

# Commercial SEM Final Report 2018

## Portland Community College

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# PORTLAND COMMUNITY COLLEGE

December 14, 2018

## 1. Participant Summary

Portland Community College, 12000 49<sup>th</sup> Ave, Portland, OR 97219. Year 4.

Portland Community College (PCC), the community college with multiple campuses serving much of the central Portland metro area, completed its fourth year in the SEM program. Currently, PCC has the Rock Creek and Sylvania campuses enrolled. PCC successfully implemented SEM projects, primarily at the Rock Creek campus where the site successfully piloted a summer schedule in Building 2, yielding SEM results, and optimized boiler temperatures in several buildings. Both locations conducted engagement campaigns in 2018 including the EcoChallenge and Panther Print. The Energy Team spanning both campuses considerably expanded its members to include more facilities and maintenance staff. The team expansion occurred around the same time the team onboarded the new Executive Sponsor, Chris Villa, at the start of September. The efforts of the co-Energy Champion, Elaine Cole, and her core team as well as the new Executive Sponsor have been the driving force in broadening the Energy Team and strengthening accountability at both campuses. PCC faced challenges with the level of engagement and consistency in SEM practices between the two campuses, with Sylvania struggling in particular, but with the recent broader engagement of the facilities and maintenance staff at both locations the organization is in a good position to improve this in 2019.

PCC's Rock Creek campus had a special highlight this year as they were recognized by the Japanese government on their progressive solar farm and energy management practices. SEM Coaches partnered with PCC to successfully prepare and present an overview of the SEM program to high-level Japanese government and energy industry leaders.

PCC has been an avid user of the SEM intern assistance. Zachariah Strife served as their intern in 2017 and continued through September of 2018. He was responsible for implementing projects and helping keep the Rock Creek team organized. With his departure, PCC brought on Anna Brown as the intern to complete 2018 and is expected to be an SEM intern into 2019 as well.

## 2. Energy Savings Summary Table

This table includes information related to each enrolled and modeled PCC site. The "Electric/Gas Baseline" is the annual energy consumption during the baseline period in the model. "Modeled Savings" is the total savings for the current program year from the CUSUM; "Net Savings" is the "Modeled Savings" with all capital projects deducted that have been completed since the baseline was established, "Incremental Savings" is the SEM savings claimed and incentivized from the site for the current program year, and "Sum of Total Incentive" is "Incremental Electric/Gas Savings" multiplied by the per kWh/Therm incentive for current SEM Program Year.

Overall PCC achieved 2.8% incremental electric energy savings compared to their baseline annual energy consumption. The energy savings and incentives for each site are detailed in the tables below.

Building Name	Electric				Gas				Sum of Total Incentive (\$)
	Electric Baseline (kWh)	Modeled Savings (kWh)	Net Savings (kWh)	Incremental Savings (kWh)	Gas Baseline (therms)	Modeled Savings (therms)	Net Savings (therms)	Incremental Savings (therms)	
Rock Creek Campus (less Bldg 2 Gas)	6,982,058	898,063	343,660	397,988	92,236	15,632	15,632	0	\$7,959.76
Sylvania Campus	10,923,880	642,699	-480,207	103,519	439,374	-28,167	-64,619	0	\$2,070.38
<b>Total</b>	<b>17,905,938</b>	<b>1,480,762</b>	<b>-136,547</b>	<b>501,507</b>	<b>531,610</b>	<b>-12,535</b>	<b>-48,987</b>	<b>0</b>	<b>\$10,030.14</b>

<b>2018 KPIs</b>	
<b>Milestones Achieved:</b>	
<input checked="" type="checkbox"/> <i>Annual Plan</i>	<input checked="" type="checkbox"/> <i>Occupant Engagement</i>
<input checked="" type="checkbox"/> <i>Performance Tracking</i>	<input checked="" type="checkbox"/> <i>Energy O&amp;M Projects 7 /10 complete</i>
<input checked="" type="checkbox"/> <i>EMA Action Plan (Implement)</i>	<b>\$700 received of \$1,000 Possible</b>
<b>Milestones Incentive Amount:</b>	\$4,700
<b>Total Combined Incentive Amount</b>	\$14,730.14
Percentage of Workshops Attended:	78%
Percentage of Ops Calls Attended:	58%
EMA Total Score:	44%

### 3. Participant Team

*Sylvania Executive Sponsor: Dr. Lisa Avery, Campus President*

*Rock Creek Executive Sponsor (through summer 2018): Sandra Fowler Hale, Campus President*

*Rock Creek Executive Sponsor (after summer 2018): Dr. Chris Villa, Campus President*

*Energy Champion: Laura Ward, Energy Resource Conservation Manager*

*Backup Energy Champion: Elaine Cole, Sustainability Coordinator*

*Team Member (departed mid-year): Esther Forbyn, Sustainability Analyst*

*Team Member: Briar Schoon, Sustainability Manager*

*Team Member: Tony Ichsan, District Director, Facilities and Management Services*

*Team Member: Mitch Kilgore, Rock Creek, Maintenance Manager*

*Team Member: Joe Gamble, Maintenance Manager, Sylvania*

*Team Member: Brad Ortman, Operations Manager, District*

*Team Member: Sean Scorby, HVAC Technician, Sylvania and multiple locations*

*Team Member: Doug Jay, HVAC Technician, Rock Creek and Willow Creek*

*SEM Intern (through September 2018): Zachariah Strife*

*SEM Intern (starting October 2018): Anna Brown*

*PCC is navigating the balance between a district Energy Team and a campus-specific Energy Team. The onboarding of the Executive Sponsor has re-energized the Energy Team and brought back SEM focus for PCC. With Laura Ward expecting to retire next year and her limited bandwidth, it is not certain she will continue to be the Energy Champion for 2019 as originally planned; however, it will be important to have an Energy Champion represented from the Sylvania campus. Elaine Cole is expected to be the Energy Champion for Rock Creek. Coaches recommend having Tony Ichsan, the District Facilities Director, and Briar Schoon, the District Sustainability Manager, play a key role on the team next year to elevate the success of operations and maintenance projects for SEM. Elaine served as a model Energy Champion*

*this year, working closely with the Energy Team, SEM Coaches, and the new Executive Sponsor at Rock Creek, and led efforts to engage Facilities to better incorporate SEM at PCC. Although the core team has been in place since early in the year, with the influx of new facilities members the team is "storming" as members understand their roles, by campus, and how to collectively drive at SEM savings.*

*Phases reference Tuckman's stages of growth development. Forming-storming-norming-performing model of group development proposes that each phase is necessary and inevitable in order for the team to grow, face challenges, tackle problems, find solutions, plan work and deliver results.*

<input type="checkbox"/> Forming	<input checked="" type="checkbox"/> Storming	<input type="checkbox"/> Norming	<input type="checkbox"/> Performing	<input type="checkbox"/> Transforming
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## 4. Program Highlights

*PCC has been active in both implementing technical projects and organizational projects while also re-engaging its Energy Team.*

*Organizational projects completed include:*

- Broadened Energy Team members and SEM meetings to include facilities and maintenance staff at both locations.*
- Established quarterly meetings for the SEM team at both locations.*
- Planned and presented SEM and PCC accomplishments to Japanese energy, government, and industry leaders at Rock Creek.*
- Worked with top management to conduct transition planning for SEM team leadership at both locations.*
- Planned and executed the transition and onboarding of the Rock Creek Executive Sponsor.*
- Participated in the Eco-Challenge at both locations.*
- Developed and rolled out Panther Print to reduce energy and printing at both locations.*

*Technical projects completed include:*

- Building 2 summer strategic HVAC scheduling pilot at Rock Creek.*
- Replaced Rock Creek central plant boilers with high efficiency boilers.*
- Replaced aged and leaking Victaulic fittings so the hot water hydronic system can be turned off in the summer at Rock Creek.*
- Shut off hot water valves to HVAC in shops when high bay roll up doors are open at Rock Creek.*
- Computer shut-down initiative with IT at Rock Creek and Sylvania.*

## 5. Plans for Future Success

*PCC is expected to re-enroll in the program in 2019. SEM coaches expect that the site will continue to solidify its Energy Team after the efforts to gain support in 2019. The result will be a team that can more effectively implement energy management projects. Coaches are also working with the site to develop a 2019 Annual Plan for prioritizing projects. Lastly, the site is expected to include an SEM Intern, Anna Brown, as part of their efforts in the new year.*