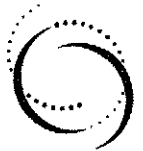


NORESCO

CONTRACT NO. COR61431 * RESPONSE TO REQUEST FOR PROPOSAL

WEST VIRGINIA DIVISION OF CORRECTIONS CHARLESTON, WEST VIRGINIA ENERGY SAVINGS PERFORMANCE CONTRACT RESPONSE TO REQUEST FOR PROPOSAL



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ORIGINAL - COST PROPOSAL
JANUARY 25, 2011



Submitted By:

NORESCO

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CONTRACT No. COR61431
ENERGY SAVINGS PERFORMANCE CONTRACT

WEST VIRGINIA
DIVISION OF CORRECTIONS
CHARLESTON, WEST VIRGINIA

RESPONSE TO
REQUEST FOR PROPOSAL
ORIGINAL - COST PROPOSAL

SUBMITTED: JANUARY 25, 2011

All sections of this proposal contain sensitive information which is confidential and proprietary to NORESKO, LLC (NORESCO). This information contains or reflects processes, procedures, and approaches unique to NORESKO that have commercial value, give NORESKO a business advantage over competitors, and are known only to certain individuals who use the information for the purpose of providing NORESKO's services. The reader is authorized to use this information solely for the purpose of evaluating a business relationship with NORESKO, acknowledges that release of this information to other parties could be damaging to NORESKO, and is not to divulge or distribute the information contained herein to any other party, except appropriate State of West Virginia personnel on a need-to-know basis, without written permission of NORESKO.

**West Virginia Division of Corrections
Cost Proposal · Table of Contents**

General Terms and Conditions

Notice (on front of Cost Proposal box)..... -

Section 5. Financial Analysis

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West Virginia Division of Corrections

Cost Proposal

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5. FINANCIAL ANALYSIS (COST PROPOSAL)

A. Provide a financial analysis to model the project in this proposal over a 15-year term incorporating energy and operational savings; turnkey project costs for implementation; Service including monitoring and Measurement and Verification; and financial transaction costs. Identify all escalations on energy and operational savings and service costs. Complete the B-1 Financial Cash Flow Table as an attachment to this section only. Only use energy cost savings in this cash flow. Do not estimate or include operational savings, as they will only be analyzed and considered after completion of the Investment Grade Audit.

An in depth financial analysis is a vital component of an energy savings performance contract. Like many of our current customers, WV DOC has received an ARRA grant and can use the grant for this project. As we described in our Technical Proposal, NORESOCO has extensive experience implementing ARRA funded projects and we fully understand the timing and other essential requirements.

From conversations we have had with the WV Energy Office, we understand that WV DOC received \$7,194,880 of the total \$32 million allocation to the WV ARRA State Energy Program from the Recovery Act Grant. We also understand that West Virginia has implemented several projects using some of the ARRA money. These projects include \$1,700,000 to run six to seven miles of 6" gas line to the Huttonsville facility and \$400,000 for new windows at the Greenbrier facility. Based on these project amounts, there is approximately **\$5,095,000** remaining for this ESCO project. According to the RFP, the ARRA grant can only be used for ECMs at the Huttonsville, Mount Olive, and Pruntytown facilities.

The Base Project

Due to the time sensitivity of using the ARRA grant, NORESOCO has prepared a simple base proposal package that can be funded solely from the remaining grant money and can be designed, implemented and accepted within the timeframe required by the ARRA program. This project will be paid for completely by the grant funds and will not require a loan from an outside financial institution. The list of ECMs as part of the base project includes:

Table 5.1 – Base Project Summary

	ECMs	Price	Savings	Payback
1	Lighting Improvements (Grant)	\$1,546,325	\$205,482	7.9 years
2	Water Conservation (Grant)	\$335,440	\$48,057	7.0 years
3	Water Conservation & Controls (Grant)	\$1,802,840	\$154,100	11.7 years
4	EMS Control Optimization (Grant)	\$462,036	\$216,999	2.1 years
5	Heating Control Improvements (Grant)	\$374,555	\$47,115	7.9 years
6	Kitchen Hood Controls (Grant)	\$158,396	\$13,584	11.7 years
7	New Domestic Hot Water Heaters (Grant)	\$73,822	\$2,936	25.1 years
8	New Washer (Grant)	\$68,637	\$0	1,000 years
9	Piping Insulation Improvements (Grant)	\$7,415	\$990	7.5 years
10	Steam System Repair/Upgrades (Grant)	\$265,414	\$102,293	2.6 years
TOTAL ARRA GRANT PROJECT		\$5,094,880	\$791,556	6.4 years

The base project cash flow found on the B-1 form is based on the following criteria:

- The entire project is paid for by the ARRA grant and will not require a loan from a financing institute.
- The savings are escalated at the rates shown on the B-1 form as provided by WV DOC in the RFP document.
- The construction period for the base project will be 12 months.

The cash flow table for the Base Project may be found on the following page.

Anticipated Potential Implementation Approaches

At this juncture, we anticipate three potential implementation strategies that may be employed by WV DOC under this single procurement. NORESKO is comfortable with either of these approaches and would welcome the opportunity to discuss the benefits of each.

1. **Base Project Only** – Implement a fast-tracked project solely to capture ARRA grant funds.
2. **Phased Project** – Fast track the Base Project ECMs under an initial contract, then execute an amendment to incorporate the balance of ECMs as soon as they are ready. From a DOE record keeping perspective, this creates a clear contractual distinction between ARRA grant funded ECMs and financed ECMs.
3. **Expanded Project (including Base Project ECMs)** – Proceed with the comprehensive set of ECMs all at one time while contractually segregating ARRA grant funded ECMs from the financed ECMs.

**ESCO's PRELIMINARY ANNUAL CASH FLOW ANALYSIS FORM
(ATTACHMENT B-1) BASE PROJECT
WEST VIRGINIA - DEPARTMENT OF CORRECTIONS**

Escalation Rates by Utility & Fuel:
 Electricity: 3.0%
 Natural Gas: 2.5%
 Fuel Oil: 2.5%
 Steam: 3.0%
 Water: 3.0%
 Operational: 2.0%
 Coal: 3.0%
 Other (Specify): 0.0%

Financed Project Cost 1: \$ 5,094,880
 Finance Term (months): N/A - ARRA Grant
 Interest Rate: N/A - ARRA Grant
 Construction Period (months) (2): 12

Yr.	Electric Cost Savings	Natural Gas Cost Savings	Fuel Oil Cost Savings	Propane Cost Savings	Water & Sewer Cost Savings	Operational Cost Savings	Total Cost Savings	Guaranteed Cost Savings	Annual Service Fees (3)	Financing Payment	Net Savings
1	\$209,850	\$36,663	\$353,395	\$0	\$164,331	\$27,317	\$791,556	\$791,556	\$ 20,200	\$ -	\$791,556
2	\$216,146	\$37,580	\$362,230	\$0	\$169,261	\$27,863	\$813,080	\$813,080	\$ 20,857	\$ -	\$813,080
3	\$222,630	\$38,519	\$371,286	\$0	\$174,339	\$28,420	\$835,194	\$835,194	\$ 21,534	\$ -	\$835,194
4	\$229,309	\$39,482	\$380,568	\$0	\$179,569	\$28,989	\$857,917	\$857,917	\$ 22,234	\$ -	\$857,917
5	\$236,188	\$40,469	\$390,082	\$0	\$184,956	\$29,568	\$881,263	\$881,263	\$ 22,957	\$ -	\$881,263
6	\$243,274	\$41,481	\$399,834	\$0	\$190,505	\$30,160	\$905,254	\$905,254	\$ 23,703	\$ -	\$905,254
7	\$250,572	\$42,518	\$409,830	\$0	\$196,220	\$30,763	\$929,903	\$929,903	\$ 24,473	\$ -	\$929,903
8	\$258,089	\$43,581	\$420,076	\$0	\$202,106	\$31,378	\$955,230	\$955,230	\$ 25,269	\$ -	\$955,230
9	\$265,832	\$44,670	\$430,577	\$0	\$208,170	\$32,006	\$981,255	\$981,255	\$ 26,090	\$ -	\$981,255
10	\$273,807	\$45,787	\$441,342	\$0	\$214,414	\$32,646	\$1,007,996	\$1,007,996	\$ 26,938	\$ -	\$1,007,996
11	\$282,021	\$46,932	\$452,375	\$0	\$220,847	\$33,299	\$1,035,474	\$1,035,474	\$ 27,813	\$ -	\$1,035,474
12	\$290,481	\$48,105	\$463,685	\$0	\$227,473	\$33,965	\$1,063,709	\$1,063,709	\$ 28,717	\$ -	\$1,063,709
13	\$299,196	\$49,308	\$475,277	\$0	\$234,297	\$34,644	\$1,092,722	\$1,092,722	\$ 29,651	\$ -	\$1,092,722
14	\$308,172	\$50,540	\$487,159	\$0	\$241,326	\$35,337	\$1,122,534	\$1,122,534	\$ 30,614	\$ -	\$1,122,534
15	\$317,417	\$51,804	\$499,338	\$0	\$248,565	\$36,044	\$1,153,168	\$1,153,168	\$ 31,609	\$ -	\$1,153,168
Total	\$3,902,984	\$657,439	\$6,337,054	\$0	\$3,056,379	\$472,399	\$14,426,255	\$14,426,255	\$ 382,659	\$ -	\$14,426,255

NOTES:

- (1) Includes Hard Costs and Project Service Fees defined in ESCOs PROPOSED PROJECT COST FORM, Attachment B-1
- (2) No payments are made by Agency during the construction period
- (3) This figure should equal the value indicated on the ESCOs PROPOSED PROJECT COST FORM, Attachment B-1.
DO NOT include in the Financed Project Costs.

Clearly, there are benefits to doing a project that is funded solely from the ARRA grant monies. Yet, the number and value of the building improvements is limited to available funds. NORESKO recommends that WV DOC consider leveraging both the ARRA grant allocation and the annual energy cost savings to make building infrastructure improvements in all four sites listed in this RFP document. By using the savings from the ARRA project, the \$791,566 of annual savings (shown above in the base project), can be used to fund other much needed improvements to the facilities. The additional work can be funded using the typical performance contracting model where the annual savings cover the financial obligation to the bank.

The Expanded Project

Table 5.2 below lists both the Base Project ECMs and the additional ECMs that may be funded by utilizing the annual energy cost savings as well as the ARRA funds. Please note that the base ARRA project ECMs has a value of \$5,094,880 and the additional savings-funded ECMs have a value of \$15,034,410 for a total project of \$20,129,290.

Table 5.2 –Expanded Project Summary

	ECMs	Price	Savings	Simple Payback (Years)
1	Lighting Improvements (Grant)	\$1,546,325	\$205,482	7.9
2	Water Conservation (Grant)	\$335,440	\$48,057	7.0
3	Water Conservation & Controls (Grant)	\$1,802,840	\$154,100	11.7
4	EMS Control Optimization (Grant)	\$462,036	\$216,999	2.1
5	Heating Control Improvements (Grant)	\$374,555	\$47,115	7.9
6	Kitchen Hood Controls (Grant)	\$158,396	\$13,584	11.7
7	New Domestic Hot Water Heaters (Grant)	\$73,822	\$2,936	25.1
8	New Washer (Grant)	\$68,637	\$0	1,000
9	Piping Insulation Improvements (Grant)	\$7,415	\$990	7.5
10	Steam System Repair/Upgrades (Grant)	\$265,414	\$102,293	2.6
11	Lighting Improvements (Funded)	\$95,954	\$13,592	7.1
12	Water Conservation (Funded)	\$71,746	\$5,439	13.2
13	New EMS System (Funded)	\$92,399	\$9,377	9.9
14	EMS System Upgrade (Funded)	\$1,162,005	\$184,428	6.3
15	Building Control Optimization (Funded)	\$31,058	\$5,245	5.9
16	Heating Control Improvements (Funded)	\$1,023,257	\$117,899	8.7
17	Piping Insulation Improvements (Funded)	\$27,458	\$4,593	6.0
18	Steam System Repair/Upgrades (Funded)	\$48,777	\$6,251	7.8
19	Air Conditioning Improvements (Funded)	\$69,538	\$2,130	1,000
20	Boiler Replacement (Funded)	\$403,309	\$4,893	82.4
21	New Make Up Air Unit (Funded)	\$89,758	-\$41,201	1,000
22	New Ozone Laundry System (Funded)	\$68,341	\$18,630	3.7
23	Kitchen Hood Controls (Funded)	\$1,509	\$313	4.8
24	Oil Tank Replacement (Funded)	\$115,358	\$0	1,000
25	Water Tank Upgrade (Funded)	\$686,380	\$0	1,000

ECMs		Price	Savings	Simple Payback (Years)
26	Weatherization (Funded)	\$3,952	\$625	6.3
27	New Showers (Funded)	\$3,306,932	\$5,689	581.3
28	New Windows (Funded)	\$4,144,019	\$20,768	199.5
29	Perimeter Heat and Control Improvements (Funded)	\$12,128	-\$657	1,000
30	New Building (Funded)	\$2,455,056	-\$8,906	1,000
31	New VFR System (Funded)	\$273,604	\$1,376	198.8
32	Replace CI Drains (Funded)	\$851,874	\$0	1,000
33	High Voltage Elect Maintenance Contract (Funded)	\$0	-\$15,300	0.0
TOTAL (ARRA + QECB) COMBINED PROJECT		\$20,129,290	\$1,122,480	17.9 years

To fund the non-ARRA project cost, we propose utilizing Qualified Energy Conservation Bonds (QECBs). NORESKO understands that WV DOC has more than \$18 million in QECB allocation that has not been used. NORESKO has extensive experience with implementing projects that utilize QECBs as the funding mechanism and we have a number of financing institutions who are happy to work with WV DOC to implement these bonds.

In conversations with one of these finance institutions, NORESKO obtained an indicative rate of 1.75% as the net interest rate that may be applied to this project. Form B-1 on the next page is modeled using this rate. This rate, of course, is subject to change due to future financial market conditions, and we are confident that our experts will be able to assist WV DOC in obtaining the most favorable available rate. Of note, the expanded project cash flow generates over \$100,000 per year in net savings, or \$1,935,860 over the 15 year term. This provides WV DOC with a significant buffer against rising interest rates, or this positive cash flow could alternately be used to fund an additional \$1.3 million in building improvements (NPV of \$1,935,860).

The combined project cash flow found on the B-1 form is based on the following criteria:

- The ARRA grant money is used to fund ECMs 1 to 10 as shown in Table 5.1.
- The QECBs are used to fund ECMs 11 to 33 as shown in Table 5.2.
- The QECBs are modeled at 1.75%.
- Cash flow based on a gross funding arrangement. For this arrangement, the funded amount is borrowed and placed in escrow at the lease inception. As progress payments are required during construction, draws will be made against the escrow account to pay NORESKO on a percent complete basis. The interest during construction is capitalized and added to the project amount to give the total financed amount.
- Cash flow is based on a 180-month repayment period and an 18-month construction period.
- Upon completion of construction, the repayment period will begin. We have assumed that payments will be made monthly in arrears.

The cash flow table for the Expanded Project is on the following page.

**ESCO's PRELIMINARY ANNUAL CASH FLOW ANALYSIS FORM
(ATTACHMENT B-1) COMBINED PROJECT
WEST VIRGINIA - DEPARTMENT OF CORRECTIONS**

Financed Project Cost 1: \$20,129,290
 Finance Term (months): 180
 Interest Rate: 1.75%
 Construction Period (months) (2): 18

Escalation Rates by Utility & Fuel:
 Electricity: 3.0%
 Natural Gas: 2.5%
 Fuel Oil: 2.5%
 Steam: 3.0%
 Water: 3.0%
 Operational: 2.0%
 Coal: 3.0%
 Other (Specify): 0.0%

Yr.	Electric Cost Savings	Natural Gas Cost Savings	Fuel Oil Cost Savings	Propane Cost Savings	Water & Sewer Cost Savings	Operational Cost Savings	Total Cost Savings	Guaranteed Cost Savings	Annual Service Fees (3)	Financing Payment	Net Savings
1	\$216,047	\$71,361	\$652,586	\$952	\$167,534	\$14,000	\$1,122,480	\$1,122,480	\$ 31,994	\$ 983,701	\$106,785
2	\$222,528	\$73,145	\$668,901	\$976	\$172,560	\$14,279	\$1,152,389	\$1,152,389	\$ 33,034	\$ 1,009,744	\$109,612
3	\$229,204	\$74,974	\$685,623	\$1,000	\$177,736	\$14,565	\$1,183,102	\$1,183,102	\$ 34,107	\$ 1,036,481	\$112,514
4	\$236,080	\$76,848	\$702,764	\$1,025	\$183,069	\$14,856	\$1,214,642	\$1,214,642	\$ 35,216	\$ 1,063,932	\$115,494
5	\$243,163	\$78,769	\$720,333	\$1,051	\$188,561	\$15,154	\$1,247,031	\$1,247,031	\$ 36,360	\$ 1,092,117	\$118,554
6	\$250,458	\$80,738	\$738,341	\$1,077	\$194,218	\$15,457	\$1,280,289	\$1,280,289	\$ 37,542	\$ 1,121,052	\$121,695
7	\$257,971	\$82,757	\$756,800	\$1,104	\$200,044	\$15,766	\$1,314,442	\$1,314,442	\$ 38,762	\$ 1,150,760	\$124,919
8	\$265,711	\$84,826	\$775,720	\$1,132	\$206,045	\$16,081	\$1,349,515	\$1,349,515	\$ 40,022	\$ 1,181,262	\$128,231
9	\$273,682	\$86,946	\$795,113	\$1,160	\$212,227	\$16,403	\$1,385,531	\$1,385,531	\$ 41,323	\$ 1,212,578	\$131,630
10	\$281,892	\$89,120	\$814,990	\$1,189	\$218,594	\$16,731	\$1,422,516	\$1,422,516	\$ 42,666	\$ 1,244,730	\$135,120
11	\$290,349	\$91,348	\$835,365	\$1,219	\$225,152	\$17,065	\$1,460,498	\$1,460,498	\$ 44,052	\$ 1,277,742	\$138,704
12	\$299,060	\$93,632	\$856,249	\$1,249	\$231,906	\$17,407	\$1,499,503	\$1,499,503	\$ 45,484	\$ 1,311,636	\$142,383
13	\$308,031	\$95,973	\$877,656	\$1,280	\$238,863	\$17,755	\$1,539,558	\$1,539,558	\$ 46,962	\$ 1,346,435	\$146,161
14	\$317,272	\$98,372	\$899,597	\$1,312	\$246,029	\$18,110	\$1,580,692	\$1,580,692	\$ 48,489	\$ 1,382,164	\$150,039
15	\$326,790	\$100,831	\$922,087	\$1,345	\$253,410	\$18,472	\$1,622,935	\$1,622,935	\$ 50,064	\$ 1,418,849	\$154,021
Total	\$4,018,238	\$1,279,640	\$11,702,125	\$17,071	\$3,115,948	\$242,101	\$20,375,123	\$20,375,123	\$ 606,078	\$ 17,833,164	\$1,935,860

NOTES:

- (1) Includes Hard Costs and Project Service Fees defined in ESCOs PROPOSED PROJECT COST FORM, Attachment B-1
- (2) No payments are made by Agency during the construction period
- (3) This figure should equal the value indicated on the ESCOs PROPOSED PROJECT COST FORM, Attachment B-1.
DO NOT include in the Financed Project Costs.

B. Other Costs: Describe other costs such as maintenance and monitoring agreements and describe how they will be applied. Also state whether these are annual costs and if they are required each year of the contract.

NORESCO offers a variety of maintenance services customized to fit our client's needs and desires. The scope of services varies greatly from regular preventative maintenance through comprehensive maintenance and supervision to full plant ownership and operation. WV DOC may wish to augment current maintenance practices with any level of service NORESKO offers, yet WV DOC already has a very qualified and capable service team in action. NORESKO will not require maintenance service agreements in order to provide guaranteed savings to WV DOC. The cash flows for both the base project and the combined project do not include any ongoing maintenance costs. The only ongoing cost that is included in the cash flows shown above are for annual measurement and verification (M&V) services and is shown under the heading "Annual Service Fees" in the B-1 form. This cost is to provide the services as outlined in the M&V Plan as shown in the Technical Proposal. The costs of these services are paid to NORESKO on an annual basis. The M&V plan can be canceled at any point during the performance period if WV DOC is comfortable that the savings are being achieved.

C. Financing Options: Describe alternative financing options for portions of the project that may not be funded via ARRA funding. Denmark Correctional Center is currently not ARRA funded.

One of the most important values NORESKO brings to this partnership is extensive experience and expertise in developing and securing substantial low-cost financing awards to maximize the project term cash-flow performance of the energy conservation solutions and the program overall. We will search and develop the most financially attractive incentives, grants, and financing options for the Agency. For the non-ARRA project, NORESKO is proposing to utilize Qualified Energy Conservation Bonds (QECBs) to fund this work. QECBs provide low-interest financing to promote the use of alternative energy and energy efficiency. QECBs are designed to provide the bond purchaser with a 70% interest subsidy by the United States government. The full subsidy is set daily by the U.S. Treasury Department. NORESKO has already demonstrated the ability to secure \$60 million in QECB allocations for the following customers.

NORESCO Secured QECB Allocation Awards for:	Amount of QECB Allocation Awards
SCI, Huntingdon and Smithfield	\$10 million
PA DGS Annex Complex	\$6 million
Torrance State Hospital	\$1.5 million
Allegheny County Phase 2	\$9.3 million
Westmoreland County	\$3.7 million

NORESCO Secured QECB Allocation Awards for:	Amount of QECB Allocation Awards
Montgomery County	\$8 million
City of Philadelphia	\$15 million
Berks County	\$4.1 million
Lehigh County	\$2.4 million
Total	\$60 million

NORESCO obtained a net interest rate for the WV DOC project of 1.75% from a financial institution that is experienced in funding performance contracting projects that utilize QECBs as the funding mechanism.

D. Cost of the Investment Grade Audit: Provide an estimate of the cost of the investment grade audit that will be conducted after ESCO selection. The cost shall be broken down into fixed cost and cost per square foot for the Investment Grade Audit.

NORESCO's cost for the Investment Grade Audit will be **\$225,000** which equates to a cost of **\$0.20/sq ft**. To expedite the construction phase of the project, NORESCO will also begin the necessary design engineering that is not typically included in an Investment Grade Audit. The cost for this design engineering work will be rolled into the overall project price along with the Investment Grade Audit cost. Please be assured that, if WV DOC chooses not to proceed with the construction, the cost to WV DOC for the Investment Grade Audit will not exceed \$225,000.

E. Attachments for "Financial Analysis" Section. Label attachments and list here including attachment name, description and location in RFP response. Insert attachments here at the end of this section, or include elsewhere in a clearly marked location for easy reference.

Attachment B1, ESCOs Preliminary Annual Cash Flow Analysis Form for the Base Project may be found on page 2 of this Cost Proposal.

Attachment B1, ESCOs Preliminary Annual Cash Flow Analysis Form for the Combined Project may be found on page 6 of this Cost Proposal.