COLORADO ENERGY OFFICE
ENERGY PERFORMANCE CONTRACT AMENDMENT

Amendment No: 1 - EPC Contract ID No.:

Contractor: Iconergy, Ltd

Institution or Agency: Town of Erie

Project No./Name: Town of Erie Energy and Renewables Performance Contract

PARTIES. THIS AMENDMENT is entered into by and between the Town of Erie, Principal Representative and Iconergy, Ltd located at 1905 Sherman Street, Denver Colorado hereinafter referred to as the Contractor.

FACTUAL RECITALS

NOW THEREFORE, it is hereby agreed that

1. Consideration for this Amendment consists of the payments, which shall be made pursuant to this Amendment and the promises, and agreements herein set forth.

2. It is expressly agreed by the parties that this Amendment 1-EPC is supplemental to the Town of Erie Energy and Renewables Performance Contract which is, by this reference incorporated herein, that all terms, conditions, and provisions thereof, unless specifically modified herein, are to apply to this Amendment as though they were expressly re-written, incorporated, and included herein.

3. It is agreed the original contract is and shall be modified, altered, and changed in the following respects only: Amendment 1-EPC adds the scope of work for the implementation of a 1.2MW Floating Solar system at the North Water Reclamation Facility (NWRF) as a Phase II measure of the EPC project. This measure was identified in the Phase II IGA under Amendment 1.

   To incorporate the additional scope and reflect the Contract changes for this measure, the following sections of the Contract are added as indicated and included in this Amendment.

   2B. Contract Term

   Contractor shall complete the Work and its other obligations as described herein on or before June 30, 2029. The contract term includes three years of annual measurement and verification services.

   The Political Subdivision shall not be liable to compensate Contractor for any Work performed prior to the Effective Date or after the termination of this Contract. The term of this Contract ("Contract Term") shall be divided into three (3) separate components:

   i. The "Planning Term," shall commence on the Effective Date and upon delivery by the Principal Representative to Contractor of a Notice to Proceed to Commence Design Phase under **Article 4(H)** and terminate upon delivery by the Principal Representative to Contractor of a Notice to Proceed to Commence Construction Phase for the last improvement per the Construction and Installation **Article 6(B)**

   ii. The "Construction Term," shall commence upon delivery by the Principal Representative to Contractor of a Notice to Proceed to Commence Construction Phase for this Phase II under **Article 6(E)**, and terminate no more than

365 DAYS

   after the Construction Commencement Date, unless sooner terminated as provided in this

Contract

iii. The M&V Term shall begin on the M&V Commencement Date and continue for a minimum term of three years per statute (**§29-12.5-101(3)(c), C.R.S.**) and no greater than the Finance Agreement Term. The M&V Term shall terminate pursuant to **Schedule D.1** unless sooner terminated as provided in this Contract.

3. FUNDING

A. Source of Funds

The Political Subdivision intends to obtain

$0

in funds for the MCP required under this Contract by entering into a personal property annually renewable lease purchase financing arrangement with a Third-Party or in such other manner as the Governing Body of the Political Subdivision, in its sole discretion, shall deem authorized by resolution or ordinance pursuant to and within the limitations of applicable constitutional, statutory (which may include **§29-12.5- 101(3)(b), C.R.S.**) and code provisions pertaining to the Political Subdivision. The Political Subdivision has received **$900,000** in approved funding from the Colorado Department of Local Affairs Energy Impact Assistance Fund (EIAF) Grant. The total amount of funds that the Governing Body of the Political Subdivision will seek to acquire from Third-Party sources is **$900,000**.

If Political Subdivision is unable to obtain funds in any manner for the entire amount of the MCP, the Governing Body of the Political Subdivision and the Contractor may negotiate a reasonable reduction in the Project scope, price, and Guarantee in a manner consistent with any available funds or the Governing Body of the Political Subdivision may unilaterally terminate this Contract, in the sole discretion of the Governing Body of the Political Subdivision. If the Political Subdivision is unable to obtain financing for the entire amount of the MCP and the Parties are unable to revise the Project scope to obtain available funds within sixty (60) days of the Effective Date, either Party may terminate this Contract upon 10 days written notice to the other Party and such termination shall not be a default under this Contract. Upon termination, neither Party shall have any obligation to the other Party under this Contract, except for those provisions which by their terms survive any such termination, as provided herein.

B. Political Subdivision Funds

The Political Subdivision will provide all or a portion of the moneys for the MCP required under this Contract in the amount of ***$3,361,218*** from existing appropriations specifically budgeted, appropriated and encumbered for this purpose as full or partial compensation for the cost of the Project as described in **Schedule B.1** and indicated on **Schedule G.1** to be paid to Contractor as reimbursement pursuant to **Schedule A**.

4. COMPENSATION

Upon authorization by the Governing Body of the Political Subdivision, the Principal Representative will, or will direct any Escrow Fund Custodian to, in accordance with the provisions of this **Article 4**, pay Contractor in the amounts and using the methods set forth below:

A. Maximum Contract Price

The MCP from **Schedule G.1** is:	$4,276,673

The MCP reflects the maximum amount of compensation payable to Contractor pursuant to this contract. The MCP may include, without limitation,

The cost of the IGA in the amount of:	Paid from Phase I funds
The Fixed Limit of Construction Cost of:	$3,995,211
The M&V Fees in an amount not to exceed:	$15,455
And all Contingency Funds in the amount of:	$266,007

If any Political Subdivision funds are used pursuant to **Article 3(B)** of this Contract, the maximum amount of the MCP available for payment by the Political Subdivision during any Fiscal Year of the Contract term shall be as

follows:

(*Match this schedule with **Schedule G.1** and **Schedule B.1**, but do not use if amount in Political Subdivision provided capital contribution is zero)*

$2,016,731 in fiscal year 2025, ending December 31, 2025
$1,344,487 in fiscal year 2026, ending December 31, 2026
$5,000 in fiscal year 2027, ending December 31, 2027 (Year 1 M&V)
$5,150 in fiscal year 2028, ending December 31, 2028 (Year 2 M&V)
$5,305 in fiscal year 2029, ending December 31, 2029 (Year 3 M&V)

Solar Equipment Tariff Impact

Solar Equipment cost increases or schedule delays caused by Solar Equipment import tariffs occurring after the effective date of this Amendment 1-EPC are not included in the Fixed Limit of Construction Cost. Contractor shall be entitled to an equitable adjustment to the fixed Limit of Construction Costs (FLCC) and project term if Solar Equipment Tariffs are added after the effective date of Amendment 1-EPC. Contractor shall submit a contingency spend proposal to the Town's Principal Representative with a detailed explanation of the specific tariff(s) applied to solar equipment and an itemized cost breakdown of the specific equipment impacted by tariffs, displaying the equipment cost before and after tariffs, as justification for the aforementioned equitable adjustment to the FLCC. Contingency shall only be paid to Contractor upon the Town's preceding approval of Contractor contingency spend proposal. If Tariff increases exceed the project contingency funds other means such as scope adjustments may be negotiated to minimize impact to either party and preserve the intent of the project outcome.

14. GUARANTEE

A. Guarantee

The Guarantee for the first year of the Guarantee Period is:

$125,000

as indicated on **Schedule C**.1. Contractor hereby warrants and guarantees that during the Guarantee Period, the Project shall result in annual cost savings equal to or greater than the Guaranteed Annual Cost Savings presented in **Schedule C.1** which shall be equal to or greater than the Political Subdivision's annual and aggregate payments used to repay the project funding, as provided in **Schedule C.1** and as set forth in **§29- 12.5-101(3), C.R.S**. Failure to meet Guaranteed Annual Cost Savings in any year during the Guarantee Period shall be as defined in **Article 1.** Cost savings in excess of the Guaranteed Annual Cost Savings shall be solely retained by the Political Subdivision.

To facilitate the additional scope for this measure, the following Schedules are added as indicated and included in this Amendment.

Schedule A – No Change
Schedule B.1 – Scope of work for the additional measure
Schedule C.1 – Guarantee for the additional measure
Schedule D.1 – M&V plan for the additional measure
Schedule E.1 – Code requirements for the additional measure
Schedule F.1 - Detail of Schedule of Values for the additional measure
Schedule G.1 – Financial Cost and Cash Flow for the additional measure
Schedule H.1 – Cost Weighted Average Service Life for the additional measure
Schedule I.1 – Record of Reviews for the additional measure
Schedule J - Omitted
Schedule K.1 – Insurance Certificate for the additional measure
Schedules L.1&M.1 – Bonds for the additional measure
Schedule N.1 – This Schedule is not applicable to this measure
Schedule O – No Change

Schedule P – No Change
Schedule Q.1 - System Start up and Commissioning for the additional measure
Schedule R - No Change
Schedule S - No Change
Schedule T.1 - Notice of Substantial Completion for the additional measure
Schedule U.1 - Notice of Final Completion for the additional measure

THE PARTIES HERETO HAVE EXECUTED THIS CONTRACT AMENDMENT

Persons signing for Contractor/Consultant hereby swear and affirm that they are authorized to act on Contractor's behalf and acknowledge that the State is relying on their representations to that effect.

Project Name/Number: Town of Erie Energy and Renewables Performance Contract
Contract ID No.:

THE CONTRACTOR/CONSULTANT:

Iconergy, Ltd

Douglas R Hargrave
*Signature

By Douglas R Hargrave President

Date: 6/18/25

TOWN OF ERIE COLORADO,

By:
Title: Mayor

Date:

EPC SCHEDULE B.1

ENERGY PERFORMANCE CONTRACT DESCRIPTION OF WORK

This schedule is included as part of the Phase II scope of work as an amendment to the previously executed Energy Performance Contract. It is not intended to replace the existing Energy Performance Contract, Schedules, Exhibits, or Tables.

Executive Summary

Iconergy LTD will install a floating solar photovoltaic (PV) system on a reclaimed water reservoir at the North Wastewater Reclamation Facility (NWRF). Output from this solar array will be divided between the electrical services at the Solids Building and the Pump Station. The electrical rooms in both of those buildings will each have an interconnect. The project will generate approximately 95% of the electricity consumed at those two buildings - close to 2 million kWh annually. Desired results include implementation of a renewable energy measure and cost savings to water users. Additional benefits accrue from the proportion of surface area shaded by the array, and include slightly decreased evaporation from the reservoir, and lower temperature of the effluent released into Boulder Creek.

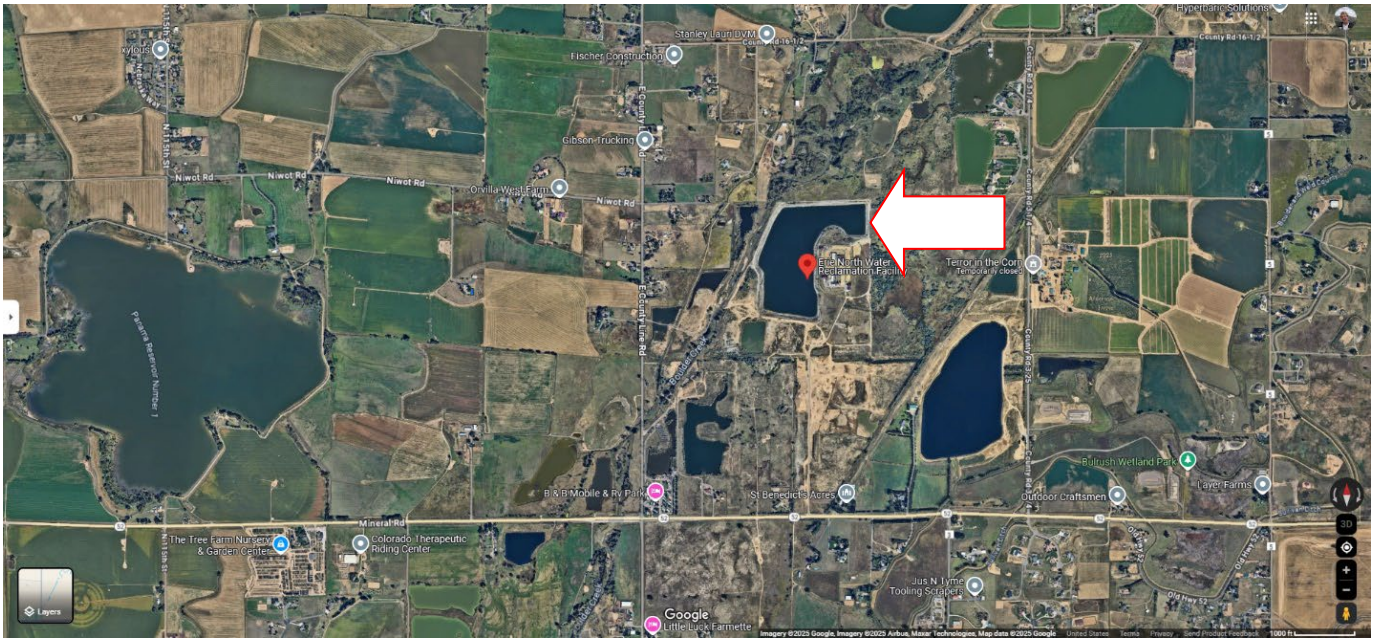
Construction costs will be offset by a Department of Local Affairs (DOLA) grant of $900,000 which has been approved. An estimated 30% direct-pay Investment Tax Credit of $1,278,365 is not guaranteed by this contract or included in the maximum contract price, but the project is currently eligible and the Town plans to separately apply. The Town of Erie plans to self-fund $3,361,218 which is the cost of the project without the Investment Tax Credit. The ITC credit can only be applied for once the array is installed and operational. The following table lists the energy and economic benefits of the project:

Table B1.1 contains total cost savings and total energy savings

Measure Description	Electrical Energy Savings (kWh/yr)	GHG Reduction (tons / yr)	Total Energy Savings (MMBtu/ yr)	Total Cost Savings ($/yr)	DOLA Grant ($)	Cost $	Simple Payback (yr)
Phase II - NWRF Floating Solar 1.2 MW	1,785,700	1,035	6,093	$125,000	$900,000	$3,095,211	24.9
Project Contingency - Owner Controlled						$266,007	
Measurement and Verification (annual cost x three years)						$15,455	
Total Amount to be funded via capital contribution (excludes M&V)						$3,361,218	
Investment Tax Credit (Town of Erie responsibility)						($1,278,365)	
Total (net after ITC)	**1,785,700**	**1,035**	**6,093**	**$125,000**	**$900,000**	**$2,082,853**	**17.0**
Baseline Utility Bills	**1,887,000**	**1,093**	**6,438**	**$128,600**			
Percent Savings	**95%**	**95%**	**95%**	**97%**			

Project Location:

This project is located at the Erie North Wastewater Reclamation Facility (NWRF), 501 State Highway 52, Erie, CO 80516. It is in Weld County, approximately 5.1 miles from Erie Town Hall at 645 Holbrook St. The project latitude is 40.098624N and longitude is -105.043879. The reclaimed water reservoir at the NWRF where the floating solar PV will be installed is adjacent to and discharges effluent into Boulder Creek.



Technical Description

The Town of Erie partnered with Iconergy Ltd. in March of 2024 to complete an Investment Grade Audit (IGA) report for an additional phase of the Energy Performance Contract program. The Phase II IGA report, in coordination with the Town of Erie, identified several goals, including:

- Develop solar and resiliency opportunities to support renewable initiatives
- Implement measures that provide value and enhanced reliability to the overall operation and sustainability

Several renewable energy and sustainability measures (ECMs) were recommended, including this Floating solar PV at the North Water Reclamation Facility. Performance of the system will be verified through commissioning and annually each year for three years to ensure system performance.

The North Water Reclamation Facility is a multi-building complex (17,606 SF total) providing wastewater treatment for the Town of Erie residents. The buildings are conditioned by a combination of RTUs and unit heaters controlled by local thermostats. All RTUs have gas heating. The administration building and main pump building have DX cooling. A facility expansion to add wastewater treatment capacity was completed in 2024. Lighting was updated in 2024 as part of Iconergy's Phase I EPC.

There are three United Power electrical meters at the NWRF site: the Administration and Processing Buildings; the Solids Building; and the Pump Station building. The scope of this floating solar PV project is to provide Solar PV energy to offset most of the energy currently provided by United Power to the Pumps and the Solids Buildings. The floating photovoltaic (PV) system will be installed on the existing reclaimed water pond at the NWRF site. Installation of a floating PV system realizes all significant benefits of on-site renewable energy generation system without reducing land available for future expansion of the NWRF, which will likely be needed to continue to serve the wastewater needs of a rapidly growing Town. A critical advantage of the planned floating Solar PV system is that it is scalable, and the reclaimed water pond is large enough to accommodate future expansion of the PV system as the NWRF site electrical energy consumption increases. Made from recyclable HDPE, this environmentally-friendly floating PV system supports PV modules above water while withstanding long-term environmental hazards, such as wind, rain, and snow.

The **MAIN FLOAT**, designed to support the PV panel. The float is slightly narrower than the PV panel. A T-profile is created during the manufacturing process, on which the workers install mounting rails designed to attach the PV panel by its frame.

The **SECONDARY FLOAT**, designed to link the primary floats together. This maintains the distance between rows of PV panels (59 inches) and can also be used for maintenance.

Standards & Conditions
The solar island has been designed to guarantee the load resistance for the following conditions (determined through wind tunnel tests and calculations):

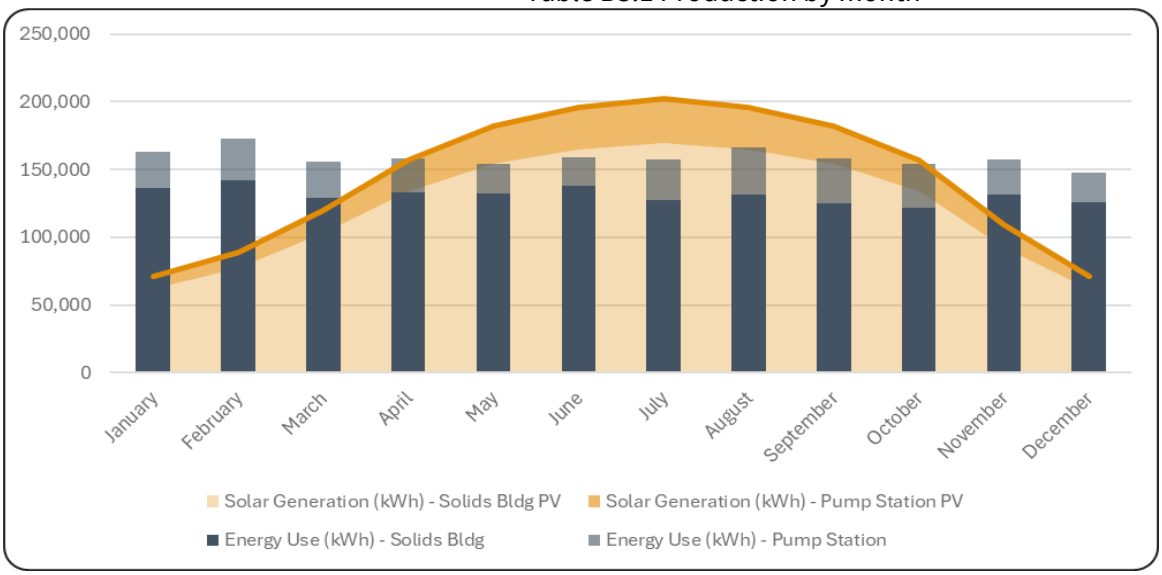
- Water velocity: no more than 2.3 mph.
- Waves: up to 3.3 ft.
- Temperature: between -4 °F and 122 °F
- Snow load: limited to 50lbs PSF
- Wind velocity: Can be designed to 160+ mph winds

Pricing for this solar PV system at the NWRF was obtained by Iconergy from multiple contractors and multiple configurations were evaluated. Due to restrictions on land availability due to future growth, the floating solar system option was chosen and the system described above was vetted and shown to provide the best value for the Town. To hold the array in place, either sunken ballast or shore anchors can be employed. Iconergy plans to employ a shore anchored system, as it offers slightly reduced cost and quicker installation.

Output from the array will be apportioned to two buildings: 1.02 MW_{DC} at the Solids Processing building and 180 kW_{DC} at the pumps building. Total annual energy production will provide ~95% of the electrical energy for the two buildings.

Solar PV systems produce more energy in summer months than in winter months. In order to offset almost all annual consumption, the generation will exceed consumption during the summer, and lag consumption during the winter. United Power's net metering program will be leveraged to take full advantage of annual generation. In high-generation months, excess generation will be stored in Town of Erie's net metering balance; in lower-generation months, that net metering balance will be used to bridge the gap between generation and consumption. At the end of March each year, United Power will pay for any excess generation credits remaining in the customer's account. Settling the account in March allows summer generation to offset winter consumption. However, as stated above, this array is sized to supply 95% of the annual average historical energy (kWh) usage, so it is not anticipated that there will be excess annual generation.

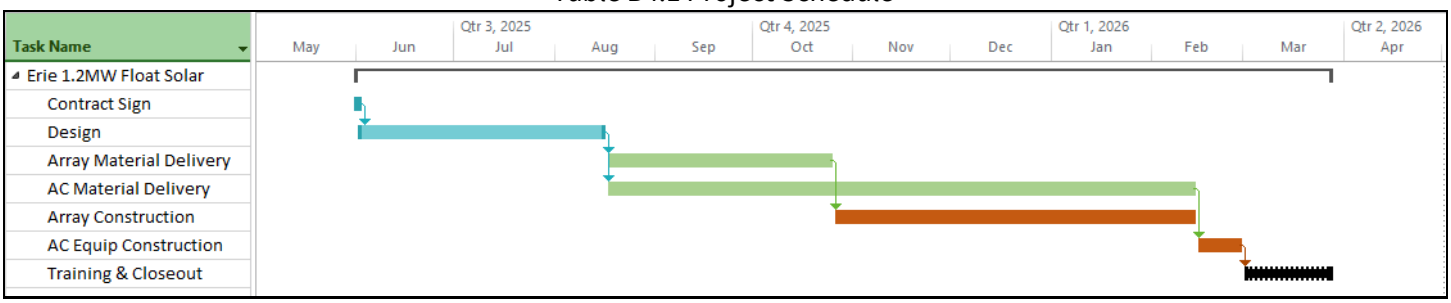
Table B3.1 Production by month



Proposed Project Schedule

The preliminary construction schedule is provided below which will be refined and developed in cooperation with the subcontractors, vendors, and the Town of Erie to complete the EPC work as required. This will be expanded upon and updated after contract execution to further plan and monitor construction activities.

Table B4.1 Project Schedule



The project is projected to be substantially complete by March 2, 2026, with a final acceptance of completion of the construction work by April 1, 2026. Once final completion is accepted, annual measurement and verification will commence with annual reporting for three years.

Measurement & Verification

IPMVP Option B – Total Energy Measurement – is proposed. Savings and energy production will be reported as 'avoided use' meaning actual production values will depend on weather conditions. The measurement boundary is the PV system in total. Demand reductions are expected to be minimal and were not factored into the savings calculation. Demand savings are not being guaranteed.

A detailed description is provided in Schedule D: Measurement & Verification Services Plan.

Warranty

Iconergy warrants the design and installation for one year following acceptance. The Hydrelio floating rack system has a 10-year warranty. Products for the array will not be selected until detailed design work has occurred, but standard inverter warranty is 5-year, and standard module warranty is 25-year.

Scope of Work

1 Project Location

Project Information						
Project #	**Project Name**	**Project Address**	**Qty of Modules**	**Project Size (kW dc)**	**Estimated Phases**	**Project Type**
1	Erie NWRF	501 State Hwy 52 Erie, Colorado, 80516	1,820	1,200	1	Floating Solar

2 General Scope

- Provide all labor, supervision, and equipment; materials, consumables, tools, and all necessary transportation and rigging to produce mechanically/electrically complete and commercially functional Floating PV Solar System per the IFC drawings.
- Install all mechanical and electrical items that may be necessary to produce a complete and functioning system. These items may include but are not limited to: Hydrelio floating PV system, modules, inverters, DC combiner boxes, DAS placards and stickers, AC and DC wiring, AC and DC disconnects, circuit breakers, conduit, communications wiring, monitoring and metering wiring, DC wiring and associated connectors for PV modules to inverters, grounding lugs per construction drawings, Utility, and AHJ requirements.
- Locations and mechanical/electrical installation of the system shall be based on the Construction Drawings. The array will be located in the NE section of the pond and anchored to the shoreline.
- Physically verify site conditions to ensure final layout and placement of Hydrelio floating PV system, anchoring system, conduit raceways, equipment, clearances, proposed bore/trench paths, and any additional project detailing that does not otherwise disrupt original design intent of occupied space unless given written approval.
- Scope includes receiving, offloading, hoisting, and storage of all material and equipment related to install.
- All drive and walking surfaces to be brought back to original condition after construction is complete. During construction, ensure drive and walking surfaces are dirt and debris free to not cause injury or accident to personnel outside construction zone.
- Test all cabling, switchgear, and electrical distribution equipment as outlined in Table 1. Commissioning Documentation to be delivered upon completion of electrical Scope of Work.
- Perform a 'System On Test' to identify that all equipment is working properly before the solar installation is given Permission to Operate (PTO) from the local utility. All Commissioning Activities are part of the 'System On Test'.

Clarifications & Exclusions

The following exclusions and clarifications apply to all scopes of work included in this proposal.

General

1. Correction of deficiencies not explicitly listed in the scope of work are not included; if existing equipment or components are reused, repairs to existing equipment or components are not included unless specifically noted in the scopes of work.
2. Prevailing wage rates are not included.
3. Consequential damages are excluded.
4. Any liquidated damages are excluded.
5. Abatement or testing of hazardous materials is excluded from all scope items listed in the report.
6. The anticipated construction schedule has been built around a one (1) week turn-around time between the Owner receiving and responding to each submittal.
7. It is assumed that Iconergy will have access to the site and buildings seven days a week to perform the Work.
8. Temporary power is excluded from all scope items. Iconergy will coordinate with the Owner to limit disruptions during construction, start-up, and commissioning activities.
9. Moving of any facility equipment is excluded.
10. Pricing based on tax-exempt from State and Federal. No other taxes are included.
11. Permits will be obtained from Town of Erie. Cost of permits is excluded.
12. The Inflation Reduction Act laid out guidelines to allow some tax-exempt organizations that were unable to monetize tax credits in the past to elect to receive a direct payment of the 30% Federal Investment Tax Credit for solar installations. The cost of the project has not been reduced in this contract to account for this as this will be reimbursed when received, after project completion. The ITC will need to be filed by the Owner, where Iconergy can be a resource to assist as needed. Iconergy cannot guarantee the actual amount of the ITC received.
13. Contractor will provide a Performance Bond and Payment Bond in the form as provided in Schedule L and Schedule M each in the sum of 100% of the Maximum Contract Price. The Performance Bond Shall strictly apply to the construction and performance of the Work. The Payment Bond shall strictly apply to those providing labor, materials, equipment, supplies, and services in connection with the performance of the Work. The surety's liability under the Performance Bond and Payment Bond shall be fully exonerated as of the final completion of the construction work per Schedule B. The guarantees extended pursuant to these bonds are limited to the construction obligations only, and for the first year of warranty against defective materials and workmanship. These bonds specifically exclude any guarantee of the performance or payment obligations of those sections of the contract related to extended maintenance services, annual reviews and/or guaranteed energy savings.

EPC SCHEDULE C.1
GUARANTEE

This schedule is included as part of the Phase II scope of work as an amendment to the previously executed Energy Performance Contract. It is not intended to replace the existing Energy Performance Contract, Schedules, Exhibits, or Tables.

Year 1 savings are based on projected generation of 1,785,700 kWh at the Year 1 rate of $0.07/kWh which escalates at 3% annually. The PV system was assumed to decrease output by 0.5% annually so the subsequent years are adjusted accordingly. Guarantee is only for the first three years.

Table C.1.1: Guaranteed Annual Cost Savings

Year	Phase II Year	Utility Savings Phase 2	Guaranteed Savings
2026	1	$125,000	$125,000
2027	2	$128,100	$128,100
2028	3	$131,300	$131,300
2029	4	$134,600	
2030	5	$137,900	
2031	6	$141,400	
2032	7	$144,900	
2033	8	$148,500	
2034	9	$152,200	
2035	10	$155,900	
2036	11	$159,800	
2037	12	$163,800	
2038	13	$167,900	
2039	14	$172,000	
2040	15	$176,300	

United Power published their most current ISD1 rate of $0.066/kWh effective June 2024. This published rate was escalated at 3% annually to $0.07/kWh for 2026.

Table C.1.2: Baseline Rates and Annual Escalation Rates

	United Power - ISD1	
	kWh	kW
Base Rate Phase II (2026)	$0.070	$21.22
Years 1-15 Escalation	3%	3%

EPC SCHEDULE C.1
GUARANTEE

Table C.1.3: Proposed Unit Savings and Guaranteed Annual Cost Savings for Project for Year 1

Measure Description	Electrical Energy Savings (kWh/yr)	Electrical Demand Savings (kW/yr)*	GHG Reduction (tons/ yr)	Total Energy Savings (MMBtu/ yr)	Electrical Use Cost Savings ($/yr)	Electrical Demand Cost Savings ($/yr)	Utility Cost Savings ($/yr)	O&M Cost Savings ($/yr)	Total Cost Savings ($/yr)
Phase II - NWRF Floating Solar 1.2 MW	1,785,700	0	1,035	6,093	$125,000	-	$125,000	-	$125,000
Total	**1,785,700**	**0**	**1,035**	**6,093**	**$125,000**	**-**	**$125,000**	**-**	**$125,000**

**Demand savings are not included in the project guarantee.*

EPC SCHEDULE D.1
MEASUREMENT AND VERIFICATION SERVICES PLAN

Preliminary Measurement & Verification Plan

The following section describes the ECM-specific measurement & verification plan for each of the proposed ECMs. The M&V plan follows the guidance of the International Performance Measurement & Verification Protocol Core Concepts (IPMVP, March 2022).

Solar Photovoltaic Systems

ECM Description

Iconergy proposes installing a floating PV system with a total output of 1.2 MW_{DC} to provide renewable electricity to the Pumps building and Solids building. The system will be separately connected to each building's electrical system and net-metered. Produced renewable energy will displace energy purchased from United Power.

IPMVP Option

IPMVP Option B – Total Energy Measurement – is proposed. Savings and energy production will be reported as 'avoided use' meaning actual production values will depend on weather conditions.

The measurement boundary is the PV system in total. No interactive effects are expected. Demand reductions are expected to be minimal and will be ignored.

Metering Hardware

All proposed inverters measure electricity production with revenue-grade accuracy and can provide readings on a 15-minute or hourly basis as desired. Additionally, Iconergy proposes to install an aggregate production meter that will measure the power & energy delivered to the grid as well as consumption of the two buildings.

Both the inverters and the aggregate production / consumption meters can be read remotely via the local internet connection or a cellular modem. Data can be read directly from the inverters and production meter and will also be archived for review and analysis on the SkySpark platform.

Additionally, a plane-of-array pyranometer will be installed to track irradiance and insolation at the site. This provides information on local weather conditions and allows for adjustments to produced energy in the event of excessive snowfall or cloudy conditions.

Baseline Definition

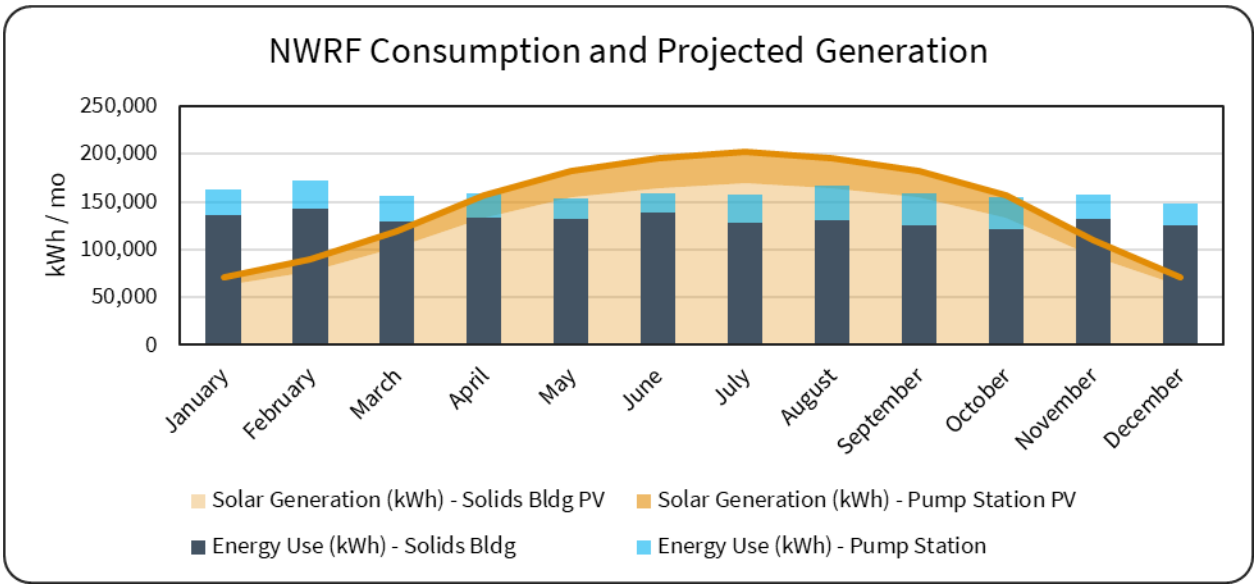
There are currently no photovoltaic systems at either facility so there is no equipment-specific baseline. The two buildings have baseline energy consumption that will be offset by the PV systems. The systems

are designed to provide approximately 100% of the current annual electricity required (approach net zero) which will offset approximately 100% of the current energy cost component of the electric bill. Solar PV systems normally have minimal impact on the demand charges so it is unlikely that the Town will see cost reductions from demand charges on the utility bills. Savings calculations are based on energy component cost savings only.

Building	Meter #	Baseline kWh Consumption	Baseline Cost @ 2026 Rate.	PV MW_{DC}	Generation, kWh	Solar Fraction	Savings @ 2026 Rate	Cost Fraction
Solids	1624435	1,573,000	$106,800	1.020	1,517,800	96%	$106,300	100%
Pump Station	1524241	314,000	$21,800	0.180	267,900	85%	$18,800	86%
Total	**Total**	**1,887,000**	**$128,600**	**1.200**	**1,785,700**	**95%**	**$125,100**	**97%**

Savings Calculations

Initial production estimates were based on a Helioscope model using the proposed equipment and layout along with local climatic conditions. The model resulted in the following monthly energy production:



Photovoltaic systems provide little to no peak demand reduction and so were not included in the cost savings estimates. For both initial projections and performance period, cost savings will be calculated as:

$$Cost\ Savings, \$/yr = (\$/kWh)(kWh/yr)$$

For purposes of projecting future generation and economic benefits, the solar system is assumed to degrade at 0.5% annually. This is not a factor in the M&V calculations.

Utility Rates & Rate Escalation

The utility rate for United Power ISD1 is defined in the original IGA which was published in May 2023. United Power updated their rate to $0.066/kWh in June 2024. The floating PV system would not be expected to begin operation until 2026 two years after the 2024 rate was published. Applying the 3% escalation rate to the 2024 rate for two years yields a rate of $0.07/kWh. The escalated utility rate for the next 20 years is as follows:

Year	Phase 2 Year	UP ISD1 $/kWh
2023		
2024	Published Rate	$0.06600
2025		$0.06798
2026	1	$0.07002
2027	2	$0.07212
2028	3	$0.07428
2029	4	$0.07651
2030	5	$0.07881
2031	6	$0.08117
2032	7	$0.08361
2033	8	$0.08612
2034	9	$0.08870
2035	10	$0.09136
2036	11	$0.09410
2037	12	$0.09692
2038	13	$0.09983
2039	14	$0.10283
2040	15	$0.10591
2041	16	$0.10909
2042	17	$0.11236
2043	18	$0.11573
2044	19	$0.11920
2045	20	$0.12278

Reporting Period Activities

The inverter and pyranometer will be connected to SkySpark for data collection, archiving, and analysis of hourly data. Production and insolation data for each month can be calculated and reported.

If production values deviate from expected values, the hourly kW values can be compared to the hourly irradiance values to determine whether low production is the result of weather or atmospheric conditions or signifies a technical problem with the array or inverter.

Baseline Adjustments / Adjustments to Savings

The Option B method proposed should not require any adjustments to the measured production. However, in the event of excessively cloudy, snowy, or smoky conditions, low insolation can cause

reduced energy production. In such an event, the PV production can be adjusted as if the affected period were providing the expected solar radiation.

$$kWh_{Adj} = kWh_{Measured}\left(\frac{Insolation_{TMY}}{Insolation\ _{Measured}}\right)$$

Operations & Maintenance Savings

As there was no photovoltaic system before, there will be no O&M maintenance savings. There may be a small increase in O&M cost or efforts depending on what O&M and warranty services are purchased with the system.

Uncertainty

Revenue-grade meters meet ANSI C.12 requirements which have accuracy specifications of 0.5% of true value or better. The inverter and aggregate production meters have an accuracy of 0.5% of true value; the United Power production meter is considered "perfect" as it is owned by the utility company. However, there are cases where the utility company has incorrectly calculated the net energy consumption which was not a result of meter inaccuracy. Having independent production meters allows Iconergy to identify and rectify such situations.

M&V Budget

The M&V budget was built up from defined tasks and estimated hours to accomplish each tasks. As remote monitoring via internet-connected inverters and meters will be used, site visits should not be required except for troubleshooting and diagnostics. The following annual tasks have been identified:

- Collect interval data from all inverters, aggregate meter, and irradiance sensor each month.
- Review data to perform QA/QC, aggregate into annual data file.
- Calculate total energy production & consumption from annual data. Determine cost savings using defined utility rates.
- Write M&V report.

Iconergy estimates that 80 person-hours will be required to conduct the required M&V for the first three years at a cost of $15,455. To levelize the cash flow, Iconergy will include this cost into the project price rather than issue annual invoices for the first three years.

EPC SCHEDULE E.1
CODE COMPLIANCE REQUIREMENTS

This schedule is included as part of the Phase II scope of work as an amendment to the previously executed Energy Performance Contract. It is not intended to replace the existing Energy Performance Contract, Schedules, Exhibits, or Tables.

Code Compliance Requirement

The table below is created to illustrate that code compliance requirements and cost are included in this Phase II contract amendment. The total cost is illustrated on ***EPC Schedule F***.1.

#	Measure Description	Code Compliance (Y/N)	Documentation review cost ($)	Field inspection / permit cost ($)
1	NWRF Floating Solar 1.2 MW	Y	Included in ECM Cost	Included in ECM Cost
	Total cost		Included in ECM Cost	Included in ECM Cost

		Detail of Schedule of Values			Totals of Work Completed and Stored to Date				
(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)
Measure #	Description of Work	Material	Labor and Other	Totals	Materials onsite, but not in place	WORK IN PLACE		Total Amount Due to Date	% Complete and in Place
				(C + D)		Material	Labor and Other	(F+G+H)	(I / E)
1	Phase II - NWRF Floating Solar 1.2 MW	$2,070,046	$1,925,165	$3,995,211					
	FIXED LIMIT OF CONSTRUCTION	**$2,070,046**	**$1,925,165**	**$3,995,211**					
	CONTIGENCY			$266,007					
	IGA Audit Fee			$0					
	M&V Fee YR 1			$5,000					
	M&V Fee YR 2			$5,150					
	M&V Fee YR 3			$5,305					
	AMENDMENTS/CHANGE ORDER			$0					
	AMENDMENTS/CHANGE ORDER ADDITIONS			$0					
	PRESENT CONTRACT TOTALS (MCP)	**$2,070,046**	**$1,925,165**	**$4,276,673**					

EPC Schedule G.1: Proposed Financial Cost and Cash Flow Analysis

This schedule is included as part of the Phase II scope of work as an amendment to the previously executed Energy Performance Contract. It is not intended to replace the existing Energy Performance Contract, Schedules, Exhibits, or Tables.

Projected Financial Performance		
Investment Grade Audit (IGA)	$0	Fee paid from Phase I Contingency funds
Fixed Limit of Construction	$3,995,211	Schedule
Measurement & Verification Fee	$15,455	Schedule D.1
Contingency	$266,007	`Schedule B.1
Maximum Contract Price (MCP) (total of items above)	$4,276,673	
Rebates (minimum amount guaranteed by ESCO)	$0	Schedule B.1
Erie Cash Contribution (one time, not annual)	$3,361,218	Schedule F.1
Measurement & Verification Fee (Same as above, M&V is not Financed)	$15,455	Paid from Customer future Operation Funds, EPC Article 3(B)
Other Political Subdivision Funds (gifts, grants, donations, etc.),	($900,000)	DOLA Grant Schedule F.1
Investment Tax Credit - Direct Pay to Town of Erie	($1,278,365)	Town of Erie will apply for and receive. *Iconergy cannot guarantee amount.*
NET Erie Contribution after Tax Credit	*$2,082,853*	*Erie contribution reduced by ITC funding amount.*
Total Amount Financed (MCP minus items above)	$0	

Financial Term in Years	N/A	
Projected Interest Rate	N/A	
Other items	N/A	

Proforma

Measure Description	Utility Cost Savings ($/yr)	O&M Cost Savings ($/yr)	Total Cost Savings ($/yr)	Rebates/ Incentives ($)	Net Implementation Costs ($)	Simple Payback (yr)
Investment Grade Audit - Phase II					$0	
Phase II - NWRF Floating Solar 1.2 MW	$125,000	$0	$125,000	$900,000	$3,095,211	24.8
Project Contingency - Owner Controlled					$266,007	
Investment Tax Credit (Town of Erie responsibility)					($1,283,002)	
Total	**1,785,700**	**1,035**	**6,093**	**$125,000**	**$2,082,852**	**16.7**
Baseline Utility Bills	**1,887,000**	**1,093**	**6,438**	**$128,600**		
Percent Savings	**95%**	**95%**	**95%**	**97%**		

Cashflow

	Phase II	Savings		M&V	Annual Net Cash Flow	Cumulative Cash Flow
Year	Year	Utility	Total			
2026	1	$125,000	$125,000	($5,000)	$120,000	$120,000
2027	2	$128,100	$128,100	($5,150)	$122,950	$242,950
2028	3	$131,300	$131,300	($5,305)	$125,996	$368,946
2029	4	$134,600	$134,600	$0	$134,600	$503,546
2030	5	$137,900	$137,900	$0	$137,900	$641,446
2031	6	$141,400	$141,400	$0	$141,400	$782,846
2032	7	$144,900	$144,900	$0	$144,900	$927,746
2033	8	$148,500	$148,500	$0	$148,500	$1,076,246
2034	9	$152,200	$152,200	$0	$152,200	$1,228,446
2035	10	$155,900	$155,900	$0	$155,900	$1,384,346
2036	11	$159,800	$159,800	$0	$159,800	$1,544,146
2037	12	$163,800	$163,800	$0	$163,800	$1,707,946
2038	13	$167,900	$167,900	$0	$167,900	$1,875,846
2039	14	$172,000	$172,000	$0	$172,000	$2,047,846
2040	15	$176,300	$176,300	$0	$176,300	$2,224,146

Phase 2 Project Cost (2025)	$4,261,218	Inflation	
Phase 2 DOLA Grant	($900,000)	-Utility	3%
Federal ITC (30% of construction cost)	($1,278,365)		
Capital Contribution	($2,082,853)		
Loan Amount	$0		

CEO Cost Table

Project Costing Categories	IGA Contract Maximum % of Total Project Cost	Actual Final IGA Calculated % of Total Project Cost	Actual Final IGA Cost	Sub-Totals	Totals	Notes
Investment Grade Audit (IGA)						
Total Facility Area	-		$0.00			Unique for each project
$ / Sq Ft	#DIV/0!		#DIV/0!			See **Standard IGA Pricing Table** tab.
Investment Grade Audit Total Cost				$ -		G4 = F2*F3
Implementation Costs						
Pre-Construction Costs*						
Design and Other Engineering	2-8%	3.06%	$ 113,100			% in column E is calculated from estimated project amount
Pre-Construction Services	1-4%	2.50%	$ 92,600			% in column E is calculated from estimated project amount
Other Pre-Construction Costs	1-3%	1.25%	$ 46,300			% in column E is calculated from estimated project amount
Pre-Construction Cost Subtotal		6.81%		$ 252,000		G11 = sum (F8:F10)
Construction Costs*						
Trade Subcontracts		0.00%	$ -			% in column E is calculated from estimated project amount
Design/Build Subcontracts		77.96%	$ 2,883,900			% in column E is calculated from estimated project amount
Direct Purchase Equipment		0.15%	$ 5,400			% in column E is calculated from estimated project amount
Construction Management	4-7%	5.33%	$ 197,200			% in column E is calculated from estimated project amount
Project Engineering	2-4%	1.40%	$ 51,800			% in column E is calculated from estimated project amount
General Conditions	1-2%	1.44%	$ 53,200			% in column E is calculated from estimated project amount
Construction Completion	3-7%	4.01%	$ 148,200			% in column E is calculated from estimated project amount
Other Construction Costs	2-6%	2.91%	$ 107,569			% in column E is calculated from estimated project amount
Construction Cost Subtotal		93.19%		$ 3,447,269		G21 = SUM(F13:F20)
Implementation Costs Subtotal*					$ 3,699,269	H22 = SUM(G11+G21)
Profit*	5-8%	8%			$ 295,942	Value in column H is calculated from estimated project amount
Estimated Project Amount*					$ 3,995,211	H26 = SUM(H22 + H24)
Contingency*	4-7%	7%			$ 266,007	Value in column H is calculated from estimated project amount
M&V					$ 15,455	
Total Funded Amount*					$ 4,276,673	H30 = SUM(G4+H26+H28)

EPC SCHEDULE H.1
Certification that Cost-weighted Average Service Life of Equipment Exceeds Financing Term

This schedule is included as part of the Phase II scope of work as an amendment to the previously executed Energy Performance Contract. It is not intended to replace the existing Energy Performance Contract, Schedules, Exhibits, or Tables.

Measure Description	Construction Cost (note 2)	Service Life (note 3)	Source of Service Life Value (note 4)	Weighted Service Life Value (note 5)
Phase II - NWRF Floating Solar 1.2 MW	$3,995,211	25	Manufacturer	25
Subtotal Cost	$3,995,211			
IGA Cost	$0			
Contingency	$266,007			
Measurement & Verification	$15,455			
Total Contract Cost (note 6)	**$4,276,673**			
Cost-Weighted Average Service of all ECM/FIMs (note 7)				25
Financing Agreement Term (note 8)	N/A			0

Notes
(1) Final Accepted List of Improvements
(2) Construction Cost as defined on the CEO Cost Estimating Tool
(3) Service Life (indicate source of service life by ECM on the following table)
(4) Provide an abbreviation of the source, then below this table the source full name, date of publication, and any additional information necessary to confirm the value
(5) Formula: Cost of Improvement multiplied by Service Life then divided by Total Construction Cost
(6) Total Construction Cost per CEO Cost Estimating Tool
(7) Total of ECM/FIM Individual Average Service Life Values *Formula: Cost-Weighted Average Service Life = ∑ each ECM ÷ total construction cost × service life*
(8) Financing Agreement Term from final Principal Representative financing documents **(Section 24-30-2001(1)(d),C.R.S.** states that the maximum term of the payments shall be less than the Cost-Weighted Average Useful (*service*) Life of utility cost-savings equipment for which the contract is made, not to exceed 25 years)

EPC SCHEDULE I.1
RECORD OF REVIEWS (LOCAL GOVERNMENTS)

This review process is required for all Energy Performance Contracting (EPC) work with any state agencies or Political Subdivisions participating in the Colorado Energy Performance Contracting Program (CEPCP). This document outlines and tracks selected items reviewed by the Colorado Energy Office and/or its Consultants, of the Investment Grade Audit (IGA) and EPC Project Proposal contract, the IGA Audit Report and EPC Project Proposal, and the EPC documents. These reviews are not legal reviews of the documents and do not replace the Political Subdivision's legal review.

INVESTMENT GRADE AUDIT CONTRACT Amendments I & 2 (this review shall be completed by a CEPCP member, the Principal Representative of the Governing Body of the Political Subdivision, prior to the ESCO signing the IGA contract)

The IGA Contract review establishes:

- Confirmation that the CEPCP-provided IGA contract and exhibits are being used;
- Scope of Work (IGA Exhibit A) if modified, was only modified within the generally historically allowed changes with approval of the client, the CEPCP reviewer, and OSA as applicable;
- ESCO cost and pricing elements are within the boundaries of the EPC base agreement contract with CEPCP program; and
- No additions, subtractions, or changes have been made to the IGA contract without notifying and receiving approval from the Principal Representative, the CEPCP reviewer, and OSA as applicable.

Charlie Stevens

_____

PHASE II INVESTMENT GRADE AUDIT REPORT AND PROJECT PROPOSAL (This review shall be completed by a CEPCP member, the Principal Representative, and, as necessary, OSA, prior to finalizing the EPC Project Proposal for an EPC contract)

IGA report review addressed the following:

- IGA has met the minimum requirements as outlined in the CEPCP IGA Exhibit A, Scope of Work;
- Verifies compliance with all applicable legislation for state governments;
- Reviews existing operational assumptions and adds notes as necessary to the Principal Representative and ESCO verifying assumptions are confirmed by the Principal Representative;
- Confirms that adequate technical details follow appropriate methodologies and assumptions used to calculate savings (utility usage reduction) for each Utility Cost Savings Measure or FIM;
- Confirms costs document: engineering/design costs, contractor/vendor estimates, fees, estimated code compliance cost, etc.
- Principal Representative confirms that any operation and/or maintenance (O&M) savings proposed by the ESCO are acceptable. The sufficiency of O&M savings are not reviewed by the CEPCP;
  - Principal Representative Signature _____
  - Date: _____
- Principal Representative confirms that presented operations, schedules, set points, etc. are acceptable.
  - Principal Representative Signature _____
  - Date: _____
- Principal Representative confirms commissioning, M&V plans, and any non-verified calculated savings, are in compliance with the CEPCP and that the Principal Representative understands and accepts these items and schedules.

- Principal Representative Signature _____
- Date: _____

- Principal Representative confirms, when applicable, the Principal Representative's annual or one-time monetary contributions are included in the financial performance schedule. The sufficiency of such contributions is not reviewed by the CEPCP.
  - Principal Representative Signature _____
  - Date: _____
- Principal Representative confirms acceptance of presented annual utility and inflation escalation rates.
  - Principal Representative Signature _____
  - Date: _____

Charlie Stevens

_____

ENERGY PERFORMANCE CONTRACT AMENDMENT 1-EPC (this shall be completed by a CEPCP member, and the Principal Representative, prior to the ESCO signing the contract)

The EPC review establishes the following:

- Confirms that the CEPCP provided EPC contract and schedules are being used;
- ESCO cost and pricing elements are within the boundaries of their EPC base agreement contract with CEPCP;
- No additions, subtractions, or changes have been made to the contract without notifying and receiving approval from the Principal Representative, the CEPCP reviewer, a Principal Representative legal review, and Principal Representative Controller (or equivalent);
- If modified, all modifications, updates, additions to the schedules and exhibits are within the generally historically allowed changes. All changes are tracked until accepted by CEPCP reviewer and OSA as applicable; and
- Confirms the pro-forma schedule includes all known Principal Representative funds, utility rebates, other grant funds, and all potential cost through the length of the loan.

Charlie Stevens

EPC SCHEDULE K.1: CERTIFICATE OF INSURANCE

To be provided under separate cover at the time of Contract signature.

STATE OF COLORADO
OFFICE OF THE STATE ARCHITECT
STATE BUILDINGS PROGRAM

PERFORMANCE BOND

Institution/Agency: _____

Project No./Name: _____

BONDING COMPANY: DO NOT MAKE ANY CHANGES TO THE LANGUAGE IN THIS BOND.

KNOW ALL PERSONS BY THESE PRESENTS:

That the Contractor

as Principal and hereinafter called "Principal,"

and

as Surety and hereinafter called "Surety," a corporation organized and existing under the laws of _____ are held and firmly bound unto **the STATE OF COLORADO** acting by and through_____
(AGENCY OR INSTITUTION)

hereinafter called the "Principal Representative", in the sum of _____ _____ Dollars ($_____)

for the payment whereof the Principal and Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, firmly, by these presents.

WHEREAS, the Principal and the State of Colorado acting by and through the Principal Representative have entered into a certain Contract, hereinafter called "Contract," dated _____ _____, 20___, for the construction of a PROJECT described as

which Contract is hereby by reference made a part hereof;

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION, is such that, if the Principal shall promptly, fully and faithfully perform all the undertakings, covenants, terms, conditions and agreements of said Contract during the original term of said Contract any extensions thereof that may be granted by the Principal Representative with or without notice to the Surety, and during the life of any guaranty required under the Contract, and shall also well and truly perform and fulfill all undertakings, covenants, terms, conditions and agreements of any and all duly authorized modifications of said Contract that may hereafter be made, notice of which modifications to the Surety being hereby waived, then this obligation shall be null and void; otherwise it shall remain in full force and effect.

AND THE SAID SURETY, for value received hereby stipulates and agrees that whenever the Principal shall be, and declared by the Principal Representative to be in default under said Contract, the State of Colorado having performed its obligations thereunder, the Surety may promptly remedy the default or shall promptly (1) Complete the Contract in accordance with its terms and conditions, or (2) Obtain a bid or bids for submittal to the Principal Representative for completing the Contract in accordance with its terms and conditions, and upon determination by the Principal Representative and Surety of the lowest responsible bidder, arrange for a contract between such bidder and the State of Colorado acting by and through the Principal Representative and make available as work progresses (even though there should be a default or a succession of defaults under the contract or contracts of completion arranged under this paragraph) sufficient funds to pay the cost of completion, less the balance of the contract price but not exceeding, including other costs and damages for which the Surety may be liable hereunder, the amount hereinbefore set forth. The term “balance of the contract price” as herein used shall mean the total amount payable to the Principal under the Contract and any amendments thereto, less the amount properly paid by the State of Colorado to the Contractor.

No right of action shall accrue on this bond to or for the use of any person or corporation other than the State of Colorado.

IN WITNESS WHEREOF said Principal and Surety have executed this Bond, this _____ day of , A.D., _____ 20____.

(Corporate Seal)

THE PRINCIPAL

_____

ATTEST:

By: _____

Title: _____

_____
Secretary

(Corporate Seal)

SURETY

_____

By: _____
Attorney-in-fact

THIS BOND MUST BE ACCOMPANIED BY POWER OF ATTORNEY, EFFECTIVELY DATED

Note: This bond is issued simultaneously with another bond conditioned for the full and faithful payment for all labor and material of the contract.

STATE OF COLORADO
OFFICE OF THE STATE ARCHITECT
STATE BUILDINGS PROGRAM

LABOR AND MATERIAL BOND

Institution/Agency: _____

Project No./Name: _____

BONDING COMPANY: DO NOT MAKE ANY CHANGES TO THE LANGUAGE IN THIS BOND.

KNOW ALL PERSONS BY THESE PRESENTS:

That the Contractor

as Principal and hereinafter called "Principal,"

and

as Surety and hereinafter called "Surety," a corporation organized and existing under the laws of _____ are held and firmly bound unto the STATE OF COLORADO acting by and through _____
(agency or institution)

hereinafter called "Principal Representative," and to all subcontractors and any others who have supplied or furnished or shall supply or furnish materials, rental machinery, tools, or equipment actually used in the performance of the hereinafter identified Contract, or who have performed or shall perform labor in the performance of or in connection with said Contract, hereinafter called "Obligees" in the sum of _____ _____ Dollars ($_____)

together with interest at the rate of eight per cent (8%) per annum on all payments becoming due in accordance with said Contract, from the time such payments shall become due until such payment shall be made, for the payment of which, well and truly made to the Obligees, the Principal and the Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, firmly, by these presents.

WHEREAS, the Principal and the State of Colorado acting by and through the Principal Representative have entered into a certain Contract, hereinafter called "Contract," dated _____, 20____ for the construction of a PROJECT described as

which Contract is hereby by reference made a part hereof;

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION is such that if the Principal and the Surety shall fully indemnify and save harmless the State of Colorado and the Principal Representative from and against any and all costs and damages, including patent infringements, which either may suffer by reason of any failure or failures of the Principal promptly and faithfully to perform all terms and conditions of said Contract and shall fully reimburse and repay the State of Colorado and the Principal Representative all outlay and expense which the State of Colorado and the Principal Representative may incur in making good any such failure or failures, and further, if the Principal and his subcontractors shall duly and promptly pay for any and all labor, materials, team hire, sustenance, provisions, provender, rental machinery, tools, or equipment and other supplies which have been or shall be used or consumed by said Principal or his subcontractors in the performance of the work of said Contract , and it said Principal shall duly and promptly pay all his subcontractors the sums due them for any and all materials, rental machinery, tools, or equipment and labor that have been or shall be furnished, supplied, performed or used in connection with performance of said Contract, and shall also fully indemnify and save harmless the State of Colorado and the Principal Representative to the extent of any and all expenditures which either or both of them may be required to make by reason of any failures or defaults by the Principal or any subcontractor in connection with such payments; then this obligation shall be null and void, otherwise it shall remain in full force and effect.

It is expressly understood and agreed that any alterations which may be made in the terms of said Contract or in the work to be done under said Contract, or any extension(s) of time for the performance of the Contract, or any forebearance on the part of either the State of Colorado or the Principal to any of the others, shall not in any way release the Principal and the Surety, or either of them, their heirs, executors, administrators, successors or assigns from their liability hereunder, notice to the Surety of any such alteration, extension or forbearance being hereby waived.

IN WITNESS WHEREOF, the Principal and the Surety have executed this Bond, this _____ day of _____, A.D., 20_____.

(Corporate Seal)

THE PRINCIPAL

_____

ATTEST:

By: _____

Title: _____

_____
Secretary

(Corporate Seal)

SURETY

_____

By: _____
Attorney-in-fact

THIS BOND MUST BE ACCOMPANIED BY POWER OF ATTORNEY, EFFECTIVELY DATED

Note: This bond is issued simultaneously with another bond conditioned for the full and faithful performance of the contract.

SCHEDULE N.1:
STANDARDS OF COMFORT

This schedule is not applicable to the Solar PV measure.

SCHEDULE Q.1:
SYSTEMS START-UP AND COMMISSIONING

This schedule is included as part of the Phase II scope of work as an amendment to the previously executed Energy Performance Contract. It is not intended to replace the existing Energy Performance Contract, Schedules, Exhibits, or Tables.

For all ECMs below the commissioning agent shall be an Iconergy employee. The final commissioning plan will be developed during project construction and completed prior to the commencement of commissioning.

Table of Contents

1 Revision Schedule

Revision Version	Description	Issue Date
V1	Draft Commissioning Plan	4/15/25

2 Overview

2.1 Abbreviations and Definitions

The following are common abbreviations used in this document.

CxA	Commissioning Authority	MC	Mechanical Contractor
CC	Controls Contractor	M&E	Mech & Elec Engineers
Cx	Commissioning	Mfr	Manufacturer
EC	Electrical Contractor	PFC	Pre-Functional Checklist
FPT	Functional Performance Test	PM	Owner's Project Manager
GC	General Contractor	SC	Solar Contractor
		Subs	Subcontractors to General

2.2 Purpose of Commissioning

1. Document design intent.
2. Ensure project is built to meet design intent, through construction observations and functional testing.

2.3 Purpose of Commissioning Plan

This plan provides a basic explanation of the requirements and testing procedures to be performed by the commissioning team as required by project scope.

2.4 Commissioning Scope

The following spreadsheet identifies the commissioning scope for each measure.

ECM Description	Submittal Review	# Site observatios	Cx PFCs Created	Cx Test Plans Created	Functional Testing	Seasonal Testing
ECM S1: Solar - PV Commissioning	-	1	-	Y	Y	-

2.5 Online Commissioning Documentation

Iconergy employs the use of an online tool for managing commissioning documentation and communications. Access to this system is done on a project basis per user request.

3 Commissioning Team Contact Information

Team Member	Company	Contact Names	Office, Fax, Mobile, Email
Owner	Town of Erie 150Bonnell Ave. Erie, CO 80516	Chris Holland	Phone: 305-591-4164 Email: cholland@erieco.gov
Project Manager / Construction Manager	Iconergy Ltd. 1905 Sherman St, STE 1040 Denver, CO 80203	John Sellers	Phone: 303-324-9471 Email: jsellers@iconergy.com
Commissioning Authority	Iconergy Ltd. 5277 Manhattan Cr. #160 Boulder, CO 80303	John Barnard	Phone: 303-746-4388 Email: jbarnard@iconergy.com
Energy Engineer	Iconergy Ltd. 1905 Sherman St, STE 1040 Denver, CO 80203	Mark Stetz	Phone: 303-882-4295 Email: mstetz@iconergy.com

4 The Commissioning Process

4.1 General Management Plan

Iconergy coordinates the commissioning activities and will report to the PM. The Cx process will require the coordinated effort of all members of the Cx Team in order to meet the objectives of the Owner's Project Requirements and the Contract Documents.

4.2 General Protocols

Topic	Protocol
For requests for information (RFI) or formal documentation requests:	The CxA goes first: ☑ Through the PM, ☐ Direct to the Sub or SC
For notifying contractors of deficiencies:	Iconergy documents deficiencies through the PM, but may discuss deficiency issues with subcontractors prior to notifying the PM. Iconergy notifies the project team of an updated issues log through email. Contractor acknowledges issue resolution by marking issue "pending" and including a comment: ☑ using CxAlloy ☐ email
For scheduling commissioning meetings:	The CxA selects the date and schedules through the: ☑ PM ☐ The CxA schedules and notifies attendees directly
For making a request for significant changes:	The CxA has no authority to issue change orders. Requests will be made through the PM and SC.
Scheduling commissioning witnessed construction events.	CxA to inform PM of equipment and events in commissioning scope at commissioning meeting. PM to notify commissioning agent of equipment startups, equipment testing, scheduling of functional testing, and other requested events: ☐ 2 weeks prior to event ☑ 1 week prior to event
For making minor changes in specified sequences of operations:	All necessary changes in sequences of operations must be approved by the M&E or SC. Iconergy may recommend changes in sequences of operation to correct operational deficiencies and/or to improve efficiency or control. Recommended changes will be submitted to the Design team via RFI.
Subcontractors disagreeing with requests or interpretations by Iconergy shall:	Attempt to resolve issues with Subs first, then with PM if necessary. Issues may require input from the SC.

4.3 Commissioning Tasks and Team Member Responsibilities

P = Primary, S = Secondary, R = Reviewer

Task Description	CxA	Owner	PM	MC	EC
Construction Phase					
Develop the Commissioning Plan.	P	R	R		
Review material and controls submittals	R	S	S		
Attend a commissioning scoping meeting.	P	R	S	R	R
Perform site visits to observe component and system installations.	P	S	R	R	R
Develop the prefunctional checklists for all necessary commissioned systems.	P		R	R	R
Complete the prefunctional checklists and manufacturer start-up forms for all commissioned systems.	R		S	P	P
Observe systems start-up by reviewing start-up documentation and checklist execution. Witness startup of specific mechanical and electrical equipment.	P	S			
Acceptance Phase					
Write the functional performance test procedures for equipment and systems to be commissioned.	P	R		R	R
Coordinate, execute, and document mechanical and plumbing functional performance tests.	P	R	S	S	S
Maintain a master issues and resolution log.	P	R	S	R	R
Retest areas of non-compliance.	P		R	S	S
Develop the final commissioning report.	P	R	R		
Perform seasonal testing through remote access of the building automation system to check performance of the new systems during the heating or cooling season.	P	R	R	R	R

4.4 Major Commissioning Task Descriptions

4.4.1 Meetings

1. Cx Internal Scoping Meeting
    a. Review the commissioning tasks for each measure
    b. Work with the PM to incorporate Cx activities in the project schedule

2. Construction/Acceptance Phase
    a. Attend remote progress meetings beginning before equipment startup and lasting through functional testing and issues resolution.
    b. Discuss construction and commissioning schedule, including equipment startup, PFCs, FPTs and any additional M&E coordination or commissioning-related issues.
    c. Perform seasonal testing of equipment tested during the opposite season

4.4.2 Jobsite Observations

1. CxA will coordinate a total of one (1) site observation and walk the project between the mechanical rough-in and start-up period.
    a. Review install of Solar Array and initial performance

2. The PM is expected to review observation reports from CxA with Subs and to submit a formal response in a timely manner.

4.4.3 Start-Up Processes Documentation

1. The PM is responsible for developing a startup/checkout schedule, to coordinate the following activities: Equipment startup, PFC completion, Functional testing.
2. The team will meet to review the schedule prior to startup activities.
3. The PM shall notify the commissioning agent prior for the following startup activities:
    a. Solar Array

4.4.4 Functional Performance Tests

1. The CxA schedules FPT through the PM and affected Subs.

2. The following tasks must be complete prior to functional testing depending on the measure:
    a. Start-up for all systems is complete.

3. The CxA works with the Subs to execute FPT of all equipment and systems according to the Cx Plan.

4. Testing proceeds from components to subsystems to systems, and finally to interlocks and connections between systems.
    a. The majority of testing will require the assistance of the SC only.

5. The CxA documents the results of each test. Any minor deficiencies are corrected during the testing process. Deficiencies that cannot be corrected during testing are added to the Issues Log.

6. Retesting: Retesting shall be completed by Iconergy and the installing contractor. The cost for any retesting beyond one retest shall be borne by the contractor. All tests must be retested until acceptable results are achieved.

4.4.5 Required Documentation

1. The CxA requires the following:
    a. COBs, ASIs, RFIs related to Cx scope of work. (M&E)
    b. Contractor equipment submittals relating to Cx scope of work. (M&E, PM)
    c. Equipment manufacturer's start-up forms. (SC, PM)
    d. As-built controls drawings, concurrent with SC review. (PM)
    e. Training schedule and outlines for review, 1-2 weeks prior to first training session. (PM)

4.4.6 Facility Staff Participation

1. The Owner's facilities operating staff are encouraged to attend and participate in the testing process.
    a. The CxA will notify the PM, who will then notify the facility staff when the commissioning events will occur.
    b. Iconergy will work with the PM to ensure that adequate notice is given to the owner so that all stakeholders may be present at training.

4.4.7 Final Report

Iconergy will compile a Commissioning Summary Report, which shall include:

a. An overview of the commissioning and testing scope
b. A description of testing and verification methods
c. Commissioning plan
d. Completed functional testing
e. Final issues log

5 Commissioning Activities Expected Durations

Task / Activity	Notify Cx Agent	Duration
Cx Scoping Meeting	-	1 day
Jobsite Observation	1 wk prior	1 day
CxA witnesses start-up activities	1 wk prior	1 days
Functional Testing, Issues Resolution	2 wks prior	1 days
Owner Training	1 wk prior	1-3 days
Submission and Review of Final Cx Report	-	1-3 days
Seasonal Testing	-	1 days

Schedule T.1
Notice of Substantial Completion

Notice of Substantial Completion (per ECM / FIM)

Date of Notice _____

Local Government Entity: _____

Contractor: _____

Contract Name / #: _____

Notice is hereby given that the Town of Erie accepts the installed equipment for ECM / FIM _____ and establishes a warranty period start date of _____.

Town of Erie

By _____

Title _____

Date _____

When completely executed, this form is to be sent by certified mail to the Contractor by Town of Erie.

Schedule U.1

Notice of Final Acceptance

Notice of Final Acceptance

Date of Notice _____

Local Government Entity: _____

Contractor: _____

Contract Name / #: _____

Notice is hereby given that Town of Erie accepts the Project and establishes a Performance Commencement Date of _____.

Town of Erie

By _____

Title _____

Date _____

When completely executed, this form is to be sent by certified mail to the Contractor by Town of Erie.