

Energy Services Contract
County of Tulare and Chevron Energy Solutions Company
Chevron ES Project #: DWCES-30282 -___
Chevron ES Contract # CU

ENERGY SERVICES CONTRACT

"Customer": Co	ounty of Tulare	Customer Address: 5961 South Visalia, CA	Mooney Boulevard
Contract Effective	Date:		
	udit Agreement between Customer and	"Contract Amount" (refer to Attachn \$_7,230,779.00	nent F):
"Energy Savings T the Construction F	Ferm": <u>15</u> Yrs <u>. 0</u> Mo., plus Period.	First Year's "Annual Guarantee Fee	\$ 25,000
	f Equipment (If Arranged by Chevron	Estimated Construction Period: 1	Yrs <u>5</u> _Mo
Chevron Energy corporation, havin identified above, f singularly be iden	ices Contract ("Contract) is made and er r Solutions Company, a Division of g its principal offices at 345 California Str for the purposes of providing comprehens tified as "Party" and collectively as "Party" and fully incorporated herein.	Chevron U.S.A., Inc., ("Chevro eet, Suite 1800, San Francisco, CA sive energy services. "Chevron ES"	n E\$"), a Pennsylvania 94104, and the Customer and the "Customer" may
	ATTACHMENT	S TO CONTRACT	
			Not Applicable/
<u>Attachment</u>	Title	Attached	Not Attached
Α	General Terms and Conditions	Attached	
В	Design/Build Terms and Conditions	Attached	
С	Customer's Facilities and Existing Equi	pment Attached	
D	Scope of Work	Attached	
E	Project Schedule	Attached	
F	Progress Payment Schedule	Attached	
G	Standards of Occupancy & Control	Attached	
Н	Energy Management and Guarantee S		
i	Guaranteed Savings	Attached	
j	Additional On-Going Scope of Work	Attached	n/a
K	Financial Proforma	Attached	1,74
L	UtilityVision SM Connectivity Requireme		
M	Lighting Scope	Attached	
			earibo thair names to this
Contract by their	IESS WHEREOF, and intending to be le duly authorized officers which shall becom	gaily bound, the Parties hereto sub ne effective on the date first above w	ritten.
CHEVRON ES: Chevron Energy Chevron U.S.A.,	Solutions Company, a Division of	COUNTY OF TULARE:	
Chevion G.S.A.,	, ,		
By: Day		Ву:	
Print Name: 1	out as A Nathan	Print Name:	
Title: Vice	President	Title:	
Per Resolution No	o, adopted by the	_ Customer's Board on	, 2006
		APPROVED AS TO FORM:	
		7-14-06	Esq.
Rev. Date:	_ Page 1 of 4	5	ESC – CA Public V 7/27/05



Rev. Date: _____

Energy Services Contract
County of Tulare and Chevron Energy Solutions Company
Chevron ES Project #: DWCES-30282 -_ _
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ENERGY SERVICES CONTRACT

'Customer": <u>Co</u>	ounty of Tulare	Customer Address: _	5961 South N	Mooney Boulevard
Contract Effective	Date:	<u> </u>	Visalia, CA 9	3277
		"Contract Amount" (ref	er to Attachme	nt F):
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"Energy Savings l the Construction F	Ferm": <u>15</u> Yrs <u>. 0</u> Mo., plus Period.	First Year's "Annual G	uarantee Fee"	\$\$ 25,000
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Α	General Terms and Conditions	F	Attached	
В	Design/Build Terms and Conditions		Attached	
С	Customer's Facilities and Existing Equ	uipment A	Attached	
D	Scope of Work	A	Attached	
Е	Project Schedule	ŀ	Attached	
F	Progress Payment Schedule	A	Attached	
G	Standards of Occupancy & Control	,	Attached	
H	Energy Management and Guarantee	Services /	Attached	
1	Guaranteed Savings		Attached	
J	Additional On-Going Scope of Work	,	illaonoa	n/a
	Financial Proforma		Attached	100
K	UtilityVision SM Connectivity Requirem		Attached	
L			Attached	
M	Lighting Scope	,	Allached	
IN WITN Contract by their	NESS WHEREOF, and intending to be It duly authorized officers which shall beco	egally bound, the Partie me effective on the date	s hereto subs first above wri	cribe their names to this tten.
CHEVRON ES: Chevron Energy Chevron U.S.A.,	Solutions Company, a Division of Inc.	COUNTY OF TULAR	E:	
Ву:		Ву:		
Print Name:		Print Name:	****	
Title:		Title:		
Per Resolution No, adopted by the		Customer's Board	on	, 2006
		APPROVED AS TO F	ORM:	
				Esq.

ATTACHMENT A GENERAL TERMS AND CONDITIONS

CONTRACT RECITALS

WHEREAS, Customer owns and/or operates certain public facilities specifically described in Attachment C attached hereto and incorporated herein ("Facilities") and Customer wishes to reduce its Facilities' energy consumption and costs and improve the Facilities' energy quality/reliability by contracting to procure comprehensive energy management strategy expertise to achieve long term benefits and flexibility in managing the Customer's power and energy needs and to implement certain new and upgraded energy system related equipment and materials; and

WHEREAS, Chevron ES is a full-service energy services company with the technical capabilities to provide services to the Customer including, but not limited to, energy auditing, engineering, procurement, construction management, installation, construction, financing, training, monitoring and verification, and maintenance and operation (collectively, "Services"); and

WHEREAS, the Customer executed an Energy Audit Agreement with Chevron ES to perform a comprehensive energy analysis and present the Customer with a detailed Comprehensive Energy Analysis ("CEA") Report and recommended energy plan to implement certain Energy Conservation Measures ("ECM's"). The CEA Report identified potential energy and operational savings opportunities at the identified Customer's Facilities and identified estimated program costs to implement the recommended ECM's and presented an overall potential energy cost and consumption savings of implementing the ECM recommendations; and

WHEREAS, Customer Staff accepted Chevron ES' CEA Report and recommended ECM's and has determined that the anticipated cost to Customer to implement the recommended ECM's will be less than the anticipated cost to the Customer for thermal, electrical, and other energy and other operational and maintenance savings that would have been consumed by Customer without the implementation of the recommended ECM's in compliance with California Government Code Section 4217.10 through 4217.18; and

WHEREAS, pursuant to Section 4217.12 of the California Government Code the **Board of Supervisors** held a public hearing at a regularly scheduled public hearing on March 21, 2006 of which two weeks advance public notice was given regarding this Contract and its subject matter, and

WHEREAS, based upon the foregoing findings and public hearing, the **Board of Supervisors** has determined that entering into an energy services contract to implement the ECM recommendations is in the best interests of the Customer and pursuant to California Government Code Section 4217.10 et seq. allows the Customer to enter into this Energy Services Contract with Chevron ES to implement the measures recommended in the ECM's; and

Whereas, the **Board of Supervisors,** by adoption of a Resolution at its meeting March 21, 2006, approved this Energy Services Contract by and between Chevron ES and the Customer and authorized the Director of the Resource Management Agency to execute this Energy Services Contract on behalf of the Customer ("Contract Effective Date").

NOW, THEREFORE, the Customer and Chevron ES hereby agree as follows:

SECTION 1. PERFORMANCE OF THE WORK

- Section 1.1. Performance of Work/Additional Terms and Conditions Governing Construction. All the Work to be performed hereunder, including engineering, equipment and material procurement, installation, construction, and measurement & verification provided by Chevron ES, will be provided in accordance per the terms of the this Contract, its attachments, and the terms of Attachment B, "Design/Build Terms and Conditions", attached hereto and incorporated herein.
- Section 1.2 Scope of Work. The Scope of Work to be provided hereunder, including all engineering, equipment and material procurement, and installation and construction, is more fully described in the Scope of Work attached hereto as **Attachment D**, "Scope of Work".
- Section 1.3 Project Schedule/Notice to Proceed. The preliminary project schedule is presented in Attachment E, "Project Schedule" which is attached hereto and incorporated herein ("Project Schedule"). Within ten (10) calendar days after the Contract Effective Date, Customer will issue to Chevron ES a written Notice to Proceed ("Notice to Proceed" or "NTP"). If the Customer fails to issue the Notice to Proceed within ten (10) calendar days after the Contract Effective date, the Parties agree that the Notice to Proceed shall be deemed to have been issued on the tenth (10) day. Chevron ES shall begin Work within thirty (30) calendar days of Chevron ES' receipt of the Notice to Proceed.
- Section 1.4 Additional Work. During the Contract Term, the Parties hereto may mutually agree to add additional Work and/or Projects to the Scope of Work by a written Change Order, executed by both Parties; and such work shall be performed in accordance with the terms and conditions of this Contract, as amended.

Section 1.5 Liquidated Damages to Customer

that if Chevron ES fails to Substantially Complete the Work of a Project within the Contract Time for such Project, the Customer will suffer as a result of Chevron ES' failure substantial Losses which are both extremely difficult and impracticable to ascertain.

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1.5.2 <u>Daily Amount.</u> If Chevron ES fails to achieve Substantial Completion of the Project within the Contract Time for Substantial Completion, Chevron ES shall pay the Customer as liquidated damages the of five hundred (\$500) dollars per Day. Liquidated damages shall be due and payable no earlier than the date that payment is due for Chevron ES' final Progress Payment following Substantial Completion of the Project.

SECTION 2. CUSTOMER'S ENERGY AND OPERATIONAL RECORDS AND DATA

Customer represents and warrants that it has furnished to Chevron ES (or shall furnish, or cause its energy suppliers to furnish, no later than ten (10) business days after the Contract Effective Date), all of its records and complete data requested by Chevron ES concerning, without limitation, energy usage, energy-related maintenance, and other related costs for the Facilities listed in Attachment C, "Customer Facilities and Existing Equipment", and including without limitation the following data for at least the past twelve (12) months and, optimally, the most current thirty-six (36) month period: utility records; occupancy information; descriptions of any changes in the building structure or its heating, cooling, lighting or other systems or energy requirements consuming or saving equipment used in the Facilities; applicable building drawings, specifications, existing AutoCAD files, O&M manuals, and as-builts; bills and records relating to operation and maintenance of systems and equipment within the Facilities, and description of operation and management procedures presently utilized. Customer agrees that Chevron ES may rely on the foregoing data as being accurate in all respects. If requested, Customer shall also provide any prior energy audits of the Facilities, and copies of Customer's financial statements and records related to energy usage and operational costs for said time period at the Facilities, and shall authorize its agents and employees to provide and freely discuss such records and to make themselves available for consultations and discussions with authorized representatives, employees, subcontractors, and agents of Chevron ES.

SECTION 3. CONTRACT TERM

The term of the Contract shall commence on the Contract Effective Date and end at the end of the Energy Savings Term, unless terminated early as provided in this Contract.

SECTION 4. PAYMENTS

Payments by Customer to Chevron ES under this Contract shall be in the form of monthly progress payments as discussed below and specifically described in **Attachment F, "Progress Payment Schedule"**.

- Section 4.1. Monthly Progress Payments. Upon execution of this Contract, Chevron ES shall invoice the Customer for the Comprehensive Energy Analysis Fee plus a 20% Mobilization Fee, as detailed on Attachment F. In addition, on or before the twentieth (20th) day of each month, Chevron ES shall submit to the Customer, or their designee, for approval its request for a monthly progress payment per the Draw Schedule in Attachment F ("Request for Payment") in a form reasonably acceptable to Customer. The Customer, or their designee, shall approve each Request for Payment, less a ten (10%) percent retainage amount ("Retainage"), within thirty (30) calendar days after its receipt thereof. After approval of each Request for Payment by the Customer, or their designee, such Request shall be submitted to Lender who shall pay such amount from an escrow account set up for this Contract to make such payments. Each Monthly Progress Payment shall be made on or before the tenth (10th) day after such Request for Payment was received by Lender from Customer. Upon Substantial Completion, the retainage amount shall be reduced to five (5%) percent retainage upon achieving Final Completion.
- Section 4.2 <u>Final Payment.</u> The final Request for Payment may be made after the Final Completion date and shall include conditional waivers and releases from Chevron ES and its subcontractors. Final Payment amount shall also include payment to Chevron ES for the remaining five (5%) percent retainage amounts withheld by Customer.
- Section 4.3 <u>Disputed Invoices/Late Payments.</u> If Customer disputes any Request for Payment, or part thereof, or any supporting documentation related thereto, or otherwise disputes any Request for Payment as provided in Section 4.5 below, Customer shall make full payment to Chevron ES when required in Section 4.1 above, less any portions of the Request for Payment amount in dispute, and shall provide to Chevron ES a written explanation of the basis for the dispute and the amount of the Request for Payment being withheld related to the dispute, no later than the Due Date. Customer shall be deemed to have waived and released any dispute known to it with respect to a bill if such written explanation is not provided within thirty (30) calendar days after the Due Date or if within those thirty days Customer does not request an extension of time within which to provide said explanation. If any amount disputed by Customer is finally determined to be due to Chevron ES, either by agreement between the Parties or as a pursuant to Section 16 below, it shall be paid to Chevron ES within thirty (30) business days of such final determination., plus reasonable interest at statutory rate set forth in the prompt payment statutes ("Interest").
- Section 4.4 Rebate Programs. On behalf of the Customer, Chevron ES shall prepare and submit to the applicable agencies all applications and documentation necessary for the listed energy efficiency rebate, incentive, and/or loan program(s) ("Incentive Funds") shown on Attachment K, Financial Proforma. While Chevron ES has extensive experience in assisting Customers with procuring Incentive Funds for our Customers, and does not foresee any reason why such Incentive Funds identified in Attachment K will not be obtained by the Customer for this Project, Chevron ES cannot guarantee that these Incentive Funds will be received by the Customer. Procurement, or lack thereof, of these Incentive Funds will not alter the Contract Amount of this Contract, or payment timeline associated with standard progress invoicing and payments.

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Section 4.5 Annual Guarantee Fee. If applicable as identified in Attachment F, the First Year's Annual Guarantee Fee shall be invoiced by Chevron ES to the Customer in a lump sum on the M&V Commencement Date. All subsequent Annual Guarantee Fees will be billed annually on the anniversary of the M&V Commencement Date. The Customer or their designee, shall approve each Request for Payment, without any retention amount withheld, within thirty (30) calendar days after its receipt thereof.

SECTION 5. WARRANTY/LIMITATION OF LIABILITY

Chevron ES warrants its workmanship provided hereunder, including its subcontractors' workmanship, shall be free of material defects for a period of one (1) year from the date of Substantial Completion as indicated on the executed Certificate of Substantial Completion, or the date of Beneficial Use as indicated on the executed Certificate of Beneficial Use ("Chevron ES Warranty"). All warranties hereunder, including without limitation those for defects, whether latent or patent, in design, engineering, or construction, shall terminate one (1) year from the date of Substantial Completion or Beneficial Use; and thereafter, Chevron ES will have no liability for breach of any warranty or for any latent or patent defect of any kind pursuant to California Code of Civil Procedure Sections 337.15 and 338. Equipment and material warranties that exceed the one (1) year warranty period shall be provided directly by the equipment and/or material manufacturers and such warranties shall be assigned directly to the Customer, after the one (1) year period. During the one (1) year Chevron ES warranty period, Chevron ES shall be the Customer's agent in working with the equipment and material manufacturers in resolving any equipment or material warranty issues. If any material defects are discovered within the one (1) year Chevron ES warranty period, Chevron ES, or Chevron ES' subcontractors, will correct its defects and/or Chevron ES will work with the equipment or material manufacturer as the Customer's agent to facilitate the manufacturer's correction of the equipment or material defect. Such warranty services shall be performed in a timely manner and at the reasonable convenience of the Customer. This warranty expressly excludes any remedy for damage or defect caused by improper use, improper or inadequate maintenance, operations of the installed equipment by users other than Chevron ES or its subcontractors, corrosion, erosion, deterioration, abuse, modifications or repairs not performed by an authorized Chevron ES subcontractor, improper operation, or normal wear and tear under normal usage. If a warranty issue arises on any equipment or material installed after the one (1) year Chevron ES warranty period, and the equipment or material has a warranty period that exceeds one (1) year, the Customer shall contact the manufacturer directly to resolve such warranty issues and Customer acknowledges that the manufacturer shall have sole responsibility for such issues.

EXCEPT FOR THE WARRANTY AND GUARANTEES PROVIDED IN SECTION 5 HEREIN, CUSTOMER EXPRESSLY AGREES THAT CHEVRON ES MAKES NO OTHER WARRANTIES AND ASSUMES NO OTHER LIABILITIES, WHETHER IN CONTRACT OR IN NEGLIGENCE, IN CONNECTION WITH THE SALE AND INSTALLATION OF EQUIPMENT AND MATERIALS PROVIDED HEREUNDER WHETHER EXPRESS OR IMPLIED, IN LAW OR IN COMMUNICATION BETWEEN CHEVRON ES AND CUSTOMER. CHEVRON ES SPECIFICALLY DISCLAIMS ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. CUSTOMER SHALL HAVE NO REMEDIES AGAINST EITHER CHEVRON ES OR ANY CHEVRON ES SUBCONTRACTOR FOR ANY DEFECTIVE WORK INSTALLED EXCEPT FOR THE REPAIR OR REPLACEMENT OF SUCH EQUIPMENT IN ACCORDANCE WITH THE WARRANTY INDICATED ABOVE. SPECIFICALLY, CHEVRON ES, OR CHEVRON ES' SUBCONTRACTOR, SHALL NOT BE LIABLE TO CUSTOMER FOR LOSS OF PROFITS OR FOR ANY SPECIAL, INDIRECT, INCIDENTAL, CONSEQUENTIAL OR PUNITIVE DAMAGES, HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY.

SECTION 6. GOVERNMENTAL PERMITS AND APPROVALS; COORDINATION

Section 6.1. Permits and Approvals. Customer will cooperate fully with and assist Chevron ES in obtaining all permits and approvals required under this Contract. Chevron ES is responsible for obtaining permits and approvals, required for the building, installation, and start-up of the Work hereunder which are required as of the date of approval of this contract by the Customer. The Customer shall be responsible for obtaining any other permits or approvals that may be required, including annual operating permits as applicable.

Section 6.2. Coordination During Installation. Customer and Chevron ES shall cooperate to coordinate the activities of Chevron ES and Chevron ES' subcontractors and suppliers with those of Customer, its employees, and agents. Chevron ES will use reasonable efforts not to interfere with the performance of business activities conducted by Customer or its employees without prior written approval of Customer, which shall not to be unreasonably withheld.

SECTION 7. MEASUREMENT AND VERIFICATION SERVICES/COST SAVINGS GUARANTEES

As detailed in **Attachments H – Energy Management and Guarantee Services and I – Guaranteed Savings**, Chevron ES shall provide monitoring services and the related cost savings guarantees for energy and maintenance.

SECTION 8. OWNERSHIP OF CERTAIN PROPERTY AND EXISTING EQUIPMENT

Section 8.1. Ownership of Certain Proprietary Property Rights. Customer shall not, by virtue of this Contract, acquire any interest in any formulas, patterns, devices, secret inventions or processes, copyrights, patents, other intellectual or proprietary rights, or similar items of property which are or may be used in connection with the equipment. Chevron ES shall grant to Customer a perpetual, irrevocable royalty-free license for any and all software or other intellectual property rights necessary for Customer to continue to operate, maintain, and repair the equipment in a manner that will yield maximal energy consumption reductions.

Section 8.2. Ownership of Any Existing Equipment. Ownership of any equipment and materials presently existing at the Facilities at the time of execution of this Contract shall remain the property of the Customer even if it is replaced or its operation made unnecessary by work performed by Chevron ES pursuant to this Contract. If applicable, Chevron ES shall advise Customer in

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writing of all equipment and materials that will be replaced at the Facilities and Customer shall, within five (5) business days of Chevron ES' notice, designate in writing to Chevron ES which replaced equipment and materials that should not be disposed of off-site by Chevron ES (the "Retained Items"). It is understood and agreed to by both Parties that Customer shall be responsible for and designate the location and storage for the Retained Items. Chevron ES shall be responsible for the disposal of replaced equipment and materials, except for the Retained Items Chevron ES shall use commercially reasonable efforts to remove the Retained Items in such a manner as to avoid damage thereto, or if it is unreasonable to avoid damage altogether, to minimize the damage done. Chevron ES shall not be responsible for the removal and/or disposal of any Hazardous Materials or substances except as required by the Scope of Work attached hereto.

SECTION 9. LOCATION AND ACCESS

Customer will provide sufficient space at the Facilities for the performance of the Work and the installation, storage, and operation of any equipment and materials and will take reasonable steps to protect any such equipment and materials from harm, theft and misuse. Customer shall provide access to the Facilities, including parking permits and identification takes, for Chevron ES and subcontractors to perform its Work hereunder during regular business hours, or such other reasonable hours as may be requested by Chevron ES and acceptable to Customer. The Customer shall also either provide a set or sets of keys subcontractors (signed out per Customer policy) or provide a readily available security escort to unlock and lock doors. Customer shall not unreasonably restrict Chevron ES' access to Facilities to make emergency repairs or corrections as it may determine are needed.

SECTION 10. INDEMNIFICATION/INSURANCE/BONDS

Section 10.1. Indemnification. To the full extent permitted by law, each Party shall indemnify, hold harmless, release and defend the other Party, its officers, employees, and agents from and against any and all actions, claims, demands, damages, disability, losses, expenses including attorney's fees and other defense costs and liabilities of any nature that may be asserted by any person or entity in whole or in part, arising out of that Party's activities hereunder, including the activities of other persons employed or utilized by that Party in the performance of this Contract excepting liabilities due to the negligence or willful misconduct of the indemnified Party. This indemnification obligation is not limited in any way by any limitations of any insurance held or provided by Chevron ES and shall continue to bind the parties after termination/completion of this Contract.

Section 10.2 Waiver of Consequential Damages and Limitation of Liability. Under no circumstances will either Party be liable to the other Party for any special, indirect, incidental, consequential or punitive damages, however caused and on any theory of liability. "Consequential damages" includes, but is not limited to, operational losses in the performance of business including lost revenues and any increase in operating expense, and any lost profits. It is expressly understood and agreed to by both Parties that each Party's liability to the other shall be limited to reimbursement of only those Losses arising solely from a Party's breach of this Contract, negligence or willful misconduct. "Losses" means claims, actions, direct damages, liabilities, costs and/or expenses (including reasonable attorneys' fees).

Section 10.3 <u>Chevron ES Insurance</u>. Chevron ES shall maintain, for the duration of this Contract, the insurance coverage outlined in (i) through (vii) below, and all such other insurance as required by applicable law. Evidence of coverage will be provided to Customer on an annual basis, prior to policy expiration, via a Certificate of Insurance or a Self Administered Claims Letter.

- (i) Workers' Compensation/Employers Liability for states in which Chevron ES is not a qualified self-insured. Limits as follows:
 - * Workers' Compensation Statutory
 - * Employers Liability Bodily Injury by accident \$1,000,000 each accident

Bodily Injury by disease \$1,000,000 each employee Bodily Injury by disease \$1,000,000 policy limit

- (ii) Commercial General Liability insurance with limits of :
 - * \$1,000,000 per occurrence for Bodily Injury and Property Damage
 - * \$1,000,000 General Aggregate other than Products/Completed Operations
 - * \$1,000,000 Products/Completed Operations Aggregate
 - \$1,000,000 Personal & Advertising Injury
 - * \$ 100,000 Fire Damage

Coverage to be written on a Claims-made form. Coverage to be at least as broad as ISO form CG 002 (07/98), without endorsements that limit the policy terms with respect to: (1) the definition of an Insured Contract, (2) provisions for severability of interest, (3) explosion, collapse, underground hazard.

- (iii) Auto Liability insurance for owned, hired and non-owned vehicles with limits of \$1,000,000 per accident. Coverage to be written on an Occurrence form.
 - (iv) Professional Liability insurance with limits of:
 - \$1,000,000 per occurrence
 - * \$1,000,000 aggregate

Coverage to be written on a Claims-made form.

- (v) Excess Liability insurance. Limits as follows:
 - \$1,000,000 each occurrence

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\$1,000,000 aggregate

Coverage to be written on a Claims-made form. Coverage terms and limits to apply excess of the per occurrence and/or aggregate limits provided for Commercial General Liability, Auto Liability and Professional Liability. Coverage terms and limits to also apply in excess of those required for Employers Liability.

- (vi) Policy Endorsements.
 - The insurance specified in clause 10.3(i) above shall contain waivers of subrogation rights against
 - * The insurance provided for Commercial General Liability and Auto Liability above shall:
 - (a) include the Customer as an additional insured with respect to Work performed under this Contract, and
 - (b) provide that the insurance is primary coverage with respect to all insureds and shall not be considered contributory insurance with any insurance policies of the Customer.
- (vii) In lieu of any insurances required in this Section, Chevron ES may self insure hereunder and use a Self Administered Claims Program for this purpose. Chevron ES will notify Customer in writing 30 days prior to cancellation of the Self Administered Claims Program.

Section 10.4 Performance and Payment Bonds. Prior to commencing Work under this Contract, Chevron ES shall furnish a Performance Bond in an amount equal to one hundred percent (100%) of the Contract Amount, and a Payment Bond to guarantee payment of all claims for labor and materials furnished, in an amount equal to one hundred percent (100%) of the Contract Amount (collectively "Contract Bonds"). The Contract Bonds shall be maintained in full force and effect until Final Completion. The bonds are not being furnished to cover the performance of any energy guaranty or guaranteed savings under this Contract. Customer agrees that upon Final Completion, the Performance and Payment Bonds shall be released and all obligations arising thereunder shall be terminated. The surety supplying the bond shall be an "admitted surety insurer," as defined by Section 995. 120 of the Code of Civil Procedure authorized to do business in the State of California and reasonably satisfactory to Customer. The attached bond forms will be used

SECTION 11. CONDITIONS BEYOND CONTROL OF THE PARTIES

Section 11.1 Force Majeure Events. Neither Party shall be considered to be in default in material obligation under this Contract (other than the obligation to make payments) when a failure of performance of any event of Force Majeure. The term "Force Majeure" shall mean any cause beyond the control of the affected exercise of due diligence such Party could not reasonably have been expected to avoid and which it has been unable to overcome. A list of Force Majeure events are listed in the Definition section of **Attachment B**, "**Design/Build Terms and Conditions**" attached hereto. Neither Party shall be relieved of its obligation to perform if such failure is due to causes arising out of its own negligence or due to removable or remediable causes which it fails to remove or remedy within a reasonable time period. Either Party rendered unable to notice of such fact to the other Party.

Section 11.2 <u>Utility Work.</u> Customer expressly understands and agrees that the definition "Force Majeure" above also includes any Interconnection Facilities work that may need to be performed by the local Utility ("Utility") in order for Chevron ES to fully implement the Project. "Interconnection Facilities" shall mean any distribution or transmission lines and other facilities that may be required to connect equipment supplied under this Contract to an electrical distribution/transmission system owned and maintained by the Utility. Any Interconnection Facilities work that may be required will be performed by the Utility under a separate contract between Customer and the Utility.

SECTION 12. EVENTS OF DEFAULT

- Section 12.1. <u>Events of Default by Customer</u>. Each of the following events or conditions shall constitute an "Event of Default" by Customer:
- (i) any failure by Customer to perform or comply with the terms and conditions of this Contract, including breach of any covenant contained herein, and such failure continues for thirty (30) calendar days after notice to Customer demanding that such failure to perform be cured; provided that (i) such failure to perform shall not deemed a default hereunder if it is due to causes beyond the control of Customer pursuant to Section 11 above; and (ii) if such cure cannot be effected in thirty (30) calendar days, Customer shall be deemed to have cured the default upon the commencement of a cure within thirty (30) calendar days and diligent subsequent completion thereof; or
- (ii) any representation or warranty furnished by Customer in this Contract which was false or misleading in any material respect when made; or
- (iii) any failure by Customer to pay any amount to Chevron ES which is not paid within ten (10) days of written notice from Chevron ES that the amount is past due.
- Section 12.2. <u>Events of Default by Chevron ES.</u> Each of the following events or conditions shall constitute an "Event of Default" by Chevron ES:

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 (i) any failure by Chevron ES to perform or comply with the terms and conditions o 	this Contract, including
breach of any covenant contained herein, and such failure continues for thirty (30) calendar days after notice to	Chevron ES demanding
that such failure to perform be cured; provided that (i) such failure to perform shall not be deemed a default	hereunder if it is due to
causes beyond the control of Chevron ES pursuant to Section 11 above, and (ii) if such cure cannot be effected	d in thirty (30) calendar
days, Chevron ES shall be deemed to have cured the default upon the commencement of a cure within thirty	(30) calendar days and
diligent subsequent completion thereof; or	

(ii) any representation or warranty furnished by Chevron ES in this Contract which was false or misleading in any material respect when made; or

(iii) any lien or encumbrance is placed upon the equipment by any subcontractor, laborer, or supplier of Chevron ES, which is not timely removed by Chevron ES; provided that Chevron ES has been duly paid for the Work and such lien or encumbrance is not the result of any act or failure to act of Customer.

SECTION 13. REMEDIES UPON DEFAULT

Section 13.1. Remedies upon Default by Customer. If an Event of Default by Customer occurs, Chevron ES will be entitled to obtain any available legal or equitable remedies pursuant to Section 16 below including, without limitation, terminating this Contract or recovering amounts due and unpaid by Customer, and/or damages which shall include Chevron direct out-of-pocket losses incurred by reason of such Event of Default and any cost of funding and costs; and any payment or delivery required to have been on or before the date of the Event of Default and not made, including Interest (as defined in Attachment B, Article 1) on any sums due, and losses and costs incurred as a result of terminating this Contract and all costs and expenses reasonably incurred in exercising the foregoing remedies.

Section 13.2. Remedies Upon Default by Chevron ES. If an Event of Default by Chevron ES occurs, Customer shall be entitled to obtain any available legal or equitable remedies pursuant to Section 16 below, including, without limitation, terminating this Contract, or recovering amounts due and unpaid by Chevron ES and/or damages, which shall include Customer's reasonable, actual, direct out-of-pocket losses incurred by reason of such Event of Default and any cost of funding and costs; and any payment or delivery required to have been on or before the date of the Event of Default and not made, including Interest on any sums due, and losses and costs incurred as a result of terminating this Contract and all costs and expenses reasonably incurred in exercising the foregoing remedies.

SECTION 14. ASSIGNMENT

Section 14.1. Assignment. This Contract may not be assigned by either party in whole or may not be unreasonably withheld or delayed; provided however, that Chevron ES may assign this Contract and all related contracts without the consent of Customer (i) to an affiliate; (ii) to an entity that is controlled by, controls, or is under common control with Chevron ES; or (iii) pursuant to a merger, consolidation, transfer of substantially all its assets, or by operation of law; and provided further that Chevron ES may assign its rights, but not its obligations, under this Contract and all related contracts without the consent of Customer to (x) a lender providing financing to Chevron ES, or (y) a special purpose entity that is an affiliate of or is controlled by such lender. This Contract will be binding on, enforceable by, and inure to the benefit of, the parties hereto and their respective successors and permitted assigns. Any assignment made in contravention of this clause shall be void and unenforceable.

SECTION 15. SUBCONTRACTORS

- Section 15.1 <u>Authority to Subcontract.</u> Chevron ES may delegate its duties and performance under this Contract, and shall have the right to enter into agreements with any subcontractors and other service or material providers as Chevron ES shall select in its discretion to perform the Work hereunder. Chevron ES shall not be required to enter into any subcontracts with parties whom Chevron ES has not selected or subcontractors whom Chevron ES has objection to using.
- Section 15.2 <u>Prompt Payment of Subcontractors.</u> Chevron ES shall promptly pay, when due, all amounts payable for labor and materials furnished in the performance of this Contract so as to prevent any lien or other claim under any provision of the law from arising against any Customer property, against the contractor's rights to payments hereunder, or against Customer.
- Section 15.3 Responsibility. Chevron ES shall, at all times, be responsible for the negligent acts, errors and/or omissions of its subcontractors and agents. Nothing in this Contract shall constitute any contractual relationship between any others and the Customer or any obligation on the part of the Customer to pay, or to be responsible for the payment of, any sums to any Chevron ES subcontractors.
- Section 15.4 <u>Prevailing Wages.</u> All employees of Chevron ES and Chevron ES' subcontractors performing Work for this Project shall be paid the per diem prevailing wages for the employee's job classification in the locality in which the Work is performed in accordance with the requirements of California Labor Code Section 1771.
- Section 15.5 <u>Background Checks</u>. Chevron ES' subcontractors shall be required to comply with the applicable security requirements set forth by the Customer including submitting to a criminal background check prior to commencing Work on the Project.

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SECTION 16. <u>DISPUTE RESOLUTION</u>

Section 16.1 <u>Dispute Resolution</u>. If a dispute arises out of or relating to this Agreement, or the breach thereof, and if said dispute cannot be settled informally through negotiations between the Parties, then, the parties agree to try in good faith to settle the dispute by non-binding mediation before resorting to litigation or some other dispute resolution procedure, unless the parties mutually agree otherwise. The mediator shall be mutually selected by the parties, but in case of disagreement, the mediator shall be selected by lot from among two nominations provided by each party. All costs and fees required by mediator shall be split equally by the parties, otherwise each party shall bear its own costs of mediation. If mediation fails to resolve the dispute within 30 days, either party may pursue litigation to resolve the dispute.

SECTION 17. REPRESENTATIONS AND WARRANTIES

Each Party warrants and represents to the other that:

- (i) it has all requisite power, authority, licenses, permits, or otherwise, to execute and deliver this Contract and perform its obligations hereunder;
- (ii) the execution, delivery, and performance of this Contract have been duly authorized by, or are in accordance with, Chevron ES' Board of Directors and Customer's governing entity, and this Contract has been duly executed and delivered for it by the signatories so authorized, and it constitutes its legal, valid, and binding obligation;
- (iii) its execution, delivery, and performance of this Contract will not breach or violate, or constitute a default under any Contract, lease or instrument to which it is a Party or by which it or its properties may be bound or affected; and
- (iv) it has not received any notice, nor to the best of its knowledge is there pending or threatened any notice, of any violation of any applicable laws, ordinances, regulations, rules, decrees, awards, permits or orders which would materially and adversely affect its ability to perform hereunder.

SECTION 18. WAIVER OF LIENS

Upon request from Customer, Chevron ES shall provide Customer with Progress Payment Waivers and Releases for Work Chevron ES has been paid up to that date. Upon receipt by Chevron ES of final payment for the Work (including payment of any retentions), Chevron ES will provide Customer with a Final, Unconditional Waiver and Release.

SECTION 19. TERMINATION

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- Section 19.1 Termination for Cause. If there is an Event of Default by either Party under this Contract, pursuant to the provisions of Section 12 unless such Event of Default has been cured within the applicable time periods for a cure set forth in such Section 12 in addition to the remedies provided for in Section 13 the non-defaulting Party may terminate this Contract by providing three (3) business days' notice to the defaulting Party in the case of a monetary default and ten (10) business days' notice to the defaulting Party in the case of a non-monetary default. Upon termination of this Contract, each Party shall promptly return to the other all papers, materials, and property of the other held by such Party in connection herewith. Each Party shall also assist the other in the orderly termination of this Contract and the transfer of all aspects hereof, tangible and intangible, as may be necessary for the orderly, non-disrupted business continuation of each Party. If the Contract is so terminated, Chevron ES shall be entitled to payment for Work satisfactorily performed, earned profit and overhead, and costs incurred in accordance with this Contract up to the date of termination.
- Section 19.2 <u>Termination for Convenience</u>. Both Chevron ES and Customer have the right to terminate this Contract upon mutual written agreement by both Parties hereto. If the Contract is so terminated by mutual agreement, Chevron ES shall be entitled to payment for all Work performed, earned profit and overhead, and costs incurred in accordance with this Contract up to the date of termination.
- Section 19.3 Optional Termination by Chevron ES. For any Contract Year beginning with the third year, upon completion of that year's Energy Savings Report, Chevron ES upon mutual consent by both parties, has the right to terminate this Contract. If the Contract is so terminated, Chevron ES shall calculate the average Energy Unit Savings which have occurred over all previous Contract Years. The Average Annual Energy Unit Savings will be applied to all subsequent Contract Years to determine the EC Savings for each remaining Contract Year. The annual Measurement & Verification Fee for each Contract Year will be deducted from the corresponding Guaranteed Savings shown in Attachment I to determine the Adjusted Guaranteed Savings. Applying EC Savings for each subsequent year as detailed in Attachment H, if the EC Savings for any future year exceeds the Adjusted Guaranteed Savings for that year, then Chevron ES' guarantee shall have been met for that year. Should the Customer's total EC Savings for any future Measurement Year be less than the Adjusted Guaranteed Savings for that year, Chevron ES guarantees that it shall pay to the Customer, within 30 days of the acceptance of the annual energy savings report, the net present value of the difference between the adjusted Guaranteed Savings for any such year(s) and the total EC Savings for that Measurement Year(s). Net present value will be determined using a discount rate of 10%. At their mutual agreement, Customer and Chevron ES may choose to continue all or a portion of Chevron ES' on-going energy management services for a mutually agreeable fee.

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SECTION 20. CONSTRUCTION OF CONTRACT

This Contract is the result of arms-length negotiations between two sophisticated parties and ambiguities or uncertainties in it shall not be construed for or against either Party, but shall be construed in a manner that most accurately reflects the intent of the Parties when such Contract was executed.

SECTION 21. BINDING EFFECT

Except as otherwise provided herein, the terms and provisions of this Contract shall apply to, be binding upon, and inure to the benefit of the Parties hereto and their respective heirs, legal representatives, successors, and permitted assigns.

SECTION 22. INDEPENDENT CONTRACTOR

The Parties hereto agree that Chevron ES, and any agents and employees of Chevron ES, its subcontractors and/or consultants, in the performance of this Contract, shall act in an independent capacity and not as officers, employees, or agents of Customer.

SECTION 23. NO WAIVER

The failure of Chevron ES or Customer to insist upon the strict performance of the terms and conditions of this Contract shall not constitute or be construed as a waiver or relinquishment of either Party's right to thereafter enforce the same in accordance with this Contract in the event of a continuing or subsequent default on the part of Chevron ES or Customer.

SECTION 24. SEVERABILITY

In the event that any clause or provision of this Contract or any part thereof becomes or shall be declared by a court of competent jurisdiction invalid, illegal, void, or unenforceable, this Contract shall continue in full force and effect without said provisions, provided that no such severability shall be effective if it materially changes the benefits or obligations of either Party hereunder.

SECTION 25. ORDER OF PRECEDENCE

This Contract, when executed, together with all Attachments, shall constitute the entire Contract between the Parties; and the Contract cannot be amended, modified, or terminated except by a written instrument, executed by both Parties hereto. If there are any inconsistencies between the Contract, Attachments, and Construction Documents as defined in the General Terms and Conditions for Implementation and Construction, these inconsistencies shall be resolved by giving precedence in the order listed below:

- (1) Energy Services Contract
- (2) Attachment A "General Terms and Conditions"
- Attachment D "Scope of Work"
- (4) Attachment C "Customer's Facilities and Existing Equipment"
- (5) Construction Documents
- (6) Attachment B "Design/Build Terms and Conditions
- (7) Attachment G "Standards of Occupancy & Control"
- (8) Attachment F "Progress Payment Schedule"
- (9) Attachments H & I "Energy Management and Guarantee Services" and "Guaranteed Savings"
- (10) Attachment E "Project Schedule"
- (11) Attachment K Financial Proforma
- (12) Attachment L "UtilityVision SM Connectivity Requirements
- (13) Comprehensive Energy Analysis

SECTION 26. APPLICABLE LAW

This Agreement shall be interpreted and governed under the laws of the State of California without reference to California conflicts of law principles. The parties consent to personal jurisdiction and venue of the State and Federal Courts within the County of Tulare, California.

SECTION 27. NOTICE

Any notice required or permitted hereunder shall be deemed sufficient if given in writing and delivered personally or sent by registered or certified mail, return receipt requested, postage prepaid, or delivered to a nationally recognized express mail service, charges prepaid, receipt obtained, to the address shown below or to such other persons or addresses as are specified by similar notice.

TO CHEVRON ES:

Chevron Energy Solutions Company 5225 Canyon Crest Drive, Suite 71-326

Riverside, CA 912507 Tel: 951-784-7670 Fax: 951-784-7684

Attention: Dan Waldo, Project Manager

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Legal Department With a COPY TO: Chevron Energy Solutions Company 345 California Street, 32nd Floor San Francisco, CA 94104-2624 415-733-4500 Tel: 415-733-4957 Fax: Attention: Contract Administrator Director TO CUSTOMER: Agency Street Address City, CA zip Tel: Fax: Attention: With a COPY TO: Office of _ Street Address City, CA zip Tel:

SECTION 28. HEADINGS

Fax: Attention:

Headings and subtitles used throughout this Contract are for the purpose of convenience only, and no heading or subtitle shall modify or be used to interpret the text of any section.

SECTION 29. CONFLICTS OF INTEREST

Conflicts of interest relating to this Agreement are strictly prohibited. Except as otherwise expressly provided herein, no Party nor any director, employee or agent of any Party shall give to or receive from any director, employee or agent of any other Party any gift, entertainment or other favor of significant value, or any commission, fee or rebate in connection with this Agreement. Likewise, no Party nor any director, employee or agent of any Party, shall without prior notification thereof to all Parties enter into any business relationship with any director, employee or agent of another Party or of any Affiliate of another Party, unless such person is acting for and on behalf of the other Party or any such Affiliate. A Party shall promptly notify the other Parties of any violation of this section and any representative of any Party, authorized by that Party, may audit the records of the other Parties related to this Agreement, including the expense records of the Party's employees involved in this Agreement, upon reasonable notice and during regular business hours, for the sole purpose of determining whether there has been compliance with this Section.

SECTION 30. <u>CREDITWORTHINESS</u>

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If, at any time, Customer's credit rating falls below investment grade as defined by Moody's Investors Services (or other nationally-recognized independent rating agency), Customer agrees to provide Chevron ES with current information regarding its creditworthiness upon the request of Chevron ES. At its sole option, Chevron ES may then require Customer to make prepayment. If Customer deposits the contract amount into a third-party escrow account with an escrow agent and agreement acceptable to Chevron ES, then the terms of this paragraph are not applicable.

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ATTACHMENT B DESIGN/BUILD TERMS AND CONDITIONS

ARTICLE 1. DEFINITIONS

For purposes of the Energy Services Contract, and its Attachments, the defined terms herein shall have the meaning set forth as follows:

- 1. Applicable Laws: "Applicable Laws" shall mean all laws, building codes, rules, regulations, or orders of local, or other governmental body, agency, or other authority having jurisdiction over the performance of the Work, as may be in effect at the time the Work is undertaken.
- 2. Applicable Permits: "Applicable Permits" shall mean all permits, waivers, authorizations, or licenses issued or required to be issued by any federal, state, county, local, or other governmental body, agency, or other authority having jurisdiction over the performance of the Work, as may be in effect at the time the Work is undertaken.
- 3. <u>Beneficial Use</u>: "Beneficial Use" shall mean when major new equipment and systems included in the Scope of Work are properly installed, inspected, operational, and are being used for their intended purpose. A Certificate of Beneficial Use, which identifies when Customer took Beneficial Use of the Work, shall be prepared and issued by Chevron ES to the Customer and Subcontractor. Beneficial Use of equipment/systems criteria shall be established as defined in Attachment D, "Scope of Work" attached hereto.
- 4. Change: "Change" shall mean any addition to, deletion from, suspension of, or other modification to the quality, function, or intent of the Work, including without limitation any such addition, deletion, suspension, or other modification that effects a change in the Scope of Work that is specified by the Contract. An unforeseen condition experienced by Chevron ES during the course of the Work is included within the definition of "Change".
- 5. Change Order: "Change Order" shall mean a written document signed by both Chevron ES and the Customer that authorizes Chevron ES to perform a change and/or modification to the Scope of Work. The Change Order shall modify the Scope of Work and shall identify: (1) the change and/or modification to the Scope of Work; (2) any additional compensation to be paid or reduction in compensation to Chevron ES to perform such change and/or modification; and (3) any extensions of Time to the Project Schedule to perform such change and/or modification.
- 6. Claims: "Claims" shall mean any and all actions, claims, losses, damages, expenses, or liabilities of either party arising from or as a result of these Terms and Conditions, the Contract, any addenda to the Contract, and/or Change Orders.
- 7. Construction: "Construction" shall mean any Work to be performed that involves any and all construction, alteration, repair, installation or removal of equipment, addition to, subtraction from, improving, moving, wrecking or demolishing any building, parking facility, excavation, or other structure or improvement, or any part thereof.
- 8. Construction Documents: "Construction Documents" shall mean the final designs, drawings, and specifications that are used for construction, and any Change Orders affecting those documents, that describe the technical requirements for the installation of all the materials and equipment pursuant to the Contract and its Attachments.
- 9. Contract: "Contract" shall mean the Contract and all Attachments attached thereto which are incorporated therein, as it may be amended or modified from time to time in accordance with the provisions thereof.
- 10. Contract Amount: "Contract Amount" shall mean the amount of compensation, exclusive of the Annual Guarantee Fee, that shall be paid by Customer to Chevron ES for performing the Work in accordance with the Scope of Work, attached hereto as Attachment D.
- 11. <u>Contract Term</u>: The "Contract Term" shall commence on the Contract Effective Date and cease on the last day of the Energy Savings Term, unless terminated earlier.
- 12. <u>Contract Documents</u>: "Contract Documents" shall mean the Energy Services Contract, its Attachments, Construction Documents, Change Orders, and any amendments thereto.
- 13. Contract Effective Date: "Contract Effective Date" shall mean the date the Contract is fully executed and is in full force and effect.
- 14. Excusable Delay: "Excusable Delay" shall mean Chevron ES shall be entitled to an extension of Time and/or additional compensation caused by an Excusable Delay. Excusable Delay for which Chevron ES is entitled to either an Extension of Time and/or additional compensation shall be defined as (1) by an act or failure to act of, or other delay caused by, Customer or its agents or employees; (2) by failures of any governmental authorities to make timely inspection of the Work; or (3)) by unforeseen site conditions, including discovery or existence of Hazardous Substances Excusable Delay for which Chevron ES is entitled only to an Extension of Time is defined as (1) by unanticipated efforts necessary to secure governmental approvals for the Project; (2) by delays resulting from the securing of permits for the Work; (3) by labor disputes, fire, vandalism, delay in manufacturing and deliveries; (4) by adverse weather conditions not reasonably anticipated; (5) by unavoidable casualties or other causes beyond Chevron ES' control; (6) by delays caused by processing Change Orders requested by or agreed to by Customer; or (7) by delay caused by pending arbitration, or (8) any other cause outside Chevron ES' control.
- 15. Final Completion: "Final Completion" shall mean when 100% of the engineering and construction Work as identified in the Scope of Work has been completed, including completion of all required training, and delivery to the Customer of the final close-out documentation (as-built drawings, O&M Manuals, and warranty documentation). A Certificate of Final Completion may be executed for an individual subcontract, a specific building, or a portion of the Work. A Certificate of Final Completion will be executed at the Final Completion of the entire Work.

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- 16. Force Majeure: "Force Majeure" shall mean those events caused beyond the control of the affected Party and which by the exercise of due diligence such Party could not reasonably have been expected to avoid and which it has been unable to overcome, including acts of God and the public enemy; relocation or construction of transmission facilities or the shutdown of such facilities for the purpose of necessary repairs; work by local Utility; flood, earthquake, tornado, storm, fire; civil disobedience, labor material shortages, delay in manufacturing and deliveries of equipment; sabotage; restraint by court order or public authority (whether valid or invalid), and/or inability to obtain or keep in force the necessary governmental authorizations, permits, licenses, certificates or approvals if not caused by the fault of the Party asserting the Force Majeure.
- 17. <u>Hazardous Substances:</u> "Hazardous Substances" shall mean any hazardous, toxic, or dangerous wastes, substances, chemicals, constituents, contaminants, pollutants, and materials and any other carcinogenic, liquids, corrosive, ignitable, radioactive, reactive, toxic, or otherwise hazardous substances or mixtures (whether solids, liquids, gases) now or at any time subject to regulation, control, remediation, or otherwise addressed under Applicable Laws; (i)any "hazardous substance" as defined by the Resource, Conservation and Recovery Act of 1976 (42 United States Code ("U.S.C."), Section 6901 et seq.), as amended, and regulations promulgated thereunder; (ii) any "hazardous, toxic or dangerous waste, substance or material" specifically defined as such in U.S.C. Section 9601 et seq.), as amended and regulations promulgated thereunder; and (iii) any hazardous, toxic or dangerous waste, substance, or material as defined in any so-called "superfund" or "superlien" law.
- 18. <u>Installation</u>: "Installation" shall mean the setting up, construction, and placement of any equipment or materials in the manner it will be operated, in accordance with the Scope of Work and in accordance with all Applicable Laws.
- 19. Interest: "Interest" shall mean interest calculated at the lesser of the per annum rate of interest announced from time to time by Citibank, at its "prime" rate for commercial loans plus two percent (2%) or the maximum rate permitted by Applicable Laws.
- 20. Losses: "Losses" shall mean claims, actions, damages, losses, liabilities, costs, and/or expenses including reasonable attorney's fees
- 21. Material Changed Condition: "Material Changed Condition" shall mean one or more of the following conditions that impact the Project Schedule and/or the Contract Amount: (i) parties outside the control of Chevron ES caused delays in Project Schedule; (ii) the discovery of differing and unexpected site conditions not previously disclosed by Customer and could not have been readily discoverable by Chevron ES prior to start of Work; (iii) the discovery of Hazardous Substances not previously disclosed; (iv) adverse weather conditions not reasonably anticipated; (v) delay in equipment and material deliveries outside Chevron ES' control; and (vi) any other condition that could not have been reasonably anticipated by the Parties and is outside Chevron ES' control.
- 22. Party or Parties: "Party" or "Parties" shall mean Chevron ES, Customer, each or both of them, as the context may require pursuant to the terms and conditions of the Contract.
- 23. <u>Project</u>: "Project" shall mean the entirety of Work to be performed by Chevron ES pursuant to the terms and conditions of the Scope of Work, and any Change Orders, as well as all efforts of Customer, and other entities, all as an integrated whole.
- 24. <u>Project Location</u>: "Project Location" shall mean that area or areas where the Project materials and equipment and any other energy related equipment as described in the Scope of Work shall be performed and/or installed.
- 25. Scope of Work: "Scope of Work" shall mean the Work to be performed hereunder by Chevron ES, and/or Chevron ES subcontractors, pursuant to the Scope of Work (as amended by Change orders), attached hereto as Attachment D, and in accordance with the terms and conditions of the Contract and its Attachments, as amended.
- 26. <u>Substantial Completion</u>: "Substantial Completion" shall mean the stage in the progress of the Work or portion of the Work, where the Work or portion of the Work is sufficiently complete in accordance with the Contract Documents so that Customer can utilize and take beneficial use of the Work for its intended use or purpose. A Certificate of Substantial Completion may be executed for an individual subcontract, a specific building, a portion of the Work, or the entire Work.
- 27. <u>Time</u>: "Time" shall mean the time period within which Chevron ES shall complete the Work in accordance with the Project Schedule.
- 28. Work: "Work" shall mean the design, procurement, installation and/or construction required for the Project and includes all labor necessary to produce such services, all materials, fabrication, assemblies, and equipment incorporated or to be incorporated in such construction necessary to achieve Final Completion of the Project, including such materials and equipment which may be consumed or use but not actually incorporated in such construction. The Work may include design, supplying, installing, constructing, maintaining, operating, and warranting certain materials and equipment, and providing any other energy-related services specified in the Scope of Work.

ARTICLE 2. PROJECT IMPLEMENTATION - GENERAL

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- 1. Project Meetings/Status Updates. During the Design and Construction Phases of the Project, Chevron ES will notify Customer in advance of all regularly scheduled meetings with Chevron ES and its engineering and other subcontractors that relate to the design and construction of the Project. Also during the course of Work, Chevron ES will periodically provide reports to Customer of the general status and progress of the Work.
- 2. Project Location Access. Customer hereby grants to Chevron ES, without cost to Chevron ES, all rights of ingress and egress at the Project Location identified in the Scope of Work, necessary for Chevron ES to perform all Work and provide all services contemplated by the Contract and the Scope of Work. Chevron ES shall provide 24 hour advanced notice to Customer for access to any Customer Facilities.
- 3. Project Schedule. The Project Schedule attached hereto as Attachment E, "Project Schedule", is a preliminary, estimated Project Schedule. During the course of Project implementation, both the Customer and Chevron ES shall perform their respective obligations in an expeditious manner that is consistent with reasonable skill and care for the type of project described in the Scope of Work and in keeping with the orderly progress of the Work pursuant to the terms of the Scope of Work. The estimated Project Schedule will be

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finalized during the completion of the Construction Documents, provided that such Final Schedule will be subject to amendment and revision to take into account any Excusable Delays (as defined herein). Subject to any such Excusable Delays, Chevron ES and its subcontractors shall work diligently to implement the Project in accordance with the Project Schedule and Chevron ES shall notify Customer regarding any and all revisions to the Project Schedule necessitated by such delay.

ARTICLE 3. FINAL DESIGN PHASE - CONSTRUCTION DOCUMENTS/EQUIPMENT PROCUREMENT.

General Provisions.

- (a) As soon as possible after the Contract Effective Date, Chevron ES will proceed with the preparation of any necessary designs, drawings, and specifications related to the Scope of Work identified in Attachment D.
- (b) Upon the issuance of the Notice to Proceed and upon completion of the design phase, Chevron E\$ shall order the equipment identified in the Scope of Work, and any other necessary materials and supplies in order to meet the Project Schedule.
- (c) Customer shall designate a single-point representative with whom Chevron ES shall consult on a reasonable, regular basis and who is authorized to act on Customer's behalf with respect to the Project design. Customer's representative shall render decisions in a timely manner with regard to any documents submitted by Chevron ES and to other requests made by Chevron ES in order to avoid unreasonable delay in the orderly and sequential progress of Chevron ES' design services.
- (d) Within ten (10) business days of Chevron ES' request, Customer shall:
 - furnish all surveys or other information in Customer's possession that describe the physical characteristics, legal limitations, and utility locations in and around the Project Location;
 - disclose any prior environmental review documentation and all known information in its possession concerning subsurface conditions, including without limitation the existence of any known Hazardous Substances, in or the Project Location where the Work will be performed pursuant to the Scope of Work;
 - 3) supply Chevron ES with all relevant information in Customer's possession, including any as-built drawings and photographs, of prior construction undertaken in the general area where the Work will be performed pursuant to the Scope of Work; and
 - 4) obtain any and all easements, zoning variances, planning approvals, including any resolution of any environmental impact issues, and any other legal authorization regarding utilization of the Project Location site essential to the execution of the Work.
- (e) All information furnished pursuant to this section shall be supplied at Customer's expense, and Chevron ES is entitled to rely upon the accuracy and completeness of all information provided. Customer acknowledges that any failure to provide the information specified in subsection (d) above to Chevron ES may result in an Excusable Delay as defined herein.
- (f) In the event that any information is disclosed under this section that constitutes a Change to the Work and/or is a Material Changed Condition, Chevron ES will provide notice to Customer within ten (10) business days after receipt of this information, and the parties will meet and confer with respect to those Changes. If Customer authorizes a Change Order, Chevron ES shall be compensated, and receive an extension of Time for performance, if necessary, to perform the additional Work in accordance with Terms and Conditions. If the parties are unable to agree on whether Customer's disclosed information constitutes a Change to the Work or a Material Changed Condition, those disputes shall be resolved in accordance with Section 16 of Attachment A of the Contract.
- (g) Chevron ES contemplates that it will not encounter any Hazardous Substances at the Project L ocation, except as has been disclosed as a Pre-Existing Condition by the Customer prior to the execution of the Contract. Hazardous Substances that will affect the performance of the Work after the execution of the Contract shall constitute a valid basis for a Change Order pursuant to these Terms and Conditions.

2. Review of Construction Documents.

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- (a) Chevron ES will prepare and submit all designs, drawings, and specifications to the Customer for review. Customer shall review the documents and provide any comments in writing to Chevron ES within ten (10) business days after receipt of documents. Chevron ES will incorporate appropriate Customer comments into the final designs, drawings, and specifications, as applicable. The terms and conditions of any permit approvals required for the Project will be provided. Chevron ES reserves the right to issue the designs, drawings, and specifications in phases to allow the construction to be performed in phases. If Customer fails to provide written comments within the ten (10) business day period, Customer shall be deemed to have accepted and approved the documents.
- 3. Permits and Approvals. The respective obligations of the Parties in obtaining permits and approvals are as specified in Section 6 of Attachment A of the Contract. Customer shall agree to any nonmaterial changes to the designs, drawings, and specifications required by any governmental authority having jurisdiction over the Work. The Contract Amount provided for in the Scope of Work shall be increased by any additional cost incurred by Chevron ES due to a change required by a governmental authority and the time required to complete the Work pursuant to the Project Schedule will be increased by the number of additional days required to complete the Work because of a governmentally imposed change in the Project.
- 4. Changes During Final Design Phase. If during the design phase Customer requests changes and/or modifications to the Work identified in the Scope of Work and/or there are Material Changed Conditions, as defined in Article 1 above, Customer shall be responsible for payment of the extra costs caused by such modifications and/or changes. Valid bases for additional compensation and/or Time extension include, but are not limited to: (i) Customer requests changes and/or modifications to the Project Scope of Work during the Project Design Phase; (ii) Customer caused delays during Chevron ES' design work; (iii) the discovery of other site conditions that were not reasonably anticipated or disclosed as of the Contract Effective Date; (iv) the discovery of

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Hazardous Substances at or impacting the Project Location; (v) changes to the Scope of Work required to obtain certain permits; (vi) damage to any equipment or other Work installed by Chevron ES caused by the act or omission of Customer, its agents or employees; (vii) changes and/or modifications to Scope of Work ordered by any governmental authority having jurisdiction over the Project; and (viii) any other condition that would not reasonably have been anticipated by Chevron ES that modifies and/or changes the Scope of Work that increases the agreed upon Contract Amount or increases in the Time needed to complete the Work identified in the Scope of Work

ARTICLE 4. CONSTRUCTION PHASE.

1. General Provisions. Upon securing necessary permits, pursuant to Section 6 of Attachment A of the Contract, and acceptance and approval of Final Construction Documents by Customer, Chevron ES will commence the construction of the Project in accordance with the Final Construction Documents. The construction will be performed by Chevron ES and/or one or more licensed subcontractors qualified to perform the Work. The construction will be performed in accordance with all Applicable Laws and Applicable Permits.

2. Chevron ES' Responsibilities During Construction Phase.

- (a) As an independent contractor to Customer, Chevron ES will be responsible for providing, or causing to be provided by Chevron ES' subcontractor(s), all labor, materials, equipment, tools, transportation, and other facilities and services necessary for the proper execution, construction, and completion of the Work as defined in the Scope of Work and any Change Orders. Chevron ES is hereby required to purchase in advance all necessary materials and supplies for the construction of the Project in order to assure the prompt and timely delivery of the completed Work pursuant to the Project Schedule. Chevron ES will also be responsible for all means, methods, techniques, sequences, and procedures employed for the construction required by the final Construction Documents.
- (b) Chevron ES will make all reasonable efforts to coordinate construction activities and perform the Work to minimize disruption to Customer's operations at the Project Location. Chevron ES will provide at least thirty (30) calendar days written notice to Customer of any planned power outages that will be necessary for the construction. Chevron ES will cooperate with Customer in scheduling such outages, and Customer agrees to provide its reasonable approval of any scheduled outage.
- (d) Chevron ES will be responsible for initiating and maintaining safety precautions and programs in connection with its construction of the Project. Chevron ES will take reasonable precautions for the safety of, and shall provide reasonable protection to prevent damage, injury, or loss to: (1) employees of Chevron ES and subcontractors performing Work under this Contract; (2) Chevron ES' property and other materials to be incorporated for the Project, under the care, custody, and control of Chevron ES or its subcontractors; and (3) other property at or adjacent to the Project Location not designated for removal, relocation, or replacement during the course of construction. Chevron ES will not be responsible for Customer's employees' safety unless Chevron ES' negligence in the performance of its Work is the proximate cause of the employee's injury.
- (e) Based on the final Construction Documents, Chevron ES will obtain require building permits for Project Construction. Customer will cooperate with Chevron ES in securing such permits.
- (f) Chevron ES will maintain in good order at the Project Location copies of the Scope of Work, all Change Orders, the Contract (with all Attachments), one record copy of all drawings, specifications, product data, samples, manufacturer's operation & maintenance manuals, and other pertinent construction-related documents.
- (g) Systems Startup and Equipment Commissioning. Chevron ES shall provide notice to Customer of any scheduled test(s) of installed equipment, and Customer and/or its designees shall have the right to be present at any or all such tests conducted by Chevron ES, any subcontractor, and/or manufacturers of the equipment. Chevron ES shall be responsible for correcting and/or adjusting all deficiencies in systems and equipment operations that Chevron ES provided and installed that may be observed during equipment commissioning procedures.
- (h) The following duties shall be performed by Chevron ES:
 - Organize and conduct a pre-construction meeting with the Customer and each subcontractor.
 - Organize and conduct regularly scheduled progress meetings throughout the installation period.
 - Schedule and manage all subcontractors and related work.
 - Provide the Customer a single point of contact and responsibility of all work related to the project.
 - Investigate and resolve design, construction, and field issues as they arise during the project
 - Coordinate on-site work, and schedule accordingly with Customer.
 - Perform progress inspections throughout the installation period. Provide the Customer and Subcontractor with results of findings.
 - Identify any existing Customer equipment that is found during implementation of the work not to be functioning properly, and notify in writing to Customer.
 - Provide regular status reports to the Customer.
 - When appropriate, initiate a thorough inspection of the work with the Customer and Subcontractor to obtain substantial
 - Check, test, and start-up each item of equipment.

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- Perform a point-by-point hardware commissioning of the Chevron ES installed energy management system. Identify any EMS items that are not functioning properly, and include on the punch list.
- Identify any existing Customer equipment that is found during EMS commissioning not to be functioning properly, and notify in writing to Customer.
- Perform a complete software/programming commissioning of the energy management system. Identify any EMS items that are not programmed per specification, and include on the punch list.
- With the Customer and Subcontractor, perform final inspection of the Work.

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Review subcontractor invoices and authorize payment as appropriate.

Obtain/prepare final as-built documentation for the project, and deliver to the Customer. Documentation shall include

O&M manuals as appropriate, warranty information, and as-built drawings and related information.

Obtain a certificate of final completion, signed by the Customer, Subcontractor, and Chevron ES.

Customer's Responsibilities During Construction Phase.

- Customer shall designate a single-point representative authorized to act on Customer's behalf with respect to Project construction and/or equipment installation. Customer may from time to time change the designated representative and shall provide notice to Chevron ES of such change. Any independent review of the construction shall be undertaken at Customer's sole expense, and it shall be performed in a timely manner so as to not unreasonably delay the orderly progress of Chevron ES' Work. Any independent review of the construction by Customer shall not relieve Chevron ES of any of its obligations or responsibilities hereunder.
- Customer shall provide a temporary staging area for Chevron ES, or its subcontractors, to use during the construction phase to store and assemble equipment for completion of the Work, if needed.
- Customer shall remain responsible for the maintenance of the portion of the Project Location that is not directly affected by Chevron ES' Work. Customer shall keep the designated Project Location and staging area for the Project free of obstructions, waste, and materials within the control of Customer.
- Customer shall be solely responsible for obtaining any required environmental clearance from and any special permits required by any federal, state, and local jurisdictions prior to scheduled construction start date.
- Customer shall be responsible for the preparation of the designated Project Location site for construction, including, but not limited to, clearance of all above and below ground obstructions, such as vegetation, buildings, appurtenances, and utilities.
- Customer shall be solely responsible for the removal of any Hazardous Substances either known to Customer prior to the commencement of the Work or encountered by Chevron ES during the construction of the Project, if necessary in order for the Work to progress safely, that was not knowingly released or brought to the site by Chevron ES. Chevron ES will respond to the discovery of Hazardous Substances at or around the Project Location during the course of Chevron ES' construction in accordance with Section 6, "Hazardous Substances", below.
- Customer shall coordinate the Work to be performed by Chevron ES with its own operations and with any other construction project that is ongoing at or around the Project Location, with the exception that Chevron ES will coordinate the Interconnection Facilities work, if any, that will be performed by the local utility.
- Customer shall allow Chevron ES and its Subcontractors access to and reasonable use of necessary quantities of Customer's water and other utilities, including electrical power, as needed for the construction of the Work, at no extra cost to Chevron ES.
- Customer will provide Chevron ES and/or its Subcontractors with reasonable access to the Project Location to perform the Work, including without limitation and at no extra cost to Chevron ES, access to perform Work on Saturdays, Sundays, legal holidays, and non-regular working hours.
- The Customer shall also do the following:
 - Attend the regularly scheduled progress meetings. Participate as needed regarding scheduling of work.
 - When appropriate, participate in the job inspection walk-through with Chevron ES and the subcontractor to determine Substantial Completion or beneficial use of major equipment. Sign the Certificate of Substantial Completion, as
 - Perform a final walk-through of the project. Upon receipt of the O&M Manuals and as-built drawings, sign the Certificate of Final Completion for the related Work.
 - The Customer is encouraged to provide a staff member(s) (HVAC technician, etc.) to accompany Chevron ES during the EMS Commissioning. This is an excellent opportunity to learn in-depth the operation and installation of the EMS.
 - Provide knowledgeable staff to participate in the training programs, which will be scheduled in advance for proper
 - Upon the completion of the entire Scope of Work as listed in Attachment D, including training, and close-out documents, sign a Certificate of Final Completion for Entire Implementation Project.

Changes During Construction.

(a) Change Orders Generally. Changes and/or modifications to the Scope of Work shall be authorized by a written Change Order signed by both Customer and Chevron ES. The Change Order shall state the change and/or modification to the Scope of Work, any additional compensation to be paid, or extension of Time, if needed, to Chevron ES to perform such change and/or modification. Chevron ES may, at its election, suspend performance of that portion of the Work affected by any proposed Change Order until an agreement has been reached with the Customer regarding the Change Order. Chevron ES will use its reasonable efforts to continue other portions of the Work not affected or impacted by such proposed Change Order until such time as the Change Order is resolved. In addition, if Customer requests a proposal from Chevron ES for a change to the Scope of Work and Customer subsequently elects to not proceed with such change, Customer agrees that a Change Order shall be issued to reimburse Chevron ES for any costs reasonably incurred for estimating services, design services, and/or preparation of the

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proposal requested by the Customer.

- (b) Change Orders Requiring Additional Compensation. If during construction Customer requests changes and/or modifications to the Work identified in the Scope of Work and/or there are Material Changed Conditions, as defined in Article 1 above, Customer shall be responsible for payment of the extra costs caused by such modifications and/or changes and/or modifications for the following reasons, that include, but are not limited to: (1) Customer requests changes and/or modifications to the Project Scope of Work during the construction phase of the Project; (2) Customer caused delays during Chevron ES' construction work; (3) discovery of subsurface or other site conditions that were not reasonably anticipated or disclosed prior to the commencement of the Work; (4) discovery of Hazardous Substances at or impacting the Project Location; (5) changes and/or modifications to the Scope of Work required to obtain required permits and approvals as required by any governmental authority having jurisdiction over the project; (6) damage to any equipment or other Work installed by Chevron ES caused by the act or omission of Customer, its agents or employees; (7) changes and/or modifications to Scope of Work ordered by any governmental authority having jurisdiction over the Project; and (8) any other condition that been anticipated by Chevron ES that modifies and/or changes the Scope of Work agreed upon in the Scope of Work that increases the agreed upon Contract Amount identified in the Scope of Work.
- Change Orders Requiring Additional Time/Excusable Delays. If during construction Customer requests changes and/or modifications to the Work identified in the Scope of Work and/or there are Material Changed Conditions, as defined in Article 1 above, the parties agree that a reasonable extension of Time to the Project Schedule may be necessary to perform such modifications and/or changes. In addition, if Chevron ES is delayed at any time in the progress of the Work for any reason beyond its control, including, but not limited to, any of the following (each defined as an "Excusable Delay"): (1) by an act or failure to act of, or other delay caused by, Customer or its agents or employees; (2) by failures of any governmental authorities to make timely inspection of the Work or by unanticipated efforts necessary to secure governmental approvals for the Project; (3) by delays resulting from the securing of permits for the Work; (4) delays caused by changes and/or modifications to the Scope of Work as required by any governmental authority having jurisdiction over the project; (5) by labor disputes, fire, vandalism, delay in manufacturing and deliveries; (6) by adverse weather conditions not reasonably anticipated; (7) by unforeseen site conditions, including discovery or existence of Hazardous Substances; (8) by unavoidable casualties or other causes beyond Chevron ES' control; (9) by delays caused by processing Change Orders requested by or agreed to by Customer, or resulting from the implementation of any Change Order; or (10) by delay caused by pending arbitration, then the targeted milestone dates set forth in the Project Schedule shall be reasonably extended by a Change Order, executed by both Customer and Chevron ES. Prior to the extension of such milestone dates, Chevron ES will use reasonable efforts to make up such delays, including authorizing overtime payments (provided that Customer has issued a Change Order authorizing any such overtime payment and has specifically agreed to pay all costs, including administrative charges and expenses, associated therewith).
- (d) Material Changed Conditions/Conditions Beyond Chevron ES' Control. Chevron ES will provide written notice to Customer of any Material Changed Condition and or any Force Majeure event, as such terms are defined in Article 1 above, within ten (10) business days of Chevron ES' first discovery of such Material Changed Condition. In the event that Chevron ES' notice concerns unanticipated subsurface conditions, including soil conditions, or Hazardous Substances, Chevron ES will not disturb the condition until said notice has been given to Customer, and Customer has had a reasonable opportunity to investigate the condition. If there is a disagreement between Customer and Chevron ES as to whether a Change Order should be issued and executed because of the Material Changed Condition and/or condition beyond Chevron ES' control, those disputes shall be resolved in accordance with the provisions of Section 16, "Dispute Resolution", of Attachment A of the Contract. Pending the resolution of any dispute between Chevron ES and Customer concerning a Material Changed Condition and/or change beyond Chevron ES' control, Chevron ES reserves the right to suspend Work pending the resolution of the dispute.
- (e) <u>Change Order Savings Effect.</u> Chevron ES shall calculate the energy impact of any Customer change orders. As applicable, the energy impact may change the projected savings level and the Guaranteed Energy Savings amount.
- (f) Change order-Deleted Work. For deleted work otherwise required to be performed, the Contract Sum will be reduced by an amount equal to the eliminated scope of work
- 5. Minor Changes to Scope of Work. Chevron ES shall have authority to make minor changes that do not change the total Contract Amount and are consistent with the intent of the final Construction Documents, as amended by Change Order, without prior notice to Customer. Chevron ES will either promptly inform Customer, in writing, of any minor changes made during the implementation of the Project, or make available to Customer at the site a set of as-built drawings that will be kept current to show those minor changes.
- 8. Hazardous Substances. Chevron ES will promptly provide written notice to Customer if Chevron ES observes any Hazardous Substance, as defined herein, at or around the Facilities during the course of construction or installation of any equipment which have not been addressed as part of the Scope of Work. Chevron ES shall have no obligation to investigate the Facilities for the presence of Hazardous Substances prior to commencement of any work unless otherwise specified in the Scope of Work. Customer shall be solely responsible for investigating Hazardous Substances and determining the appropriate removal and remediation measures with respect to the Hazardous Substances. Customer shall be responsible for complying with all Applicable Laws with respect to the identification, removal and proper disposal of any Hazardous Substances known or discovered at or around the Facilities, and in such connection shall execute all generator manifests with respect thereto. Chevron ES shall comply with all Applicable Laws in connection with the use, handling, and disposal of any Hazardous Substances in the performance if its Work. In connection with the foregoing, Customer shall provide Chevron ES, within ten (10) business days of the execution of this Contract, a written statement that represents and warrants (i) whether or not, to its knowledge, there are Hazardous Substances either on or within the walls, ceiling or other structural components, or otherwise located in the Work area, including, but not limited to, asbestos-containing materials; (ii) whether or not, to its knowledge, no conditions or situations exist at the Facilities which are subject to special precautions or equipment required by federal, state, or local health or safety regulations; and (iii) whether or not, to its knowledge, there are no ursafe working conditions at the Facilities.

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Customer shall indemnify, defend, and hold Chevron ES harmless from and against any and all claims and costs including but not limited to, consultants' and attorneys' fees, damages for bodily injury and property damage, fines, penalties, cleanup costs, costs associated with delay or work stoppage, and third party claims (hereinafter "Liability"), that result from Customer owned or generated hazardous materials and substances, except for liabilities due to Chevron agents representatives, and employees', negligent or willful misconduct in handling, disturbance, or release Substances. This indemnification shall survive any termination of this Contract.

ARTICLE 5. PROJECT COMPLETION.

- 1. Substantial Completion/Reduction of Retention: At the time the Work is Substantially Complete in conformance with the Scope of Work and Construction Documents, Chevron ES will supply to Customer a written Certificate of Substantial Completion. Customer shall within ten (10) business days of receipt of the Certificate of Substantial Completion, review the Work for the sole purpose of determining that it is substantially complete and in substantial conformance with the Scope of Work, final Construction Documents and any Change Orders, and sign and return the Certificate of Substantial Completion to Chevron ES acknowledging and agreeing: (1) that the Work is substantially complete in accordance with the Contract Documents so Customer can occupy or utilize the Work for its intended use; (2) the date of substantial Completion; (3) that from the date of Substantial Completion Customer will assume responsibility for the security of, insurance coverage for, maintenance, utilities for, and damage to or destruction of the Work. Customer agrees that approval of the Certificate of Substantial Completion shall not be unreasonably withheld. Title to any and all of the materials and equipment installed shall pass from Chevron ES to Customer upon the date of Substantial Completion. At such time, the retention withheld by Customer shall be reduced to five (5%) percent.
- 2. Final Completion: When Chevron ES considers the Work to be fully complete in accordance with the Scope of Work, Chevron ES will notify the Customer that the Work is fully complete and ready for final inspection. The Customer shall inspect the Work to verify the status of Final Completion within ten (10) business days after its receipt of Chevron ES' certification that the Work is Complete. If Customer does not verify the Final Completion of the Work with this period, the Work shall be deemed fully completed. If Customer determines that any Work is incomplete and/or defective, the Customer shall promptly notify Chevron ES in writing of such incomplete and/or defective work, itemizing and describing such remaining items with reasonable particularity. Chevron ES will, in a reasonable amount of time, complete any incomplete items or remedy defective items after which Chevron ES shall provide written notice to the Customer that the Work is fully complete. Customer shall re-inspect all work completed or remedied by Chevron ES within ten (10) business days of Chevron ES' notice of completion from Chevron ES that the Work is complete. If the Customer does not re-inspect the Work within the ten (10) business day period, the Work shall be deemed fully complete. When the Customer agrees that the Work is fully completed in accordance with the Scope of Work and Contract Documents, Customer shall give Chevron ES written notice of acceptance of the Work and Final Completion and will issue a Final Completion Certificate to Chevron ES.

 At that time, Customer shall pay Chevron ES any remaining Contract Amount due and any outstanding retainage being withheld by the Customer.

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ATTACHMENT C CUSTOMER'S FACILITIES & EXISTING EQUIPMENT

The following Customer Facilities are included under the Scope of Work as listed below:

Facility	Location	Square Feet
Bob Wiley Detention Facility	36712 Road 112	130,564
,	Visalia, CA 93291	
Pre-Trial Facility	36712 Road 112	134,360
, , ,	Visalia, CA 93291	
Juvenile Justice Center	11200 Avenue 368	Approximately
	Visalia, CA 93291	100,000
Boot Camp	36008 Road 112	Approximately
	Visalia, CA 93291	25,000

The Existing Equipment is outlined in Chevron ES' Comprehensive Energy Analysis dated January 2006.

ATTACHMENT D

SCOPE OF WORK

Energy Conservation Measures to be Implemented

ECM #	Description	
1	Bob Wiley Detention Facility Central Cogeneration Plant Modernization	
2	High-Efficiency Lighting Upgrade	
3	Waste Water Treatment Plant Upgrade	
4a	Bob Wiley Detention Facility Ventilation Upgrade	
4b	Pre-Trial Facility Ventilation Upgrade	

ECM-1	Rob Wiley D	etention Fac	ility Central	Cogeneration	Plant Mod	ernization
EUM-1	BOD WHEV D	etention rac	iiilv Ceniliai	Coueneration	Flatti Wou	emizanon

EC	M-1 Bob Wiley Detention Facility Central Cogeneration Plant Modernization
	M-1 encompasses the following energy modernization components throughout the Central Cogeneration Plant. The scope of work is turn-key design, installation, start-up and commissioning of all components.
00000	Equipment upgrade and replacement within the Central Cogeneration Plant. Consolidate electrical meters serving Bob Wiley Detention Facility and Pre-Trial Facility. Expand and upgrade the existing Invensys® Energy Management System (EMS)/Direct Digital Control (DDC) System. Integrate and upgrade Pre-Trial Facility Energy Management System. Increase emergency power generation at Bob Wiley Detention Facility.
Che	vron ES will provide the following new major equipment:
00000	Caterpillar (CAT®) 760 (nominal 750 kW) natural gas fired cogeneration unit and ancillary systems. Emission control system. Broad® hot water fired absorption chiller (nominal 180-ton). Low-pressure steam boiler sized to provide steam for the existing kitchen cooking equipment. Caterpillar (CAT®) (nominal 750 kW) emergency standby diesel generator with automatic transfer switch.
Ger	neral Conditions Scope to be provided by Chevron ES:
000000	Project management and engineering. Full-time construction management and supervision. Construction support services including proper disposal of all non-hazardous refuse, portable toilets and on-site construction trailer. System startup, testing, commissioning, and training on all systems provided under this contract. Minimum one year parts and labor warranty upon beneficial use on all systems provided under this contact. All manufacturer's warranty extended to the County.
Med	chanical, Electrical and Structural Engineering Scope to be provided by Chevron ES:
	Survey of physical site and drawings. Mechanical, electrical, and structural 50% plan check design package to include equipment selections, general arrangement drawings, single line diagrams, preliminary specifications, and structural design for County review. Mechanical, electrical, and structural 100% construction plans and documents incorporating County comments. Mechanical, electrical, and structural as-built drawings and O&M manuals.
Ger	neral Construction and Demolition Scope to be provided by Chevron ES:
0000 000	Removal of roof and roof structure in existing engine room to provide for removal of equipment. Removal and proper disposal of the old cogeneration engine and ancillary equipment. Removal and proper disposal of the old absorption chiller and ancillary equipment. Removal and proper disposal of old equipment and piping (County may retain any or all of the removed pieces at the time of removal) Cut and frame out new roof openings including flashings as required. Patch roofing around new openings. Cover with sheet metal and paint unused openings from old systems.
	Patch and paint walls and ceilings where old equipment is removed. Structural framing for new roof mounted equipment such as radiators. Concrete pads for grade mounted equipment (i.e. urea tank). Saw cutting, trenching, backfill and patching for the running of underground piping to support the mechanical scope as needed.
Ma	chanical Construction Scope to be provided by Chevron ES:

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0 000 0 000	Provide, assemble and install new Caterpillar (CAT®) 760 (nominal 750 kW) natural gas fired cogeneration unit and ancillary systems including but not limited to waste heat recovery unit, intercooler and jacket water radiators, and makeup oil system. Provide and Install new hot water fired Broad® absorption chiller. Provide and install new coiling tower motors and variable frequency drives for increased tower capacity. Provide and install new cooling tower motors and variable frequency drives for increased tower capacity. Re-pitch cooling tower fan blades as necessary. Provide and install insulated piping for engine exhaust, jacket water, chilled water, hot water, and steam (metal jacketed for outdoor locations) Provide and install uninsulated piping for condenser water, intercooler water and urea. Provide and install new low-pressure steam boiler sized to provide steam for the existing kitchen cooking equipment. Provide cranes, lifts, and rigging to install new cogeneration equipment and HVAC Equipment.
Elec	trical Construction Scope to be provided by Chevron ES:
	Provide and install new 12 kV main switch board, and connect same into the existing main switch boards at the Bob Wiley Detention and Pre-Trial Facility buildings. Provide and install one (1) new 1500 kVA transformer and one (1) new 2000 kVA transformer to replace existing units, which Southern California Edison (SCE) will be removing. Provide and install a new interface panel complete with required Southern California Edison safety relays. Provide and install the Motor Control Center (MCC) and electrically connect to cogeneration unit and its equipment including a 100
000	amp 480 volt 3-phase circuit to this MCC for power. Provide electrical power to equipment furnished/installed as part of this project. Coordinate and schedule work with Southern California Edison. Provide and install a new 750 kW emergency standby generator, with a new automatic transfer switch and switchboard at Bob Wiley Detention Facility. Provide and install conduit, wire, boxes, and miscellaneous electrical components as required. Provide temporary standby electrical generators as required to facilitate the change over to the new 12 KV main switch board. Proposal based on a maximum of 1 week of rental fees for generators.
Emi	ssion Control System Scope to be provided by Chevron ES:
<u> </u>	Provide and install closed loop emission control system including; Selective Catalytic Reactor (SCR), Urea Pyrolysis Tube and Oxidation Catalyst. Provide and install 3000 US gal. urea storage tank and ancillary support systems.
Air I	Pollution Control Permitting Scope to be provided by Chevron ES:
0 00 0	Compile New Source Review including: Best Available Control Technology (BACT) determination. Air Quality Impact Analysis. Health Risk Assessment. Public Notification Determination. Complete detailed emission calculations. Compile documentation and submit report and appropriate fees and application forms to the San Joaquin Unified Air Pollution Control District (APCD). Coordinate with APCD to facilitate the issuance of an authority to construct and operate the cogeneration system and emergency generator.
Plui	nbing Construction Scope to be provided by Chevron ES:
	Provide and install new steel gas piping from existing meter location to new gas-fired boiler where required. Reconnect existing gas piping to new cogeneration system. Provide makeup water and drains for new equipment as required.
Dire	ct Digital Controls (DDC) Scope to be provided by Chevron ES:
	vron ES shall provide and install software, firmware, and hardware necessary to fully integrate into the existing Invensys® EMS the wing:
	Two (2) existing Trane chillers One (1) new absorption chiller One (1) new Caterpillar generator Utility/supplemental power metering Mechanical system and sequence of operations modifications including a new HX, pumps, control valves and temperature and BTU monitoring and control
	integration shall include all gateways, programming, wiring, etc. to integrate and graphically represent the new equipment on new or existing graphical representations.

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Che	vron ES will provide the following:	
Q	Coordination with and be responsible for all data monitoring and control as made available by each of the Supplemental graphical representations shall be created to allow unit and sub-unit graphical "drill down" fully represent the equipment interfaced.	vendors equipment. unctions as necessary to
0	Installation of new line size control valves for chiller and cooling tower isolation and control functions as re Installation of all necessary programming, and hardware necessary to control the new valves.	
	Installation of temperature, BTU (with local indication), flow monitoring and control including cogeneration chiller, load and source side heat exchanger, and integrate into new/existing automation (Invensys Networgraphical user interface.	heat recovery, absorption rk 8000) system and
	Installation of all devices and integration into the control system any hardware necessary to achieve a full cogeneration/heating/cooling plant.	y functional and operating
	Labor and materials to perform complete system commissioning on unit, system, area, and facility basis, County.	to the satisfaction of the
	Complete documentation of all work performed, including but not limited to data sheets, drawings, graphic aspects of the project shall become the property of the County.	s, programming, etc. All
Seq	uence of Operation Scope to be provided by Chevron:	
on v facil	cogeneration/heat recovery/hot water/chilled water systems will be modified to provide an optimized function arious factors related to cogeneration electrical and heat outputs, absorption chiller demand/power modes ity load. Chillers will be staged rather than jointly started. The specific sequence of operation will be jointly eneration and mechanical equipment supplier, existing equipment service contractors, and Chevron Energiding and reports will be required for each data point on a routine basis as described above in the general response.	of operation, and actual y defined by the y Solutions. Data
Sys	tem (Pre-Trial) Integration Scope	
	Provide and install labor, software, firmware and hardware necessary to fully integrate the existing b (Invensys Network 8000/Signal GUI) to the existing Invensys EMS software.	uilding automation system
	Provide, via the operator interface, full access to controller level operations, including but not limited to a modification, set point adjustment, database upload/download. Similar area controller access shall also be	e provided.
	Program new/integrate existing graphical representations of controlled/monitored equipment and structure site, building, area, unit, component level as currently established for this customer, pending customer,	tures on a tabular, owner, her and customer's agent
	approval. Graphics, program data, user selections, etc. will be submitted for approval prior to implementation of all work performed, including but not limited to data sheets, drawing etc. All aspects of the project shall become the property of the County	s, graphics, programming,

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ECM-2 **High-Efficiency Lighting Upgrade** Refer to Attachment M, of this Contract, for a line-item listing of the actual proposed fixtures. Existing light fixtures will be retrofitted with energy efficient lamps and electronic ballasts as outlined in Attachment M. Lighting Scope of Work to be provided by Chevron ES: Attachment M represents a design/build turnkey scope. All requirements for a design/build turnkey scope are included. Provide system components necessary for the turn-key installation, including the equipment and materials used to meet the specified requirements An effort has been made for the standardization of lamps and ballasts. Included in this are LED exit signs, T8 lamps and ballasts, linear fluorescent lighting fixtures, H.I.D. fixtures and lamps, and compact fluorescent hard-wired fixtures and lamps. Lamps and ballasts shall be GE® products where possible. Fixtures mounted below 15' A.F.F. and lenses shall be cleaned. All exit signs to be replaced will be with new LED exit signs appropriate for emergency lighting systems. All broken and yellowed lenses identified in the audit will be replaced as part of this scope of work. Broken and compromised lamp holders and sockets will be replaced as part of this scope of work. The work will be completed during off hours.

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Disposal of old lamps and ballasts per EPA regulations.

Provide three (3) copies of O&M manuals.

ECM-3 Waste Water Treatment System Upgrade

The	wastewater	treatment s	system	will be	upgraded	as follows:

DISSOLVED OXYGEN CONTROL AT	WASTE WATER	TREATMENT PLANT
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DIS	SOLVED OXYGEN CONTROL AT WASTE WATER TREATMENT PLANT	
	Install variable frequency drives (VFD) to the six (6) 25 hp blower motors and control blower operation sensing in the process tanks for blower output control. This will enable the system to track oxygen denoue blower at full output in combination with another blower at partial or reduced output to meet the program one blower at full output in combination with another blower at partial or reduced output to meet the program of the process. Replace existing tube diffusers constructed of EPDM rubber for process aeration with units manufacted EPDM material deteriorates from reacting with fats, oils and greases in the wastewater causing the need annually. The new urethane diffusers are expected to have a 3-5 year life and cost approximately the The oxygen transfer efficiency for both membrane materials is equivalent. Install a new magnetic flow meter on the raw sewage feed line to plant 3 to correspond with the exist install new electric motor operated valves on the same feed lines as the flow meters for both plants 3 installed to provide batch feed control to both plants. This modification in conjunction with the new balance BOD loading as well as aeration capability between the two plants. Both plants are fed by the station through a common line which splits between the two plants. There is no existing flow control struction distribution between the two plants, consequently, the sewage loading to each plant and the percentage two plants fluctuates constantly throughout the day. The inability to control the distribution of flow be detrimental to the process, often resulting in noncompliant discharges.	hand and allow the use of ocess oxygen requirement tured from urethane. The distortion to replace diffuser tubes same as the EPDM units. Ing flow meter on plant 4. and 4. A controller will be blower improvements will same raw sewage pump ture or system to regulate e distribution between the
RAV	V SEWAGE SCREENING SYSTEM AT WASTE WATER TREATMENT PLANT	
	The existing screening system at the plant headworks was not designed to remove many of the comcurrently received at the treatment plant in the incoming sewage flow. The nature of this application, C waste stream containing many small pieces of plastic such as individual condiment pouches, single forks, spoons along with latex gloves and an extreme amount of paper materials. The screen opening for spacing which is incapable of trapping most of this material. Consequently, the treatment plant operator week attempting to remove as much of this material from the treatment process to prevent it from discharge. In spite of all attempts to prevent this material from reaching the plant discharge and subsesties for the water, there is still a certain amount that makes its way out to the disposal sites. This is a notice of the value of the plant's waste discharge requirements issued by the California State Water Resources Contexisting screen is 10 yrs old and no longer manufactured.	correctional Facilities, is a serving cracker wrappers, the existing unit is 1/2" bar devotes 10-12 hours per showing up in the plant equently the final disposal procompliant situation and
_ _	The new screening system will have about the same power requirements as the existing system, even to total horsepower, the drive motor only operates intermittently. The new screen has a perforated screen instead of the ½"x6 bar spacing of the existing unit. Even with the high amount of removal resulting from the organic content contained in the discharged screenings is actually lower than the existing unit due to screen's wash box. It is expected that this unit would eliminate the need for "netting" debris from the p these materials from contaminating the plants discharge. Replace an existing sewage lift pump which has become worn with a new VFD rated pump and motor. To a new pump installed last year which is VFD controlled. This will provide redundancy and efficiency in his VFD controlled. Replace an existing bubbler air compressor with a bubbler "system" with redundant air compressors, pullarms. This will make the pump station more reliable and provide more effective pump operation.	ing plate with 3/16" holes the use of a finer screen, the efficient design of the rocess tanks and prevent his unit will be identical to aving pumps that are both
REC	LAMATION FLOW METER FOR WASTE WATER TREATMENT PLANT	
ב	Install new battery powered magnetic flow meter on remote reclamation line to effluent disposal field.	
IUV	ENILE LIFT STATION IMPROVEMENTS	
	Install two (2) new vortex lift pumps to replace the existing submersible pumps. The station pumps op upon flow received at the station. The existing pumps frequently become clogged with latex gloves, and sheets and other materials. When the pumps clog, they must be pulled to the surface with a hoist a intensive and usually requires several hours to accomplish. On occasion, sewage has backed up into the both pumps plug simultaneously. The vortex pumps being installed are designed to pump these types of signer existing 5 hp grinder from lift station in conjunction with installation of new vortex pumps as the needed. The new vortex pumps are 7.5 hp and replace 5 hp pumps. Installation of the higher horsepowed operate intermittently will allow removal of the 5 hp grinder which operates continuously. Replace existing bubbler level sensor having a single air compressor with a new bubbler system for impronew bubbler system has redundant air compressors, bubbler tube purging and system alarm functions runit.	icles of clothing, strips of nd cleaned. This is labor adjacent parking lot when olids without plugging. grinder will no longer be r vortex pumps which will ved station reliability. The

TCCC LIFT STATION IMPROVEMENTS

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<u> </u>	Install new 7.5 hp vortex submersible pumps to replace existing 5 hp pumps. Addition of these pumps we of the existing screening system at the station which has 1 ¼ hp motor operating continuously. The existing for replacement. The abandonment of the screen will reduce maintenance costs and the screen is no parts availability is questionable. Install a new bubbler level control system to improve level control reliability and provide remote alarm modurrently not available.	ng pumps are old and due longer manufactured, so
MAI	NTENANCE LIFT STATION REHABILITATION	
<u> </u>	Install two (2) new 3 hp vortex submersible pumps and related equipment to replace two (2) existing 3 hp pump. This will remove 5 hp from intermittent operation and associated maintenance costs. Install new bubbler control system to replace existing float control which is old and failing. The new scapability for remote alarm monitoring which currently is not available with the existing system. This will station problems and reduce maintenance time spent on this station.	ystem will have telemetry
JUV	ENILE FIRE BOOSTER PUMP STATION IMPROVEMENTS	
	Install variable frequency drives to three (3) 30 hp pump motors and modify pump station control logi improvement.	c to effectively utilize this
WA	TER/WASTEWATER SCADA	
<u> </u>	Install new telemetry capable controllers at five (5) existing well sites to include them in new SCADA (Sup Acquisition) system. This will reduce labor in frequency of checking each site and provide notification of al Install new hardware and software to create the master station of the SCADA system at the operator's o will enable water and wastewater systems monitoring, both onsite and offsite, via internet access. Syst notification of water/wastewater alarm conditions during off-hours and weekends when no one is present emergency response time.	arm conditions. ffice. The SCADA system em operators will receive

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ECM-4a Bob Wiley Detention Facility Ventilation Upgrade

The scope of work will be to install variable frequency drives (VFDs) to control supply and exhaust fans serving the Bob Wiley Detention Facility. In addition, the automated controls will be modified, in conjunction with the supply and return fans, to more effectively control temperature and pressurization while reducing energy use.

Units included in this energy conservation measure are listed below:

Unit	Supply CFM	Min. OSA CFM	Supply HP	Area/Notes	Unit	CFM	HP	
AHU-7	3,000	3,000	5.0	H Building #1	EF-19	EF-19 6,400	6,400	5.0
AHU-8	3,000	3,000	5.0	H Building #1				
AHU-9	3,000	3,000	5.0	H Building #1	EF-20	6,400	5.0	
AHU-10	3,000	3,000	5.0	H Building #1				
AHU-14	3,000	3,000	5.0	H Building #2	EF-24	6,400	5.0	
AHU-15	3,000	3,000	5.0	H Building #2				
AHU-16	3,000	3,000	5.0	H Building #2	EF-25	6,400	6.400	5.0
AHU-17	3,000	3,000	5.0	H Building #2			0.0	
AHU-21	3,000	3,000	5.0	H Building #3	EF-29	6,400	5.0	
AHU-22	3.000	3,000	5.0	H Building #3	LI -25			
AHU-23	3,000	3,000	5.0	H Building #3	EF-30	6,400	5.0	
AHU-24	3,000	3,000	5.0	H Building #3	EF-30	5,700		
AHU-28	3,000	3,000	5.0	H Building #4	EF-41	6,400	5.0	
AHU-29	3,000	3,000	5.0	H Building #4		1 5,100		
AHU-30	3,000	3,000	5.0	H Building #4	EF-42	6,400	5.0	
AHU-31	3,000	3,000	5.0	H Building #4				

Variable Frequency Drive Scope:

_	At Bob Wiley Detention Facility, furnish and install sixteen (16) - 2hp rated VFDs and eight (8) - 3hp r.	ated VFDs, for the existing
ב	air handling units and exhaust fans. Modify existing and/or provide new, and install automation software, firmware, hardware, programmi	ng, labor and materials to
_	control and monitor new variable speed drives on each of sixteen (16) air handlers and their associated Minimum points shall include start/stop, status, alarm, speed control, speed feedback for each drive. I	he start/stop point may be
_	one database point if necessary, controlling both drives via additional hardware. Simplified sequence of operation with this modification: The supply fan shall modulate from full	speed to minimum speed
_	(adjustable set point) in response to deviation of room temperature from set point. The supply fan spectreset by outside air temperature. The return fan shall modulate to maintain space static pressure at column (adjustable). Note that this sequence is to provide a basic description of the desired operation.	set point 0.1 inches water
_	subject to change at any time prior to the implementation of an actual program to the functional controlled Provide all necessary software, firmware, hardware, programming labor and materials to integrate the control of the control	ers of the facility.
	provide all necessary software, firmware, hardware, programming labor and mitterials to make programming and hardware to the existing graphical user interface of the existing "campus" Niagra® b graphics modifications and program modifications and hardware modifications shall be submitted.	ased operator interrace. An
	implementation shall not be performed prior to owner's approval. Provide full documentation of all work related to physical, graphical and program work performed on the	
	project chall become property of the owner	
	Provide labor and materials to perform complete system commissioning on a point, unit, system, satisfaction of the owner. The contractor shall submit a commissioning plan prior to the beginning of we	area, facility basis, to the ork.

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Pre-Trial Facility Ventilation Upgrade ECM-4b

The scope of work will be to install variable frequency drives to control the supply and return fans of the rooftop package units serving the Pre-Trial facility. In addition, the automated controls will be modified, in conjunction with the supply and return fans, to more effectively control temperature and pressurization while reducing energy use.

Units included in this energy conservation measure are listed below:

Unit	Supply CFM	Return CFM	Min. OSA CFM	Supply HP	Return HP	Area/Notes
PS-ACU-1	6,000	3,000	3,000	7.5	1.5	Housing Unit 1
PS-ACU-2	6,000	3,000	3,000	7.5	1.5	Housing Unit 1
PS-ACU-3	6,000	3,000	3,000	7.5	1.5	Housing Unit 2
PS-ACU-4	6,000	3,000	3,000	7.5	1.5	Housing Unit 2
PS-ACU-5	6,000	3,000	3,000	7.5	1.5	Housing Unit 4
PS-ACU-6	6,000	3,000	3,000	7.5	1.5	Housing Unit 4
PS-ACU-7	6,000	3,000	3,000	7.5	1.5	Housing Unit 3
PS-ACU-8	6.000	3,000	3,000	7.5	1.5	Housing Unit 3
PS-ACU-9	7,000	2,400	4,600	10	1.0	Infirmary
PS-ACU-10	8,000	3,350	4,650	10	1.5	Infirmary/Intake - 13 Holding
PS-ACU-11	5,000	2,000	3,000	7.5	1.0	Visitor Entrance
PS-ACU-12	12,000	12,000	4,200	15	5.0	Courtrooms, Offices, Visitor Areas
PS-ACU-13	12,000	12,000	4,200	15	5.0	Multipurpose Areas, Storage

Variable Speed Drive Scope:

varia	= val 4 (2) 40hp and two (2)
۵	At Pre-Trial Facility, furnish and install two (2) - 1hp, nine (9) - 1 1/2hp, two (2) - 5hp, nine (9) - 7 1/2hp, two (2) - 10hp, and two (2) - 15hp VFDs, for existing roof mounted HVAC units.
	The associated exhaust fans will not be mointed automation software, firmware, hardware, programming, labor and materials to
	Modify existing and/or provide new, and install automation solutions and modify existing and/or provide new, and install automation solutions and modify existing and/or provide new, and install automation solutions are also an expectation and also are also are also are also also are also ar
	control and monitor two (2) new variable speed drives on each of thirden (13) air handlers. The start/stop point may be Minimum points shall include start/stop, status, alarm, speed control, speed feedback for each drive. one database point if necessary, controlling both drives via additional hardware.
	Provide space static pressure monitoring to control the retainment.
	Simplified sequence of operation with this modification. The supply fan speed set point shall be further
	reset by outside air temperature. The return fair shall model a basic description of the desired operation of the system, and is
	column (adjustable). Note that this sequence is to provide a second to the functional controllers of the facility.
	Provide all necessary software, firmware, flatoware, programming the solution "campus" Nigora® based operator interface
	indicated in the proposed integration above. All graphics meaning to owner's approval
	indicated in the proposed integration above. All graphics induitations that program are proposed integration above. All graphics induitations that proposed integration above. All graphics induitations are proposed integration above. All graphics induitations are proposed integration above. All graphics induitations are proposed in the proposed integration above. All graphics induitations are proposed in the proposed integration are proposed integrat
	project shall become property of the owner.
	project shall become property of the owner. Provide labor and materials to perform complete system commissioning on a point, unit, system, area, facility basis, to the satisfaction of the owner. The contractor shall submit a commissioning plan prior to the beginning of work.
	satisfaction of the owner. The series

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Ove	all Project Scope and Clarifications/Exclusions:	_
a	Chevron ES has assumed project construction will be allowed to proceed smoothly and in a continuous been made to demobilize and remobilize resources due to schedule interruptions.	
0	System startup, testing, commissioning, and training on all systems provided divisions to be provided by owner at no cost (trailer power, phone lines, construction power, et	t. c.) Chevron ES will pay
_	actual cost of utilities used and will perform the connection of said utilities. Application of the said Containing Materials, to be by the	County. If Chevron ES
	encounters material suspected to be hazardous, we will notify the County representative and	
۵	material is removed. No allowance has been made to repair or replace damaged or inoperable existing equipment that is not s No allowance has been made to repair or replace damaged or inoperable existing equipment that is not s under the scope of work. When such items are discovered we will immediately notify the County represent under the scope of work. When such items are discovered we will immediately notify the County represent under the scope of work. When such items are discovered we will immediately notify the County represent under the scope of work. When such items are discovered we will immediately notify the County represent under the scope of work. When such items are discovered we will immediately notify the County represent under the scope of work. When such items are discovered we will immediately notify the County represent under the scope of work. When such items are discovered we will immediately notify the County represent under the scope of work. When such items are discovered we will immediately notify the County represent under the scope of work. When such items are discovered we will immediately notify the County represent under the scope of work.	tative.
	Chevron ES assumes that the facilities are compliant to all recovery solding soldings.	ave been made to bring
00	No allowance has been made for structural upgrades to existing soften mounted equipment. Based on our	r site survey, few if any of be added to the scope.
۵	No allowance has been made for screening of new or existing footop mounted equipments to the existing buildings have any form of screening at this time. If the County would like screening, this can Emission Control Systems not specifically detailed in the above scope are excluded. Continuous Emissions Monitoring (CEMs) or other extraordinary air monitoring required by the Air Pollution of the continuous Emissions Monitoring (CEMs) are all work performed under this proposal.	
	A one year parts and labor warranty is provided on all work performed that the Authority Having Jurisdiction ()	AHJ).
	A one year parts and labor warranty is provided off all work periodic directions that the provided off all work periodic directions that the County is responsible for all permit fees and obtaining approval by the Authority Having Jurisdiction (a Work will be performed during normal work hours; no overtime hours are included in this proposal. The County work which may be required for the SCE change over to the new Main Switch Board and is the after hours work which may be required for the SCE. Congranty or the County	nly two exceptions to this the lighting scope.
	is the after hours work which may be required for the SCE change over to the hour man of the Chevron is not responsible for delays to work by SCE, Gas Company, or the County.	-

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ATTACHMENT E PROJECT SCHEDULE

After contract execution, Chevron ES will develop, with input from the County staff, a master Microsoft® Project schedule. The project team will establish a weekly construction meeting at which time the work of the previous week will be reviewed, and a two week look ahead will be coordinated. The Microsoft Project schedule will be updated on a monthly basis. At this time, Chevron ES estimates that after contract execution, the issuing of subcontractor contracts, design/engineering, mobilization, construction, and commissioning/turnover phases to be an 18-month duration project. The lead time for the new Caterpillar cogeneration system will have the greatest impact on the schedule.

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ATTACHMENT F PROGRESS PAYMENT SCHEDULE

\$25,000
\$1,059,617
\$6,146,182
\$7,230,799

A Schedule of Values (SOV) will be provided after contract execution. It will include a breakout of the total cost by Energy Conservation Measure (ECM) as detailed in Attachment D, Scope of Work. All invoices will be submitted through the Management Agency prior to payment by the Auditor's Office. Invoices shall be in the form and contain the information requested by the Customer and shall be subject to approval by the Customer. Customer will make payments within thirty (30) days of receipt of approved invoice..

The fee for the Comprehensive Energy Analysis Report plus a Mobilization Fee will be invoiced to the Customer upon both parties signing the Energy Services Contract and due and payable as detailed in Contract Attachment A.

Annual Guarantee Fee

First Year Monitoring Fee

\$25,000

The Annual Guarantee Fee of this Contract shall begin on the M&V Commencement Date and shall continue in effect for three (3) years.

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ATTACHMENT G STANDARDS OF OCCUPANCY & CONTROL

The following standards and assumptions were used to evaluate the energy conservation measures in this program. It is understood that existing and installed equipment may not allow for exact times and temperatures to be met, but every effort will be made to meet the below standards as closely as the equipment allows.

The baseline energy model for the Bob Wiley and Pre-Trial facilities was developed using available information regarding building systems and operating schedules, as well as projected future occupancy and operating schedules for the Pre-Trial facility. If the actual future building occupancy or operating schedules vary significantly from the assumed occupancy and operating schedules, this may impact the projected baseline building energy performance.

The following major assumptions were incorporated into the baseline building energy model:

Bob Wiley Facility Baseline Building Assumptions

- Occupancy: Bob Wiley facility occupancy patterns are assumed to remain consistent with the calibration period (May 2004
- Lighting: The lighting survey was used to define the lighting power and schedule. Peak lighting power for the existing facility was modeled as 172.4 kW. Cell lighting was assumed off for 7 hours per day. 50% of non-cell lighting in the housing units (e.g. dayrooms, etc.) was assumed to remain on continuously. The remaining 50% of non-cell lighting was assumed off for 7 hours per day. Lighting in the administration building and all other administrative spaces operates continuously.
- Miscellaneous Loads: Miscellaneous equipment loads (which include all electric energy usage other than HVAC and lighting energy) were modeled as 0.25 W/sf in the housing units, 1.5 W/sf in administration spaces and in the service building, and 0.5 W/sf in the visitor's area of the administration building. Miscellaneous load schedules in housing units ranged from 50% of full-load during the day down to 10% of full load at night. Miscellaneous load schedules for administrative areas ranged from 80% of full-load during the day down to 25% of full load at night. Miscellaneous load schedules for the service building ranged from 70% of full load during the day down to 10% of full-load at night.
- Air Handling Units: The air handling systems serving Bob Wiley operate continuously. The air handling units serving the cells are constant volume, 100% outside air systems with 6,000 CFM supply air for each unit, and are modeled with sensible heat recovery with a 68.03% effectiveness. Air handling units serving the dayrooms are constant volume systems with fixed outside air percentages. The Administration building is served by three variable-air-volume systems, equipped with variable speed fan controls, and supply air temperature reset controls based on outside air temperature.
- Chilled Water Configuration: The chilled water plant is modeled with two (2) 300-ton electric centrifugal chillers, each with an assumed full-load efficiency of 0.64 kW/ton and a 100-ton absorption chiller with an assumed full-load efficiency of 0.65 COP. The absorption chiller is operated only during the hours that the engine generator is on-line; chillers are staged so that the absorption chiller operates up to full load, and then the electric chiller(s) are staged on as needed. The chilled water piping configuration is modeled as primary-secondary, with a constant volume primary loop and variable volume secondary
- Steam Configuration: The efficiency of the steam boiler is modeled as 68%. Most of the heating loads for the Bob Wiley facility baseline building are met through waste heat recovered from the cogeneration unit; additional loads are met by the The cogeneration system
- Cogeneration: The existing cogeneration system was assumed to be repaired, and on-line. performance was calibrated with utility data gathered between May 2004 and April 2005. The following parameters were modeled for the cogeneration system:
 - Peak generating capacity: 500 kW
 - Minimum generator operating ratio: 40%
 - Engine generator efficiency at full load: 20%
 - Waste heat recovery efficiency: 23%
 - Operating schedule: 24 hours per day, 7 days per week (typical); off-line for the following quantity of hours per month based on 15-minute electric data:
 - i. January: 4 hours
 - ii. February: 72 hours
 - March: 8 hours iii
 - April: 177 hours iv.
 - May: 5 hours ٧. June: 161 hours vi.
 - vii. July: 74 hours
 - August: 12 hours viii.
 - September: 10 hours ix.
 - October: 11 hours
 - November: 15 hours χİ.
 - December: 303 hours
- Utility Rates: The Bob Wiley electric utility rate applied was the TOU-8B-S rate. The average cost of electricity for the baseline case was \$0.2656/kWh due to high demand charges accumulated during the hours that the cogeneration system was off-line. SCE Standby charges for the cogeneration unit were \$3,630 per month.

The Natural gas rate was determined based on Department of Energy projections for 2006, after accounting for inflation, and was modeled as \$0.875/therm for cogeneration, and \$1.006/therm for the natural gas meter for the boiler and domestic water

heaters.

Pre-Trial Facility Baseline Building Assumptions

- Occupancy: The Pre-Trial facility is assumed to be fully occupied year-round. The clinic is assumed to operate 24/7. The courtroom is assumed to be occupied during regular business hours. The administrative and intake areas are assumed to be at least partially occupied 24/7. Dayrooms are assumed to be occupied 18 hours per day, and cell blocks are assumed to be at least partially occupied 24/7. This is based on the assumption that Pre-Trial has a similar occupancy load profile as Bob
- Lighting: The lighting survey was used to define the lighting power and schedule. Peak lighting power for the existing facility was modeled as 108.7 kW. Schedules were varied by occupancy type with: continuous operation for administrative areas, 17-hours per day for cells, and varying schedules for other non-cell spaces. This is based on the assumption that Pre-Trial has a similar lighting load profile as Bob Wiley Detention Facility.
- Miscellaneous Loads: Miscellaneous equipment loads (which include all electric energy usage other than HVAC and lighting energy) were modeled as 0.25 W/sf in the dayrooms, 1.5 W/sf in the intake and administration spaces, and 0.75 W/sf in the core building spaces. Miscellaneous load schedules for dayrooms ranged from 50% of full-load during the day down to 10% of full load at night. Miscellaneous load schedules for administrative areas ranged from 80% of full-load during the day down to 25% of full load at night. This is based on the assumption that Pre-Trial has a similar miscellaneous load profile as Bob Wiley Detention Facility.
- Air Handling Units: All Pre-Trial air handling units were modeled as operating continuously. All thirteen air handling units were modeled as Packaged Single Zone constant volume systems with efficiencies of 9.0 EER, and having 100% outside air economizers. Minimum outside air percentages for the air handling units serving inmate areas including the cells and dayrooms were modeled as 50%. Minimum outside air percentages for air handling units serving other spaces ranged from
- Utility Rates: The Pre-Trial electric utility rate applied was the SCE GS-2 rate. The average cost of electricity for the baseline case was \$0.154/kWh.

The Natural gas rate was determined based on Department of Energy projections for 2006, after accounting for inflation, and was modeled as \$1.006/therm.

Energy Conservation Measure Modeling Assumptions

Energy conservation measures were modeled using equipment cut sheets, energy audit findings, and certain operational assumptions for the new equipment. For each energy efficiency measure modeled, the energy model for the energy conservation measure remained identical to the base case model except for the systems affected by the energy conservation measure. The parameters modeled for each energy conservation measure are documented below:

ECM-1: Bob Wiley Detention Facility Central Cogeneration Plant Modernization

The electric meters for Bob Wiley and Pre-Trial were consolidated into one meter under this energy conservation measure. The rate applied for the meter was the SCE TOU-8B-S rate (including the anticipated 1st Quarter 2006) 30% energy rate increase). SCE Standby charges for the cogeneration unit were \$4,950 per month. The cogeneration system was modeled with a peak operating capacity of 759 kW, a generator efficiency of 35.3%, an exhaust recovery efficiency of 20.6%, and a jacket recovery efficiency of 27.05%. The minimum operating ratio for the generator was modeled as 40%.

The generator was assumed to operate continuously year round except for two weeks each December, where scheduled maintenance was assumed. It is essential that the generator remain operating during peak and midpeak periods each month in order to minimize SCE demand charges.

The absorption chiller was modeled with a capacity of 180 tons, and an efficiency of 0 71 COP. The small steam boiler was modeled with a full load efficiency of 77%. The model was not modified to reflect the upgraded DDC control system, or the integration of the pre-trial direct digital control system.

ECM-2: High Efficiency Lighting Upgrade.

Lighting upgrades were modeled based on the lighting survey.

ECM-4a: Bob Wiley Detention Facility Ventilation Upgrade.

The air handling units serving the cells in the Bob Wiley Housing units were modeled with variable volume supply air down to 75% of full flow.

ECM-4b: Pre-Trial Facility Ventilation Upgrade

The air handling units serving the cells in the Pre-Trial units were modeled with variable volume supply air down to 75% of full flow.

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ATTACHMENT H **ENERGY MANAGEMENT AND GUARANTEE SERVICES**

I. Standard Energy Management Descriptions & Definitions

- M&V Commencement Date: "M&V Commencement Date" shall be the first day of the month following both: 1) The signed Certificate of Final Completion, and 2) Chevron ES' receipt of the Contract Amount.
- Construction Period: The "Construction Period" is the period beginning with the first day of the month that equipment is 2. first installed and continuing until the M&V Commencement Date.
- Measurement Year": A "Measurement Year" is each one-year period following the M&V Commencement Date, plus the Construction Period (Measurement Year 0) which may not necessarily be a one-year period.
- EC Savings: The energy conservation savings, or "EC Savings", having units of dollars (\$), are those savings or cost avoidances achieved through the reduction in energy consumption, demand, energy rates, rhaintenance, or materials through the implementation of the Scope of Work.
- Energy Savings Term: The "Energy Savings Term" shall be the Construction Period followed by the number of 5. Measurement Years shown in Attachment I or until the termination of this Contract.
- Savings Measurement & Verification Plan: The "Savings Measurement & Verification Plan" is the scope of work defined by Attachment H and provides for the quantification of EC Savings for the purpose of meeting the Guaranteed
- Projected Energy Savings: "Projected Energy Savings" are those savings expected from the installation and continued 7. operation of the Scope of Work.
- Termination of Guaranteed Savings: If the Contract is terminated pursuant to Section 19 of Attachment A, the Guaranteed Savings shall also be terminated. Should such termination occur on a date other than at the beginning of a Measurement Year, Chevron ES shall have no Guaranteed Savings for a partial year.
- Energy Unit Savings: The savings in units of energy, power, water, etc., achieved through the reduction in energy consumption, demand, through the implementation of the Scope of Work as defined and calculated in herein.
- 10. Baselines: In determining Baselines, Chevron ES identified some of the factors which may affect energy use for the Facilities, including but not limited to: hours and levels of occupancy; adjustments in labor force; building use and operational procedures; temperature, humidification, and ventilation levels; installed lighting and scheduled use; building construction and size; general level of repair and efficiency of heating and air conditioning equipment and other energyusing equipment; and amount of heating and air conditioning and other energy-using equipment. After consideration of those factors and certain other anomalous use of the Facilities, Chevron ES establishes initial Baselines. It is understood that due to changes in factors affecting energy use, the Baselines may be revised from time to time as detailed in this Attachment. In addition, data collected during the period before construction may indicate a change of the energy use pattern at the facility and require a change to the Baselines. Chevron ES shall notify the Customer, in writing, of all such changes.
- 11. <u>Base Energy Rates:</u> The "Base Energy Rates", having units of dollars per energy unit, are presented herein and shall be used by Chevron ES to calculate the EC Savings.

II. Guaranteed Savings Terms and Conditions

- The Customer shall maintain all Scope of Work installed under this Contract in a manner consistent with the manufacturer's or Chevron ES' recommended maintenance schedules and procedures from the time of Substantial Completion. Chevron ES shall, if it deems necessary, inspect the Facilities annually.
- For the purpose of determining EC Savings, Chevron ES shall prepare reports, take on-site measurements, monitor building automation systems, and/or additional work as required by and detailed in the Savings Measurement & Verification Plan.
- The Customer acknowledges and consents to Chevron ES' right to monitor EC Savings and energy management performance by conducting on-site measurements, including, but not limited to, reading meters and installing and observing on-site monitoring equipment. The Customer shall cooperate fully with any such measures instituted by Chevron ES pursuant to this Subsection. Chevron ES shall not institute any measures that unreasonably interfere with the business of Customer conducted at the Facilities. At Chevron ES' request, to facilitate Chevron ES' monitoring of the Scope of Work, the Customer, at its expense, shall cause a dedicated telephone line to be installed at each location of the Customer's Facilities designated by Chevron ES for communication between Scope of Work and Chevron ES. Customer shall pay all monthly service charges and fees for such dedicated telephone line, except that Chevron ES shall pay the monthly fees for long distance service from Chevron ES' office to the Customer's Facilities.
- For the purpose of determining EC Savings, Customer shall cooperate with Chevron ES by providing utility information, changes in factors affecting energy use, and/or additional information as requested by Chevron ES personnel.
- Savings Guarantee: Subject to changes in factors affecting energy use, Chevron ES guarantees that the Customer will realize total EC Savings during the Energy Savings Term of not less than the Guaranteed Savings.
 - Guarantee Payment: Should the Customer's total EC Savings during any Measurement Year be less than the Guaranteed Savings for that year, Chevron ES guarantees that it shall pay to the Customer, within 30 days of the acceptance of the annual energy savings report, the difference between the Guaranteed Savings for such year and the total EC Savings for that Measurement Year, not to exceed the guarantee amount. If in the judgment of the Customer, Customer would benefit from additional energy services or energy saving retrofits, Customer and Chevron ES may mutually agree upon such services or retrofits in lieu of Guarantee Payment. For the purposes of this Contract, such services or retrofits actually delivered by Chevron ES will be considered a Guarantee Payment for that Measurement Year.

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- Excess Savings: For each Measurement Year in which the EC Savings exceed the Guaranteed Savings, the Excess Savings shall be the difference. For any Measurement Year following a Measurement Year(s) in which Chevron ES has made a Guarantee Payment to the Customer, the Customer shall first pay to Chevron ES, to the extent of the Excess Savings, the amounts paid by Chevron ES to the Customer for all prior Measurement Years.
- Accumulated Savings: The total Excess Savings remaining, including construction period if savings are positive, after payment to Chevron ES for previous Guarantee Payment(s), will be added to the EQ Savings for the following Measurement Year. With respect to any Measurement Year in which Chevron ES has made a Guarantee Payment to the Customer, the Accumulated Savings will be set to zero for the following Measurement Year. Wherever such term is used elsewhere in this Contract, the Accumulated Savings will be considered EC Savings.
- Changes in Factors Affecting Energy Use
 - The Customer shall notify Chevron ES in writing within ten (10) business days of any change in any factor that affects the Baselines as set forth. Chevron ES will determine the effect that any such change will have on EC Savings and present to the client a written analysis of the effects of the changes. Changes that are long term or permanent will be reflected in a change to the Baseline. Temporary changes that affect energy use will be calculated and added to the corresponding month's EC savings.
 - If a change in any of the factors involved in the Baseline occurs and results in a reduction of EC Savings, then the level of dollar energy savings to be guaranteed by Chevron ES will be decreased by the same amount.
 - Customer and Chevron ES may from time to time desire to make changes for the express purpose of increasing EC Savings. It is agreed that these changes will only be made with the written consent of both parties, which will not be The Baseline will not be adjusted to reflect any changes agreed to under this subparagraph. If Chevron ES elects to pay for the cost of any such changes that would not unreasonably interfere with the conduct of Customer's business, and the Customer does not consent to the changes, then the Baseline will be adjusted upward by the amount of savings projected from the changes.
 - During the Energy Savings Term when the effect on savings can not be accurately determined due to construction or major changes, Projected Energy Savings for the facility will be used for the period of such changes and until the effect of the changes can be determined by Chevron ES.
 - Chevron ES has the right to charge the Customer for work required to assess the effect on savings for any large scale changes, including, but not limited to, building additions, new buildings, and new or changed HVAC equipment, that require more than forty (40) hours per year to be spent in calculating their effect on the energy savings. Such hours will be billed at current Chevron ES engineering rates. Before initiating such work, Chevron ES will notify the Customer in writing of the intent and cost associated with the work. The Customer will, within 45 days in writing, notify Chevron ES with permission to proceed or, alternatively at no charge, to stipulate that the Projected Energy Savings for the existing facility in question be used as Energy Use \$avings for the purpose of meeting the guarantee. If Chevron ES does not receive written notice within 45 days, the Projected Energy Savings for the existing facility in question will be used as EC Savings until such time that the Customer approves the work, as long as the scope of the work has not changed.
 - If the Customer fails to notify Chevron ES of changes in factors affecting energy use or fails to supply Chevron ES with requested information that is required for the calculation of saving in a timely manner, EC Savings for the period will be equal to those Projected Energy Savings for the period. If information for the period in question is supplied at a later date, the EC Savings will be modified only if the calculated savings for the period exceed the Projected Energy Savings for that period of time.
 - Any changes made by Chevron ES to the Baselines or savings calculations, as outlined in this contract, shall be presented to the Customer for approval. The Customer shall have 30 days to approve or question the changes in If Chevron ES does not receive notice in writing within 30 days, the changes will be considered contractually valid and implemented as proposed. If the Customer notifies Chevron ES within 30 days of their nonapproval of the changes, Chevron ES will work with the client to answer any questions or make any necessary corrections.
 - The Customer agrees that Chevron ES shall have the right, with or without prior notice, to inspect the facilities to determine if the Customer is complying and shall have complied with its obligations as set forth above. In the event that any inspection discloses that the Customer has failed on the date of the inspection to be in compliance with any items set forth above, then the Guaranteed Energy Savings shall be assumed to have been achieved for and with respect to the portion of the Energy Savings Period during which such failure shall have existed.

III. Calculation of EC Savings

- Energy Savings Report: Annually within 90 days after receipt of all needed information for each Measurement Year during the Energy Savings Term, Chevron ES shall submit an annual energy savings report with a precise calculation of the EC Savings to the Customer, unless additional information is needed to accurately calculate the EC Savings, in which case the Customer shall be notified of such a situation within the 90 day period.
- 2. Four different types of EC Savings are identified under this Contract: (a) Energy Use Savings, (b) Fuel Switch Savings, (c) Energy Rate Reduction Savings, and (d) Stipulated Non-Energy Savings. Total EC Savings will be determined by adding together the Energy Use Savings, Fuel Switch Savings, Energy Rate Reduction Savings, Operational Reduction Savings, and any calculation of an adjustment to the savings due to changes in factors affecting energy use for each
 - Energy Use Savings are those savings achieved through reductions in energy use, energy demand, water, and other commodities. Chevron ES will calculate the Energy Unit Savings as detailed in the Savings Measurement and Verification Plan. The Energy Unit Savings will then be multiplied by the applicable Base Energy Rates set forth herein. The dollar amount determined by such calculation shall be the Energy Use Savings for such period.
 - Fuel Switch Savings are those savings achieved by switching to a more economical source of energy on a cost per unit of energy basis. The Fuel Switch Rate (dollars saved per unit of new fuel used) will be calculated by Chevron

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- ES and presented herein and shall not be escalated for purposes of calculating savings. Fuel Switch Savings shall be computed for each period by multiplying the Fuel Switch Rate by the number of units of new fuel consumed for
- Energy Rate Reduction (ERR) Savings are those savings achieved through either improving the rate from local utility company, direct purchase of a commodity, or bulk purchase of commodity. An ERR savings rate (dollars saved per unit of applicable energy) will be calculated by Chevron ES and presented herein and shall not be escalated for purposes of calculating savings. ERR Savings shall be computed for each period by multiplying the ERR savings rate by the number of units of energy consumed for that period. There will be no Energy Rate Reduction Savings calculation or penalty if the current energy rate exceeds the Base Energy Rate. There will be no ERR Savings calculation unless an energy rate reduction has been achieved either directly or indirectly by Chevron
- Stipulated Non-energy Savings are achieved through reduction in non-energy cost due to the implementation of the Scope of Work identified by Chevron ES, to be calculated as set forth herein.

IV. Savings Measurement & Verification Plan

The following details the methodologies and calculations to be used in determining the Energy Unit Savings under this Contract.

acility or ECM	Measurement & Ve	rification Method Option	5	T Born	nestic Water
acinty of Lon	Electric Usage	Electric Demand	Natural Gas Usage		lestic water
N. 4	M&V Option B	M&V Option B	M&V Option B	N/A	
CM-1	M&V Option A	M&V Option A	N/A	N/A	
CM-2		Stipulated	Stipulated	Stip	ulated
CM-3	Stipulated	M&V Option B	Stipulated based on	N/A	
CM-4	M&V Option B	Ivia v Option B	fan M&V Results		

ECM 1 - Cogeneration System

Location: Bob Wiley Detention Facility / Pre-Trial Facility

Analysis Method

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For the cogeneration system installation, there are five components to the savings analysis:

- Electric kW displacement by natural gas engine,
- 2) Electric kWh displacement by engine,
- 3) Natural gas consumed by engine,
- 4) Cooling electric kW savings from the new absorption chiller, and
- 5) Cooling electric kWh savings from the same chiller.

This M&V plan conforms to IPMVP Option B. Option B is being recommended for this retrofit due to the complexity and magnitude of the ECM savings. This method is also most compatible with the complex time-of-use electric rate structure involved.

Baseline Performance: Baseline performance of the existing electric generation (1), (2), and gas consumption component (3) of the system was determined will be determined from analysis of the utility billing history, cogeneration operation logs, and from a complex hourly building simulation. Baseline electric and absorption cooling parameters necessary to determine what the baseline consumption would have been are presented by month in the table below. These parameters will be used to determine the Baseline energy units that would have been consumed to deliver the electricity produced by the new cogeneration system and chilled water tonnage actually delivered by the new absorption chiller.

Post-retrofit Performance: Post-retrofit performance of the cogeneration system electric displacement (1) & (2) will be quantified by measuring the amount of electricity generated by the natural gas engine on a continuous basis. Post-retrofit natural gas consumption of the new engine (3) will be continuously measured. Post-retrofit utility consumption associated with the generation of free chilled water in the new absorption chiller (4 &5) will be zero, however, the chilled water tonnage delivered to the building loads by the new chiller will be continuously measured.

Baseline Parameters: (1): No baseline parameters to monitor. (2): No baseline parameters to monitor. (3): No baseline parameters to measure. (4 & 5). No baseline parameters to monitor.

Post-retrofit Parameters: (1): Electric kW produced by the natural gas engine. (2) Electric kWh produced by the natural gas engine. (3) gas consumed by the natural gas engine. (4 & 5): Chilled water tonnage delivered by the new absorption chiller.

Sampling Plan: No measurements are required for the baseline condition. Post-retrofit, all continuously monitored parameters will be sampled every 15 minutes for the duration of the guarantee.

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Data Collection Plan

For continuous electrical (kW, kWh, and run-time) data collection, the Net Generation Output meter will be tracked to measure time-ofuse, electricity generation from the natural gas engine (1 & 2). Main meter electricity consumption data will be collected from a pulse initiator installed on SCE's meter. Data will be logged using a data acquisition system installed as part of this contract.

Chilled water delivery will be measured using a flow meter in combination with matched temperature sensors necessary to determine the BTU content transferred to the cooling loads. Data will be logged using the on-site data acquisition system

In the event that measured data is lost, the most appropriate available data will be utilized for savings verification. The selection of substitute data will be performed giving preference to the most recent consumption data available while respecting time of day and day of week differences. Data substitutions will be communicated to Bob Wiley personnel.

Baseline Determination

(1) & (2) The baseline electric demand and energy production for each time-of-use (TOU) period will be the value shown in the table below. (3) The baseline natural gas consumed by the natural gas engine will be the value shown in the table below. (4) The baseline electric demand that would have been consumed by the electric cooling system when cooling loads exceeded the ability of the absorption chiller will be determined by multiplying cooling loads delivered by the new absorber in excess of the baseline absorber capacity by .64 kW per ton. This calculation will be performed for each 15-minute sample for the duration of the guarantee period.

Post-retrofit Consumption Determination

(1) The post-retrofit electric demand for each time-of-use (TOU) period will be the highest facility peak demand for each calendar month. Each TOU period each month will have a distinct peak demand instance determined. (2) The electric kWh displaced will be the kWh generated in each TOU period. (3) The post-retrofit natural gas consumed by the engine will be metered and summed for each month. (4) The post-retrofit electric demand consumed by the existing electric cooling equipment incurred to meet the load now serviced by the larger heat recovery absorber will be zero. (5) The post-retrofit electric kWh consumed by the existing electric cooling equipment incurred to meet the load now serviced by the larger heat recovery absorber will be zero.

Savings Determination

The savings for each component of the retrofit will be the post-retrofit consumption minus the baseline production for each month. Electricity savings will be broken out into time of use blocks in order to apply the correct rates. The baseline rate is Southern California Edison's TOU-8-B Tariff for Bob Wiley Detention Facility and the GS-2 Tariff for Pretrial Facility. The post retrofit electrical rate is the Southern California Edison's TOU-8-B Tariff. Energy rates used to value savings are shown at the end of Attachment H.

Cogeneration	Baseline	Table
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0090110101111011		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
On-Peak kWi	h						49,083	48,872	64,769	59,131			
Mid-Peak kW	h	100,075	79,765	111,950	79,997	124,057	65,319	69,115	88,260	82,802	106,733	101,803	72,418
© Off-Peak kWl	h	150,050	120,545	137,334	104,272	157,280	107,799	157,877	147,222	135,445	153,679	136,402	89,705
On-Peak kW							0 !	0	0	0			10.00
Mid-Peak kW							0	0	0	0			
Facilities Rel		0	0	0	0	0	0	0	0	0	0	0	0
Cogen Gas (Th	nerms/kWh)	0.178	0.178	0.178	0.177	0.175	0.174	0.173	0.173	0.175	0.177	0.178	0.178
Absorber Lou-Hu		0	324	2,349	7,540	21,530	21,281	32,961	37,114	25,301	25,301	1,723	0
kW Avoided @ Facility De	emand Peak	0	0	0	0	0	0	0]	0	0	0 ;	0	0

ECM 1 - Electric Meter Consolidation and Rate Change

Location: Pre-trial

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Stipulated Savings: When the cost, complexity, or uncertainty of savings measurements are high as compared to the projected savings, the Customer and Chevron ES may agree to stipulate the projected Energy Unit Savings as being achieved, without any measurements

For the Stipulated Option, the ERR Savings presented below will be agreed to occur each year of the Contract.

Contract Year	ERR Savings
0	\$0
1	\$ 30,000
2	\$ 30,759
3	\$ 31,537
4	\$ 32,335
5	\$ 33,153

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6	\$ 33,992
7	\$ 34,851
8	\$ 35,734
9	\$ 36,638
10	\$ 37,565
11	\$ 38,515
12	\$ 39,490
13	\$ 40,489
14	\$ 41,513
15	\$ 42,563

ECM 2 - Lighting Upgrade

Location:

Bob Wiley Detention Facility

Pretrial Facility

Boot Camp

Juvenile Justice Center

Analysis Method

Retrofitting the existing lighting systems in this project will reduce the electric load on the buildings, while maintaining or improving existing lighting levels. The load reduction will save electric costs in both demand and kilowatt-hour consumption over what it would have been.

The energy savings generated from the installation of the Lighting ECM shall be measured and verified using Option A of the International Performance Measurement and Verification Protocol. Lighting wattages will be measured; lighting operating hours will be stipulated.

Baseline Performance: Pre-retrofit energy consumption levels for the lighting systems will be determined by first calculating a baseline for electricity use (kWh), prior to implementing the lighting retrofit project. Post-installation performance is then measured and calculated, and compared to the baseline. The difference in electrical demand and the difference in energy use are the actual savings. The baseline operation hours were determined through interviews with the facility staff. The hours will remain the same after the lighting retrofit.

Post-retrofit Performance: Post-installation lighting consumption levels will be determined in the same manner as the baseline consumption levels. After the one-time post-installation measurements are performed, energy savings will be fixed and stipulated for the duration of the contract period. No on-going post-installation measurements or inspections will be made.

Parameters to be monitored:

Baseline Parameters: Lighting fixture wattage for each fixture group.

Post-retrofit Parameters: Lighting fixture wattage for each fixture group.

Data Collection Plan

Chevron ES will divide fixtures into groups based on fixture type. For each group that contains more than fifty (50) fixtures, Chevron ES will measure up to five (5) lighting circuits containing exclusively those fixtures using a true RMS wattmeter. The measured wattage will be divided by the number of fixtures on the circuit to determine the average watts per fixture for that measurement. The measurements will be averaged to determine the average fixture power consumption for that entire fixture group. Chevron ES will perform postinstallation measurements only after the retrofitted fixtures have operated for 100 hours. An effort will be made to measure the same lighting circuits post-installation as were measured pre-installation.

Baseline Determination

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Chevron ES completed the pre-installation measurement during the development of this Comprehensive Energy Analysis (CEA). Table #1 lists the predicted vs. measured wattage of six (6) fixture groups. The lighting spreadsheets used to predict lighting savings were adjusted by substituting the measured baseline average watts per fixture for the predicted baseline watts per fixture. Groups of fixtures with 50 or less fixtures were not measured, and the predicted baseline wattages will be used. Groups of fixtures located in area of high security or limited access, were not measured, and the predict baseline wattage will be used.

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Table 1. Predicted vs. Measured Wattage

Table 1. Predicted vs. Measured Wattago				
Predicted Baseline	Measured Baseline			
Wattage	Average Wattage			
24	29			
48	52			
58	56			
85	86			
96	99			
114	112			

The spreadsheets will yield annual baseline kWh consumption for all lighting fixtures contemplated for retrofit.

The lighting spreadsheets used to predict lighting savings will be adjusted by substituting the measured post-installation average watts per fixture for the predicted post-installation watts per fixture. Groups of fixtures with 50 or less fixtures will not be measured, and the predicted wattages will be used. The spreadsheets will yield annual post-installation kWh consumption for all lighting fixtures included for retrofit.

The electric kWh savings for the retrofit will be the baseline consumption minus the post-retrofit consumption. Savings will be valued according to the rates shown at the end of Attachment H.

ECM 3 - Wastewater Treatment Plant Upgrade

Location: Bob Wiley Detention Facility

Stipulated Savings: When the cost, complexity, or uncertainty of savings measurements are high as compared to the projected savings, the Customer and Chevron ES may agree to stipulate the projected Energy Unit Savings as being achieved, without any measurements being taken.

For the Stipulated Option, the Energy Unit Savings presented below will be agreed to occur each year of the Contract. During the Construction Period, the Energy Unit Savings will be calculated by adding the savings projected for the whole months between Substantial Completion or Beneficial Use of the EC Measure and the M&V Commencement Date.

ECM 3 Water/Wastewater Treatment Plant Upgrades								
Month	Stipulated Electric Usage Savings kWh	Stipulated Electric Demand Savings kW	Stipulated Natural Gas Usage Savings ccf	Stipulated Wate Usage Savings gallons				
Jan	29,309	-	-	-				
Feb	29,309	-	-	-				
Mar	29,309	-	-	-				
Apr	29,309	-	-	-				
May	29,309	-	i -	-				
Jun	29,309	-	-	•				
Jul	29,309	-	-	-				
Aug	29,309	-	-	-				
Sep	29,309	=	-					
Oct	29,309	-	-	· -				
Nov	29,309	-	-	-				
Dec	29,309	-	-	 	0			
Totals	351,710	()				

ECM 4 - Variable Frequency Drives

Location:

Bob Wiley Detention Facility

Pretrial Facility

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Analysis Method

Retrofitting the existing air systems in this project will reduce the electric and thermal load on the buildings while maintaining indoor air quality and comfort. The load reduction will save electric costs in both demand and kilowatt-hour consumption over what it would have been.

The fan motor energy savings generated from the installation of this Mechanical ECM shall be measured and verified using Option B of the International Performance Measurement and Verification Protocol.

Energy savings generated by the reduction of thermal load will be stipulated based on the measured results of the fan motor power reduction.

Baseline Performance: Pre-retrofit energy consumption levels for the fan motors will be determined by measuring the instantaneous power draw prior to implementing the retrofit. The baseline operation hours are based on continuous constant air volume operation (8760 hrs per year).

Post-retrofit Performance: Post-installation power consumption levels will be determined by continuously measuring the power and energy use over the duration of the guarantee period.

Parameters to be monitored:

Baseline Parameters: Fan motor power consumption.

Post-retrofit Parameters: Fan motor energy consumption.

Data Collection Plan

Chevron ES will select 10 to 20% of the air largest handling units to be retrofit and perform a one-time fan power measurement using a true RMS wattmeter. The same fan systems will be metered for power draw which will be sampled on a 15 minute interval for the duration of the guarantee period.

Baseline Determination

The one-time power measurements will be extrapolated to obtain annual energy consumption.

Post-retrofit Consumption Determination

The 15-minute electricity consumption will be summed to obtain monthly kWh and kW values.

Savings Determination

The electric kWh and kW savings for the retrofit will be the baseline consumption minus the post-retrofit consumption. Interactive savings associated with this retrofit are tabulated below. For each contract year, these savings will be stipulated to occur to the extent that the projected fan motor savings are achieved.

			O Cas Thorms
Location	Cooling kWh	Boiler Gas Therms	Cogen Gas Therms
	0009		34.438
Bob Wiley	U	1	
Pre-trial	0	20,634	<u> </u>
FIE-uiai			

Savings will be valued using the rates shown at the end of Attachment H.

V. Base Energy Rates

EC Savings shall be calculated using the Base Energy Rates or actual energy rates for that meter, whichever results in greater EC Savings. Actual energy rates will be calculated at the end of each Contract year using utility billing information for that Contract Year and using the same methodology as was employed to determine the Base Energy Rate in the Comprehensive Energy Analysis Report.

The Base Energy Rates listed here are to be increased each year on a cumulative basis by 2.53% beginning on the first anniversary of the M&V Commencement Date and continuing on the first day of each Contract Year thereafter.

Utility Rate Structures				
SCE TOU-8-B Rate (Standby)				
Monthly Charge:	\$317.96	per month		
Demand Charges Standby Charge: Facility Charge:	\$4.16 \$8.47	per kW per kW	for demand greater than generator capac	iity

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	\$3.26	per kW	for demand less than generator capacity	
Summer On-Peak Charge	\$25.49	per kW		
Summer Mid-Peak Charge:	\$4.06	per kW		
Energy Charges				
Summer On-Peak Charge:	\$0.160	per kWh		
Summer Mid-Peak Charge:	\$0.096	per kWh		
Summer Off-Peak Charge:	\$0.058	per kWh		
Winter Mid-Peak Charge:	\$0.118	per kWh		
Winter Off-Peak Charge:	\$0.060	per kWh		
Rate Limiter:	\$0.37	per kWh	(excluding standby and monthly charges)	
Time periods are defined as follows:				
On-Peak:			nmer weekdays except holidays	
Mid-Peak:		-	6:00 p.m. to 11:00 p.m. summer weekdays except :00 p.m. winter weekdays except holidays	
Off-Peak:	All other h	nours.		
Holidays are New Year's Day (Janu Monday in May), Independence Day Thanksgiving Day (fourth Thursday in	(July 4), Lab	or Day (first	thday (third Monday in February), Memorial Day (la Monday in September), Veterans Day (November 1 las (December 25).	.st 1),
When any holiday listed above falls	on Sunday, t	the following	Monday will be recognized as an off-peak period.	۷o

change will be made for holidays falling on Saturday.

The summer season shall commence at 12:00 a.m. on the first Sunday in June and continue until 12:00 a.m. of the first Sunday in October of each year. The winter season shall commence at 12:00 a.m. on the first Sunday in October and continue until 12:00 a.m. of the first Sunday in June of the following year.

SCE GS-2 Rate				
Used for Pre-Trial baseline analysis	s			
Monthly Charge:	\$60.30	per month		
Demand Charges				
Facility Charge:	\$5.40	per kW		
Summer Demand Charge:	\$7.75	per kW		
Energy Charges	\$0.154	per kWh	for first 300 kWh/kW	
	\$0.174	per kWh	for all additional energy	

Lighting ECM-2 Blended Rate	\$0.115	per kWh	For all Facilities.	
Natural Gas Rate	\$0.875	per therm	for cogeneration consumption	
- Little Control of the Control of t	\$1.006	per therm	for non-cogeneration consumption	
Water/Wastewater Treatment Plant				
ECM-3 Blended Rate	\$0.100	Per kWh	For all facilities and ECM-3 measures.	

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VI. Stipulated Non-Energy \$ Savings

The following dollar savings have been calculated by Chevron ES from the installation of the EC measures and have been agreed to by the Customer and will not be measured. The sum of these savings each measurement year will be added to the EC savings for that Measurement Year.

Measurement Year	Cogeneration	Waste Water Treatment Plant
	Operational Savings	Operational Savings
0	\$0	\$0
1	\$35,000	\$25,926
2	\$35,886	\$26,582
3	\$36,793	\$27,254
4	\$37,724	\$27,944
5	\$38,679	\$28,651
6	\$39,657	\$29,376
7	\$40,661	\$30,119
8	\$41,689	\$30,881
9	\$42,744	\$31,662
10	\$43,825	\$32,463
11	\$44,934	\$33,285
12	\$46,071	\$34,127
13	\$47,237	\$34,990
14	\$48,432	\$35,875
15	\$49,657	\$36.783

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ATTACHMENT I GUARANTEED SAVINGS¹

The Guaranteed Savings are identified below:

Year	Guaranteed Savings			
1	\$667,966			
2	\$667,966			
3	\$667,966			
4	\$667,966			
5	\$667,966			
6	\$667,966			
7	\$667,966			
8	\$667,966			
9	\$667,966			
10	\$667,966			
11	\$667,966			
12	\$667,966			
13	\$667,966			
14	\$667,966			
15	\$667,966			

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¹ Note: The guaranteed savings includes the stipulated savings.

ATTACHMENT K FINANCIAL PROFORMA

Financial Aspects of Performance Based Energy Program for County of Tulare

Visalia, CA

Implementation Cost	\$ 7,205,779
CEA Fee	\$ 25,000
Total Project Fee	\$ 7,230,779
Rebates, Incentives & Grants	\$ 537,176
Construction Period Savings	\$ -
Client Buydown	\$ -
Cash Contribution to Project	\$ 537,176
Financed amount of Project	\$ 6,693,603
Construction Period Interest	\$ 428,830
Financing Fees	\$ -
Total Financing Costs during Construction	\$ 428,830

Total Amount Financed \$ 7,122,433

1	2	3	4	5	6	7	8
		Operational	,				
ļ		and					
	Total Energy	Maintenance	Total Program	Payment to	Measurement	Total Program	
Year	Savings	Savings	Savings	Lessor	and Verification	Costs	Net Savings
0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
1	\$614,799	\$60,926	\$675,725	\$642,966	\$25,000	\$667,966	\$7,759
2	\$630,353	\$62,467	\$692,820	\$642,966	\$25,000	\$667,966	\$24,854
3	\$646,301	\$64,048	\$710,349	\$642,966	\$25,000	\$667,966	\$42,383
4	\$662,652	\$65,668	\$728,320	\$642,966	\$25,000	\$667,966	\$60,354
5	\$679,417	\$67,330	\$746,747	\$642,966	\$25,000	\$667,966	\$78,781
6	\$696,606	\$69,033	\$765,639	\$642,966	\$25,000	\$667,966	\$97,673
7	\$714,230	\$70,780	\$785,010	\$642,966	\$25,000	\$667,966	\$117,044
8	\$732,300	\$72,570	\$804,870	\$642,966	\$25,000	\$667,966	\$136,904
9	\$750,827	\$74,406	\$825,233	\$642,966	\$25,000	\$667,966	\$157,267
10	\$769,823	\$76,289	\$846,112	\$642,966	\$25,000	\$667,966	\$178,146
11	\$789,300	\$78,219	\$867,519	\$642,966	\$25,000	\$667,966	\$199,553
12	\$809,269	\$80,198	\$889,467	\$642,966	\$25,000	\$667,966	\$221,501
13	\$829,744	\$82,227	\$911,971	\$642,966	\$25,000	\$667,966	\$244,005
14	\$850,737	\$84,307	\$935,044	\$642,966	\$25,000	\$667,966	\$267,078
15	\$872,261	\$86,440	\$958,701	\$642,966	\$25,000	\$667,966	\$290,735
16	\$894,329	\$0	\$894,329	\$0	\$0	\$0	\$894,329
17	\$916,956	\$0	\$916,956	\$0	\$0	\$0	\$916,956
18	\$940,155	\$0	\$940,155	\$0	\$0	\$0	\$940,155
19	\$963,941	\$0	\$963,941	\$ 0	\$0	\$0	\$963,941
20	\$988,329	\$0	\$988,329	\$0	\$0	\$0	\$988,329
21	\$1,013,334	\$0	\$1,013,334	\$0	\$0	\$0	\$1,013,334
22	\$1,038,971	\$0	\$1,038,971	\$0	\$0	\$0	\$1,038,971
23	\$1,065,257	\$0	\$1,065,257	\$0	\$0	\$0	\$1,065,257
24	\$1,092,208	\$0	\$1,092,208	\$0	\$0	\$0	\$1,092,208
25	\$1,119,841	\$0	\$1,119,841	\$0	\$0	\$0	\$1,119,841
Totals	\$21,081,940	\$1,094,908	\$22,176,848	\$9,644,490	\$375,000	\$10,019,490	\$12,157,358

Notes By Column:

- (1) Years after implementing retrofit changes
- (2) Energy Savings are escalated by 2.53% to account for inflation.
- (3) Operational and Maintenance Savings are stipulated.
- (4) Total Program Savings are the sum of Columns (2) and (3)
- (5) Payment to Lessor is based on an annual interest rate of 4.25%, 15 year term. Actual rate will be determined at closing.
- (6) Measurement & Verification Services are included for the entire term of the project as listed in Column 1 and are required for guaranteed programs. Measurement and Verification services are escalated by 0% to account for inflation.
- (7) Total Program Costs are the sum of Columns (5) and (6)
- (8) Net Savings equals Total Program Savings less Total Program Costs, Columns (4) (7).

ATTACHMENT L UTILITYVISIONSM

UtilityVisionSM Connectivity Requirements

Daily/On-Demand Requirements

Energy Infor	mation System				
Port	Used by	<u>ln</u>	Out	Reason/Use	
21	FTP		X	Daily transfer of trended data (File size is about	Jt
				6 KB per meter for 15 minute interval data)	
				To Chevron ES Server	
Real Time D	Data				
Port	Used by	ln	Out	Reason/Use	
80	www	X	X	Provide real time meter data	

Periodic Access by Chevron ES

All process below would be from Chevron ES Workstation

RΛ	aır	ıter	۱ar	nca

Mantenance				
Port	Used by	ln	Out	Reason/Use
21	FTP	Х	Χ	Upload configuration files and images
				Download modified files for offsite backup
23	Telnet	X		Configuration and maintenance
5001/5002	Proprietary UI	X	Х	Maintenance, programming, system restoration
10000 to 10999	Proprietary UI		X	Process status communication

Note

Chevron ES Web Server and Chevron ES Workstation can be configured for point-to-point communication with meter platform via registered IP address to allow "trusted site" implementation on firewall.

Connectivity Requirements

- 1. Provide a 10BaseT Ethernet connection on the LAN for each UtilityVision panel and access through the Firewall per this document. (Customer is responsible for providing a RJ-45 wall jack near each UtilityVision Panel, Chevron ES is responsible for the patch cable between this wall jack and the UV Panel).
- 2. Assign a static internal IP address for each UtilityVision panel.
- Assign a public IP address each metering panel.
- 4. Provide the default Gateway IP Address and the Net Mask Size.

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Summary Table

Ports	Used by	In	Out	Reason/Uses	
21	FTP	×	×	Inbound communications are used for: Configuration files and images Outbound communications are used for: Send out accumulated trend data at regular i For daily transfer of data trended in 15 minut the range of 6 KB per meter. (Note: Meter pl multiple meters. Multiply 6 KB by the numbe the platform to obtain nominal file size.)	e intervals, file size is in atform may support
23	Telnet	×		System configuration and maintenance. Nec editing configuration files, setting parameters and viewing error log files for system troubles	, editing web page files,
80	www	х	х	Inbound communications are used for: Meter platform system configuration Outbound communications are used for: Provide real time meter data	
5001	Meter Platform Proprietary Interface Software	X	X	Inbound and Outbound communications are Meter platform system configuration and mai Custom system programming Meter platform system backup and restore	
5002	Meter Platform Proprietary Interface Software	x	x	Inbound and Outbound communications are Meter platform system configuration and mai Custom system programming Meter platform system backup and restore	r
10000 to 10999	Meter Platform Proprietary Interface Software		×	Communication from custom system process about process operation and status	es providing information

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ATTACHMENT M Lighting Scope

Lighting Scope	
The lighting scope is detailed in spreadsheet form located in the appendix of the Comprehensive Energy Analy	sis dated January 2006.

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