

“If every school district in this country were to do what the Evergreen School District is doing, and will continue to do, energy costs would go down and student achievement would go up because every penny saved goes directly to the classroom to help students learn. We leave a legacy by providing wise stewardship of our limited and precious natural resources through a commitment from top to bottom, based on a vision with systems and practices in place, that includes benchmarking and measurable results .”

John Deeder, Superintendent, Evergreen Public Schools



Guidelines for Energy Management Overview

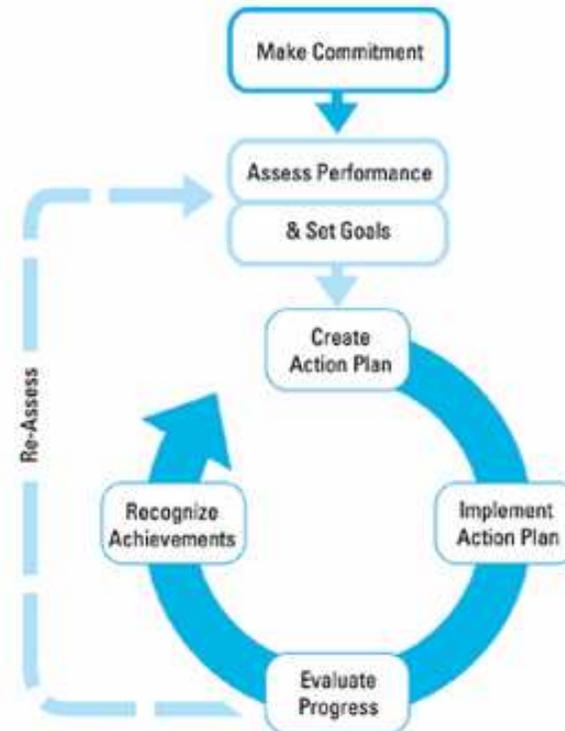
EPA offers a proven strategy for superior energy management with tools and resources to help each step of the way. Based on the successful practices of ENERGY STAR partners, these guidelines for energy management can assist your organization in improving its energy and financial performance while distinguishing your organization as an environmental leader.

The steps:

- STEP 1: [Make Commitment](#)
- STEP 2: [Assess Performance](#)
- STEP 3: [Set Goals](#)
- STEP 4: [Create Action Plan](#)
- STEP 5: [Implement Action Plan](#)
- STEP 6: [Evaluate Progress](#)
- STEP 7: [Recognize Achievements](#)

Need help getting started?

Use our [Energy Program Assessment Matrix](#)  which is designed to help organizations and energy managers compare their energy management practices to those outlined in the Guidelines.



Turn off computers

Incentives

Lighting

Staff Training

Building Control Strategies

Temperature Settings

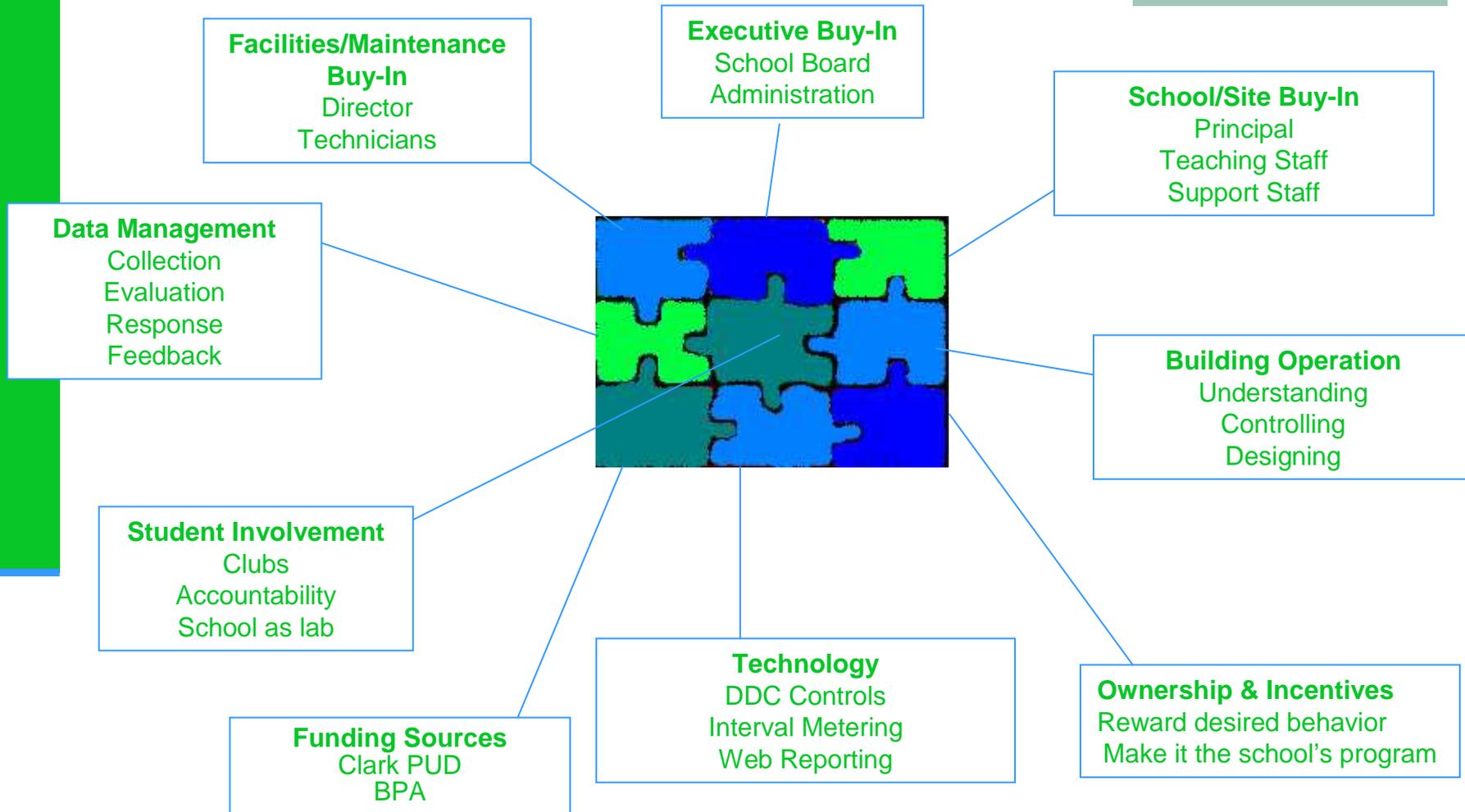
Building Scheduling

System Tuning & Maintenance

“Low Hanging Fruit”



Puzzle Pieces of a Comprehensive RCM Program



Adopt A District Policy

Executive Buy-In

- School Board
- Administration

Evergreen School District #114

Board Policy No. 8600 Section: Non-Instructional Operations

Efficient and Responsible Use of Resources

The Board of Directors recognizes that resources are limited and come at a cost. It also understands that the activities engaged in by the district impact the environment. As a body of the local community, the Board advocates the responsible use of available and necessary resources in conducting the business of educating its students. The Board believes it is both its environmental and financial responsibility to engage in a program that minimizes costs of resource utilization and promotes environmental stewardship.

The Board believes that such a program has several components. These components include:

- The establishment of goals and activities designed to effectively and efficiently manage available resources.
- The promotion of, and participation in, conservation efforts by staff and students.
- An expectation of responsible behavior on behalf of district students and staff.
- Regular reporting of the district's activities and progress toward meeting its resource use and environmental impact goals.
- Engaging in educational opportunities for staff and students that promote environmental stewardship and responsible resource use.
- Consideration of the most prudent use of available resources in the design and construction of new buildings and remodeling of existing buildings.
- Recognition that responsible resource use and environmental stewardship have a financial component and, therefore, the district has an associated fiscal responsibility to its community in their management.

The superintendent, or his/her designee, shall implement, direct, monitor, evaluate, and periodically report district resource conservation efforts.

History: Combined with Board Policy 8700 February 10, 2009.

Adopted by the Board of Directors: April 13, 1981

Revised by the Board of Directors: February 10, 2009



Track Utility Usage

Data Management

- Collection
- Evaluation
- Response
- Feedback

Energy Reports

Report Name	Format	Category
 Electricity Cost Breakdown	History - Area Graph	Energy
 Energy Cost Change by Site	Ranking - Report	Energy
 Energy Cost Graph - Monthly and Annual Trend	History - Bar/Line	Energy
 Energy Cost Report	History - Report	Energy
 Energy Use Change by Site	Ranking - Report	Energy

Report Level: Level:

Report Period: Period:
From:
Thru:

Site Selection:
 All sites
 Selected site(s)
 Query sites

Reports and Graphs to List:

Show incomplete months

Number of copies:



Data Management

- Collection
- Evaluation
- Response
- Feedback

	Electricity Use (kWh)			Nat. Gas Use (MBtu)			Total Energy Usage (MBtu)		
	Aug-07	Aug-08	Aug-09	Aug-07	Aug-08	Aug-09	Aug-08	Aug-09	Difference
Elem. Schools									
Burnt Bridge	39,163	41,622	23,954	25	21	24	162.8	106	-34.89%
Burton	35,222	37,257	22,553	30	37	6	164.4	83.2	-49.39%
Columbia Valley	42,480	41,445	18,960	107	13	10	154.3	74.3	-51.85%
Crestline	32,377	35,890	23,110	64	79	20	201.6	96.6	-51.09%
Ellsworth	25,049	33,577	24,968	-	-	-	114.6	85.3	-25.57%
Endeavour	-	28,171	14,925	-	-	25	96.1	75.7	-21.23%
Fircrest	75,944	98,317	25,050	-	-	-	335.5	85.5	-74.52%
Fisher's Landing	38,400	36,198	13,580	10	57	10	180.1	55.9	-68.96%
Harmony	42,853	48,405	22,412	28	32	8	197	84.9	-56.90%
Hearthwood	74,047	68,015	35,644	-	-	-	232.1	121.6	-47.61%
Ilahee	56,640	55,630	23,040	134	120	13	309.5	91.1	-70.57%
Image	89,944	129,139	43,720	-	-	-	440.6	149.2	-66.14%
Marion	60,807	55,441	53,319	-	-	-	189.2	181.9	-3.86%
Mill Plain	36,297	39,332	20,629	86	86	17	220.5	87.5	-60.32%
Orchards	33,221	34,620	21,125	32	46	10	162.9	81.9	-49.72%
Pioneer	53,296	53,101	28,894	15	13	7	194.1	105.9	-45.44%
Riverview	55,931	60,403	27,209	-	-	-	206.1	92.8	-54.97%
Sifton	41,872	50,843	17,517	-	-	-	173.5	69.8	-66.53%
Silver Star	38,750	42,574	19,818	47	77	19	222.1	85.5	-61.05%
Sunset	69,448	60,191	28,948	-	-	-	205.4	96.8	-51.90%
York	29,399	29,308	17,697	25	32	8	131.9	67.9	-48.52%
Middle Schools									
Cascade	106,196	170,758	60,152	53	68	13	650.2	217.7	-66.52%
Covington	78,188	71,738	64,810	36	59	17	303.4	238	-21.56%
Frontier	147,493	142,740	60,996	310	165	31	652.1	239.5	-63.27%
Pacific	125,611	123,329	64,005	45	82	25	502.3	243.7	-51.48%
Shahala	69,600	69,253	34,000	116	25	28	280.8	143.9	-44.82%
Wyeast	135,742	108,204	63,381	-	-	-	369.1	216.2	-41.43%
High Schools									
Evergreen	238,535	279,688	134,947	115	148	70	1102.3	530.5	-51.87%
Heritage	172,095	191,928	115,789	335	370	68	1025	463.1	-54.82%
Mountain View	258,487	266,587	168,891	181	194	20	1103.1	562.1	-49.04%
Union	144,060	206,938	87,610	147	120	72	825.9	371.2	-55.06%

	Electric	Gas	Total	% Change
Elem. Schools	410,000	1,000	410,000	0.00%
Burnt Bridge	59,760	100	59,760	0.00%
Burton	51,992	100	51,992	0.00%
Columbia Valley	30,864	100	30,864	0.00%
Crestline	51,791	100	51,791	0.00%
Ellsworth	63,266	100	63,266	0.00%
Endeavour	211,880	100	211,880	0.00%
Fircrest	49,900	100	49,900	0.00%
Fisher's Landing	48,900	100	48,900	0.00%
Harmony	62,000	100	62,000	0.00%
Hearthwood	197	100	197	0.00%
Ilahee	49	100	49	0.00%
Image	10	100	10	0.00%
Marion	10	100	10	0.00%
Mill Plain	10	100	10	0.00%
Orchards	10	100	10	0.00%
Pioneer	10	100	10	0.00%
Riverview	10	100	10	0.00%
Silver Star	10	100	10	0.00%
Sifton	10	100	10	0.00%
Sunset	10	100	10	0.00%
York	10	100	10	0.00%
Middle Schools				
Cascade	1,000	1,000	2,000	0.00%
Covington	1,000	1,000	2,000	0.00%
Frontier	1,000	1,000	2,000	0.00%
Pacific	1,000	1,000	2,000	0.00%
Shahala	1,000	1,000	2,000	0.00%
Wyeast	1,000	1,000	2,000	0.00%
High Schools				
Evergreen	381,680	273,436	655,116	-9.41%
Heritage	28,648	224,777	253,425	5.96%
Mountain View	314,165	291,627	605,792	-3.72%
Union	187,296	197,944	385,240	-2.46%

Notes: -Shaded areas denote least usage of 3 years represented for both electricity and gas.

Desktop Comparison 05/08/2009 10:09 AM



"You Can't Manage What You Don't Measure..."

Facilities/Maintenance Buy-In

- Directors
- Technicians



Integrate Into Maintenance Program



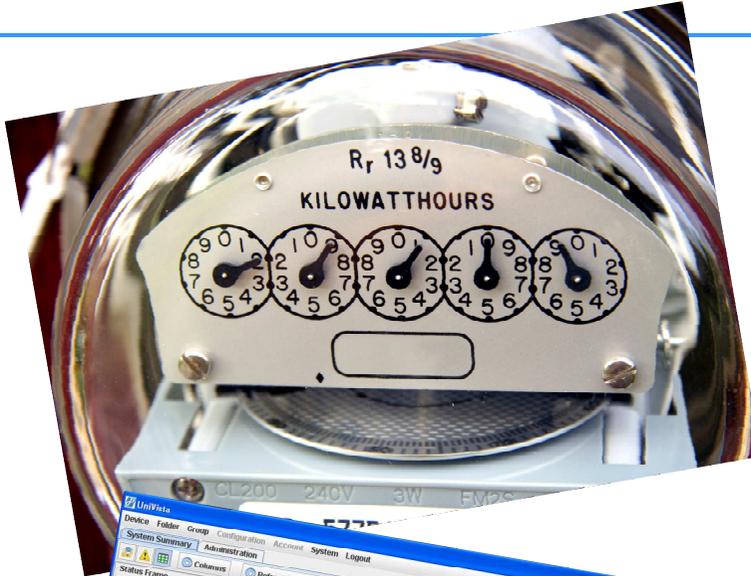
Building Operations

- Understanding
 - Controlling
 - Designing
 - Maintaining



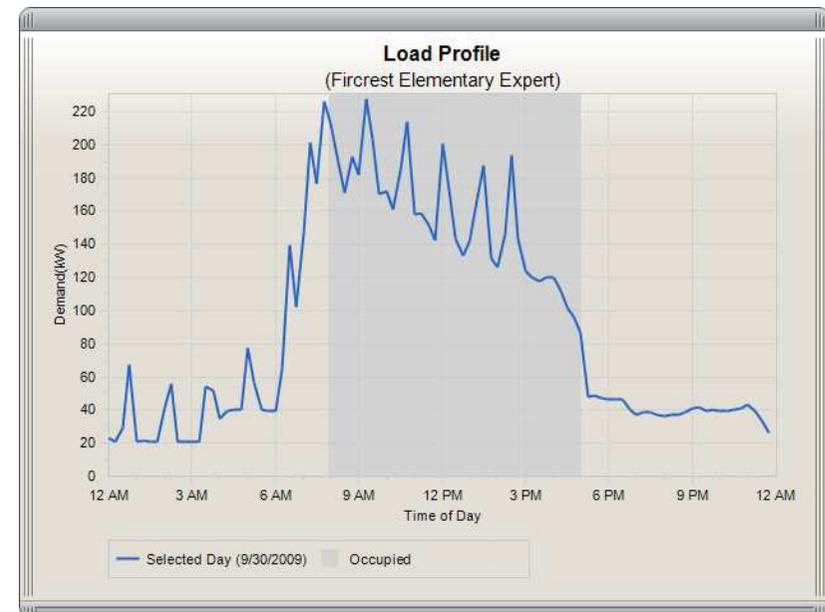
Technology

- DDC Controls
- Interval Metering
- Web Reporting



Technology

- DDC Controls
- Interval Metering
- Web Reporting



School/Site Buy-In

- Principal
- Teaching Staff
- Support Staff

- Success Depends on the Acceptance of the Program By Site and Staff.
- Communicate. Occupants Must Know What They Can Do to Support Conservation.
 - Turn out lights
 - Keep doors closed
 - Report maintenance problems
 - Adjust to limited temperature settings
 - Promote conservation
 - Reminders at staff meetings
 - Agree to a Building Performance Plan
 - Consolidate or eliminate convenience appliances
- Keep Them Informed



Student Involvement

- Clubs
- Accountability
- School as lab



- Accountability
- Augment Curriculum
- Clubs
- Watt Watchers
- School As Lab



Funding Sources

- Local Utility
- BPA
- NEEA
- Stimulus Funds?
- Other?

DATE	REFERENCE	AMOUNT
08/21/2009	CLIP REBATE FRONTIER	4,770.10
08/21/2009	CLIP REBATE HERITAGE	8,157.20

Clark
Public
Utilities

RECEIVED
SEP 09 2009
FACILITIES
EVERGREEN PUBLIC SCHOOLS

508610 390560 09/03/2009
508610

12,927.30
AMOUNT OF WARRANT



Partnerships

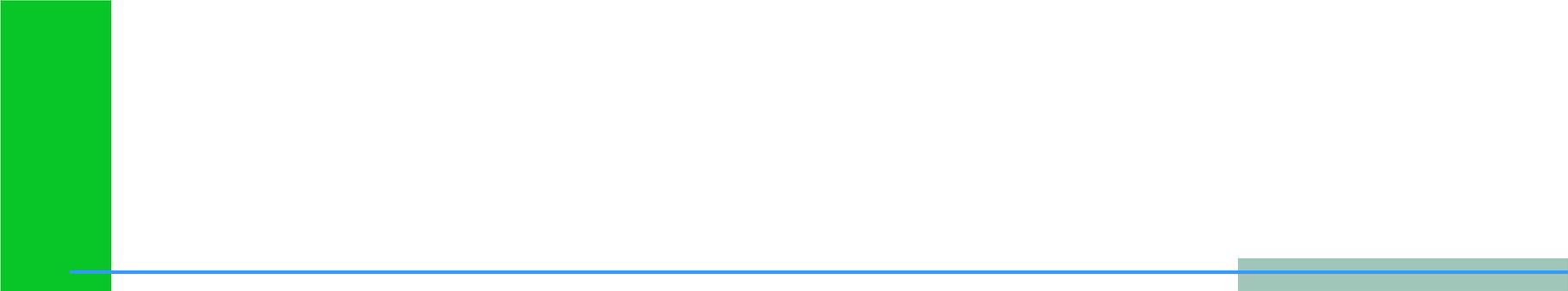
October 7, 2009 - 10:49:53			
Total Buildings: 31			
Facility Name	Current Rating (1-100)	Change from Baseline: Adjusted	Total Floor Space (Sq. Ft.)
Orchards Elementary (New)	92	-20.8	69,832
Columbia Valley	91	-34.8	61,656
York Elementary	91	-18.9	57,208
Endeavour Elementary	90	-2	61,656
Pioneer Elementary	89	-25.9	59,369
Harmony Elementary	86	-28.3	62,505
Fisher's Landing Elementary	83	-28	61,385
Illahee Elementary	81	-33.3	61,763
Silver Star Elementary	80	-32.6	54,971
Covington Middle School	79	-13.4	123,601
Burnt Bridge Creek	78	-29	62,505
Union High School	76	-13.5	243,972
Shahala Middle School	73	-21.3	117,562
Evergreen High School	70	-29.3	279,670
Mill Plain Elementary	70	-23.3	59,553
Burton Elementary	69	-33.2	50,800
Crestline Elementary	67	-36.7	51,835
Cascade Middle School	62	-40.7	121,704
Heritage High School	62	-15.6	250,957
Ellsworth Elementary	60	-11.7	47,422
Mountain View High School	44	-20.9	244,331
Frontier Middle School	40	-34.8	118,294
Pacific Middle School	36	-13.4	127,614
Sunset Elementary	32	-43.2	61,354
Marrion Elementary	25	-9.8	47,998
Riverview Elementary	23	-25.1	59,786
Sifton Elementary	22	-11	55,836
Wyeast Middle School	20	-15.4	131,239
Hearthwood Elementary	16	-13.5	54,486
Fircrest Elementary	4	-24.1	59,786
Image Elementary	1	-8.8	61,354
Group Total			2982004





20% to 50% Cost Savings





Thank You

Dave Cone, Resource Conservation Manager

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Evergreen School District

Vancouver, Washington

360-604-4042