2011 – 2013 Energy Operational Savings Project Authorization

La Center School District #101
La Center, WA
Resolution # 11/12-2

WHEREAS, the Office of the Superintendent of Public Instruction has awarded to the La Center School District No. 101 a preliminary 2011-2013 Energy Operational Cost Saving Grant in the sum of $88,793; and,

WHEREAS, final grant award is contingent upon meeting specific requirements as outlined in the award letter and in greater detail on the OSPI website; and

WHEREAS, the district may have several options for the initial financing of this opportunity to implement infrastructure and building systems improvements to yield energy operational cost savings;

THEREFORE BE IT RESOLVED that the Board of Directors (Board) of La Center School District does hereby instruct the superintendent to take action as required by the awarded grant, as well as determine and pursue the finance option shown to be the most advantageous to the district in order to execute the energy grant project successfully.

APPROVED by the Board of Directors of La Center School District, Clark County, Washington, in a meeting thereof held on April 24, 2012.

ATTEST:_____
Secretary, Board of Directors

_____
President, Board of Directors

_____
Director

_____
Director

_____
Director

_____
Director

SUPERINTENDENT OF PUBLIC INSTRUCTION

RANDY I. DORN OLD CAPITOL BUILDING • PO BOX 47200 • OLYMPIA WA 98504-7200 • http://www.k12.wa.us

April 3, 2012

Superintendent Mansell
La Center School District
P.O. Box 1840
La Center, WA 98629

Dear Superintendent Mansell:

Congratulations! La Center School District has been awarded a Preliminary 2011–2013 Energy Operational Cost Saving Grant in the sum of $88,793.

OSPI received 70 applications totaling more than $65 million in project costs. A five-person review team, made up of school district administrators from across the state, met and scored the applications against the legislative criteria. You are among 42 other districts that will be implementing infrastructure and building systems improvements to yield energy operational cost savings.

Districts are expected to maintain the project timeline indicated in the grant application. Final grant award is contingent upon submitting an executed contract for design and construction services with your Energy Services Company. Please forward a copy of the contract to OSPI at energygrants@k12.wa.us. Once the contract is in place you may move forward to develop a budget and submit it for OSPI approval. To review and understand the requirements that must be met throughout the execution of the energy grant project, please visit the OSPI website at http://www.k12.wa.us/SchFacilities/Programs/EnergyImprovement/EnergyOperationalSavings.aspx.

Finally, grant funds must only be used for the project scope of work as specified in the grant application. Indirect school district fees may not be charged to this grant. OSPI reserves the right to withdraw this award if the above conditions are not met. If the award is withdrawn, the school district may need to reimburse OSPI for any grant funds already paid to the district.

Please address any questions to Nancy Johns, the OSPI Coordinator for energy grants at (360) 725-4973 or nancy.johns@k12.wa.us.

Congratulations on the selection of your project.

Sincerely,

Randy I. Dorn
State Superintendent
of Public Instruction

RD:GB:nj

cc: Gordon Beck, Director, School Facilities & Organization, OSPI
Shawn Lewis, Assistant Superintendent, Financial Services, OSPI
Nancy Johns, Coordinator, School Facilities & Organization, OSPI
Brett Blechschmidt, Fiscal Officer

Table 2-1
Financial Analysis

FINANCIAL ANALYSIS:

Project Name: La Center School District

Date: 6/28/07

Energy Services Project — **Selected Measures**

I. PROJECT COSTS & ENERGY SAVINGS

PROJECT COSTS

	Mech, Water, General	Lighting	Total Project costs	Values - Services	Values - Construction	Values - Contingency
Engineering Audit	$ 11,190	$ -	$ 11,190	$ 11,190		
Estimated Labor and Material Cost	$ 113,066	$ 36,261	$ 149,327		$ 149,327	
M,W,G Design @ 10.0% of Labor & Material	$ 11,307		$ 11,307	$ 11,307		
Lighting Design @ 6.0% of Labor & Material		$ 2,176	$ 2,176	$ 2,176		
Construction Mgt @ 5.0% of Labor & Material	$ 5,653	$ 1,813	$ 7,466	$ 7,466		
Bonding @ 2.0% of Labor & Material	$ 2,261	$ 725	$ 2,987		$ 2,987	
ESCO overhead and profit @ 18.0% of Labor & Material	$ 20,352	$ 6,527	$ 26,879	$ 26,879		
Subtotal	$ 163,829	$ 47,502	$ 211,331	$ 59,018	$ 152,314	
Construction contingency @ 5.0% of CC	$ 5,653	$ 1,813	$ 7,466			$ 7,466
Subtotal - Maximum Project Cost:	$ 169,482	$ 49,315	$ 218,798	**$ 59,018**	**$ 152,314**	**$ 7,466**
Est. Sales Tax @ 8.2% of Maximum Project Cost	$ 13,898	$ 4,044	$ 17,941	$ 4,839	$ 12,490	$ 612
Years 1-3 of Technical Support & Monitoring	$ -		$ -			
E&AS Project Management Fees	$ -	$ -	$ 19,800			
TOTAL PROJECT PRICE	**$ 183,380**	**$ 53,359**	**$ 256,539**	$ 63,857	$ 164,803	$ 8,079
Estimated Utility Incentive	$ 9,181	$ 6,217	$ 15,398			
Estimated WA-OSPI Grant Funding			$ 88,793			
Estimated Client Net Cost			$ 152,348			
Client initial cash payment						
Amount to be financed by client:			**$ 152,348**			
Year 2 Cash Flow:			**$ 1,293**			

OSPI Info

Amount of grant request:	**$ 88,793**	
OSPI Cost savings (average regional utility rates)	**$ 20,119**	**(energy $ saved)**
Leveraging ratio:	**0.40**	**(Utility+Energy)/OSPI**
Cost of energy saved:	**$ 174**	**per million Btu's**

ECONOMIC ASSUMPTIONS

Interest Rate:	3.50%
Financing Term:	10 years
Payments/year	2
Inflation Rate:	3.50%
Est Annual Rate of Energy Increases:	1.50%
Client Discount Rate	3.50%
Client initial cash payment	0.00%

ANNUAL ENERGY SAVINGS

Unit Price	Mechanical	Water	Lighting	General	Total	Annual $	
Electrical Savings (kWh and $)	83,964	0	55,948	0	139,912	$ 7,907	(kW + kWh $)
Electrical Savings (kW and $)	0	0	142	0	142		
Gas Savings (Therms)	8,235	1,831	-91	0	9,975	$ 10,176	
Oil (Gal)	0	0	0	0	0	$ -	
Propane (Gal)	0	0	0	0	0	$ -	
Water Savings (CCF)	0	427	0	0	427	$ 1,109	
$ Saved	$ 12,535	$ 2,977	$ 3,680	$ -	$ 19,192	$ 19,192	

Table 2-1
Financial Analysis

II. PROJECT CASH FLOW

Year ending	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Reference year	0	1	2	3	4	5	6	7	8	9	10
PROJECT SAVINGS											
Mechanical, General, and Water savings	$ -	$ 15,512	$ 15,745	$ 15,981	$ 16,221	$ 16,464	$ 16,711	$ 16,962	$ 17,216	$ 17,474	$ 17,736
Lighting Savings:	$ -	$ 3,680	$ 3,736	$ 3,792	$ 3,849	$ 3,906	$ 3,965	$ 4,024	$ 4,085	$ 4,146	$ 4,208
Lighting Maintenance Savings	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Other Maintenance Savings	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total Savings:	$ -	$ 19,192	$ 19,480	$ 19,773	$ 20,069	$ 20,370	$ 20,676	$ 20,986	$ 21,301	$ 21,620	$ 21,944
ANNUAL PROJECT COSTS											
Amount Financed	$ (152,348)										
Cash Payment	$ -										
Annual Financing Costs		$ (18,188)	$ (18,188)	$ (18,188)	$ (18,188)	$ (18,188)	$ (18,188)	$ (18,188)	$ (18,188)	$ (18,188)	$ (18,188)
Quantum Technical Support and Monitoring					$ -	$ -	$ -	$ -	$ -	$ -	$ -
E&AS Technical Support & Monitoring			$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total Annual Costs to Client	**$ -**	**$ (18,188)**	**$ (18,188)**	**$ (18,188)**	**$ (18,188)**	**$ (18,188)**	**$ (18,188)**	**$ (18,188)**	**$ (18,188)**	**$ (18,188)**	**$ (18,188)**
NET ANNUAL CASH FLOW WHEN FINANCING PROJECT:											
Based on savings from Utility & Maint. Equip. Costs		**$ 1,005**	**$ 1,293**	**$ 1,585**	**$ 1,881**	**$ 2,183**	**$ 2,488**	**$ 2,798**	**$ 3,113**	**$ 3,432**	**$ 3,757**

Table 1-2
Selected List of Measures

Project: La Center School District
Measure: Selected List of Measures
Date: March 13, 2012

ECM #	Conservation Measure	Proposed Savings: Annual Savings Electric Consume kWh	Annual Savings Electric Demand kW	Annual Gas Savings (Therms)	Annual Oil Savings (Gal)	Annual Propane Savings (Gal)	Annual Water Savings (CCF)	Annual Resource Savings $	Annual Maint. Savings $	Labor/Mat'l Cost	Utility Incentive $	Final Labor/Mat'l Cost $	Simple Payback
High School													
	Mechanical Conservation Measures												
HS-M1c	Domestic Water Heater Replacement: This measure will replace the existing Lochinvar hot water heater with a high-efficiency, modulating / condensing unit.	-	-	73	-	-	-	74	-	38,000	-	38,000	511.1
HS-M2	Boiler Retrofit: This measure will replace the burner assembly on the existing boiler. Savings will be realized through reduced cycling losses and better load matching.	-	-	2,074	-	-	-	2,116	-	18,921	-	18,921	8.9
HS-M3b	Retrocommission energy management system: - Prevent simultaneous heating and cooling. - Ensure that control sequences disable pumps after-hours. - Includes a repair allowance of $2,000 (Select only if M3a is NOT selected)	38,056	-	-	-	-	-	1,874	-	8,800	-	8,800	4.7
HS-M4	Demand Controlled Ventilation (DCV): This measure will implement Demand-Controlled Ventilation (DCV) and reduce runtimes for HVAC systems serving areas of sporadic occupancy. Savings will be realized through reduced outdoor air intake and eliminated runtimes during unoccupied periods. - Tie the existing Gymnasium occupancy sensors to the EMS. - Install occupancy and/or CO2 sensors in the weight room and commons. - Install occupancy sensors in the wood shop and boys' & girls' locker rooms.	6,802	-	4,250	-	-	-	4,671	-	10,395	1,360	9,035	1.9
HS-M5	Hydronic Pumps: This measure will retrofit the hydronic pumps with Variable Frequency Drives (VFDs) to allow flow reduction as heating demand varies. 3-way valves throughout the system will be retrofitted to 2-way. Electricity savings will be realized through reduced motor power usage. (Both primary and secondary circ pumps).	33,569	-	-	-	-	-	1,653	-	20,633	6,714	13,919	8.4
		-	-	-	-	-	-	-	-	-	-	-	-
	Lighting Conservation Measures	-	-	-	-	-	-	-	-	-	-	-	-
HS-L1	Lighting Upgrades: This measure will replace exterior HID fixtures with new fixtures with CFL or LED technology. Parking lot fixtures would remain as is.	12,523	-	(91)	-	-	-	524	-	9,021	1,879	7,142	13.6
		-	-	-	-	-	-	-	-	-	-	-	-
Elementary & Middle School		-	-	-	-	-	-	-	-	-	-	-	-
		-	-	-	-	-	-	-	-	-	-	-	-
	Mechanical Conservation Measures	-	-	-	-	-	-	-	-	-	-	-	-
EMS-M1a	Commission the existing DDC Energy Management System (EMS): This measure will retro-commission the entire system. - Prevent simultaneous heating and cooling. - Ensure that control sequences close outside air dampers during warmup mode and after-hours. - Optimize system runtime schedules and take control of EF - 11.	5,536	-	1,838	-	-	-	2,147	-	9,300	1,107	8,193	3.8
		-	-	-	-	-	-	-	-	-	-	-	-
EMS-L1	Lighting Upgrades: This measure will replace exterior HID fixtures with new fixtures with CFL or LED technology. Parking lot fixtures would remain as is.	38,200	127	-	-	-	-	2,789	-	24,739	3,090	21,648	7.8
		-	-	-	-	-	-	-	-	-	-	-	-
District-Wide Measures		-	-	-	-	-	-	-	-	-	-	-	-
		-	-	-	-	-	-	-	-	-	-	-	-
	Lighting Conservation Measures	-	-	-	-	-	-	-	-	-	-	-	-
LCSD-L1	District Office Lighting Upgrades: This measure will replace any T-12 flourescent fixtures with T-8 and upgrade older ballasts with electronic type; replace any high-intensity discharge lamps with flourescent technology; replace any remaining incandescent fixtures with fluorescent technology; replace the costly CFL lamps in the Cafeteria with T-5; and utilize occupancy sensors for demand-controlled lighting use in areas of sporadic occupancy.	5,225	15	-	-	-	-	367	-	2,502	1,248	1,254	3.4
		-	-	-	-	-	-	-	-	-	-	-	-
	Water Conservation Measures	-	-	-	-	-	-	-	-	-	-	-	-
LCSD-W1	Rain Gauge: This measure will install a rain gauge to prevent the irrigation systems from operating during rainy weather.	-	-	-	-	-	92	238	-	500	-	500	2.1
LCSD-W2	Water Retrofit: This measure will install aerators on sinks to save water and energy for water heating. (Select only if W2a is NOT selected)	-	-	1,831	-	-	336	2,740	-	6,518	-	6,518	2.4
		-	-	-	-	-	-	-	-	-	-	-	-
	Totals:	139,912	142	9,975	-	-	427	19,192	-	149,327	15,398	133,929	7.0
Total	Mechanical	**83,964**	**-**	**8,235**	**-**	**-**	**-**	**12,535**	**-**	**106,049**	**9,181**	**96,867**	7.7

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ECM #	Conservation Measure	Proposed Savings: Annual Savings Electric Consume kWh	Annual Savings Electric Demand kW	Annual Gas Savings (Therms)	Annual Oil Savings (Gal)	Annual Propane Savings (Gal)	Annual Water Savings (CCF)	Annual Resource Savings $	Annual Maint. Savings $	Labor/Mat'l Cost	Utility Incentive $	Final Labor/Mat'l Cost $	Simple Payback
Total	Water	-	-	1,831	-	-	427	2,977	-	7,018	-	7,018	2.4
Total	Lighting	55,948	142	(91)	-	-	-	3,680	-	36,261	6,217	30,045	8.2
Total	General	-	-	-	-	-	-	-	-	-	-	-	
Total	Check totals match?	139,912	142	9,975	-	-	427	19,192	-	149,327	15,398	133,929	7.0