

2010 Facility Conservation Action Plan

FACILITY Skagit County Sheriff's Office Search & Rescue Building 11525 Knudson Rd, Burlington, WA		SITE ID SC - 57	DATE 8-10-10
CURRENT ENERGY USE INDEX (EUI) 65 kBtu/Sq Ft	TARGET EUI 59 kBtu/Sq Ft	AVERAGE EUI (BENCHMARK) FOR THE FACILITY TYPE: <u>TBD</u>	
NEXT REVIEW OF PLAN Review and update annually.	FACILITY RCM TEAM MEMBERS (NAME AND POSITION) 1. Ric Boge, SCOG RCM 2. Wayne Dowhaniuk, Skagit County Undersheriff		

DATE AND TIME OF WALK THROUGH: 3-16-10

OVERVIEW OF THE SITE VISIT AND OPPORTUNITIES FOR RESOURCE CONSERVATION IN THE FACILITY

The 3985 sq ft facility was constructed in 1992 and last remodeled in 2006. It has unique facility management needs, as it is unoccupied much of the time, periodically used for trainings, and occasionally undergoes intense use 24/7 during emergencies. The following utilities service this facility:

- Electricity service is PSE account # 236-664-279; meter # C079268855; rate 24E-C
- Natural gas service is CNG account # 021-0099-2; meter # 266200; rate 504
- Water service is PUD account # 80456-7; meter # 35833466
- Sewer service is City of Burlington account # 18-02543
- There is no garbage or recycling service to the facility.



Skagit County Sheriff's Office Search and Rescue (SAR) Building

Key Findings based on the Resource Conservation Audit in priority:

1. To best and comprehensively address major inefficiencies with the HVAC systems and the domestic hot water system, include this facility in the County's Energy Savings Performance Contract with the State's GA's Office.
2. Assign a staff person as ongoing Facility Manager to monitor the performance of this facility on a monthly basis and make changes to system settings overtime as needed to maintain efficiency.
3. Once the facility is functioning efficiently, follow recommended policies and set points in the Daily Operations Chapter of the County's recently adopted Climate Action Plan.
4. Retrofit remaining overhead fluorescent T-12 lights with more energy efficient T-8s.
5. Replace fluorescent Exit Signs with energy efficient LED Exit Signs.
6. Add shades to the shade-less west and south facing windows to help maintain desired interior temperatures.

FACILITY CONSERVATION & EFFICIENCY RECOMMENDATIONS

1. Repair/replace/re-synchronize the heating, cooling and hot water systems.



Goodman Gas-Pack provides heating & cooling.



Lennox split system AC provides and heating via air handlers in attic with hot water coil heat.

Funding: Capital Budget

Staff: Sheriff's Facility Manager, County Facility Staff, County's Energy Saving Performance Contractor

Schedule: immediate action

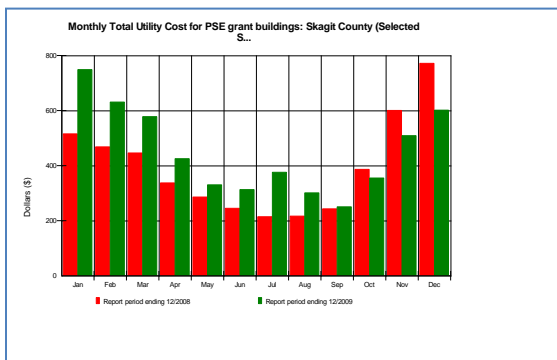
Note:

The systems are not working as intended nor synchronized well with the thermostats. They may need to be replaced. This will not be cheap to fix, but can be done with no cash outlay with an Energy Saving Performance Contract through the State General Administration Office. The County has agreed to work with McKinstry, first for a 'performance grade' audit of several facilities, and then to implement agreed upon projects. The contractor will be paid by a State loan to the County and the loan is paid back from monthly savings on utility costs, primarily energy.



Lennox 'Complete Heat' hot water system is not working.

2. Assign a SO staff person as ongoing SAR Facility Manager to be responsible for the ongoing performance of this facility to save money on monthly utility bills.



Monthly utility costs 2008 (red) & 2009 (green).

Funding: Budget Neutral / Operating Budget

Staff: Designated Sheriff's Office staff person, consulting with County Facility staff as needed.

Schedule: immediate action

Note: This complex, special use facility requires close and ongoing monitoring to save energy and money on monthly utility bills. Since the Sheriff's Office pays the utility bills, the Sheriff's Office should take on a more active role monitoring and maintaining facility equipment performance at the site. County Facility personnel should be consulted as problems arise and to help determine the need for contracted assistance.

3. Follow recommended set points in Chapter 4: Policies for Daily Operations in the County's recently adopted Climate Action Plan.



Main thermostat was for unoccupied SAR building was set at 66 degrees. County set point for unoccupied space is 55 degrees (see chart to the right).

Funding: Budget Neutral

Staff: Sheriff's Office SAR Facility Manager

Schedule: ongoing, once building heating and cooling systems have been repaired and synchronized with thermostats.

Note: set points specified in Chapter 4 of the County's recently adopted Climate Action Plan:

Heat	Cool	Heat	Cool
Offices	69	74	85
Meeting Rooms & Libraries	69	74	85
Staff Lounges & Cafeterias	69	74	85
Locker Rooms	69	74	85
Work & Copy Rooms	67	74	85
Computer Labs	67	73	85
Shops & Industrial Arts	67	75	85
Gyms	67	73	85
Kitchens	65	74	85
Restrooms	65	75	85
Hallways & Common Areas	65	75	85
Storage Rooms	62	78	85
Data Centers (ASHRAE rec)	-	-	80

4. Retrofit remaining overhead fluorescent T-12 lights with T-8s.



Array of 8', 2-lamp T-12 fixtures in Training Room.

Funding: Operating budget / Capital budget

Staff: SO SAR Facility Manager / County Facility Staff / Energy Savings Performance Contractor

Schedule: include in the Energy Savings Performance Contract with the State (described in #1 above).

Note: save about \$120/year on electricity (based on use of only 20 hours/month, or 4 hours for 5 days each month).

PSE may rebate or grant assistance may apply.

5. Retrofit old Exit Signs (probably fluorescent) to LED Exit Signs.



Funding: Budget neutral / Utility incentive will cover entire cost of replacement, including labor

Staff: SO SAR Facility Manager / County Facility Staff / Energy Savings Performance Contractor

Schedule: immediate action, or can be included in the Energy Savings Performance Contract with the State (described in #1 above).

Note: LED EXIT lights use about 1/2 the energy of fluorescent signs and 1/5 the energy of incandescent signs. (SCOG RCM can help expedite utility incentive.)

6. Add shades to the shade-less west and south facing windows.



West-facing office window with no window coverings.

Funding: Operating budget / Capital budget

Staff: SO SAR Facility Manager / County Facility Staff

Schedule: immediate action or include for assessment in the Energy Savings Performance Contract with the State (described in #1 above).

Note: several south and west-facing windows have no coverings. Consider solar shades to reduce unwanted solar heat gain in the warmer months. Consider double cellular shades to interior reduce heat loss during the cooler months.

RESOURCES REQUIRED FOR IMPLEMENTATION OF CONSERVATION MEASURES

RESOURCE

FOLLOW UP BY

1. Communication

- Periodically seek input from occupants on viability of these conservation measures to secure and maintain 'buy-in' and to make minor modifications as needed.
- Regularly post energy usage and cost reports on this facility for occupants/users to see any impacts from the conservation measures
- Include County Facilities Operations Supervisor and SCOG RCM in review of any renovation projects to ensure conservation measures are built in.

1. Sheriff's Office SAR Facility Manager, County Facility Operations Supervisor with SCOG RCM assistance as desired.

2. Training

- In order to maximize behavioral or operational changes, education is critical. Education can include informational emails and instructional brochures or signs.
- Reward success and good conservation-at-work behavior with awards or formal recognition.

2. Sheriff's Office SAR Facility Manager with SCOG RCM assistance as desired.

3. Funding

- Interact with utility companies to determine applicability of custom grant or prescriptive rebate funding for specific energy efficiency upgrades.
- SCOG RCM can act as liaison between the Sheriff's Office and the utility companies.

3. Sheriff's Office SAR Facility Manager, County Facilities Operations Supervisor, Energy Saving Performance Contractor, and SCOG RCM assistance as desired.

4. Utility Use Data

- Monitor reports for usage on all utilities at the facility as they become available.

4. Sheriff's Office SAR Facility Manager with SCOG RCM assistance.