

SEM 1 P\_1116576

# COMMERCIAL STRATEGIC ENERGY MANAGEMENT GRANT AGREEMENT

This AGREEMENT is made this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, by and between PUGET SOUND ENERGY ("PSE") and CITY OF REDMOND ("Participant").

#### RECITALS

- A. Under PSE's Electric Schedule 253 and Gas Schedule 253, as currently in effect and on file with the Washington Utilities and Transportation Commission (collectively, "Tariffs"), PSE offers grants for electricity and natural gas Strategic Energy Management measures installed or implemented at facilities that receive electric or natural gas service from PSE.
- B. Participant intends to install or implement Strategic Energy Management measures and is requesting a grant from PSE under its filed Electric Schedule 253 and/or Gas Schedule 253 tariffs.

#### AGREEMENTS

PSE and Participant agree as follows:

- PREMISE/METER LOCATION ADDRESS: <u>8701 160TH AVE NE, REDMOND WA 98052 -CITY OF REDMOND, COMMERCIAL STRATEGIC ENERGY MANAGEMENT START UP</u> (Please note: meter/premise address may differ from the site mailing address, full project site list can be found on Attachment B). Participant will install or implement the Strategic Energy Management conservation measures listed in paragraph 2 ("Conservation Measures") at the above located facility and other facilities identified in Attachment B – List of Facilities (the "Premises"). Participant represents either (a) that it is the owner or otherwise has the lawful authority to make the statements herein on behalf of the owner of the Premises, or (b) that it is the lawful tenant of the Premises and that it has obtained written authorization from the owner of the Premises.
- 2. Strategic Energy Management Services. Participant represents that it will purchase equipment or materials or has entered or will enter into an agreement with one or more contractors (the "Contractor") for the purchase and installation or implementation at the Premises of the Conservation Measures which may be detailed in *Attachment C: Attachment to Conservation Grant*, at the following costs:

	Conservation Measures	Measure Life	Total Cost	Eligible Grant
1.	CSEM - Start Up Incentive - Year 1	3	\$5,000.00	\$5,000.00
2.	CSEM - Performance Incentive - Year 1	3	\$22,000.00	\$15,400.00
3.	CSEM - Target Incentive - Year 1	3	\$3,000.00	\$3,000.00
4.	CSEM - Training Allowance - Year 1	3	\$600.00	\$600.00
5.	CSEM - Performance Incentive - Year 2	3	\$24,000.00	\$16,800.00



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6.	CSEM - Target Incentive - Year 2	3	\$6,000.00	\$6,000.00
7.	CSEM - Training Allowance - Year 2		\$600.00	\$600.00
8.	CSEM - Performance Incentive - Year 3	3	\$24,000.00	\$16,800.00
9.	CSEM - Target Incentive - Year 3	3	\$6,000.00	\$6,000.00
10.	CSEM - Training Allowance - Year 3	3	\$600.00	\$600.00
	TOTAL (includes sales tax)		\$91,800.00	\$70,800.00

- 3. Grant. Upon the execution by both parties and PSE's receipt of this Conservation Grant Agreement within <u>90 days</u> of the agreement date, PSE agrees to grant the Participant, after installation or implementation by Participant of the Strategic Energy Management services, an amount equal to the Eligible Conservation Grant ("the Grant") set forth in *Attachment A Scope of Work*. The parties agree that the Conservation Measures must be installed and the Grant paid within <u>36 months</u> of the signing of this Conservation Grant Agreement. Participant shall be responsible for paying any amount in excess of the amount of the Grant.
- 4. Separate Contract. The purchase and implementation of the Strategic Energy Management Services shall be pursuant to a separate contract between Participant and SEM Energy Manager. Participant acknowledges and agrees that PSE is not, and shall not be deemed to be, a party to any purchase, installation, or implementation contract. All obligations to any SEM Energy Manager pursuant to any such contract shall be Participant's responsibility. Participant expressly acknowledges that PSE's involvement with respect to any aspect of the Strategic Energy Management Services is limited to the furnishing of the Grant. PSE HAS NOT MADE AND DOES NOT MAKE (AND PARTICIPANT ACKNOWLEDGES THAT PSE DOES NOT MAKE) ANY IMPLIED OR EXPRESS WARRANTY (INCLUDING BUT NOT LIMITED TO ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS) REPRESENTATION, OR PROMISE WITH RESPECT TO EITHER (A) THE STRATEGIC ENERGY MANAGEMENT SERVICES, (B) ANY MATERIALS AND LABOR REQUIRED FOR OR USED IN THE IMPLEMENTATION OF THE STRATEGIC ENERGY MANAGEMENT SERVICES, OR (C) THE INSTALLATION OR IMPLEMENTATION OF THE STRATEGIC ENERGY MANAGEMENT SERVICES.
- 5. Final Cost Documentation, Access & Inspection: Participant agrees to promptly provide PSE, upon request, and for a period no shorter than the longest applicable measure life: (1) documentation verifying equipment purchased and/or work performed in connection with the Conservation Measures installed; (2) reasonable access to and inspection of the Facility and Conservation Measures installed therein before, during and/or after implementation; and (3) reasonable access to, inspection and use of energy usage data related to the Conservation Measures including release of utility bills and Facility energy consumption information following implementation.
- 6. **Release.** Participant releases PSE from any and all claims, losses, harm, costs, liabilities, damages and expenses directly or indirectly resulting from or in connection with (a) the Strategic Energy Management Services, (b) any materials and labor required for or used in the installation or implementation of the Strategic Energy Management Services, (c) the implementation of the Strategic Energy Management Services, or (d) the identification, handling and disposal of any associated hazardous waste materials.
- 7. Disclaimer. PSE conducts energy analyses at the request of its customers to determine the extent to which Strategic Energy Management measures are cost-effective. Any estimate of energy savings made by PSE in connection with any such analyses is solely for the purpose of determining the cost-effectiveness of the particular Strategic Energy Management measures and not to be used for any other purpose. PSE has not and does not make any promise, warranty or representation with respect to any savings in energy consumption from Strategic Energy Management Services.



Conservation Program: Agreement No.: Project No.:

- 8. Termination. In the event a Participant's contribution to PSE's recovery of energy efficiency program costs is affected by all or a portion of Participant's electric and/or gas delivery service being provided by a party other than PSE, then Participant shall refund to PSE an amount equal to the ratio of the unused Measure Life of the measure(s) to the total Measure Life of such Strategic Energy Management Services multiplied by the dollar amount of the Grant with respect to such Strategic Energy Management Services. The Strategic Energy Management Grant agreement may be reviewed annually to determine the cost-effectiveness and assess continuance. Either party may terminate this agreement with 30 days notice to the other parties.
- 9. **Incorporation of tariffs by reference**. This Agreement along with *Attachment A: Scope of Work* and *Attachment B: List of Facilities* are subject to the terms of the filed Electric Schedules 83 and Gas Schedules 183 tariffs, which are incorporated herein by this reference. Specific terms and conditions from one or more conservation schedules from similar filed tariffs may also apply, as determined by PSE at its sole discretion, based on various criteria. A complete list of conservation schedules is available at:

http://pse.com/aboutpse/Rates/Pages/Electric-Rate-Schedules.aspx?Schedule x0020 Type=Conservation.

10. Entire Agreement. This Agreement sets forth the entire agreement between the parties and supersedes any and all prior agreements with respect to the Strategic Energy Management Services identified herein. No change, amendment or modification of any provision of this Agreement shall be valid unless set forth in a written amendment to this Agreement signed by both parties.

# PUGET SOUND ENERGY

#### **PARTICIPANT** CITY OF REDMOND

By:	By:
Name:	Print Name:
Title:	Title:

Federal Tax I.D. No.:

### **Startup Project Intent**

PARTICIPANT agrees to establish and maintain a Strategic Energy Management (SEM) program which will provide leadership for efficient management of all utility resources used in their organization which may include electricity, natural gas, water, wastewater, refuse, and recycling. The SEM program will focus on the development and implementation of a Resource Management Plan (RMP) to achieve savings by coordinating efficient operations and quality maintenance with low-cost actions and behavior changes by the users at the facilities. The SEM program will use resource accounting software to allow trained staff to monitor resource use and to report on savings.

#### Incentives

Table 1 provides a list of SEM incentives to support PARTICIPANT. Tasks and deliverables associated with the successful completion and payment of incentives are described for each measure in the "Incentive Requirements" section of the Scope of Work. The expectation of this contract is that the SEM program will exist for a minimum of three-years from signing date. Contract renewals may be evaluated after the initial three-year period.

	Measure	Term	Electric Measure Cost	Electric Grant Amount	Gas Measure Cost	Gas Grant Amount
1.	CSEM - Start Up Incentive - Year 1	1 Year	\$4,333.00	\$4,333.00	\$667.00	\$667.00
2.	CSEM - Performance Incentive - Year 1	1 Year	\$19,067.00	\$13,347.00	\$2,933.00	\$2 <i>,</i> 053.00
3.	CSEM - Target Incentive - Year 1	1 Year	\$2,600.00	\$2,600.00	\$400.00	\$400.00
4.	CSEM - Training Allowance - Year 1	1 Year	\$520.00	\$520.00	\$80.00	\$80.00
5.	CSEM - Performance Incentive - Year 2	1 Year	\$20,800.00	\$14,560.00	\$3,200.00	\$2,240.00
6.	CSEM - Target Incentive - Year 2	1 Year	\$5,200.00	\$5,200.00	\$800.00	\$800.00
7.	CSEM - Training Allowance - Year 2	1 Year	\$520.00	\$520.00	\$80.00	\$80.00
8.	CSEM - Performance Incentive - Year 3	1 Year	\$20,800.00	\$14,560.00	\$3,200.00	\$2,240.00
9.	CSEM - Target Incentive - Year 3	1 Year	\$5,200.00	\$5,200.00	\$800.00	\$800.00
10.	D. CSEM - Training Allowance - Year 3 1 Yea		\$520.00	\$520.00	\$80.00	\$80.00
	·	TOTALS	\$79,560.00	\$61,360.00	\$12,240.00	\$9,440.00

#### Table 1: SEM Incentives – Project # P\_1116576

<u>Notes</u>

- Performance Incentive grant amount is variable based on PARTICIPANT performance, with a maximum grant amount of up to the amount listed in the table. Refer to "Incentives" section for variable incentive details.
- Target Incentive will only be provided if PARTICIPANT meets performance target.
- Incentives are based on baseline period consumption.

PSE will provide incentives on an annual basis in accordance with Table 1. In order to receive the *incentive, PARTICIPANT shall provide all deliverables required in "Participant Requirements"*. The incentives will be as follows:

1. <u>Start-Up Incentive</u> – The start-up incentive is provided only in the first year, following delivery of the Resource Management Plan, at least one Facility Action Plan (or Portfolio Action Matrix), and at least one quarter of Site Quarterly Checklists, as described in the

Participant Requirements, below. The start-up incentive may be requested after 6 months of program participation upon delivery of the above-stated documents.

- <u>Performance Incentives</u> The performance incentive is equal to \$0.02/kWh and \$0.15/therm of "SEM Savings" up to the PSE-defined performance target. If a participant exceeds the target with "SEM Savings" the performance incentive increases to \$0.035/kWh and \$0.25/therm for each additional unit of energy savings over the target. The total performance incentive is capped at 70% of the measure cost (see Table 1 for measure costs).
- 3. <u>Target Incentive</u> The PARTICIPANT must meet or exceed the performance target with their "Total Savings" in order to qualify for the target incentive. The target incentive is lower in the first year because the start-up incentive provides some of the funding. The target incentive increases in the second and third year.
- 4. <u>Training Allowance</u> The total incentive payment will be based on actual training and/or software costs and will not exceed the training allowance. Incentive payments can only be made once per program year.

## **Additional Services**

In addition to the incentives listed, PSE will also provide services to PARTICIPANT. The services will include the following:

- <u>Access to Energy Data</u> PSE will maintain software providing PARTICIPANT with access to consumption and cost data. PSE will provide 15-minute electric data and hourly gas data for all viable meters associated with participating sites, identified in Attachment B.
- 2. <u>Training</u> PSE will host a variety of trainings throughout the contract period in order to educate the SEM participants on best practices.
- 3. <u>Three for Free Audits</u> PSE will perform a building walkthrough for up to three PARTICIPANT facilities at no cost to PARTICIPANT. The buildings must be listed in Attachment B.

## **Participant Requirements**

By participating in the SEM program, the PARTICIPANT agrees to the following:

1. <u>Assign an Energy Manager</u> – PARTICIPANT must delegate SEM activities to at least one person. For the this agreement, the delegation is expected to be as follows:

Name	ame Position	
Jenny Lybeck	Environmental Sustainability Program Manager	CSEM Duties

#### Table 2: Staffing Breakdown

- 2. <u>Complete and Implement a Resource Management Plan (RMP)</u> PARTICIPANT must complete, implement, and submit a RMP within the first year of the contract. The RMP provides an organizational guideline for effective and efficient management of all utility resources including electricity, natural gas, water, wastewater, refuse, and recycling. At a minimum, the RMP must address HVAC operating schedules, temperature setpoints, and lighting. A template is provided for a RMP in Attachment C.
- 3. <u>Complete Facility Action Plans (FAPs) or Portfolio Action Matrix (PAM)</u> PARTICIPANT must complete and submit FAPs or a PAM for the buildings identified in Attachment B within the first year of the contract. The FAPs or PAM outline specific action items to be implemented that will reduce resource use in each facility. These items are identified through building walk-through audits and interviews with staff and occupants.

- 4. <u>Complete Quarterly Reporting</u> PARTICIPANT must complete and submit Quarterly Reporting for the buildings identified in Attachment B. The reports must note any significant action that impacted energy usage including:
  - a. Capital projects
  - b. O&M changes
  - c. Behavioral campaigns
  - d. Changes in occupied hours
  - e. Changes in occupancy
  - f. Changes in site square footage

A sample checklist is provided in Attachment D.

- 5. <u>Introductory SEM Coursework</u> The Energy Manager must complete the free, Introductory SEM Coursework provided by PSE. This is a series of online trainings intended to provide a foundation for what Strategic Energy Management is, and where to begin.
- 6. <u>Host an Annual SEM Meeting</u> PARTICIPANT must host an annual meeting with PSE, dedicated SEM staff, and top management to review the program. At the time of the agreement, the following people are expected to attend the meeting:

### Table 3: Top Management

Name	Position	Responsibilities
Lee Ann Skipton	Facility Manager, Parks &	CSEM Oversight
	Recreation Dept	

PARTICIPANT must submit the RMP, the FAPs or PAM, and host an annual meeting within <u>one year of</u> <u>the first performance period start date 10/01/2020</u>. PARTICIPANT will be given a 60 day grace period to submit the deliverables or within a time period determined by PSE. If PARTICIPANT does not provide the deliverables, PSE may terminate the contract and all services.

The following table provides the delivery dates and requirements to participate in the SEM program:

#### Table 4: Deliverable Requirements

Time	Due Date <sup>1</sup>	Deliverable Requirement
Year 1, Quarter 1	12/31/2020	Quarterly Report
Year 1, Quarter 2	03/31/2021	Quarterly Report
Year 1, Quarter 3	06/30/2021	Quarterly Report
Year 1, Quarter 4	09/30/2021	Quarterly Report, FAPs, RMP, Annual Meeting
Year 2, Quarter 1	12/31/2021	Quarterly Report
Year 2, Quarter 2	03/31/2022	Quarterly Report
Year 2, Quarter 3	06/30/2022	Quarterly Report
Year 2, Quarter 4	09/30/2022	Quarterly Report, FAPs, RMP, Annual Meeting
Year 3, Quarter 1	12/31/2022	Quarterly Report
Year 3, Quarter 2	03/31/2023	Quarterly Report
Year 3, Quarter 3	06/30/2023	Quarterly Report
Year 3, Quarter 4	09/30/2023	Quarterly Report, FAPs, RMP, Annual Meeting

<sup>1</sup>PARTICIPANT has up to 60 calendar days from the due date to submit the deliverable requirement or within a time period determined by PSE. If PARTICIPANT does not provide the deliverables, PSE may terminate the contract and all services.

<sup>2</sup>FAPs or PAM and RMP only need to be resubmitted in Years 2 and 3 if there are changes.

#### Training

PSE encourages PARTICIPANT to use the training allowance each year provided in Table 1. Each training allowance will expire if it is not used within the designated year. The person attending the training must be listed as a SEM resource in Table 2 or be approved by PSE. The training allowance is to be provided for SEM-related training courses, which include the following:

- 1. Building Operator Certification (BOC) training
- 2. Association of Energy Engineers (AEE) training
- 3. American Society of Heating, Refrigeration, and Air Conditioning Engineers (ASHRAE) training
- 4. PSE-approved courses

The training allowance can also be used to offset the cost of energy management software used by the Energy Manager to track energy consumption/costs across the portfolio.

To receive reimbursement up to the allotted amount, PARTICIPANT must submit evidence of payment for the training course (such as an invoice from the training organization) or software and evidence that the course has been completed (such as a transcript). PSE will determine if the information presented is sufficient for payment, and will reimburse to the customer as listed in the Grant Agreement. It is not possible to reimburse individuals. PARTICIPANT must submit for reimbursement within 60 days of completing the course or within a time period determined by PSE.

### **Building Requirements**

In order for a building to be included in PARTICIPANT's portfolio, it must have the following requirements or be approved by PSE:

- 1. <u>Minimum Data</u> The building must have a minimum of 24 months of consecutive PSE utility data. In addition, PARTICIPANT must have occupied the building for a minimum of 12 months.
- 2. <u>Minimum Meter Resolution</u> The meter associated with a building cannot serve more than three unique facility types (defined by operating hours and use) unless submetering data is provided by PARTICIPANT on an annual basis. For example, a campus gas meter for a steam plant that serves four different building types cannot be included in PARTICIPANT's portfolio if submetering is not provided. In this case, the gas usage associated with the campus gas meter would be excluded.
- Predictability The building utility consumption must be predictable based on independent variables as determined by PSE. The variables may include weather, occupancy hours, production units, etc. PARTICIPANT must provide the independent variable data per the required resolution (monthly, daily, etc) to PSE on an annual basis as outlined in Attachment B.

#### **Performance Targets**

The baseline period for this grant agreement is <u>March-19 through February-20</u>. Based on the total facility portfolio listed in Attachment B, the consumption of PSE supplied energy during the base period was <u>5,102,444 kWh</u> and <u>105,294 therms</u>. This equates to incentives and resource needs based on a <u>26</u>% personnel level for electricity and a <u>4</u>% personnel level for natural gas per PSE defined funding levels based on consumption (20,000,000 kWh for electricity, 2,700,000 therms for natural gas).

The start-up incentive will have a target reduction of 3 percent and each performance incentive will have a target reduction of 5 percent. The following table presents the targets for the three years:

#### **Table 5: Savings Targets**

Dorformance Doried	Data Banga	Savings Target		
Performance Period	Date Range	kWh	Therms	
Year 1 Performance	10/01/2020 to 09/30/2021	153,073	3,159	
Year 2 Performance	10/01/2021 to 09/30/2022	255,122	5,265	
Year 3 Performance	10/01/2022 to 09/30/2023	255,122	5,265	
	Total	663,317	13,689	

The targets will remain the same over the course of the three year agreement. This applies even if a participant chooses to add or subtract buildings from their portfolio over the course of the agreement.

#### **PSE Savings Calculations**

PSE will calculate the savings of the performance period against the baseline period on an annual basis for PARTICIPANT. The baseline period consumption will be adjusted based on the independent variables that impact consumption, which may include weather, occupancy hours, production units, etc. PSE has identified the likely independent variables in Attachment B, but reserves the right to change the independent variables used.

PARTICIPANT shall submit any information that would support adjustments to the baseline. This may include changes to the building area, changes in occupancy, significant addition of plug loads (Greater than 1% of annual consumption), etc.

PSE will quantify two types of savings for the incentive. The first calculation will be known as "Total Savings" and includes all savings associated with SEM activities and PSE-incentivized projects. The second calculation will be known as "SEM Savings" and is equal to the "Total Savings" minus savings associated with other PSE-incentivized projects.

# ATTACHMENT B - LIST OF FACILITIES

(See completed "Attachment B – List of Facilities" at the end of this document)

#	Site	Building Area (ft2)	Variables	Baseline kWh <sup>1</sup>	Therms <sup>1</sup>	SQC Required?
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		-FHI	<u>s Do</u>	RUH	MENT	<u>۲</u>
	01					
			Total			

<sup>1</sup>Annual consumption based on prorated billing data for 12 consecutive months concluding with the Baseline Period End Date. Baseline consumption may change or be adjusted by PSE when savings analysis is performed each year.

# ATTACHMENT C - RESOURCE MANAGEMENT PLAN (RMP) TEMPLATE

In support of PARTICIPANT, the following guidelines are set forth to establish general operating standards for energy and resource consumption in occupied buildings. Adherence to these standards will reduce utility expenditures, optimize indoor environmental conditions, and minimize environmental damage through reduced greenhouse gas emissions.

#### Heat & Ventilation

#### **Allowances & Responsibilities**

Building Occupants	Adjust occupied space temperature by 3 degrees
	<ul> <li>Use push-button overrides for pre-authorized after-hour use</li> </ul>
	<ul> <li>Keep materials away from/off of HVAC vents</li> </ul>
Maintenance &	Setup and maintain HVAC schedules including holidays and events
Operations	<ul> <li>May modify occupied space temperature by 3 degrees for spaces</li> </ul>
	without DDC controls

## **Operating Schedules**

Heating systems should be operated in the most economical and efficient way possible; i.e. they should operate for the minimum amount of time required to provide the approved climate for a specific area and activity.

- Start times shall be set to achieve occupied temperatures no earlier than 7:00 AM, unless standard operating hours precede this time. For building control systems which have intelligence that determines when to start heating to bring a space to its set temperature by the "occupied time", i.e. OPTIMUM function, the ON time for these systems will be no earlier than 15 minutes prior to 7:00 AM or standard occupied time.
- Exhaust fans shall be locked out during WARM-UP periods.
- Systems shall shut OFF, or change into UNOCCUPIED mode, at 6pm.
- Heat and ventilation may continue to reception areas until the posted office close time.
- All systems shall remain in UNOCCUPIED mode during non-scheduled work hours. EXCEPTION: Exhaust fans in critical areas as identified by OSHA or other regulatory/safety agencies are to remain on as required by code.
- Variations from the set schedule will be made via Holiday and Event Schedules, or for staff, use of push-button override controls when authorized (see After-Hour Use below)
- HVAC in storage buildings shall be setup to cycle fans to maintain unoccupied temperatures.
- Crawl space and/or tunnel ventilation shall be scheduled to run twice daily for an hour (or as required to meet applicable codes).
- If the building has an energy management control system (EMCS) a holiday schedule shall be set at the beginning of the year for all holidays and non-work days. The EMCS will order "ALL OFF" for these days.

## After-Hour Use of Buildings

"After-hour" means any time before and after regularly scheduled office/shift hours.

- System override buttons shall be programmed for one-hour increments.
- Non-work hour HVAC operation shall be authorized via the site manager.
- Groups who use our facilities after-hours shall review and sign an "After-Hour Use Agreement" that outlines their responsibility for energy and water consumption and solid waste.
- Building managers should make efforts to group after-hour activities into a specific HVAC zones such that minimal system energy is required.
- Full building systems should not be activated if only one or two staff persons are in a building.

# ATTACHMENT C - RESOURCE MANAGEMENT PLAN (RMP) TEMPLATE

#### **Temperature Settings**

Area	Occupied	Set Points	<b>Unoccupied Set Points</b>		
Area	Heating	Cooling <sup>[1]</sup>	Heating	Cooling <sup>[1]</sup>	
Offices	69	74	55	85	
Meeting Rooms & Libraries	69	74	55	85	
Staff Lounges & Cafeterias	69	74	55	85	
Locker Rooms	69	74	55	85	
Work & Copy Rooms	67	74	55	85	
Computer Labs	67	73	55	77	
Shops & Industrial Arts	67	75	55	85	
Gyms	67	73	55	85	
Kitchens	65	74	55	85	
Restrooms	65	75	55	85	
Hallways & Common Areas	65	75	55	85	
Storage Rooms	62	78	55	85	

[1] For buildings with mechanical cooling. Buildings without mechanical cooling see special notes below.

- Each space will be allowed a three-degree programmed temperature deviation controllable at the local thermostat.
- The difference between heating and cooling set points shall be set no smaller than 4 degrees.
- Space heaters may only be used when authorized by Building Maintenance.
- Use of personal thermometers and humidistat are discouraged due to their high level of inaccuracy. Temperature and humidity should be measured with approved instruments.
- In the event of a cold weather, building maintenance will be responsible for ensuring that freeze-protection set points are reasonable and are returned to standard set points once the danger of sustained freezing temperatures has passed.
- Staff should implement "Hot Tips for Staying Cool" in the fall and spring to improve comfort and avoid interior building heat gain.
- Some variations to the above set points may be allowed based on the special considerations listed below or with authorization from maintenance.

#### Special Considerations for Specific HVAC Systems

- Optimum start/morning warm-up controls shall be enabled.
- Economizer cooling shall be enabled with the lockout set to 70° F outside air temperature.
- Occupancy sensor control of HV shall be enabled (if available).
- For most building areas, heating offset will be set to 1; cooling offset will be set to 5.
- For hallways; heating offset will be 5, cooling offset will be 6.
- In areas where a single sensor or thermostat serves multiple spaces, it may be necessary to deviate from recommended set point levels in order to provide a reasonable level of comfort throughout all areas served.

#### Heat Pump Systems

- Boilers shall be locked out during morning warm-up cycle when outside air temperatures are above the balance point.
- All backup resistance heat shall be disabled wherever building runtime has verified it is not necessary to provide comfort or protect building or mechanical systems.

#### Spaces without Mechanical Cooling

# ATTACHMENT C – RESOURCE MANAGEMENT PLAN (RMP) TEMPLATE

- Cooling set points as low as 70° F will be allowed with an economizer cycle enabled as described above.
- Unoccupied cooling set points shall be set to 85°F.
- Morning cool-down cycles shall be implemented to pre-cool buildings during hot weather.

### Stand-alone Thermostats

- Shall be programmed with the same schedules and temperatures as noted above.
- During occupied hours the fan shall be programmed to run in ON mode.
- During non-work hours, the fan shall be set to run in OFF or AUTO mode with a setback.
- The thermostat should be kept in the RUN PROGRAM mode at all times except during holidays to facilitate full shutdown.
- If the system is not capable of programmed holidays, it should be placed in the OFF position and/or setback to 55°F during holidays.
- Thermostat programs and battery backups should be checked a minimum of two times yearly. It is recommended that this be done at daylight savings time change.

### **General Building Operation**

- Staff should keep exterior doors and windows closed when mechanical ventilation is on.
- Exterior doors should not be propped open.
- Staff members are responsible for closing their blinds at the end of the day.

### Interior Lighting

- Daylight shall be used whenever available; natural daylight provides free lighting and free heating and has been shown to increase employee morale and productivity.
- All staff is responsible for ensuring that lights in unoccupied spaces are turned off. It is always cost effective to turn lights off no matter how long you will be away.
- Hallway and common area lighting shall be turned off no later than 30 minutes after typically office hours end. For after-hour activities, half-lighting will be permitted in these areas.
- HID (High Intensity Discharge) lights that require warm-up periods may remain on when the area will be re-occupied within 30 minutes. HID lights should be turned off, or half-off, during longer periods of vacancy.
- Staff working in large rooms should take steps to light only the area they are working in (if possible).
- Nighttime janitorial staff should light only the specific area in which they are working.

#### Exterior Lighting

- All exterior lights are expected to be off during daylight.
- In the morning, lights shall turn on no earlier than 30 minutes before standard building hours.
- In the evening, lights shall turn off no later than 30 minutes after the building is secured for the evening.
- For buildings with multi-zone exterior lighting control, lights should be scheduled on only in areas where needed.
- On weekends, exterior lighting will be allowed for authorized work or events; otherwise building and parking lot lights should remain off.
- Schedules for exterior lighting will be reviewed a minimum of twice each year (at daylight savings time).

#### Plug Loads

• Electrical equipment (computers, copy machines, printers, coffee pots, radios, etc.) will be turned off at the end of each work day.

# ATTACHMENT C – RESOURCE MANAGEMENT PLAN (RMP) TEMPLATE

- Computer monitors should be turned off when not in use.
- Power management settings on computers shall meet EPA energy star criteria.
- Personal appliances shall not be permitted in offices and other areas that are not designed at staff lounges or kitchens. This includes refrigerators, microwaves, coffee pots, etc. These resources will be provided in break areas. Distribution of personal appliances through out our buildings adds stress to electrical circuits, consumes unnecessary energy, and can be tagged as a fire hazard by local officials.
- Lights will be removed from all vending machines.
- Building refrigerators and freezers will be cleaned out and coils vacuumed twice a year (at daylight savings time).

#### **Building Water**

- Leaks should be reported immediately to building operations staff for investigation and isolation. After operations staff has attempted to isolate the leak, the issue should be reported to maintenance as an emergency work order request.
- Toilets should not be used for trash.
- Faucets should not be left running and unattended.
- Automatic faucets will be set to run no longer than 10 seconds.
- Domestic water temperatures shall not exceed 110 degrees, unless where required by public health.
- Dishwashers should be run with full loads.
- In restrooms, all faucets should be equipped with low flow aerators. These are available from many local water districts. Maintenance staff will be given aerators to install and a backup supply for when they need to get switched out. Aerators should be checked twice a year and replaced as necessary.

#### Irrigation Water

- Irrigation shall start no earlier than dusk and be completed prior to three hours past sunrise.
- Irrigation of lawns and fields will be limited to one inch per week.
- Landscape vegetation will be allowed one-half inch of water per week.
- Native and drought tolerant vegetation shall not be irrigated.
- Irrigation will be turned off when rainfall nears one inch per week. Systems that are equipped with a rain gauge will facilitate this automatically; maintenance shall be responsible for modifying operation of systems without rain gauges.
- Staff should report irrigation system running during the day, standing water or wet pavement when it has not rained, and/or muddy areas to maintenance as an emergency work request.

#### Solid Waste and Recycling

- The Building Manager shall monitor volumes of waste and coordinate changes in dumpster size and frequency of pick-up as necessary
- All staff shall minimize waste and recycle to the greatest extent possible. This includes, but is not limited to, participation in the following county recycling/reuse programs:

#### **Basic Recyclables**

- Our in-house recycling program allows for collection of mixed paper, cardboard, aluminum cans, plastic drink bottles number 1 & 2.
- Collection sites are located through-out facilities and should be clearly labeled.

# ATTACHMENT C - RESOURCE MANAGEMENT PLAN (RMP) TEMPLATE

• If a facility does not have recycling collection, needs new signs stating what may be recycled, or if assistance is needed with the recycling of bulky, large or unusual items, contact (insert name of contact).

#### **Toner Cartridges**

Many office supply companies offer contracts that includes the recycling, at no charge, of all printer and copier cartridges. Contact your local supply company for details.

### **Computers and Electronics**

Computers and electronics can be recycled. To identify a recycler, contact the Take it Back Network-to locate a certified recycler in your area <u>http://www.metrokc.gov/dnrp/swd/takeitback/index.asp</u>. Contractors will recycle a wide range of computer and electronics equipment for a fee.

#### **Batteries**

Rechargeable batteries can be recycled by contacting the Rechargeable Battery Recycling Corporation to receive a free postage-paid battery collection box. This program is for rechargeable batteries only, such as the batteries commonly used in cell phones, pagers and laptops.

### **Office Furnishings**

If you have items that are in relatively good condition (large cabinets or light fixtures, for example), check with the RE Store, a local non-profit used building materials store, to see if they want those items. The RE Store will pick up items if they think they can resell them. For info on how to use this contract, see the King County WasteWise projects page. Scroll down to "Salvaged Building Materials Contract."

### **Office Supplies**

Consider setting up an office supply exchange area for used office supplies such as binders, folders, envelopes, in-boxes and small office equipment.

#### Polystyrene Packing Peanuts

Polystyrene, or Styrofoam<sup>™</sup>, packing peanuts can be collected for reuse and either used in-house or can be recycled at local mail centers.

# ATTACHMENT D – SITE QUARTERLY CHECKLIST (SQC)

# Site Quarterly Checklist

BUILDING INFORMATION							
Building Name:							
Checklist Author:		Date:					
Building Area (ft2):	Annual kWh:		Annual Therms:				
Current EUI (kBTU/ft2):	Last EUI:		Target EUI:				
ENERGY STAR Score:							
Electric Meter:		Gas Meter:					
Notes:							

OCCUPANCY SCHEDULES FOR THE NEXT 3 MONTHS (OR SEE ATTACHMENT)							
Day	Start	Stop	Notes				
Sunday							
Monday							
Tuesday							
Wednesday							
Thursday							
Friday							
Saturday							
Holidays							

BREAKS, HOLIDAYS, AND EVENTS FOR THE NEXT 3 MONTHS (OR SEE ATTACHMENT)						
Туре	Start Date	End Date	Notes			

SYSTEM SETTINGS (OR SEE ATTACHMENT)						
Description	Setting Notes					
HVAC Schedule	1 hour before occupancy, 1 hour after occupancy					
Lighting Schedule	Matches occu	pancy				
Heating Setpoints (°F)		occupied				
Cooling Setpoints (°F)		occupied		unoccupied		

# ATTACHMENT D – SITE QUARTERLY CHECKLIST (SQC)

CHECKLIST							
#	Question	Confirmation Method	Yes	No			
1	Does the HVAC schedule align with system settings?	Look at the controls schedule (if available) for all major HVAC systems. Look at the interval data for a typical week.					
2	Do the HVAC zone setpoints align with system settings?	Look at the control system for typical system setpoints.					
3	Are upcoming holidays, breaks, and events scheduled?	Look at the controls schedule for all major HVAC systems. Look at the interval data for past holidays/events to confirm scheduling is working properly.					
4	Are economizers functioning?	Look at major HVAC systems to confirm that outside air dampers are open above minimum setpoint and mechanical cooling is disabled when outside air temperature is less than the cooling setpoint.					
5	Are all major pieces of equipment operating in automatic mode (rather than manual, hand, off, etc)?	Look at the control system or electrical panels to confirm equipment is operating in automatic mode.					
6	Does your interior lighting schedule match occupancy?	Look at the lighting control system.					
7	Does your exterior lighting match non- daylight hours?	Look at the lighting control system, time clock, or other lighting controls.					
8	How have you engaged with occupants and/or implemented behavioral campaigns?	Consider reminders, posters, stickers, newsletters, websites, meetings, etc.					
9	Have any major changes (occupancy, staffing, production, building area, additional plug loads, etc) occurred at your building?						
10	Have you started, completed, or plan on completing any capital projects? If so, when?						
11	Have there been any changes (positive or negative) in your monthly billing data?	Look at your monthly bill data (adjusted for weather or other variables, if possible) and make comments regarding trends.					
12	Do your system settings align with interval data?	Look at the interval data for a typical week and holidays/events.					

# ATTACHMENT D - SITE QUARTERLY CHECKLIST (SQC)

### NOTES

[Please provide <u>specific</u> information related to checklist items or other energy activities. Examples include "Changed heating setpoint from 70 F to 69 F in West Wing based on system settings on 1/1/2013," "Added new 1,200 ft2 portables added on 9/1/2013," "Changed 30 HP pump operation from HAND to AUTO on 11/1/2013." The description should include the effective date, the baseline condition, and the new condition.]

Checklist# Date		Description
1		
2		
3		
4		

### ATTACHMENTS

[Please include attachments that support the checklist or notes. Examples include HVAC schedule screenshots, HVAC setpoint screenshots, energy interval data screenshots, SEM newsletters, and monthly bill data]

#	Description
1	
2	
3	
4	

## **ATTACHMENT B - LIST OF FACILITIES**

#	Site	Baseline				SQC
	She	Variables	kWh	Therms	SF	Required?
1	Redmond City Hall	HDD, CDD, OH	1,467,125	18,712	107,212	Х
2	Redmond Fire Station 12	HDD, CDD, OH	76,595	4,347	7,050	
3	Redmond Fire Station 13	HDD, CDD, OH	62,859	3,342	7,300	
4	MOC - Trinity Building	HDD, CDD, OH	80,147	3,237	15,500	
5	Fire Station 17	HDD, CDD, OH	213,511	1,998	19,397	Х
6	MOC - Building 1 (PW main admin building)	HDD, CDD, OH	61,667	58	61,398	
7	Fire Station 11	HDD, CDD, OH	185,038	8,974	16,800	Х
8	Maintenance Operations Center - building 5	HDD, CDD, OH	453,973	0	6,800	Х
9	Farrel-McWhirter Park	HDD, CDD, OH	98,520	0	5,800	
10	Perrigo Park	HDD, CDD, OH	230,583	0	3,000	Х
11	Redmond Public Safety Building	HDD, CDD, OH	1,202,473	16,308	24,000	Х
12	Fire Station 14	HDD, CDD, OH	0	5,930	9,500	Х
13	Fire Station 18	HDD, CDD, OH	89,308	4,876	7,714	
14	Maintenance & Operations Center	HDD, CDD, OH	382,908	5,773	6,000	Х
15	Park Operations	HDD, CDD, OH	116,457	13,150	6,500	Х
16	Fire Station 16	HDD, CDD, OH	131,940	8,626	9,852	Х
17	Redmond Community Center	HDD, CDD, OH	249,340	9,962	46,000	Х
		Total	5,102,444	105,294	252,611	

<sup>1</sup> Annual consumption based on prorated billing data for 12 consecutive months concluding with the Baseline Period End Date. Baseline consumption may change or be adjusted by PSE when savings analysis is performed each year.