some participants have reported that they consider energy coaches to be the best part of the program. The close relationship with the energy coaches allows participants to give direct and immediate feedback on what is or isn't working in the program, which energy coaches then relay to SEM Program administrators to help the program continually improve. The coaches are subcontractors of the Program Management contractor, ICF, and include energy experts from Stillwater Energy, Strategic Energy Group, Alternative Energy Systems Consulting, Inc. (AESC), and CLEAResult. Energy coaches provide the following services:

- ✔ Conduct a facility walkthrough with a program participant to inform the development of a list of identified efficiency opportunities. Energy coaches also show participants how to identify energy waste to enable them to find and address issues independently in the future.
- ✔ Conduct an energy management assessment with the participant to identify current energy management practices and inform focus areas for the upcoming year's action plan.
- ✔ Work with participants to incorporate their organization's individual sustainability goals, e.g., for emissions reductions or water savings, into their overall energy reduction goals and develop appropriate key performance indicators to quantify the participants' vision of success.
- ✔ Develop energy models for participants to assess performance and make projections about future progress.
- ✔ Provide presentations and other communications materials that illustrate and simplify the status of a participant's progress and benefits from participation. These materials help garner senior-level buy-in at a participant's organization to gain further support for additional energy efficiency measures. Clear communication of actions taken by participants and related outcomes helps program retention.

"The hands-on approach [in the program] has been a great key to success and it's what makes the program unique."

-Kathleen Belkhat, Program Manager-Commercial, Energy Performance Management, Energy

Energy champion calls. The program facilitates monthly energy champion calls with all current participants to allow them to ask questions about challenges they are facing and to share best practices. Participants on the calls also report on energy performance progress, which promotes accountability by encouraging participants to regularly track their performance. After energy champion calls, participants have reported feeling reinvigorated to stay on track toward their energy goals and/or try new tactics. The calls and the workshops provide a platform for networking as well: some participants follow up with one another individually and ask for more guidance or offer assistance from drafting job descriptions or creating occupant engagement strategies, to developing standard operating procedures and energy policies.

At the end of each year of program participation – including 12 months of energy performance measurements – customers receive incentives per incremental kWh and therm of annual savings achieved against their baseline. The customer's energy consumption baseline is recalibrated when major changes occur, or else after five years.

LOOKING FORWARD

Continued energy improvement with demonstrated results keeps participants coming back for more.

There are currently 78 customers with a total of 470 buildings⁶ enrolled in the SEM Program, and the Energy Trust aims to continue to increase participation. Customer participation ranges from a single year to multiple years, and some join “indefinitely” to continue to strive for better energy management and increased energy savings. In fact, the Energy Trust encourages customers to continue participating as long as they can demonstrate energy and cost savings. Some customers unenroll for a year and then reenroll as needed when large organizational changes or challenges arise. Employees from customer organizations have reported that, when they take new jobs, they bring the lessons learned from participating in the SEM Program and integrate them into the core business practices at their new organizations.

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⁶ Including higher education facilities, K-12 schools, hospitals, offices, prisons, and public service buildings.