

**Request for Proposals
For 16.75 MW Community Solar
For 6 Rural Electric Cooperatives in Colorado**



Facilitated by Rocky Mountain Institute



Key RFP Dates

Request for Proposal (RFP) Issued:	March 14, 2017
Deadline for Declaration of Intent to Participate:	March 31, 2017
Optional Virtual Site Visit:	April 3, 2017
Question/ Clarifications Due by:	April 12, 2017
Proposals Due:	April 25, 2017

Background

Community-Scale Solar for Rural Electric Cooperatives

As a result of a 2016 RMI-managed requests for proposals, rural electric cooperatives (co-ops) in New Mexico have signed power purchase agreements below \$50/MWh for a portfolio of community-scale solar projects. At these prices, co-ops were able to save money through solar. Given continued declines in solar module and delivery costs, member-owned utilities in Colorado and other parts of the country now have the opportunity to save money and bring value to their members through community-scale solar.

Community-scale solar (*i.e.*, 0.5–5 MW) is a natural fit for rural electric cooperatives. Community-scale solar can be easily interconnected to co-op distribution grids and co-ops can leverage community connections to facilitate the development process. Electricity from community-scale solar is increasingly cost-competitive with the avoided cost of delivered wholesale power, making community-scale solar an economic option in much of the country. In addition to cost savings, community-scale solar provides a co-op-friendly alternative to behind-the-meter solar, while stimulating local economies, and meeting member demand for local, clean energy.

Keys to Unlocking the Co-op Solar PV Market

RMI analysis shows that there is a multi-GW potential market for community-scale solar for rural electric cooperatives. In order for this market to materialize, three things must be true:

1. Co-ops must access community-scale solar at competitive prices.
2. Solar offerings must be easy to understand and compare.
3. Co-ops must access appealing solar offerings with a limited investment of staff time.

RMI's Role

This RFP is part of RMI's work with co-ops in Colorado and other regions to facilitate the development of this market. RMI aggregates demand and collects structured price data through a competitive procurement process. As a result of this process, co-ops are able to access easy to understand offerings at low-prices without the need for extensive staff resources.

In Colorado, the group of participating rural electric cooperatives are motivated to procure solar by economic and other considerations. The final decision on vendor and terms will be made by the co-ops. They will evaluate the data collected by RMI and decide which offerings and terms maximize benefits to their current and future members.

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1 Overview

1.1 About Participating Rural Electric Cooperatives

Six rural electric cooperatives (referred to as “Co-ops” in this document) are participating in this RFP.

- Highline Electric Association (HEA)
- K.C. Electric Association (K.C.)
- Morgan Country Rural Electric Association (MCREA)
- Mountain Parks Electric Inc. (MPEI)
- Mountain View Electric Association, Inc. (MVEA)
- Y-W Electric Association, Inc. (Y-W)

Additional details on Co-ops are found in **Appendix A**. Co-ops have advised RMI on the scope and specifications of this RFP, will select the vendor(s), and are responsible for administering and executing the PPAs solicited in this document. Depending on the results of this RFP, participating Co-ops may extend the opportunity to participate in an expanded group procurement to other utilities in the region.

1.2 About Rocky Mountain Institute

Rocky Mountain Institute (RMI)—an independent nonprofit founded in 1982—transforms global energy use to create a clean, prosperous, and secure low-carbon future. It engages businesses, communities, institutions, and entrepreneurs to accelerate the adoption of market-based solutions that cost-effectively shift from fossil fuels to efficiency and renewables. RMI has offices in Basalt and Boulder, Colorado; New York City; Washington, D.C.; and Beijing.

1.3 RMI’s Shine Program

An initiative of RMI, Shine is focused on unlocking a “sweet spot” in the U.S. clean-energy market: community-scale solar. Shine defines community-scale solar as projects around 0.5 MW to 5 MW that are connected to the distribution-grid. Shine is working with utilities and communities to develop innovative community-scale projects that make solar energy affordable and accessible for all.

This request for proposals (RFP) is part of Shine’s ongoing [buyer-support program](#). In 2016, RMI supported procurement of more than 60 MW community-scale solar through three RFPs. The Shine program will continue to provide procurement support to rural electric cooperatives, municipal utilities, and community-based organizations through at least 2020.

1.4 Community Solar vs. Community-Scale Solar

RMI defines *community-scale solar* as solar PV projects that are around 0.5 MW to 5 MW and interconnected to distribution-level voltage. *Community solar* refers to a business model in which households and businesses have the opportunity to directly participate in a centralized project, generally through a subscription offering.

In this RFP all Co-ops are requesting community-scale projects where they would serve as the PPA counterparty. All of the Co-ops except K.C. are further interested in providing “retail” access to local end users through community solar subscription offerings (see Table 1).

1.5 Features of this RFP

This RFP is designed to maximize value to participating Co-ops. Accordingly, this RFP incorporates best practices from previous RFPs and solicits a set of data to help Co-ops make informed decisions on vendor(s) and terms. Some of the key features are described below:

1.5.1 Aggregation of Individual Projects into a Portfolio

Recent RFPs managed by RMI verify that co-ops can access solar at lower costs by aggregating individual community-scale solar projects into a portfolio of projects. In this RFP, six Co-ops have aggregated demand for a total of 13.75 MW across 11 sites.

1.5.2 Option to Expand Portfolio

RMI is anticipating that additional utilities in Colorado and neighboring states may become interested in participating in a group solar procurement if prices from this RFP are attractive. To prepare for this possible outcome, RMI is collecting price data for potential portfolios of 20 and 40 MW. The six participating Co-ops will decide after the RFP if they would like to extend the opportunity to participate in this RFP to other utilities in the region. Additional details are found in Appendix B.

1.5.3 Comparable Bids Based on Consistent Assumptions

This RFP is designed to solicit *firm indicative bids* based on a set of assumptions on project and development costs. Bidders should base prices only on the assumptions provided in Appendix B. Bidders should *not* reach out to landowners nor estimate costs based on other available data (see 2.1.6 for further details and consequences). This approach has three primary benefits: 1) All parties avoid a land-rush scenario in which multiple bidders are contacting the same landowners and driving up prices; 2) bids are easily comparable (apples to apples); and 3) the process is easier for bidders who do not have to expend significant time conducting research in the region.

1.5.4 Utility-supported development

Recent RFPs managed by RMI have shown that when co-ops play an active role in supporting development, the total cost to deliver projects decreases. In this procurement, Co-ops will support development by screening regions of their systems for interconnection and supporting permitting, zoning, and other development processes.

1.5.5 Scenario and Scope Innovation

RMI has seen a number of innovative specialized service suppliers emerge to serve the community solar market. To ensure diverse providers can effectively participate, we have

provided three development scenarios that are differentiated by unique scopes for bidders. These scenarios dis-integrate activities that may be included in community solar offerings.

1.5.6 Sensitivity Testing of PPA terms

This RFP includes a section in which vendors will be asked to provide prices given a variety of PPA commercial terms. As with all other price data collected in this RFP, this data will be used to help co-op managers make informed procurement decisions that maximize benefits to their members.

1.6 Capacity Requested

Table 1 below summarizes capacity requested by Co-ops in this RFP. Note that depending on the results of this request for proposals, utilities may decide to procure no solar, procure less than the capacity requested in this RFP, or procure more than the capacity requested in this RFP. Additional details are found in Appendix B.

Table 1: Summary of Capacity Requested by Co-ops

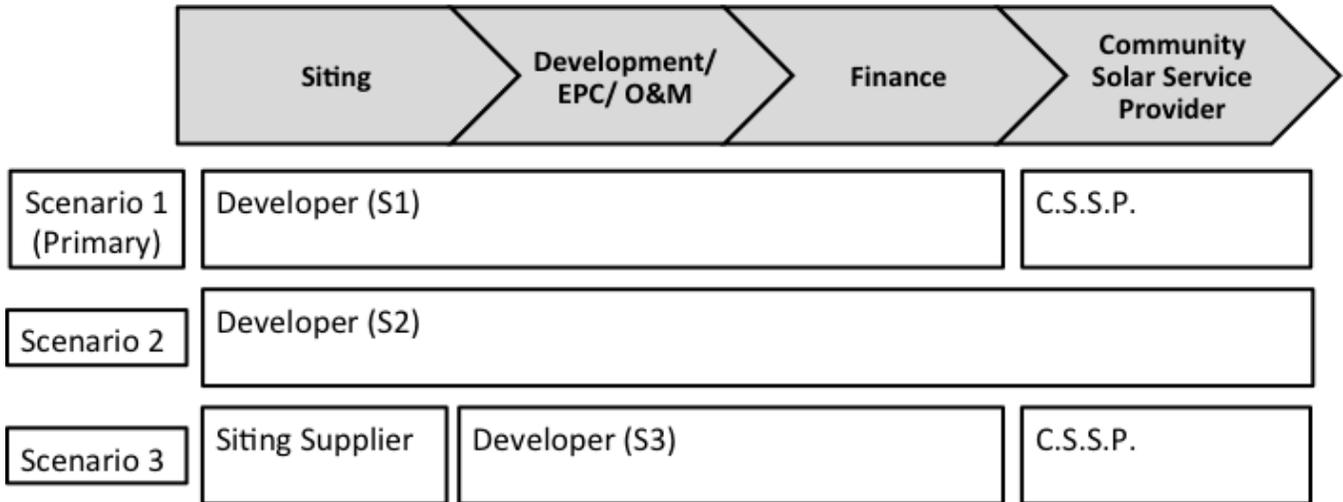
Utility	Capacity Requested (MW-AC)	Number of Projects	Considering Community Solar Offerings?*
Highline	3	2	Yes
K.C.	2	2	No
Morgan County	2	2	Yes
Mountain View	5	1	Yes
Mountain Parks	1	1	Yes
Y-W	3.75	3	Yes
Total	16.75	11	5/6

* Co-ops may be interested in only providing a portion of total capacity for community solar participation.

1.7 Scenario and Scope Overview

RMI has seen a number of innovative specialized service suppliers emerge to serve the community solar market. To ensure diverse providers can effectively participate, we have provided three development scenarios that are differentiated by unique scopes in each role. We invite suppliers to bid on one or more scopes.

Figure 1: Summary of Scenarios, Scopes, and Roles



1.7.1 Comparison of Three Scenarios

Scenario 1: This is the primary scenario. In this scenario development and delivery activities have been separated from community solar service provider (C.S.S.P.) activities. This scenario is designed to enable participation of qualified developers who may not have experience with community solar as well as specialized community solar service providers. In this scope, Co-ops would sign a PPA with Developer (S1) and would enter into a separate agreement with C.S.S.P.

Scope 2: This scenario is designed for community solar developers who provide an integrated offering that includes project delivery as well as on-going community solar subscription services.

Scope 3: This scenario is similar to scenario 1 except that a siting supplier will identify and secure sites. The developer in this scope (Developer S3) will therefore be responsible for developing and building a project for which a suitable site has already been identified and secured.

1.7.2 Summary of Scopes by Scenario

Table 2 summarizes activities to be completed by bidder scope. Bidders may respond to between one and five of the roles. We expect that vendors responding to scope Developer S1 will also respond to scope Developer S2.

Table 2: Summary of Activities to be Completed by Bidder Scope

	Developer S1	C.S.S.P.	Developer S2	Siting Supplier	Developer S3
Included in Scenario	1	1, 3	2	3	3
Activities					
<i>Identify site</i>	X		X	X	
<i>Complete environmental and permitting review to screen site</i>	X		X	X	
<i>Secure site purchase or lease option*</i>				X	
<i>Purchase or lease site*</i>	X		X		X
<i>Negotiate and sign PPA</i>	X		X		X
<i>EPC</i>	X		X		X
<i>Ongoing O&M</i>	X		X		X
<i>Permitting and zoning</i>	X		X		X
<i>Interconnection</i>	X		X		X
<i>Commissioning and performance</i>	X		X		X
<i>C.S. subscription marketing</i>		0	0		
<i>C.S. bill and subscription management</i>		0	0		

X = required activities; 0 = optional activities

** In Scenario 3, Site Supplier will secure purchase or lease options on sites, but Developer S3 is presumed to be the lessee or purchaser of land.*

2 Instructions to Bidders—General Information

2.1 General Information

2.1.1 *Buyer Non-Obligation*

Nothing contained in this request for proposals (RFP) shall be construed to require or obligate Co-ops to select any proposals or limit the ability of Co-ops to reject all proposals. Co-ops reserve the right to withdraw and terminate this RFP at any time prior to the execution of a contract.

2.1.2 *Acknowledgement and Acceptance of Terms and Conditions*

The submission of a proposal shall constitute a Bidder's acknowledgement and acceptance of all terms, conditions, and requirements of this RFP. This includes terms specified in the main RFP document (sections 1 through 3 of this document) as well as PPA terms and MOU terms specified in Appendices C and D respectively. The PPA and MOU terms and conditions are broad, so acceptance of these terms will be similarly broad. If Bidder has reasonable grounds to reject any terms or conditions, Bidder must identify problematic terms in Response Input Sheet. Inability to accept a term or condition will not necessarily disqualify Bidder.

2.1.3 *Right to Use Responses*

Subject to 2.1.4, all proposals submitted to RMI and Co-ops pursuant to this RFP shall become the exclusive property of RMI and Co-ops and may be used for any reasonable purpose by RMI and Co-ops. Intellectual property rights in the content of the proposal (or at least the designs submitted) will remain with Bidders, and RMI and Co-ops will have a non-exclusive royalty-free non-transferrable license to use the intellectual property rights in the proposals for purposes of evaluating the bids.

2.1.4 *Confidential Content*

RMI and Co-ops shall consider materials provided by Bidders in response to this RFP to be confidential only if such materials are clearly designated as "Confidential." Bidders should be aware that their proposal, even if marked "Confidential," may be subject to discovery and disclosure in regulatory or judicial proceedings that may or may not be initiated by Co-ops. Bidders may be required to justify the requested confidential treatment under the provisions of a protective order issued in such proceedings. If required by an order of an agency or court of competent jurisdiction, RMI or Co-ops may produce the material in response to such order without prior consultation with the Bidder. RMI intends to analyze and communicate RFP response data in aggregate for research purposes, but RMI is committed to respecting Bidder confidentiality and will not publicly disclose individual responses without Bidder's written permission.

2.1.5 *Responsibility for Taxes and Other Charges*

Bidders shall be responsible for all costs and issues associated with bids; contract negotiations; completion of the contract; all taxes, duties, fees and other charges associated with the delivery of capacity and energy under the contract; and compliance with all local, state and federal laws that may affect the contract. Each party shall bear its own costs associated with the preparation of its bids.

2.1.6 Non-Contact with Land-Owners:

To avoid a land-rush scenario and inconveniencing Co-op members, bidders must refrain from contacting landowners in responding to the RFP. If a Bidder disregards this provision and contacts a landowner, bidder may be disqualified from this RFP and from all future RFPs managed by Rocky Mountain Institute. If bidder has previously been in contact with landowners in the region, bidder must complete Appendix F and submit to RMI at the time of notice of intent to participate.

2.1.7 RMI Cost Recovery and Non-Circumvention

Bidders have asked RMI to manage the procurement process and have agreed to RMI recovering costs for its efforts through a \$.02/W-DC cost-recovery fee. Bidders should not circumvent RMI's role by soliciting Co-ops outside of the RMI-managed process.

2.2 Modeling Production and Prices

Bidders are asked to generate firm but non-binding bids using a set of assumptions provided in Appendix B. In most instances, the Co-op has identified a sub-station that is suitable for interconnection but has not identified or secured land for solar development. In the case that the co-op had identified a sub-station, please choose a suitable piece of land within one mile of the pre-identified sub-station and use that piece of land for production and price modeling. If the co-op has identified a parcel of land (co-op owned or otherwise) that land should be used for modeling purposes.

2.3 Response Format

Bidders will submit responses using the provided Excel spreadsheet.

Bidders' responses must conform to the instructions, structure, and format of the RFP documentation. In doing so, bidders are asked not to change the format and structure of the Excel documents in any way, and to provide all quantitative data in the units requested. All responses should be made in cells marked with the following light yellow color. 

Depending on the bidder's role, bidder may need to complete all or only a portion of the tabs in the data input sheet (further instructions found in response spreadsheet). For any tab for which bidder input is requested given the bidder scope, bidder should answer all questions, with the exception of questions marked optional.

Bidders are also welcome to provide additional information where appropriate and needed. Please keep in mind that this does not override the questions within the response form, these are used for evaluation and need to be completed. Bidders are also strongly advised to not submit generic sales material but only material that is relevant for the scope at hand.

Table 3: RFP Events and Dates

Date / time	Event
March 14, 2017	RFP Issued
March 31, 2017	Deadline for declaration of intent to participate
April 3, 2017	Optional pre-proposal virtual site visit
April 12, 2017	Deadline for submission of questions to the RFP
April 25, 2016	Deadline for submission of response to the RFP @ 5:00 p.m, Mountain Time

2.4 Intent to Participate

Please confirm your intent to participate no later than **March 31, 2017 5:00 p.m. Mountain Time**. Bidders can confirm their intent to participate by notifying Kevin Brehm (kbrehm@rmi.org) via email. Any disclosures of previous contact with landowners (Appendix G) should be submitted at the time of notification of intent to participate.

2.5 Virtual Site Visit

RMI will host a virtual site visit on Monday April 3, 2017 at 12:00 pm Mountain Time. During the virtual site visit, RMI will review questions and issues from the RFP. The virtual site visit will preclude the need for a mandatory in-person site visit. More details on virtual site visit forthcoming.

2.6 Questions and Clarifications

All questions and clarifications should be directed to RMI and not to Co-ops. Suppliers will have the opportunity to ask questions through e-mail during the RFP process. Responses to answers will be provided to all bidders concurrently and posted online at www.rmi.org/shine_community_solar. The identity of the bidder that submitted the question will be confidential.

RMI will not respond to questions received after **April 12, 2016**.

All questions and clarifications should be sent to Kevin Brehm (kbrehm@rmi.org)

2.7 Submission Instructions

Please submit your proposal online at www.rmi.org/shine_community_solar by **12:00 p.m. Mountain Time on April 25**.

2.8 Submission Fee

The fee per submission is \$250. This fee is intended to cover the marginal cost of processing and evaluating one individual submission and is not intended to cover the general cost of managing the procurement process (those costs are recovered through RMI cost-recovery fee). Electronic payment can be completed at the proposal submittal portal (www.rmi.org/shine_community_solar). Evidence of payment (screenshot of payment screen) should be submitted along with RFP submittal.

3 Evaluation Process and Criteria

3.1 Process Overview

The RFP process has two stages:

Stage 1: Open Request for Proposals (this RFP)

RMI will review and analyze results of open request for proposals. Based on results of RFP, RMI will recommend and Co-ops will choose a short-list of bidders to be included in Stage 2 of RFP.

Stage 2: Binding Bids from Top Vendors

Short-listed bidders will be invited to an in-person meeting at which time they will have the opportunity to meet with co-op management and discuss next steps. After the in-person meeting, bidders will be asked to research and prepare firm/binding bids.

One or more bidders will be notified of intent to proceed.

Table 3 below summarizes milestones and key dates in the two-stage RFP process.

Table 3: Evaluation Process Dates and Milestones

<i>Stage 1</i>	
April 25	RFP responses due
May 18	Bidders notified of inclusion in short-list
<i>Stage 2</i>	
May 30	In-person meeting with short-listed bidders
July 12	Bidders provide binding bids to Co-ops
August 15	Co-ops notify top bidder(s) on intent to proceed

3.2 Evaluation Criteria

Bids will be screened for minimum requirements, then evaluated based on the following:

- Price
- Ability to Deliver
- Quality and Timeline
- Fit with Co-ops

3.2.1 Price

Bids will be evaluated on the price of energy delivered through power purchase agreement. Pricing under several scenarios and given a variety of assumptions will be collected to help Co-ops better understand pricing and pricing dynamics.

3.2.2 Ability to Deliver

Bidders will be holistically evaluated for ability to deliver. Bidder will be evaluated on the basis of past development experience, ability to attract financing, ability to deliver projects on time and budget. Bidder must demonstrate ability to deliver to pass the initial screen.

3.2.3 Quality and Timeline

Bidders will be asked to provide input on hardware quality and warranties. Tier 1 Modules are strongly preferred, and UL-listed hardware is required.

Bidders will be asked to provide development schedule. Earlier commercial operation dates are preferred to later CODs. Projects should be commissioned on or before December 30, 2018.

3.2.4 Fit with Co-ops

The Co-ops wish to ensure that they partner with vendor(s) that are the right fit as a long-term partner for projects on their systems. Fit will be evaluated based upon experience with co-ops, long-term partnership potential, and willingness to work with co-op provided PPA terms and documents.

Appendix A: Participating Rural Electric Cooperatives

All utilities participating in this RFP are member-owned rural electric cooperatives and are served by Tri-State Generation and Transmission of which they are member-owners. For a map of co-op service territories, see Colorado Rural Electric Association website ([link](#)).

A Note on Value of Solar for Participating Co-ops

The value of solar for Tri-State-member co-ops is governed by Tri-State policies on self-generation. For all of the Co-ops participating in this RFP, the value of solar does not depend on the time of day that energy is produced, but it does depend on time of year that solar is produced. The value of solar to the Co-ops is highest in July and August and lowest in March and April. In this RFP, vendors should provide bids that provide the lowest price per unit energy sold to the co-ops, not considering the time of day nor time of year that energy is delivered. Short-listed bidders will have an opportunity to adjust their bids and design choices to maximize value to Co-ops during the second round of this RFP process.

Highline Electric Association (HEA)

Highline Electric serves seven counties in northeastern Colorado and four counties in southwestern Nebraska. The headquarters for Highline Electric is located in Holyoke, Colorado. Branch offices are located in Sterling and Ovid, Colorado. Currently Highline furnishes electric power to 10,449 services. The 3,208 electric irrigation motors in the service area contribute 52.1% of the energy sales to the Association. The system plant consists of 5,157 miles of transmission and distribution lines, including 27 substations.

For more information visit: www.hea.coop

K.C. Electric Association (K.C.)

K.C. Electric Association was organized in 1946 and serves Cheyenne, Kit Carson and part of Lincoln County. There are 27 employees who work in one of four locations: Hugo (business office), Stratton (operations office), Cheyenne Wells or Flagler offices. K.C. administers 2,915 miles of line and serves 6,332 meters.

For more information visit: www.kcelectric.coop

Morgan County Rural Electric Association (MCREA)

MCREA was incorporated in 1937 and is headquartered in Fort Morgan, Colorado. MCREA Serves 8,243 meter locations in the counties of Adams, Arapahoe, Logan, Morgan, Washington and Weld. MCREA administers 2,859 miles of transmission and distribution lines across a 4,000 square mile service territory.

For more information visit: www.mcrea.org

Mountain Parks Electric Inc. (MPEI)

MPEI serves all of Grand and Jackson Counties, and parts of Routt, Summit, and Larimer Counties in north central Colorado. MPE serves more than 20,000 meters and 1,793 miles of energized line over a territory of 3,900 square miles.

For more information visit: www.mpei.com

Mountain View Electric Association, Inc. (MVEA)

MVEA serves members in Arapahoe, Crowley, Douglas, Elbert, El Paso, Lincoln, Pueblo, and Washington Counties in east central Colorado. MVEA serves 48,939 services and 6,024 miles of energized line in agricultural communities as well as the rapidly growing suburbs of Colorado Springs.

For more information visit: www.mvea.coop

Y-W Electric Association, Inc. (Y-W)

Y-W provides electric service to most of Yuma and Washington Counties, Colorado. Y-W's headquarters with construction and maintenance crews are located in Akron, Colorado with an additional collection point in the Town Offices of Eckley, Colorado. Irrigation is 50% of energy sales with 1,659 accounts totaling 152,000 horsepower. The co-op serves 3,700 members and 8,205 meters, and maintains 4,190 miles of line.

For more information visit: www.ywelectric.coop

Appendix B: Sites and Assumptions

For Excel spreadsheet tabs 10, 11, 12, and 15.

Table 4: Summary of Sites and Site-Specific Assumptions (All sites are plotted on [Google map](#))

Utility: Project	Highline: Platte	Highline: Amitie	K.C.: Flagler	K.C.: Kit Carson	MCREA: Headquarters	MCREA: Wiggins	MPEI: North Park	MVEA: Calhan*	MVEA: Calhan*	Y-W: Akron	Y-W: Anton	Y-W: North Abarr
Site Type ¹	Site ⁹	Sub-station	Sub-station	Sub-station	Co-op land	Sub-station	Co-op Land	Sub-station	Sub-station	Sub-station	Sub-station	Sub-station
Coordinates	40.67N, 103.13W	40.51N, 102.16W	39.28N, 103.04W	38.78N, 102.80W	40.26N, 103.77W	40.20N, 104.09W	40.81N, 106.29W	39.01N, 104.37W	39.01N, 104.37W	40.15N, 103.21W	39.74N, 103.18W	40.00N, 102.73W
Capacity Requested (MW-AC)	2	1	1	1	1	1	1	2	5	1.5	1	1.25
Assumptions												
Land Cost (\$/acre/year lease) ²	\$1,500	\$1,500	\$1,500	\$1,500	0	\$1,500	0	\$1,500	\$1,500	\$1,500	\$1,500	\$1,500
Interconnect on Costs ^{2,3}	\$70,000	\$70,000	\$70,000	\$70,000	\$70,000	\$70,000	\$70,000	\$70,000	\$70,000	\$70,000	\$70,000	\$70,000
County Property Tax (\$/year) ⁴	\$14,000	\$7,000	\$7,000	\$7,000	\$7,000	\$7,000	\$7,000	\$14,000	\$14,000	\$10,500	\$7,000	\$8,750
State and local sales tax ⁵	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Environmental Impact Assessment ⁶	No issues	No issues	No issues	No issues	No issues	No issues	No issues	No issues	No issues	No issues	No issues	No issues
Geotechnical Studies ⁷	No issues	No issues	No issues	No issues	No issues	No issues	No issues	No issues	No issues	No issues	No issues	No issues
PPA Duration	25 years	25 years	25 years	25 years	25 years	25 years	25 years	25 years	25 years	25 years	25 years	25 years
Escalator ⁸	varies	varies	varies	varies	varies	varies	varies	varies	varies	varies	varies	varies
Portfolio size	varies	varies	varies	varies	varies	varies	varies	varies	varies	varies	varies	varies
RMI Cost Recovery Fee	\$.02/w-DC	\$.02/w-DC	\$.02/w-DC	\$.02/w-DC	\$.02/w-DC	\$.02/w-DC	\$.02/w-DC	\$.02/w-DC	\$.02/w-DC	\$.02/w-DC	\$.02/w-DC	\$.02/w-DC
Commission Year	2018	2018	2018	2018	2018	2018	2018	2018	2018	2018	2018	2018

* MVEA is contemplating either a 2 MW or a 5 MW project in vicinity of Calhan sub-station. Bidders should model prices for both project sizes.

1. Site-types are:

- Site — preferred site has been identified but is either not controlled or not fully controlled by co-op
- Sub-station — sub-station suitable for interconnection has been identified but site has not been identified
- Co-op land — site is owned by co-op or closely related affiliate to co-op

2. Land and interconnection costs are indicative based and are not based on actual studies.

3. Interconnection costs include interconnection studies, fees, and paperwork, as well as all hardware on high-side of step-up transformer (protective switches, metering and telemetry, line extensions, and any distribution system upgrades). Step-up transformer is not included in the interconnection cost, but should be covered by bidder and included in price.

4. For simplicity and consistency, assume property tax does not change over time and is \$7,000/MW-AC/year. For further details on taxation of solar projects in Colorado see Colorado Department of Local Affairs website (www.colorado.gov/pacific/dola/renewable-energy)

5. Local sales tax may apply in some jurisdictions. Assume 0% sales tax for modeling purposes.

6. Environmental impact studies have not been completed.

7. Geotechnical studies have not been completed. Developer should assume that piles can be easily driven to 12 feet depth with typical reject rates.

8. Developers will be asked to model two escalator scenarios: i) 0% escalator ii) 2.8% for 10 years followed by 0% escalator for remainder of contract. The second escalator structure is designed to track the Tri-State policy credit and to minimize any cross-subsidies between current and future ratepayers.

9. Highline owns 5 acres around Platte sub-station and has contacted landowners about acquiring additional land for solar development. For modeling purposes assume that all land must be leased at a cost of \$1,500/acre/year.

Table 5: Assumptions for Data Input Spreadsheet Tab 12 PPA Term Sensitivity

Y-W: Anton site was selected to test the sensitivity of PPA prices to PPA terms. Site was selected due to central location among all requested projects. The following assumptions should to model PPAs under a set of scenarios.

	Baseline	Scenario										
		Utility pays for land	Utility pays for inter-connect	Property Tax Waived	Basic O&M by Co-op ¹	Bad Geotech Report ²	0.5 MW Project	2 MW Project	20 Year PPA	H1 2018 C.O.D. ³	2019 C.O.D.	2020 C.O.D.
<i>Utility: Project</i>	Y-W: Anton	Y-W: Anton	Y-W: Anton	Y-W: Anton	Y-W: Anton	Y-W: Anton	Y-W: Anton	Y-W: Anton	Y-W: Anton	Y-W: Anton	Y-W: Anton	Y-W: Anton
<i>Capacity Requested (MW-AC)</i>	1	1	1	1	1	1	0.5	2	1	1	1	1
<i>Land Cost (\$/acre/year lease)</i>	\$1,500	0	\$1,500	\$1,500	\$1,500	\$1,500	\$1,500	\$1,500	\$1,500	\$1,500	\$1,500	\$1,500
<i>Interconnection Costs</i>	\$70,000	\$70,000	0	\$70,000	\$70,000	\$70,000	\$70,000	\$70,000	\$70,000	\$70,000	\$70,000	\$70,000
<i>County Property Tax (\$/year)</i>	\$7,000	\$7,000	\$7,000	0	\$7,000	\$7,000	\$7,000	\$7,000	\$7,000	\$7,000	\$7,000	\$7,000
<i>State and local sales tax</i>	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
<i>Environmental Impact Studies</i>	No issues	No issues	No issues	No issues	No issues	No issues	No issues	No issues	No issues	No issues	No issues	No issues
<i>Geotechnical Studies</i>	No issues	No issues	No issues	No issues	No issues	Code Minimum Soil	No issues	No issues	No issues	No issues	No issues	No issues
<i>PPA Duration</i>	25 years	25 years	25 years	25 years	25 years	25 years	25 years	25 years	20 years	25 years	25 years	25 years
<i>Escalator</i>	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
<i>Portfolio size</i>	15 MW	15 MW	15 MW	15 MW	15 MW	15 MW	15 MW	15 MW	15 MW	15 MW	15 MW	15 MW
<i>RMI Cost Recovery Fee</i>	\$.02/w-DC	\$.02/w-DC	\$.02/w-DC	\$.02/w-DC	\$.02/w-DC	\$.02/w-DC	\$.02/w-DC	\$.02/w-DC	\$.02/w-DC	\$.02/w-DC	\$.02/w-DC	\$.02/w-DC
<i>Responsible for Basic O&M</i>	Developer	Developer	Developer	Developer	Co-op	Developer	Developer	Developer	Developer	Developer	Developer	Developer
<i>Commission Year</i>	2018	2018	2018	2018	2018	2018	2018	2018	2018	H1 2018	2019	2020

Co-op staff provide basic O&M including washing panels and cutting grass. All other O&M (hardware replacements, etc) to be completed by developer.

² Geotech report indicates that it is not possible to easily drive piles. Ballast or alternate solution required.

³ Project AND all other projects in portfolio achieve commercial operation in first half of 2018.

Regional Portfolio:

Bidders are asked to provide prices for portfolios of up to 40 MW-AC.

- For bids for 10 MW portfolio, assume that all projects in this RFP are built, but some may be smaller than initially scoped
- For 15 MW portfolio, assume that all projects in this RFP are built as requested, but MVEA Calhan project is 3.25 MW instead of 5 MW. (When completing prices for MVEA Calhan 5 MW project in 15 MW portfolio, assume that all other projects in portfolio are slightly smaller so that total demand is 15 MW.)
- In preparing your bids for the 20 MW-AC, assume that all projects in this RFP are built, and each project is slightly and proportionately larger than initial RFP request so that total portfolio is 20 MW.
- In preparing bids for 40 MW-AC portfolio, assume that 40 MW-AC would be comprised of: i) 20 MW-AC from co-ops participating in this RFP; ii) 20 MW from twenty 1-MW projects with seven additional co-ops or munis in a region including southeastern Wyoming, Western Nebraska, and western Kansas. For consistency, assume that all of the additional sites are identical to Highline: Amitie project.

Instructions for Modeling Production for Substation Identified:

For most projects, the Co-op has identified a substation but has not identified a specific site. For those projects, the bidder should identify a suitable piece of land within one mile of the sub-station and model production in the region using that site.

Appendix C: Indicative PPA Term Sheet

This term sheet does not contain all of the terms and conditions of the proposed PPA between the Bidder and Co-ops. Final terms and conditions shall be negotiated by the Parties and only execution and delivery of the PPA shall bind the Parties. This agreement only applies to developers and would not apply to community solar service providers nor siting suppliers.

I. General	
Buyer	HEA, K.C., MPEI, MCREA, MVEA, and Y-W. Each Co-op will have an individual contract for each project with the winning Bidder (referred to as “Seller”).
Seller	Winning Bidder
Product	All electric energy produced from the project. All Renewable Energy Credits associated with such generated energy shall also accrue to the Buyer. Any other benefits of the system, including ancillary services, fall to the Buyer unless explicitly agreed otherwise.
Contract Quantity	100% of the net electrical output of the project, including all associated Renewable Energy Credits
Purchase and Sale	Seller agrees to sell and Buyer agrees to buy, at the POD the product during the Term.
Project	Description of project, construction, operation, maintenance, and decommissioning of project is Seller’s responsibility.
Environmental Attributes	Contract energy price includes all right, title and interest and to all renewable energy credits associated with each MWh of energy from the project. Project shall be registered with renewable energy tracking system WREGIS at Seller’s cost. All environmental attributes shall be issued and tracked through WREGIS and transferred to Buyer.
II. Operations, Performance, and Curtailment	
Operations and Maintenance	Seller is responsible for operations and maintenance to ensure system production, safety, and compliance with NERC and other applicable guidelines.
Curtailment Provisions/Payments	<p><i>Curtailment by Buyer for Utility Grid System service and maintenance:</i> Buyer will receive an allowable and mutually agreed upon curtailment amount of energy without payment for such curtailment due to Seller.</p> <p><i>Force Majeure:</i> Parties may be excused from performance of their obligations where prevented from doing so due to an event of force majeure.</p> <p><i>Curtailment due to System Malfunction:</i> Buyer shall have no liability to Seller in the event that the System is unable to deliver power to Buyer for any reason caused by Seller or its agents or subcontractors, including equipment failure, except to the extent caused or contributed by Buyer.</p>

Forecasting	Seller will provide annual energy forecast to buyer at least 31 days before start of new year.
Output Guarantees	80% of the projected annual energy. Below 80%, Seller must reimburse Buyer for the difference between their actual costs of replacement power and the PPA price for any under-production below the guaranteed amount. If output is below 70%, for two consecutive years Buyer may terminate PPA for default after Seller is given notice and adequate opportunity to cure.
III. Delivery/Interconnection	
Point of Delivery (POD)	High-end of step-up transformer.
Interconnection/ Transmission	Seller is responsible for interconnection costs and transmission costs to deliver energy to POD. Seller is responsible for provision of metering, SCADA and communication equipment to provide real-time and settlement data to Buyer.
Test/Excess Energy Pricing	50% of Contract Energy Price for deliveries prior to COD and for deliveries in excess of 120% of projected annual energy post COD.
IV. Timeline, Commissioning, and Operation	
Milestones	Construction start (all applicable approvals and permits secured and in place), delivery of equipment, delivery of step-up transformer, completion of interconnection facilities, synching to grid, and commercial operation
COD Deadline	December 30, 2018
Delay Damages	If Commercial Operation milestone is not achieved at 100% of expected nameplate capacity of project, Seller pays Buyer \$200/MW/day for each MW less than nameplate that has been achieved up to \$50,000/MW.
V. Term, Price, Transfer of Ownership, System Removal	
Term	Twenty or twenty-five years from commercial operation date (COD).
Contract Energy Price	Pricing for energy delivered to the POD post-COD and all associated renewable energy credits
Assignment/Change of Control/Change of Operator	Project can be assigned to third-party project financier (debt or equity) without prior notice or consent. In all other circumstances, Buyer must be informed with at least 60 days notice of any intended change in ownership.
Right of First Offer of Sale	If project is to be sold to any party other than financier (debt or equity) Seller must give Buyer first right of project purchase. Buyer must respond within 90 days to such offer. If Buyer does not wish to purchase the project, Seller may offer the project on no more favorable terms and conditions to a third Party.
Option to Purchase	Seller grants Buyer exclusive option to purchase project during the term at fair market value. Seller will provide fair value purchase options as part of PPA bid package.
System Removal at	If Seller does not transfer ownership to Buyer, Seller is responsible

Expiration	for removing the system at the end of PPA. Seller or designated party shall remove the System and System Assets from the Premises at System Owner's expense within one hundred twenty (120) days after the expiration of the Term. To the extent that System Owner removes any or all of the System and System Assets, System Owner shall make or have made any repairs to the Premises to the extent necessary to repair any adverse impact such removal directly causes to the Premises.
VI. Legal/ Risk	
PPA Contract	PPA may be executed on contract provided by Co-op or contract provided by bidder as long as contract includes all pre-specified and mutually agreed upon terms.
Governing Law	PPA shall be governed by the laws of Colorado.
Termination/ Remedies	Upon the occurrence of an event of default, the non-defaulting Party may declare a date upon which PPA will terminate after reasonable notice and cure period. <u>If Seller defaults:</u> Seller shall be liable for replacement costs of product. Buyer will have right to purchase and operate system. If Buyer does not elect to buy the system then Seller must remove the system.
Force Majeure	Standard force majeure provisions including exceptions for events or circumstances that are not considered force majeure
Insurance	Seller is responsible to maintain insurance on the system and satisfy certain minimum insurance requirements.
Security Amount and Form	\$50/kW from PPA Effective Date until COD; \$150/kW thereafter. Letter of Credit from a qualified issuer or a cash escrow account in favor of Buyer OR Construction bond in lieu of security OR Parent company guarantee in lieu of security.
Regulatory and Environmental Complicance	Except with respect to governmental approvals, licenses and permits that may be required to allow Buyer to perform its obligations, and except with respect to such permit fees that are waived by Buyer, Seller shall secure and maintain at no cost to Buyer any and all governmental approvals, permits (including environmental permits), licenses, easements, rights-of-way, releases and other approvals necessary for the construction, maintenance and operation of the System. The above paragraph will be null if Buyer and Seller agree to utility-led permitting.

Appendix D: Term Sheet for Memorandum of Understanding Between RMI and Winning Developer(s)

The following term sheet outlines terms to be included in a memorandum of understanding between RMI and the selected developer(s). MOU agreement should be executed prior to power purchase agreements being signed with Co-ops.

I. RMI Responsibilities	
After RFP but before PPAs signed	<ul style="list-style-type: none"> - Provide tools and advice to support co-op decision-making. - Provide presentations to Co-op staff and boards. - Facilitate communication between Co-ops and developer. - Work with developer and Co-ops to refine pricing. - Support Co-ops and co-op attorneys in contracting/ negotiation.
After PPAs have been signed	<ul style="list-style-type: none"> - Monitor vendor and project performance. - Intervene on behalf of co-op as needed.
II. Vendor Responsibilities	
After RFP but before PPAs have been signed	<ul style="list-style-type: none"> - Provide open and transparent communication with RMI, Co-op staff, and Co-op boards. - Lead project development and PPA contracting.
After PPAs are signed but before projects are commissioned	<ul style="list-style-type: none"> - Update RMI on development activities and challenges - Allow RMI to monitor construction and site preparation activities
After projects are commissioned	<ul style="list-style-type: none"> - Provide RMI access to 15 minute increment system performance data by providing RMI a login to the monitoring platform or through API access.
III. Joint Commitments	
Joint commitments	<ul style="list-style-type: none"> - Meet regularly to discuss Co-ops' needs and required actions. - Work together for projects related to this RFP through December 31, 2018
IV. Payment	
Amount and milestones	<ul style="list-style-type: none"> \$.005/W-DC at PPA signed \$.015/W-DC at on-site commencement of construction
Timing of payment	Payment is to be received by RMI within 30 days of milestone achieved per project
V. Disclosure and Press/ Media	
RMI right to disclose commercial terms in press release	RMI retains the right to disclose commercial terms in a press release. These terms may include: price rounded up to the nearest whole number; PPA duration and escalator; details on utility-role in supporting development; presence or absence of local incentives
Confidentiality and non-disclosure	Beyond the disclosures protected in press release, RMI agrees to protect confidentiality by not disclosing additional details on the project or vendor

Appendix E: Scenarios and Scopes in RFP

Table 6: Summary of Excel Spreadsheet Tabs to be Completed by Vendor Scope

	Developer (S1)	C.S.S.P.	Developer (S2)	Siting Supplier	Developer (S3)
<i>1. Intro</i>					
<i>2. Company</i>	X	X	X	X	X
<i>3. References</i>	X	X	X	X	X
<i>4. Experience</i>	X		X		X
<i>5. Delivery Method</i>	X		X		X
<i>6. Products</i>	X		X		X
<i>7. Schedule</i>	X		X		X
<i>8. PPA Terms</i>	X		X		X
<i>9. MOU</i>	X		X		X
<i>10. S1 Price</i>	X				
<i>11. S1 Sensitivity</i>	X				
<i>12. CSSP Qualifications</i>		X	X		
<i>13. CSSP Services</i>		X	X		
<i>14. S2 Price</i>			X		
<i>15. Site Supplier</i>				X	
<i>16. S3 Price</i>					X
<i>17. Feedback</i>	0	0	0	0	0
<i>18. Battery Storage</i>	0	0	0	0	0
<i>19. Additional</i>	0	0	0	0	0

X – mandatory for scope

0 – optional for scope

Appendix F: Contact with Landowners

To avoid a land rush or other outcomes that are contrary to the desires of the Co-ops, bidders are asked to refrain from contacting landowners in responding to this RFP. RMI recognizes that some bidders may have pre-existing relationships with landowners and that bidders should not be disqualified for pre-existing relationships.

Bidders are however required to disclose those pre-existing relationships by completing the following document.

Instructions: Please disclose any discussions regarding land lease or purchase that occurred within the past 18 months with landowners in the vicinity (i.e. within two miles) of the identified substations. Disclosures should respond to the questions below and must be received in conjunction with bidder's notification of intent to participate in RFP. Disclosures should be emailed to kbrehm@rmi.org.

1. Please summarize previous contact with landowners in the region.
2. Where are the sites located?
3. What agreements have been made or are pending?

RMI may follow up to better understand the nature and level of maturity of these relationships.

Appendix G: Bidder Acknowledgement and Consent

All bidders responding to the developer scopes of work (S1, S2, S3) are requested to initial, sign and submit a scanned copy of this page along with their RFP submittal.

Name of Organization ("Bidder"): _____

1. Bidder acknowledges and consents to terms and instructions listed in the body of this RFP document (sections 1, 2, and 3)

(Initial)

2. Bidder agrees to 2.1.6 of this RFP (*non-contact with landowners*), and if Bidder has had previous contact with landowners, then bidder has disclosed nature of those relationships as instructed in Appendix F.

3. Bidder agrees to 2.1.7 of this RFP (*RMI cost recovery and non-circumvention*).

4. Bidder has faithfully modeled and submitted firm prices using the assumptions provided by RMI and Co-ops. Wherever assumptions have not been provided, Bidder has used realistic assumptions that are consistent with expected costs and constraints.

5. Bidder has reviewed indicative PPA term sheet (Appendix C) and either consents to all terms or has provided comments on proposed terms in Excel spreadsheet.

6. Bidder has reviewed memorandum of understanding term sheet between RMI and winning vendor (Appendix D) and either consents to all terms or has provided comments on proposed terms in Excel spreadsheet.

(Signature)

(Date)