Solar Utility Proposal Matrix

	Bluestem energy Solutions	Ameresco	Ensight Energy Consulting	McKinstry	GRID Alternatives
Founded	2008	2000	2015	1960	2012
Office Location	Paonia, CO	Aurora, CO	Denver, CO	Golden, CO	Denver, CO
Partner 1	–	Sunsense Solar	Antares	Solas Energy Consulting	Rocky Mountain Institute
Partner Founded	–	1990	–	2009	1982
Partner Office Location	–	Carbondale, CO	Boulder, CO	Fort Collins, CO	Basalt, CO
Partner 2	–	–	–	McCalmont Engineering	–
Partner Founded	–	–	–	2009	–
Partner Office Location	–	–	–	Campbell, CA	–
Proposal Format Followed	✔	✔	✔	✔	✔
Resumes			✔	✔	✔
EPC Services	✔	✔		✔	✔
Owner/Operator	✔	✔			
Establish a Viable Location for Solar Array	✔	✔	✔	✔	✔
Interconnectivity Options	✔	✔	✔	✔	✔
Power Storage System Benefits	✔	✔	✔	✔	
Regulatory Considerations		✔	✔	✔	✔
Permitting Process and Steps	✔	✔	✔	✔	✔
Financing Opportunities		✔	✔	✔	✔
Geotechnical Examination	✔	✔	✔	✔	✔
Preliminary Engineering for Solar Field	✔	✔	✔	✔	✔
Budget Projections and ROI Estimates		✔	✔	✔	✔
Life Cycle Expectation of Components		✔	✔	✔	
Disposal Cost		✔		✔	
Go/No-Go Format				✔	✔
Glare Study as Required		✔	✔	✔	
Electrical One Line Drawing		✔		✔	
Community Meeting	✔	✔	✔	✔	
Generation Projection		✔	✔	✔	✔
O&M Costs		✔	✔	✔	
BID TOTAL COSTS:	**$0**	**$95,450**	**$141,698**	**$267,000**	**$159,425**

=–

EXHIBIT A

REQUEST FOR QUALIFICATIONS FOR

REGIONAL SOLAR UTILITY PLANNING PROJECT

PREPARED FOR

CITY OF CRAIG, CO

JANUARY 23, 2020

AMERESCO
Green • Clean • Sustainable

SUNSENSE
SOLAR | DESIGN | BUILD

CONTENTS

SECTION I – COVER LETTER

January 23rd, 2020

City of Craig, Colorado
300 West Fourth Street
Craig, CO 81625

RE: City of Craig RFP – Regional Solar Utility Planning Project

Ameresco is pleased to submit our response to the request for proposals for the Regional Solar Utility Planning Project. Ameresco is a Colorado energy services company, prequalified by the Colorado Energy Office and specializes in the development and implementation of energy services, including energy generation, energy efficiency solutions, and renewable energy systems.

In order to submit the most qualified proposal Ameresco has partnered with Sunsense, Inc., the premier local EPC contractor serving Western Colorado for the past three decades. We assembled this partnership for the City of Craig and its partners to combine Ameresco's financial strength and larger-scale solar PV & storage expertise paired with Sunsense's local footprint and project execution experience, providing the City of Craig with a solar PV partnership that is both strong and nimble.

The strength of this partnership will benefit the City of Craig and its partners, as shown by:

- **Local Solar Expertise:** In June 2019 at the City of Craig's invitation, Sunsense, Inc. met with City representatives and visited three prospective sites to help the City determine initial solar site feasibility, in anticipation of the City's receipt of the CO Department of Local Affairs planning grant, which precipitated this RFP.
- **$5.5 Billion of construction projects:** Ameresco's energy portfolio includes solar PV, energy efficiency infrastructure improvements, landfill gas generation projects, biogas generation projects, bio-mass generation projects, and geothermal projects.
- **500 MW of solar PV projects**: Our engineers and construction teams have designed, built and financed (via PPAs, Lease/Purchase or Energy Performance Contracting services) solar PV projects in Colorado and nationwide, 250 MW in operation or construction with a further 250 MW in development.
- **70 offices in North America**: We have the depth and breadth of more than 1000+ employees, comprised of professional engineers, construction managers, finance and capital markets professionals, legal and regulatory professionals, and operation and

maintenance staff. **The Ameresco office in Aurora, CO provides our CO clients with a local presence.**

- **Operate and maintain 260 MW of solar PV installations:** We have the in-house technology, staff, and systems to continuously monitor solar PV operations, report alarms and problems; and dispatch maintenance staff using our work order management system, for a 260 MW portfolio of solar PV, owned mostly by Ameresco and also by our customers**.** Our O&M experts provide feedback to our design engineers, creating a virtuous cycle for continuous design improvements.
- **Ameresco has a zero recordable safety incidents record** on all our solar and regional installations.

The Sunsense/Ameresco team ask the City of Craig, and its partners, to find our response the most qualified and demonstrate our team's ability to showcase and model this very exciting project to other local Colorado governments. We look forward to working with the City of Craig should we be selected, to develop a mutually beneficial partnership for solar planning and development for all included partners.

Respectfully submitted,

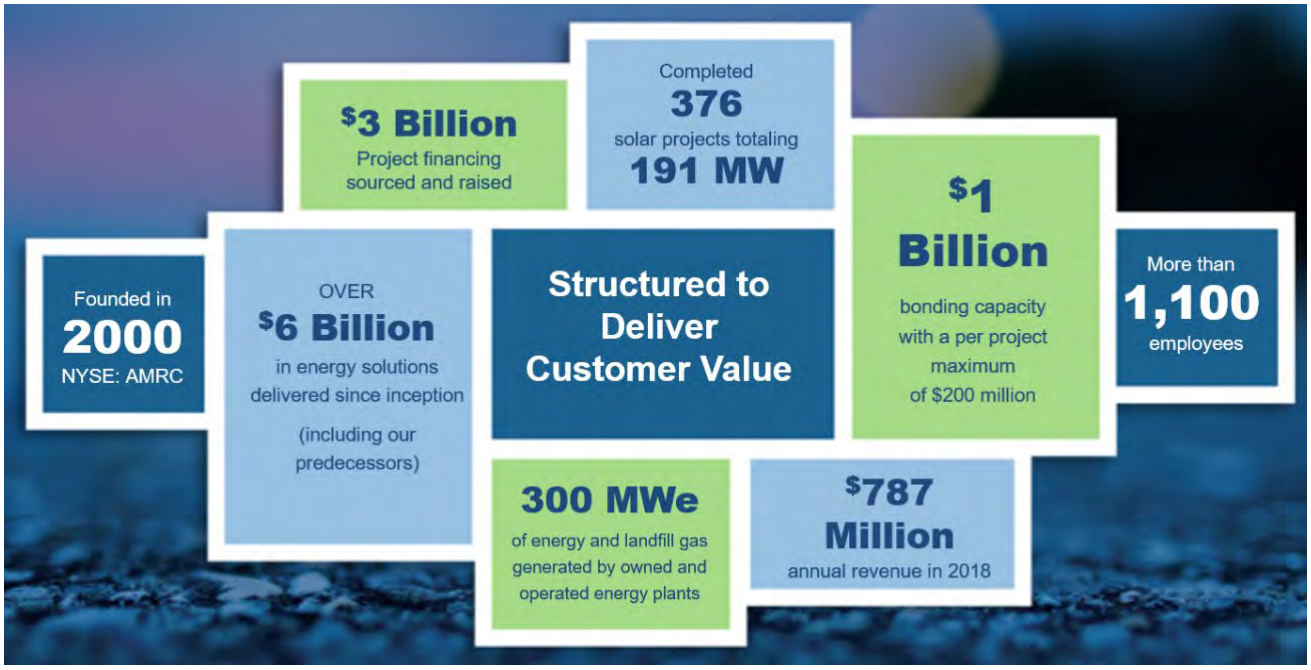
Paul M. Engle
Senior Account Executive – Ameresco Rocky Mountain Region

SECTION II – COMPANY HISTORY

AMERESCO, INC.

Ameresco, Inc. is a leading independent provider of comprehensive energy efficiency and renewable energy solutions for facilities throughout North America and the United Kingdom, delivering long-term value through innovative systems, strategies and technologies.

Founded in 2000, Ameresco's solutions range from upgrades to facility's energy infrastructure to the development, construction, and operation of renewable energy plants combined with tailored financial solutions. With dedicated energy and business professionals with years of experience and strong commitment to customer satisfaction and service, Ameresco offers you the resources needed to successfully plan, executive, and finance the energy program that will create real, sustained economic and operating benefits to fulfill your unique requirements.
With over $6 billion in completed energy projects, we have worked with some of the most diverse cities in the nation and many local municipalities in Colorado.



Ameresco recognizes that it is paramount to have an energy partner that is not only technically qualified, but also financially strong, stable, and solid track record of performance in the capital markets. With 2018 revenues of over $787 million and a construction backlog exceeding $1.97 billion, Ameresco is a leading independent provider of comprehensive energy solutions. For the year ending 2018, Ameresco had total assets of approximately $1.16 billion, cash in excess of $60 million and an $85 million credit facility. We are publicly traded on NYSE (AMRC).

SUNSENSE, INC.

Established in 1990, Sunsense Solar is a solar electric Engineering, Procurement, and Construction (EPC) Contractor covering all of Colorado and adjoining states. Sunsense provides turnkey services for solar electric systems of all sizes and specifications. The Sunsense goal is to proactively build a long-term, sustainable business based on quality, consistency, credibility, and service to our clients. Sunsense's qualifications and capabilities include:

- Engineering: Comprehensive engineering documentation to insure code-compliant and productive projects
- Procurement: Long-standing, solid relationships and procurement advantages with quality equipment manufacturers.
- Construction: Efficient and organized operations team delivering projects on time and within budget. Safety, quality, and attention to detail are prioritized.
- Service: Inspection, testing, commissioning, reactive service, and O&M ensuring long-term productivity and reliability.
- Certification: NABCEP Certified PV Installation and Technical Sales Professionals.
- Experience: Servicing the PV industry since 1990 in residential (grid-tie and off grid), commercial, industrial, utility and community-based PV systems.

SECTION III – QUALIFICATIONS & EXPERIENCE

Ameresco tailors its solutions around a customer's complete energy stream whether it is supply or conservation. Our service offerings are designed to support a core business of energy performance contracts and power purchase agreements, often with Ameresco as the long-term owner and operator of the energy assets on behalf of our customer.

Ameresco designs, builds and maintains solar PV projects with municipal and public customers. Across the U.S. and Canada, our **completed projects total 192 MW** with nearly **50 MW in construction** and **another 250 MW awarded**.

The following table shows our total projects across all Ameresco regions. We have built 100% of the solar PV projects we have been awarded.

Solar PV Projects Developed by Ameresco's Regions	Completed (kW-DC)	Completed (Numbers of Installations)	In Construction (kW-DC)	Awarded (kW-DC)
East USA	98,365	137	10,330	159,372
West USA	54,967	181	25,357	29,153
Federal USA	31,713	16	9,750	58,804
Canada	3,992	35	2,532	1,000
Ameresco Solar (Off-Grid)	2,543	7	0	0
Total	**191,580**	**376**	**47,969**	**247,329**

SOLAR PV DESIGN EXPERTISE

Solar PV is a rapidly growing industry with technological and policy advances continually evolving. We actively work to enhance our teams' expertise and improve our design, development and construction practices, so that each project is better than the last.

We design all of our solar PV projects assuming we will be the long-term owner. Ameresco performs all low voltage (<1000V) design and engineering with its in-house solar PV engineers, or with select partners such as Sunsense, Inc. Our design experience includes complicated, custom projects such as the challenges of working on the air side at Terminal A at Boston Logan Airport and the environmental and civil engineering challenges of a landfill. Our in-house design team is continually evaluating technological advances, as well as in-the-field construction experience and performance of systems we designed with our project managers and O&M personnel, creating a positive feedback loop that reduces up-front costs and improves long term performance.

Ameresco's design objectives are always a) to lower the system installation costs for a given amount of constructed solar PV capacity (expressed as $/watt) and b) to increase the alternating current (AC) electricity generation output for the same generation capacity (expressed as kWh(AC)/kW(DC)).

Below we describe some of our solar PV design and development best practices.

- We own, operate and maintain many of our projects for the 20 to 30-year contract term. That means our O&M, construction, and design engineering teams all participate in a positive feedback loop on what works and what should be changed, and we continually refine our designs accordingly.
- Since each project represents a unique set of conditions (geographical location, regulatory environment, authorities having jurisdiction, site topography, environmental conditions, etc.), we share our design and construction experiences internally to ensure that we can develop and implement a successful execution strategy for any type of project.
- Our designs must meet utility specifications. Ameresco has worked with electric utilities nationwide, including investor-owned utilities, municipal utilities and cooperatives on interconnection and power purchase agreements for its solar, energy storage and other energy projects. We are accustomed to the type of information a utility typically requires for interconnection of distributed generation projects such as solar PV, and we always review the relevant interconnection tariff and as applicable, discuss our application with engineering staff prior to submittal. Where available and warranted, we will submit a pre-application to determine the approximate space available on the feeder to help size our proposed project.
- Our designs are reviewed and stamped by qualified solar engineering professionals, who maintain their training practices and licenses. This ensures our designs maintain current standards (e.g. NEC 2017), optimization strategies, and best management practices for all of our assets.
- Our Senior Manager for New Market Development and our solar development personnel monitor and selectively engage on federal, state and local policy developments so that we see new opportunities early and follow all of the relevant regulations for our projects.
- Through conferences, consultants, and participation in the national and local SEIA groups we stay abreast of best practices, whether that means technology, design, financing, code changes, or other matters.
- We maintain active contact with solar equipment manufacturers and have invited them to our offices to introduce their product – whether a new version or new to us, to keep on top of technology improvements already available in the market.

- We also maintain active communication with our suppliers and subcontractors with respect to pricing for both equipment procurement and installation. This is particularly important when presenting proposals to our customers, thus ensuring that our pricing is based on current information that we can stand behind.
- Since we are committed to conducting business with the greatest care for the environment as well as for the health and safety of our customers, employees, consultants, contractors and suppliers, we develop pre-construction plans for all of our activities on site, including identification of potential hazards, development of mitigation and response plans, and mandatory safety training for anyone on site.

PROJECT HIGHLIGHT | **Mesa Community Solar Garden – Grand Junction, CO**

Located within the city limits of Grand Junction, Sunsense provided a full suite of services in transforming this abandoned 10-acre agricultural site into a community solar project now harvesting clean renewable energy! The Grand Valley School District 51 was a major player in the project. Not only did they lease the land to the project developer, they are purchasing a significant percentage of the power production of the system. Other participants include the City of Grand Junction, Mesa County, Alpine Bank, and Grand Junction Housing Authority.

SECTION IV – REFERENCES

GARFIELD REGIONAL AIRPORT PHASES I & II

Customer details	**CLEAN ENERGY COLLECTIVE**
Reference Contact:	
Name:	Paul Spencer
Address:	363 Centennial Pkwy, Suite 300, Louisville, CO 80027
Email Address:	paul.spencer@easycleanenergy.com
Telephone Number	844.232.7253

Sunsense was selected to provide a 1.8MW project in Holy Cross Energy service territory, including the Garfield County Airport. By focusing on communication and commitment, Sunsense utilized safety, training/certification, industry connections, working within time frames and budgets, securing a stable of capable, local subcontractors and an Operations and Maintenance program. Working with local organizations to deliver a successful project the entire region, Sunsense collaborated with airport personnel, Garfield County, and Holy Cross Energy to complete this highly visible project. Sunsense expanded the original 2011 Garfield County Airport solar PV system. The operations team navigated the challenging, sloping topography as well as utility connection obstacles. Adding complexity, construction was accomplished through a Colorado winter. Due to the success of the collaboration, a Project Profile was featured in SolarPro Magazine in their September/October 2016 publication.

BOULDER'S 63RD STREET WATER TREATMENT PLANT

Customer details	**CITY OF BOULDER, CO**
Reference Contact:	
Name:	Douglas Sullivan, Utilities Principal Engineer
Address:	1739 Broadway St., Boulder, CO 80302
Email Address:	
Telephone Number	303.441.3200

Ameresco was commissioned to construct a 1.6MWdc ground mount solar PV system at the City of Boulder's 63rd Street Wastewater Treatment Plant. This project presented numerous challenges such as relocating established wildlife on the property, future-proofing the solar development to account for upcoming expansions of the plant itself, working with Xcel Energy to secure solar incentives which improved the ROI of the project, and working within a short construction timeline – the project was completed in less than two months. To date, the project is exceeding expectations, has withstood extreme weather, and resulted in the water treatment plant reducing its annual energy consumption by roughly half of its original utility baseline.

City of Boulder
Public Works

Utilities Engineering
1739 Broadway Street
Boulder, Colorado 80302
(303) 441-3200

To whom it may concern,

I am pleased submit this letter of recommendation for AMERESCO.

AMERESCO worked with the City of Boulder to fully design and build a 1.56MW PV solar facility at the city's Boulder Reservoir Water Treatment Plant. We chose AMERESCO because of their reputation and standing relationship with the City of Boulder on other comprehensive energy projects.

This project consisted of two separate arrays, 395kW on the north and 1.165MW on the south sides of the property. Ameresco provided a turnkey design and installation of the arrays coordinating all work between design, subcontractors and the City's project team to deliver a high quality, successful project. In addition, they were able to meet a very aggressive timeline on the north array to obtain an incentive from the local utility.

Through our project with AMERESCO, they have demonstrated they are more than capable of delivering projects on-time and under budget. They have proven to be an excellent partner and would highly recommend them for similar projects.

Please feel free to contact me if you would like further information.

Sincerely,

Douglas Sullivan, P.E.
Utilities Principal Engineer
City of Boulder

UNITED STATES MARINE CORPS – PARRIS ISLAND RECRUIT DEPOT

Customer details	**U.S. MARINE CORPS**
Reference Contact:	
Name:	Stephen Kirkpatrick, Deputy Facilities Maintenance Officer
Address:	283 Blvd De France, Parris Island, SC 29905
Email Address:	Stephen.kirkpatrick@usmc.mil
Telephone Number	843.228.2720

The United States Marine Corps Recruit Depot Parris Island selected Ameresco in 2015 to deploy combined heat and power (CHP) and solar photovoltaic (PV) generation assets and to integrate them with a battery energy storage system (BESS) and a microgrid control system (MCS) capable of fast load shedding. This comprehensive project will further the Marine Corps Installation Command mission to ensure a reliable, secure energy supply and reduce lifecycle operating costs of Marine Corps facilities while managing future commodity price volatility.

Ameresco deployed a new CHP plant, plus integrated renewable energy solutions, including solar PV, domestic hot water system upgrades, a battery energy storage system (BESS), and a microgrid control system (MCS) capable of fast load shedding. The solar PV measure consists of a 1.6 MW PV carport system and a 5.1 MW ground mount system.

The 4.0 MW/8.1 MWh Lithium-Ion BESS reduces energy costs for Parris Island and enhances the reliability and security of on-site power generation assets. The BESS captures a substantial amount of excess PV energy generation and stores this electricity for later use to reduce power and energy purchases from the utility. As designed, the 4.0 MW/8.1 MWh system will store over 1,120,000 kWh of annual excess PV generation, reducing the curtailment requirement of the PV from 23% of its total annual generation to 11%. The BESS was commissioned in June 2018, and the PV and the CHP plant in 2019.

The MCS will monitor and coordinate dispatch of CHP, PV, BESS, and Emergency Generators as required in response to site electrical and thermal loads. A fast load shedding capability is included in the controls package to provide an uninterrupted transition from utility power to islanding mode. For the duration of islanding operations, the MCS will ensure the support of mission-critical systems from these on-site generating assets.

This state-of-the-art infrastructure will provide Parris Island the capability to maintain reliable operations in the event of loss of utility services. This comprehensive project also features solar photovoltaic (PV) arrays that will add another 6.7 MW of on-site generation capacity. The PV systems will displace the purchase of electricity from the serving utility, and the carport PV

system provides shading at the primary parking area for visiting family members. Together with demand reduction energy conservation measures (ECMs), these improvements will result in:

- 75% reduction in utility energy demand
- 25% total water reduction
- 10 MW onsite electrical generation
- Combined annual carbon reduction of 37,165 metric tons of CO2

SUNNYSIDE RANCH SOLAR PROJECT, CARBONDALE, CO

Customer details	**CLEAN ENERGY COLLECTIVE**
Reference Contact:	
Name:	Paul Spencer
Address:	363 Centennial Pkwy, Suite 300, Louisville, CO 80027
Email Address:	paul.spencer@easycleanenergy.com
Telephone Number	844.232.7253

Sunsense's 1.8MW Sunnyside Ranch features a single axis tracker. Completed in April of 2015, the Sunnyside Ranch PV project is located on 11 acres adjacent to the old Carbondale landfill. Off takers in this community solar project include the Town of Eagle, Colorado, the Roaring Fork Transit Authority, and several homeowners in the area. A single-axis tracking system was employed along with central inverters allowing a significant increase in power production.

ADAMS COUNTY LANDFILL SOLAR PROJECT

Customer details	ADAMS COUNTY SOLAR SYSTEM
Reference Contact:	
Name:	Sean Braden
Address:	14451 Riverdale Road, Brighton, CO 80601
Email Address:	Sbraden@adcogov.org
Telephone Number	720.523.6003

In summer 2019, Adams County, Colorado, selected Ameresco to design, develop, own and operate a ballasted solar PV system on their closed landfill under a 20-year agreement. After it stopped accepting waste, the landfill was used as a shooting range by a private club and the Adams County Sheriff's Department. The County is currently amid a significant earthworks project to clean the site and to close and cap it according to Colorado Department of Health and Safety regulations. Ameresco will leverage our considerable experience in landfill solar development (20+ projects, 16 already operating) to design a solar PV system that will maximize capacity and generation for the available area and feeder, while protecting the integrity of the new landfill cap.

SECTION V – DESCRIPTION OF PROPOSED SOLUTION

Below we describe how our combined Ameresco/Sunsense team will approach the RSG feasibility study. First, we describe the steps we will take to evaluate technical feasibility, followed by the steps we will take to evaluate financial feasibility.

As described further in Section VI, Sunsense is familiar with several potential solar PV site locations in YVEA territory, due to their July 2019 meetings and site visits with the City of Craig, as well as their current role as Operations & Maintenance provider for the existing 579kW solar PV ground mount system referred to as CEC YVEA 1 on the northwest side of the sludge ponds. Our team believes that among the three sites Sunsense visited last year, the most likely suitable site for a 4-10 MWac solar array is the area (shown at right) to the west and south of the sludge ponds.

We understand that the Partners have identified two or three potential parcels for solar PV as stated in the Solar Utility FAQs, and this may or may not include the site adjacent to the sludge pond. **Our proposal and pricing anticipate a feasibility study that will perform an initial evaluation of up to three sites, followed by a deeper investigation of the most viable site. We are open to other approaches. Please see our discussion in Section VIII – Project Schedule and Pricing.**

The steps below are generally described sequentially, but there may be some overlap between steps because solar PV and energy storage optimization for installed capacity and generation is an iterative process.

ENGINEERING STUDY GENERAL APPROACH

Step 1: Determine the Optimal Solar Capacity. We will review the collective annual consumption and peak demand of the local government entities encompassing the Partners participating in this RFP, using data provided by the Partners, to determine what size solar PV system would serve their load. Our team will also consult with YVEA to understand whether additional generation could serve other YVEA customers and whether solar generation aligns

with the grid peak demand or energy storage is necessary to shift generation to align with load requirements.

Step 2: Preliminary Site Visits (1-3 Sites). Our team will perform site visits for up to three locations as selected by the Parties. These preliminary site visits typically take about two hours onsite (excluding travel) and will enable us to view and evaluate the potential acreage, topography, interconnection point, access point, requirement for civil works, proximity of abutters and other features to determine general site viability.

Step 3: Detailed Site Visits (1 Site). Our teams' engineers will conduct detailed site visits to further evaluate the solar PV potential for the most viable site. These pre-design investigation(s) include a full site assessment incorporating:

- Site owner requirements and preferences,
- Topographic survey,
- Wetland investigation/delineation,
- Selection of locations and number of boring sites for the geotechnical analysis,
- Geotechnical analysis,
- Assessment of the distance to and likely point of common coupling (POCC) with the YVEA distribution system or TSGTA transmission system,
- Site considerations for the layout of the solar modules, inverters, and other equipment as required including transformers and poles,
- Assessment of necessary civil works including any tree/vegetation removal, grubbing, grading, locations for new permanent or semi-permanent access roads through the solar site, and fencing,
- Selection of likely site access points for equipment delivery and installation vehicles,
- Assessment of possible locations for laydown areas, a trailer(s) and other items during construction.

Step 4: Permitting Investigation. We will review the local and environmental permitting requirements for the proposed site or sites. For the permitting investigation we will consult published by-laws and ordinances and speak with local planning authorities to determine the need for a special/conditional use permit, site plan review, zoning changes or variances if required and notices of intent (NOIs) as required by local by-laws and solar overlay district requirements.

We will also review the US Fish and Wildlife Services Information Planning and Conservation (IPaC) list to see if we find any species with critical habitats within the proposed project site(s). We will hold an initial consultation with the relevant bodies for a review of state-listed threatened and endangered species and historic and archaeological sites.

Known requirements such as parcel setbacks and height restrictions will be noted, and the potential for any unpredictable conditional requirements, such as may be requested by local stakeholders at public hearings, by state authorities to protect listed species, or other special considerations, will be discussed including the timeline and cost implications of permitting requirements.

At this stage, for sites located within four miles of an airport or airstrip, we will conduct the Federal Aviation Administration glare study results using ForgeSolar's GlareGauge tool to evaluate fixed tilt and if relevant, tracker racking systems, at various azimuths and tilt angles to design the optimal system. ForgeSolar GlareGuage uses the SGHAT technology developed by Sandia National Laboratory, which is now only available for military, state and federal individuals only. No other tool uses the Sandia algorithms.

Step 5: Preliminary Design and Site Plan. We will prepare detailed solar PV layout drawings showing the available kW capacity of the solar PV array(s) – considering all key factors including wind and snow loading; building and electrical code requirements; shading, if any, caused by nearby buildings and trees; interrow spacing and array tilt angle. The layout will incorporate any parcel setback or other local and environmental permitting requirements. The preliminary layout will also specify the suggested equipment make and model, and quantity, for the proposed design. The site plan will mark proposed access points, roads, point of common coupling, and other key features of the proposed plan.

At this stage, we will also prepare a one-line drawing electrical drawing for review by the Parties and which can be included in a future submittal to YVEA along with the interconnection application.

Step 6: Community Meeting (1-2 meetings). If desired by the Parties, our team offers to participate in 1-2 public meetings as part of this feasibility study to answer any questions and address any concerns site abutters and the broader local community may have with regard to solar PV.

It may be reasonable to include community requests in the study's design to help increase local support of the RSG. For instance, adding a walking path around the site perimeter, preserving open space in any location most visible to abutters, or otherwise viewing the RSG from a multi-user perspective could increase community support for the RSG with minimal design or financial impact to the project.

Step 7: Generation Modeling. After the detailed systems are designed, we will model production with PVSyst Production Modeling Software, to produce annual generation numbers. The PVSyst model is the industry standard software, and we will incorporate inputs such as our specific proposed equipment, local irradiance/weather and snow/soiling data (we use the Clean

Power Research's SolarAnywhere tool, which utilizes site-specific, satellite-based irradiance and weather data -the SolarAnywhere algorithm is considered to be among the most accurate irradiance tools currently on the market). We also incorporate 1% downtime into the generation model to best model the solar electricity generation on an annual basis. The generation model output includes a model of solar generation hour-by-hour for one year, known as an 8760 dataset.

Step 7: Energy Storage System Assessment. The feasibility study will evaluate battery energy storage. A battery energy storage system (BESS) can store excess solar PV generated power thereby transforming an otherwise intermittent source of generation into a more consistent supply that can contribute to the site's holistic energy resiliency plan.

We will evaluate the optimal capacity for a BESS based on size of the solar PV system, the 8760 data for the solar PV generation, local governments' collective energy consumption, discussions with YVEA and/or TSGTA grid operators to identify whether the likely POCC is at a system location would benefit from storage, and its peak and resiliency needs at that location.

FINANCIAL FEASIBILITY APPROACH

We will prepare a cost estimate for the solar PV final design and installation, as well as for long-term operations & maintenance including equipment (namely inverter) replacement, and eventual decommissioning of the solar PV plan and recycling of the equipment at the end of life.

Our study results will describe the funding and financing options available to the Partners, and the associated contracting structures and their different public/private ownership configurations such as energy supply agreement financing, lease financing, tax-exempt lease purchase and power purchase agreement. We will prepare proformas to submit to the Partners outlining each feasible option and its ROI, and other relevant financial metrics.

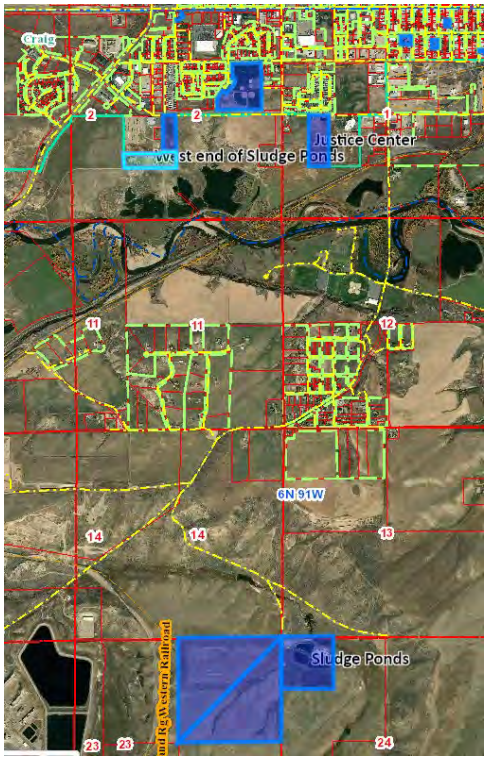
We will review the numerous federal and local grants, tax credits or incentives, low interest loans, and other creative funding mechanisms which we will explore to identify their applicability to the proposed RSG.

Ameresco's Account Executive, Paul Engle, has secured millions of dollars in local Colorado grants on the behalf of his clients; with a considerable amount of those funds being distributed through the Department of Local Affairs, the Colorado Energy Office, and other State agencies. Ameresco has found this thorough evaluation, identification, and procurement of available supplemental funding grants on the behalf of its customers are ultimately what may make projects such as this reality.

SECTION VI – IDENTIFY UNIQUE OR DISTINCTIVE FEATURES

1. SUNSENSE FAMILIARITY WITH POTENTIAL SITES IN YVEA TERRITORY

Sunsense has provided both grid tied and off grid solar electric systems in the Yampa Valley and beyond for many years. From a solar electric repeater site for Routt County on Farwell Mountain to solar aeration equipment for the Colorado Division of Wildlife in the Flat Tops to an educational program for schools in Steamboat Springs, Hayden and Oak Creek, Sunsense has partnered with local and regional organizations to integrate the technology through YVEA's service territory.



In the exploratory stages of this project, Sunsense consulted with City of Craig personnel in June 2019 and other stakeholders to assist in determining the viability of such an opportunity. We visited the three sites shown in the map at right and determined that sludge pond site has the greatest potential. A meeting was held in June, and site visits performed in preparation for a planning grant from the Colorado Department of Local Affairs. These other sites, or new potential sites, can be visited if/when necessary as well. Typically, our team can quickly determine the viability of renewables on a particular site in short amount of time.

2. EXISTING SUNSENSE/AMERESCO PARTNERSHIP

Ameresco and Sunsense have had a positive working relationship over the past few years, capitalizing on Sunsense's Western Slope presence and the strong financial and technological capabilities of Ameresco. Some of the more notable projects the Ameresco/Sunsense team are currently developing include a large roof-mounted Solar PV array the University of Colorado Boulder Recreation Center and a 5-6MW solar + battery storage project for Colorado Mountain College's Spring Valley Campus. Both Ameresco and Sunsense have local offices in Colorado and will continue to develop lasting, mutually beneficial partnerships with local governments on the Western Slope.

3. AMERESCO'S FEDERAL AVIATION ADMINISTRATION EXPERIENCE

Ameresco' considerable experience with the development of solar PV and other renewable energy projects includes specific expertise developing PV at airports and airfields. Should the selected sites be near the Hayden or other airport, our engineering teams will take that into account. We understand the unique design considerations and FAA requirements associated with siting PV near airfields, such as: conducting glint/glare studies; designing within height restrictions; maintaining minimum clearances from runways and approach cones; use of directional borings for electrical conduit and duct banks as required to avoid runway interference; assuring systems do not interfere with radar operations; scheduling construction activities and ongoing maintenance access around airfield schedules, etc.

Ameresco designed and built a 5+ MW-dc PV system at the Minneapolis-St. Paul International Airport and have built a 13 MW-dc PV system for the National Aeronautics and Space Administration (NASA) Wallops Flight Facility in Virginia, to cite two recent examples. We also have solar PV at Boston Logan airport and the Portland Jetport in Maine among other projects. These projects required that we complete glint/glare studies and go through the FAA review and approval process. At the NASA site we are deploying a single-axis tracking system to address their unique glint/glare concerns from a wide range of off-normal runway approaches. We can design and optimize a meaningful PV generation asset at Whiteman AFB that will not interfere with runway or other mission critical operations in any way.

4. AMERESCO BATTERY EXPERIENCE

Ameresco has over 50,000 kWh of battery energy storage systems in various stages of design, construction, or operation at federal facilities throughout the United States. These systems provide a variety of energy cost savings and resiliency services depending on customer need including utility bill demand shifting, storage of "excess" PV generation when PV output exceeds site load, continuous bridge power to stand-by generators, and utility ancillary services.

We also have our grid-connected Canadian project in Ontario, 16 MWh of BESS, connected to Newmarket Hydro for Ontario's Independent Electricity System Operator (IESO), as of October 21, 2018. The project features twin, 2 MW / 8 MWh Solid-state Lithium-ion Battery Energy Storage Systems, that will control 4 MW / 16 MWh for the IESO electricity grid.

Ameresco is pleased to bring its leadership to the IESO energy storage pilot project and assist the IESO in creating ratepayer value and environmental benefits through the time-shifting of energy consumption and production as well as to demonstrate the value of future ancillary services to be derived from these energy storage facilities.

This CAD$14.6 million project is providing the ISO with the following services:

PROJECT SERVICES:

- Energy arbitrage
  - Purchasing and storing electricity during off-peak times, and then utilizing that stored power during periods when electricity prices are the highest.
- Grid Reliability & Stability
- Capacity Reserve
  - Provide power and energy capacity to the grid as a standalone asset.
- Ancillary Services
  - Charge or discharge instantly to provide frequency regulation, voltage control, and spinning reserve services to the grid.
- Transmission & Distribution Support
  - Supply power and energy capacity at the distributed location to defer or eliminate the need to upgrade aging grid infrastructure.

SECTION VII – GENERAL COMMENTS

We have reviewed the insurance provisions in Attachment A and accept them. A sample Ameresco Certificate of Insurance is below.

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY): 12/5/2019

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER Arthur J Gallagher Risk Management Services 470 Atlantic Avenue Boston MA 02210	CONTACT NAME: PHONE (A/C, No, Ext): 617-261-6700 FAX (A/C, No): 617-646-0400 E-MAIL ADDRESS:
INSURED AMERINC-17 Ameresco, Inc. 111 Speen Street Suite 410 Framingham MA 01701	INSURER(S) AFFORDING COVERAGE — NAIC # INSURER A : Zurich American Insurance Company — 16535 INSURER B : Steadfast Insurance Company — 26387 INSURER C : James River Insurance Company — 12203 INSURER D : RSUI Indemnity Company — 22314 INSURER E : Navigators Insurance Company — 42307 INSURER F :

COVERAGES **CERTIFICATE NUMBER:** 1499174942 **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
A	X COMMERCIAL GENERAL LIABILITY CLAIMS-MADE / X OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: POLICY / X PRO-JECT / X LOC OTHER:			GLO011195404	12/31/2018	1/31/2020	EACH OCCURRENCE DAMAGE TO RENTED PREMISES (Ea occurrence) MED EXP (Any one person) PERSONAL & ADV INJURY GENERAL AGGREGATE PRODUCTS - COMP/OP AGG $	$ 2,000,000 $ 400,000 $ 50,000 $ 2,000,000 $ 4,000,000 $ 4,000,000 $
A	AUTOMOBILE LIABILITY X ANY AUTO OWNED AUTOS ONLY / SCHEDULED AUTOS X HIRED AUTOS ONLY / X NON-OWNED AUTOS ONLY			BAP585238706	12/31/2018	1/31/2020	COMBINED SINGLE LIMIT (Ea accident) BODILY INJURY (Per person) BODILY INJURY (Per accident) PROPERTY DAMAGE (Per accident) $	$ 1,000,000 $ $ $ $
C D E	X UMBRELLA LIAB / X OCCUR EXCESS LIAB / CLAIMS-MADE DED / RETENTION $			00087963-0 NHA085099 IS18EXC7699821V	12/31/2018 12/31/2018 12/31/2018	1/31/2020 1/31/2020 1/31/2020	EACH OCCURRENCE AGGREGATE $	$ 25,000,000 $ 25,000,000 $
A	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY Y / N ANYPROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBEREXCLUDED? N / A (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below			WC595394506	12/31/2018	1/31/2020	X PER STATUTE / OTH-ER E.L. EACH ACCIDENT E.L. DISEASE - EA EMPLOYEE E.L. DISEASE - POLICY LIMIT	 $ 1,000,000 $ 1,000,000 $ 1,000,000
A B D	Installation Floater Pollution Excess Liability			PWG455350515 EOC 6592743-08 NHA085099	11/30/2018 12/31/2018 12/31/2018	1/31/2020 1/31/2020 1/31/2020	Per Claim:$15,000,000 Occ: $25,000,000	15,000,000 Agg: $15,000,000 Agg: $25,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

Additional Coverage:
Professional Liability Policy #EOC669274308 - effective 12/31/2018-1/31/2020 - Limit: $15,000,000
Crime Policy #03-144-27-68 - effective 11/30/18-12/14/19 - Limit: $5,000,000
Cyber Policy #MTP000242 - effective 11/30/18-12/14/20 - Limit: $10,000,000

Evidence of Insurance

CERTIFICATE HOLDER	CANCELLATION
Evidence of Insurance	SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS. AUTHORIZED REPRESENTATIVE Patrick J Keane

ACORD 25 (2016/03) The ACORD name and logo are registered marks of ACORD

CONTRACT REQUIREMENTS

Ameresco has reviewed Attachment B: General Terms and Conditions. We note that we prefer more balanced indemnification provisions in the final agreement. We have many contracts executed for complete and ongoing projects with municipalities and other public entities in Colorado and are familiar with typical contract terms and conditions. We therefore think the schedule provided in the RFP for a February 24th start date, which assumes a brief period for contract negotiation, is accurate.

SECTION VIII – PROJECT SCHEDULE & PRICING

ANTICIPATED PROJECT SCHEDULE

Our proposed project schedule below is based on having a fully executed contract by the February 24th start date assumed in the RFP. It also assumes the Parties provide all data, information and site access requested in a timely manner. Winter weather may impact the exact dates in the preliminary schedule provided below. We assume the final study results will be delivered by July 15, 2020, as specified in the RFP, but will accommodate any schedule requests by the Parties as much as we are able.

- February 24: Project Start
- March 25: Optimal System Size and Preliminary Site Visits Complete
- April 20: Detailed Site Visits for Selected Sites & Permitting Investigation Complete
- May 5: Preliminary System Design & Generation Modeling Complete
- May 20: Energy Storage Assessment Complete
- June 30: Financial Projections Complete
- July 15: Final Feasibility Study Results Presented to the Parties

PROJECT PRICING

We provide the pricing table below outlining the primary tasks we propose to include in our feasibility study, as requested. Please see **Section V Description of Proposed Solution** for the detail behind each task, as well as our price exclusions listed below.

We also note who the responsible party is for each task and if it is a subcontractor to our team. We list subcontractors with whom we have successfully worked on past projects. However, we have not yet made final subcontractor selection and reserve the right to select the subcontractor who in our determination has the qualifications and availability to complete the requested task.

The Ameresco/Sunsense team, should we be selected, is amenable to changes in project scope or schedule, but we will refine our price and schedule in accordance with any requests made by the Parties.

Task	Responsibility	Price
1. Determine Optimal Solar Capacity	Sunsense	$3,000
2. Site Visits & Preliminary Design Investigation	Sunsense	$7,500

a. Topographic survey	Subcontractor (Wood plc or other)	$10,000
b. Wetland delineation	Subcontractor (Wood plc or other)	$5,000
c. Geotechnical Analysis	Subcontractor (CTL Thompson, Inc. or other)	$11,000
3. Permitting Investigation	Ameresco	$1,200
4. System Design & Site Plan	Sunsense	$27,500
5. System Generation	Ameresco	$1,200
6. Energy Storage Analysis	Ameresco	$1,500
7. Financial Projections	Ameresco	$1,500
8. Reimbursables		$1,050
Total		**$70,450**

FEASIBILITY STUDY PRICING EXCLUSIONS

The items listed below are among other development tasks that the entity selected to prepare the final design and construct the solar PV plant would perform. We determined that these tasks are beyond what is requested by the Parties in this RFP and are best suited for later stages of design and development. This is not necessarily an all-inclusive list, but we include these for clarity regarding our proposed feasibility study, schedule and pricing.

- Detailed electric rate analysis for the local government facilities
- Evaluation of ancillary services as other sources of revenue for a battery energy storage system
- Evaluation of storage other than lithium ion batteries, such as flow batteries, flywheels, compressed air storage, etc.
- Holding public meetings beyond the 1-2 included in our feasibility study
- Site suitability and permitting analysis other than explicitly described in our Engineering Study General Approach
- Submission of the Interconnection application and payment of any application and impact study fees
- Submission of any and all permit applications
- Pulling the current title report and preparing an ALTA survey

- Storm water analysis and design of erosion control best management practices (BMPs) employed during construction
- Preparing thorough (50%+) design drawings, and issued for permit (IFP) and issued for construction (IFC) stamped drawings

ASSISTANCE FROM THE PARTIES

We will request the following data and assistance from the Parties:

Annual Electric Consumption and Interval Data: We assume the Parties will provide at least 12 months of historical electric consumption data, including interval data if available, for our engineering team to review to determine the optimal solar PV and BESS size to meet the electricity needs of the Parties.

Site Access: The primary support required is for the property owner(s) to provide reasonable access to the site(s) for one or more site visits, which we will arrange in advance with the property owner.

Timely Review & Approvals: We request that the property owner provide us with their requirements and preferences for the design and construction, if any, such as limitations to the available location, working hours, or other items. We also request a timely review and approval of the preliminary design. Finally, we request that the property owner provide information and consent as required to the pertinent authority having jurisdiction (AHJ) in a timely manner for our interconnection and permit inquiries.

Title: The feasibility study we propose does not include provision of a title report nor ALTA survey, however we will request that the property owner provide the information they have in their possession regarding their title in fee simple to the property plus any easements or other encumbrances which may impact the proposed location and design for our review for preliminary design purposes.

Interconnection Assistance: We request a consultation with YVEA and/or TSGTA regarding the feasibility and potential costs related to our proposed point of common coupling. We will submit a pre-application if warranted to determine the availability of space on the feeder.

CONTACTS:

AMERESCO INC.
3095 S. PARKER ROAD, SUITE 200
AURORA, CO 80014

NAME OF CONTACT PERSON IN THE FIRM:

PAUL M. ENGLE, CEM
SENIOR ACCOUNT EXECUTIVE
P: 720-627-8739 C: 303-547-2175
PENGLE@AMERESCO.COM

AMERESCO
Green • Clean • Sustainable

SUNSENSE
SOLAR | DESIGN | BUILD

AMERESCO
Green • Clean • Sustainable

3095 South Parker Road, Suite 200
Aurora, CO 80014
P: 720 627 8772
F: 303 309 6228
ameresco.com

February 27, 2020

Mr. Peter Brixius
City of Craig Administrator
City of Craig, Colorado
300 West Fourth Street
Craig, CO 81625

RE: City of Craig RFP Regional Solar Utility Planning Project – Revision to Cost Proposal

Mr. Brixius,

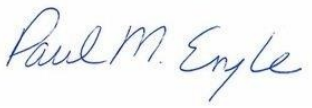
Per our discussion earlier today, I would like to revise Ameresco's cost proposal to include the referenced Impact Study, relating to a future Regional Solar PV and Energy Storage Project within YVEA's service territory, as an additional service should the City of Craig and it's partners elect to have Ameresco perform said study. The estimated cost of this study is approximately $25,000 and will be included as an "add alternate" to Ameresco's previously submitted cost proposal.

The revised cost proposal can be found below:

Task	Responsibility	Price
1. Determine Optimal Solar Capacity	Sunsense	$3,000
2. Site Visits & Preliminary Design Investigation	Sunsense	$7,500
a. Topographic survey	Subcontractor (Wood plc or other)	$10,000
b. Wetland delineation	Subcontractor (Wood plc or other)	$5,000
c. Geotechnical Analysis	Subcontractor (CTL Thompson, Inc. or other)	$11,000
3. Permitting Investigation	Ameresco	$1,200
4. System Design & Site Plan	Sunsense	$27,500
5. System Generation	Ameresco	$1,200
6. Energy Storage Analysis	Ameresco	$1,500
7. Financial Projections	Ameresco	$1,500
8. Reimbursables	Ameresco/Sunsense	$1,050
Sub Total		**$70,450**
Add Alt. – YVEA Impact Study	Ameresco/Sunsense	$25,000
Total		**$95,450**

The Ameresco/Sunsense team is looking forward to working with the City of Craig and its partners on this very important project. Please let me know if there are any additional questions or concerns the selection committee would like to see addressed prior to the March 10th City Council Meeting. Once the formal project award has been made the Ameresco/Sunsense team will provide a revised project schedule of anticipated milestones at the upcoming project kick-off meeting.

Respectfully,



Paul M. Engle, CEM
Senior Account Executive – Rocky Mountain Region
PEngle@Ameresco.com