PERALTA COMMUNITY COLLEGE DISTRICT ITEM # 10

Board of Trustees Agenda Report

For the Trustee Meeting Date of January 26, 2010

ITEM TITLE:

Consider Approval to Enter into a Design-Build Contract with Chevron Energy Solutions Company for HVAC Renovations for Buildings F and G Computer Labs at Laney College

SPECIFIC BOARD ACTION REQUESTED:

Approval is requested to enter into a contract with Chevron Energy Solutions Company for design-build services for the HVAC Renovations for Buildings F and G Computer Labs at Laney College, in the not-to-exceed amount of $1,891,696

ITEM SUMMARY:

Several classrooms in Buildings F and G at Laney College were converted to computers labs recently. Ventilation is provided by the main air handling unit located in the penthouse of each building. Hot water coils provide heating, but no cooling is provided. The addition of computers (40 per computer lab) and the resulting internal load creates undesirable indoor conditions during mild and hot weather periods. This project will replace the existing air handling units (AHUs) with four new AHUs with chilled water coils to provide cooling as well as heat to Buildings F and G, including four computer labs in Building F and twelve computer labs in Building G. A design-build contract with Chevron is recommended so that the project can be completed and cooling will be available for the comfort of students and faculty before the warm weather begins.

Pursuant to Government Code Sections 4217.10 to 4217.18, it is recommended to proceed to enter into a design-building contract with Chevron ES for HVAC Renovations for Buildings F and G Computer Labs at Laney College, in the not-to-exceed amount of $1,891,696. Under Government Code Sections 4217.10 to 4217.18, state law allows a public agency to enter into an energy service contract without public bidding.

4217.12. (a) Notwithstanding any other provision of law, a pubic agency may enter into an energy service contract and any necessarily related facility ground lease on terms that its governing body determines are in the best interests of the public agency if the determination is made at a regularly scheduled public hearing, public notice of which is given at least two weeks in advance, and if the governing body finds:

(1) That the anticipated cost to the public agency for thermal or electrical energy or conservation services provided by the energy conservation facility under the contract will be less than the anticipated marginal cost to the public agency of thermal, electrical, or other energy that would have been consumed by the public agency in the absence of those purchases.

A Notice of Public hearing was posted giving notice of the intention to enter into an energy services contract in accordance with the terms of the Government Code Sections 4217.10 to 4217.18. Public comment will be heard at the Regular Board of Trustees Meeting scheduled for January 26, 2010.

BACKGROUND/ANALYSIS:
Although under Government Code an exception for competitive bidding is granted, Chevron Energy Solutions was selected as part of a competitive Request for Qualifications process. At the meeting of December 11, 2007, the Board approved negotiation and development of a partnership contract for energy master planning and energy infrastructure retrofit services with Chevron Energy Solutions. Chevron was one of six companies responding to a Request for Qualifications (RFQ 07-08/19). Based on review and interviews by a selection committee, Chevron received the highest scores and was the recommended company. Their scope of services included designing and engineering services and procuring and financing of capital goods and services.

OTHER DEPARTMENTS IMPACTED BY THIS ACTION (E.G. INFORMATION TECHNOLOGY):
YES _____ NO _X_

COMMENTS:
All Board recommended contracts are subject to negotiation and execution by the Chancellor.

WHO WILL BE PRESENTING THIS ITEM AT THE BOARD MEETING?
Vice Chancellor Ikharo

DID A BOARD STANDING COMMITTEE RECOMMEND THE ITEM? YES_____ NO _____
IF "YES", PLEASE INCLUDE THAT INFORMATION IN YOUR SUMMARY.
This item was presented at the Board Facilities and Land Use Planning Committee meeting of January 21, 2010.

PLEASE ACQUIRE SIGNATURES IN THIS ORDER:

DOCUMENT PREPARED BY:

Prepared by: Sadiq B. Ikharo **Date:** 1-19-10
Dr. Sadiq B. Ikharo
Vice Chancellor of General Services

DOCUMENT PRESENTED BY:

Sadiq B. Ikharo **Date:** 1-19-10
Dr. Sadiq B. Ikharo
Vice Chancellor of General Services

FINANCE DEPARTMENT REVIEW

__X__ Finance review required _____ Finance review *not* required

If Finance review is required, determination is: _____ Approved ____ Not Approved

If not approved, please give reason: _____

Signature: _____ **Date:** 1/21/10
For Finance and Administration

GENERAL COUNSEL (Legality and Format/adherence to Education Codes):

__X__ Legal review required _____ Legal review *not* required

If Legal review is required, determination is: __✓__ Approved ____ Not Approved

Signature: _____ **Date:** 1/20/10
Thuy T. Nguyen, General Counsel

CHANCELLOR'S OFFICE APPROVAL

__X__ Approved, and Place on Agenda ____ Not Approved, but Place on Agenda

Signature: _____ **Date:** 1/21/10
Elihu Harris, Chancellor

LANEY COLLEGE COMPUTER ROOM

AIR CONDITIONING PROJECT

GENERAL	
Capital Investment:	$1,981,696
CCC/IOU Incentive	$19,559
Loan Amount:	$1,962,137
Financing Terms:	25
Estimated Interest Rate	4.00%
Utility Cost Scalation Rate, Electrical	6.00%
Utility Cost Scalation Rate, Gas	3.00%
Annual Maintenance Cost	$ 76,000
O&M Annual Scalation Rate	1.50%
DX Units Cost of replacement, 13th year	$ 1,100,000
Analysis Terms:	25

	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6	YEAR 7	YEAR 8	YEAR 9	YEAR 10	YEAR 11
Business As Usual: Energy Usage and Cost											
Annual Energy Usage, Electrical, kWh/yr	$ 42,998	$ 45,577	$ 48,312	$ 51,211	$ 54,283	$ 57,540	$ 60,993	$ 64,652	$ 68,531	$ 72,643	$ 77,002
Annual Energy Usage, Gas, therms/yr	$ 25,515	$ 26,280	$ 27,069	$ 27,881	$ 28,717	$ 29,579	$ 30,466	$ 31,380	$ 32,322	$ 33,291	$ 34,290
Annual Maintenace Cost	$ 76,000	$ 77,140	$ 78,297	$ 79,472	$ 80,664	$ 81,874	$ 83,102	$ 84,348	$ 85,613	$ 86,898	$ 88,201
	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total Base Case Cost	$ 144,513	$ 148,998	$ 153,678	$ 158,563	$ 163,664	$ 168,993	$ 174,561	$ 180,381	$ 186,467	$ 192,832	$ 199,493
Proposed Case: Energy Usage and Cost											
Annual Energy Usage, Electrical, kWh/yr	$ 7,268	$ 7,665	$ 8,084	$ 8,527	$ 8,993	$ 9,485	$ 10,004	$ 10,551	$ 11,128	$ 11,737	$ 12,379
Annual Energy Usage, Gas, therms/yr	$ 8,900	$ 9,121	$ 9,348	$ 9,580	$ 9,818	$ 10,062	$ 10,312	$ 10,568	$ 10,831	$ 11,100	$ 11,376
Annual Maintenace Cost Savings	$ 56,000	$ 56,840	$ 57,693	$ 58,558	$ 59,436	$ 60,328	$ 61,233	$ 62,151	$ 63,084	$ 64,030	$ 64,990
	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total Proposed Case Cost	$ 72,168	$ 73,626	$ 75,125	$ 76,665	$ 78,247	$ 79,875	$ 81,549	$ 83,271	$ 85,043	$ 86,867	$ 88,745
	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
FINANCIAL METRICS											
Cash Flow	($1,962,137)	$ 72,345	$ 75,372	$ 78,553	$ 81,899	$ 85,417	$ 89,118	$ 93,012	$ 97,110	$ 101,424	$ 105,965	$ 110,748
Accumalive Cost Savings	$ 2,246,151	$ (1,889,792)	$ (1,814,420)	$ (1,736,867)	$ (1,653,969)	$ (1,568,552)	$ (1,479,434)	$ (1,386,422)	$ (1,289,312)	$ (1,187,888)	$ (1,081,922)	$ (971,174)
Internal Rate of Return	5.8%											
NPV Cash Flow	$185,926											
Payback Year	13											

YEAR 12	YEAR 13	YEAR 14	YEAR 15	YEAR 16	YEAR 17	YEAR 18	YEAR 19	YEAR 20	YEAR 21	YEAR 22	YEAR 23	YEAR 24	YEAR 25	Total
$ 81,622	$ 86,519	$ 91,711	$ 97,213	$ 103,046	$ 109,229	$ 115,782	$ 122,729	$ 130,093	$ 137,899	$ 146,173	$ 154,943	$ 164,240	$ 174,094	$ 2,359,037
$ 35,319	$ 36,378	$ 37,470	$ 38,594	$ 39,752	$ 40,944	$ 42,172	$ 43,438	$ 44,741	$ 46,083	$ 47,465	$ 48,889	$ 50,356	$ 51,867	$ 930,258
$ 89,524	$ 1,100,000	$ 90,867	$ 92,230	$ 93,613	$ 95,018	$ 96,443	$ 97,890	$ 99,358	$ 100,848	$ 102,361	$ 103,896	$ 105,455	$ 107,037	$ 3,276,148
$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
$ 206,465	$ 1,222,898	$ 220,047	$ 228,037	$ 236,411	$ 245,190	$ 254,398	$ 264,057	$ 274,192	$ 284,830	$ 295,999	$ 307,729	$ 320,051	$ 332,997	$ 6,565,443
$ 13,056	$ 13,770	$ 14,523	$ 15,318	$ 16,155	$ 17,039	$ 17,971	$ 18,954	$ 19,991	$ 21,085	$ 22,238	$ 23,454	$ 24,737	$ 26,090	$ 93,440
$ 11,659	$ 11,949	$ 12,245	$ 12,550	$ 12,862	$ 13,181	$ 13,509	$ 13,844	$ 14,186	$ 14,541	$ 14,902	$ 15,273	$ 15,652	$ 16,041	$ 303,414
$ 65,965	$ 66,955	$ 67,959	$ 68,978	$ 70,013	$ 71,063	$ 72,129	$ 73,211	$ 74,309	$ 75,424	$ 76,555	$ 77,704	$ 78,869	$ 80,052	$ 1,883,529
$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
$ 90,680	$ 92,673	$ 94,728	$ 96,846	$ 99,030	$ 101,284	$ 103,609	$ 106,010	$ 108,489	$ 111,049	$ 113,696	$ 116,431	$ 119,259	$ 122,184	$ 2,080,364
$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
$ -	$ -	$ -	$ -										0.0%	
$ 115,785	$ 1,130,225	$ 125,320	$ 131,191	$ 137,381	$ 143,907	$ 150,789	$ 158,047	$ 165,703	$ 173,781	$ 182,304	$ 191,298	$ 200,792	$ 210,814	$ 4,208,298
$ (855,389)	$ 274,636	$ 400,155	$ 531,347	$ 668,728	$ 812,634	$ 963,423	$ 1,121,470	$ 1,287,173	$ 1,460,954	$ 1,643,257	$ 1,834,556	$ 2,035,348	$ 2,246,161	$ 2,246,161

Notes for Laney College Computer Room Air Conditioning Project Spreadsheet

Business as-usual (BAU) case consists of install new rooftop DX units and coils while using existing air handling units. The life expectancy of this system is 10-15 years, and this estimate uses 12.5 years. Using data from the 36th O&M Cost Study done by the magazine American School and University, Chevron ES estimated the cost of maintaining the BAU scenario at $76000/yr ($1.0/sq.ft x 76269 sq.ft [sum of bldg F&G areas]). The cost of replacement for the DX units of $1.1M is included at year 13.

The Proposed Case consists of new air handling units with chilled water coils and a new DDC system. The life expectancy is 20-30 years, and this estimate assumes a 25-year cycle. For the new system, Chevron ES estimates an annual maintenance cost of $56,000/yr. There is no replacement cost until the end of the life-cycle costing analysis. The District stands to save at least $72,000 per year with the new system in avoided utility and maintenance costs.

Peralta Community College District

Sustainability and Energy Conservation Program

Computer Lab HVAC

Submitted to: Peralta Community College District

Attention: Dr. Sadiq Ikharo

Date: Tuesday January 12, 2010

Submitted by:

Chevron Energy Solutions Company
A Division of Chevron U.S.A. Inc.
345 California Avenue
San Francisco, CA 94104

Peralta Community College District
Laney College _ Computer Lab HVAC

Energy and Mechanical Engineering Services

ECM#	DESCRIPTION	Estimated Installation Cost	Proposed Pricing Range
1	Laney College Computer Rooms: Add air conditioning and DDC controls to computer rooms: **F251, F252, F253, F254, G201, G202, G203, G204, G205, G271, G271A, G271B, G272, G273, G274, and G275**	$1,891,696	± 2%
	TOTAL		

Background

Several classrooms at buildings F, and G were converted to computer labs recently at the Laney college campus. Ventilation is provided by the main air handling unit located in the penthouse of each building, hot water coils provide heating, no cooling is provided. The addition of computers (40 per computer lab) and the internal load creates undesirable indoor conditions during mild and hot weather periods.

Chevron ES proposes installing new air handling units with chilled water coils to provide cooling to buildings F, and G including the computer labs listed below:

Building F: Classrooms No. **F251, F252, F253, and F254,**
Building G: Classrooms No. **G201, G202, G203, G204, G205, G271, G271A, G271B, G272, G273, G274, and G275.**

Scope of Work

Chevron ES proposed using a Design-Build approach to install four air handling units at bldg F, and G:

Detailed Inclusions:

- Provide and install 4 new AHU's:
  - Building F: SF-6F
  - Building G: SF-1, SF-2, SF-3
- Remove and dispose of existing AHUs

- Provide and install VFD with electrical
- Re-designed as required to maximize air flow
- Tie in CHWS&R to existing Mains in breezeway
- Route new piping parallel to (E) HHW up the Penthouse.
- Connect new piping to (N) cooling coils
- Pre and Post reads and minor balance
- Thermally insulate all new pipe
- DDC control for new AHUs only

Detailed Exclusions:

- Overtime
- Repair or warranty of pre-existing equipment or conditions
- Code Upgrades
- Hazardous material identification or removal
- Connection to or testing of life safety systems or fire alarm panels
- Provide or install of access doors in finished areas.
- Ductwork pressure testing
- Upgrading of existing duct insulation is not included.

Not to exceed Pricing.....$1,891,696

As required by the district, Chevron ES breakdown the price for this project on the component indicated in attachment A.

Sincerely,

Adan Rosillo, PE
Project Manager

ATTACHMENT A
PRICE BREAKDOWN

LANEY COLLEGE COMPUTER ROOMS HVAC

PROJECT TASK	SUB COST (M&L COST)	ENGINEERING TRADES	GENERAL CONDITIIONS (4%)	OVERHEAD (6%)	PROFIT (5%)	SUBTOTALS
HVAC EQUIPMENT: 4-NEW AHUs, MATERIALS AND LABOR	$988,455	$85,801	$59,307	$59,307	$49,423	$1,242,293
UP-SIZE CHW PIPING TO BLDG "G" UP TO 4"	$188,668	$31,477	$11,320	$11,320	$9,433	$252,218
STRUCTURAL WORK	$148,268	$27,235	$8,896	$8,896	$7,413	$200,709
PATCHING AND PAINTING	$38,932	$15,755	$2,336	$2,336	$1,947	$61,305
DDC CONTROLS	$72,900	$19,321	$4,374	$4,374	$3,645	$104,614
DSA PERMITS	$6,919	$0	$415	$415	$346	$8,095
DSA CONSULTANT	$19,198	$0	$1,152	$1,152	$960	$22,462
TOTAL PROJECT	$1,463,340	$179,588	$87,800	$87,800	$73,167	**$1,891,696**

ENGINEERING TRADES:

1. COMMISSIONING AGENT
2. STRUCTURAL ENGINEERING
3. ELECTRICAL ENGINEERING
4. SOILS ENGINEERING
5. CIVIL ENGINEERING
6. ENGINEERING CONTINGENCY
7. PERFORMANCE BONDS
8. MANAGEMENT OF DIFFERENT TRADES
9. SUBMITTAL REVIEW
10. ETC.

GENERAL CONDITION:

1. SITE SECURITY
2. SITE TEMPORARY ELECTRICAL POWER
3. ON SITE CONSTRCUTION MANAGEMENT
4. FOEREMAN: QUALITY CONTROL/QUALITY ASSURANCE
5. FOREMAN: PROJECT SAFETY
6. PROJECT DEVELOPMENT
7. COORDINATION WITH OTHER TRADES/CLIENT
8. TEMPORARY IT (PHONE LINES, FAXES, ETC.)
9. SAFETY TRAINING (STUDENTS APRENTICE)
10. DSA INPECTIONS MANAGEMENT

OVERHEAD:

1. FRINGE RATE:

a) State Unemployment Insurance
b) State Disability Insurance
c) 401k Match
d) Medical Dental Insurance
e) Holiday/Vacation time
f) Sick/Bereavement/Family emergency time
g) Social Security taxes
h) Life Insurance

2.0 MISCELLANEOUS RATE:

a) Rent

b) Utilities
c) Taxes
d) Cafeteria services

3.0 GENERAL & ADMINISTRATIVE RATES:

a) Management
b) Accounting
c) IT
d) Human Resources
e) Marketing
f) Corporate Allocations