MEMORANDUM OF UNDERSTANDING
BETWEEN PITKIN COUNTY AND
THE ROARING FORK TRANSPORTATION AUTHORITY AND
HOLY CROSS ENERGY

1. Memorandum of Understanding (MOU)

is entered into as of the _____date___, 2024 for the Aspen Airport Business Center Integrated Microgrid (Microgrid) Project, Economic, Ownership, and Administrative Framework entered into by and among Pitkin County (County), the Roaring Fork Transportation Authority (RFTA), and Holy Cross Energy (HCE), and jointly referred to as the "Parties."

2. Purpose

The Microgrid Project proposes to construct an Integrated Microgrid that encompasses the Roaring Fork Transportation Authority (RFTA) Aspen Maintenance Facility (AMF), the Pitkin County Public Works Facility (PitCo PW), and the Aspen/Pitkin County Airport (Airport). This MOU will memorialize the Design and Construction Process agreements, Ownership of Assets, and Operational Relationships between HCE, RFTA, and the County for the Microgrid.

The County, RFTA, and HCE provide critical services to the citizens and visitors of Pitkin County during black sky events (defined in section 9). The Lake Christine Fire exposed significant vulnerabilities in public infrastructure and this project seeks to build resiliency for these core services, while simultaneously building a clean energy system for some of the highest energy consumers in the County. The Microgrid aims to create a regionally resilient and 100% clean energy system that balances production, storage and distribution across three distinct public facilities, generates additional clean energy to the community and creates a model for net-zero, resilient public facilities across the state.

The County desires to increase resiliency and support the use of local renewable energy resources by entering into an agreement with RFTA and HCE to partner in the planning, design, construction, ownership, operation, and maintenance of an integrated microgrid. The County owns and operates the Pitkin County Public Works Facility located at 76 Service Center Road, Aspen, CO and the Aspen/Pitkin County Airport at 0233 E. Airport Rd. The County wishes to have both facilities resiliency bolstered and greenhouse gas emissions improved by inclusion in the AABC Integrated Microgrid. . **Pursuant to a lease with Pitkin County, RFTA** operates the Aspen Maintenance Facility located at 51 Service Center Road, Aspen, CO and RFTA wishes to have that facility's resilience bolstered by inclusion in the AABC Integrated Microgrid. Each entity shall own, operate, maintain, and agree to cooperate and manage the system to the benefit of the public.

3. Authorities

Pitkin County Manager
Jon Peacock

530 E. Main Street, Suite 302
Aspen Colorado, 81611
Email: jon.peacock@pitkincounty.com

Holy Cross Electric Chief Executive Officer
Bryan Hannegan
3799 HWY 82
P.O. Box 2150
Glenwood Springs, CO 81602-2150
Email: bhannegan@holycross.com

Roaring Fork Transportation Authority Chief Executive Officer
Dan Blankenship
2307 Wulfsohn RD
Glenwood Springs Colorado 81601
Email: dblankenship@rfta.com

4. Statement of Mutual Interests, Benefits and Considerations

As part of the Holy Cross electrical distribution system, the microgrid is based on various controllers, smart switches, reclosers and will include up to three Battery Energy Storage Systems (BESS) with associated low voltage switches and transformers. The following sets forth the statement of mutual interest, Benefits and Considerations, as well as memorializing the work accomplished to date. This MOU will represent the completion of Task 5 setting in place the economic, ownership and administrative framework leading up to Task 5, the following has been completed.

5. Feasibility

A feasibility study was conducted with these same stakeholders. Tasks 1 thru 4 were completed between 2019 and 2021. This MOU will memorialize the relationship between the entities conceptualized in the feasibility study. The Tasks were:

Task 1) Site Assessment of existing infrastructure and energy usage
Task 2) Evaluation of potential energy conservation measures for each facility
Task 3) Establish an energy box based on facilities - the energy needs of all facilities including the solar farm, RFTA's AMF, Airport and the PitCo PW
Task 4) Identification of the Clean Energy System - microgrid and a heating district
Task 5) Economic, ownership, and administrative framework, memorialized with this MOU

6. The County Shall:

Coordinate regular meetings among the stakeholders to develop the design and administer grants and:

a. Design

i. Design and RFP documents for BESS

ii. Preliminary Design Documents for Future Solar at Pitkin County Public Works and Roaring Fork Transportation's Aspen Maintenance Facility

iii. Civil Site Work on Pitkin County Property adjacent to the Animal Shelter to house the Low Voltage Switchgear, BESS isolation transformer and BESS

b. Entitlements

i. Any needed entitlements to complete the improvements needed for the first BESS and Public Works Solar and any other improvements to be completed that will be owned by the County.

ii. It is not anticipated that other entitlements will be needed for phase 1. If so each entity will be responsible for their respective pieces.

c. Construction

The County will be responsible for construction, installation and commissioning of:

i. BESS yard including all appurtenances

ii. Installation and commissioning of BESS

d. Ownership

The County will install, own, maintain, and operate:

i. Existing 104 kWdc Solar PV array at the County's Public Works Facility operating under a preceding generation tariff agreement between the County and HCE which was memorialized in 2017.

ii. 1.5MW BESS with approximately 2 MWH (expandable to 8MWH)

iii. The property which the BESS and ancillary equipment will be located on property owned through the Aspen/Pitkin County Airport

7. <u>Holy Cross Shall:</u>

a. Design, specification and review of:

i. Loading profiles

ii. Transformer inrush evaluations

iii. Review of BESS Specifications

iv. Review of electrical one-lines and communications one-lines

v. Documentation and final report

vi. Startup and Commissioning plans

vii. Master Microgrid Control Panel

viii. Microgrid Field Control Devices

ix. Configuration of all SEL equipment

x. AC Protection system modeling and coordination

xi. Any needed switches and

xii. BESS isolation transformer (1600kVA)

xiii. Low Voltage Switchgear

xiv. 630 V low voltage switchgear

b. Entitlements

i. Any needed entitlements associated with work associated with HCE's work on the microgrid

c. **Construction**

HCE will be responsible for construction, installation and commissioning of:

i. Master Microgrid Controls (SEL Garrison)
ii. Microgrid Field Controls on the HCE Grid
iii. Multiple (as needed) SEL Software-Defined Network Switches
iv. Replacement of existing switchgear (2) with microgrid controllable switchgear
v. Recloser installation (2)
vi. Retrofit of controls for the existing 5 MW solar farm
vii. Fiberoptic communication network between all microgrid components

d. **Ownership**

Purchase, install, own, maintain, and/or replace, operate:

i. 1600 kVA isolation transformer associated with the BESS
ii. Low Voltage Switchgear and relays
iii. Microgrid controllable Switchgear (2)
iv. Supervisory Control and Data Acquisition (SCADA)
v. 3 phase Viper recloser
vi. 1 phase Viper recloser
vii. Fiber Optic Lines needed for communications between microgrid equipment
viii. SEL Garrison Controllers and Relays
ix. Multiple (as needed) SEL Software-Defined Network Switches
x. Other equipment located on the grid side of the system needed to operate the microgrid

8. Roaring Fork Transportation Authority Shall:

Purchase, install, own, maintain, and operate, as feasibility, priorities, and funding allow:

a. Future approximate 300 kW PV array at the AMF facility
b. Future approximate 1.5MW 8MWH BESS

9. The Microgrid Operation

The microgrid operations shall be overseen by **HCE**, with coordination and communication with PitCo and RFTA. These operations include but are not limited to activation, deactivation, or maintenance. The microgrid may operate in three distinct configurations. These are defined below as Black Sky in the Large Island, Black Sky in the Small Island, or Blue Sky Operations

Black Sky Operations

The microgrid shall be established when the grid, cannot supply power to the portion of the power grid containing the PitCo PW, RFTA AMF, and the Airport facilities. All entities shall work to prioritize loads on the microgrid to ensure the system is not overloaded and operations of each facility are met for the duration of the available battery storage. Each entity shall designate a person to aid in managing loads for their respective facilities. If the

issue that creates the need for the microgrid to be formed is declared an official incident, decisions will be made collaboratively between the three entities based on how to best respond to whatever event has precipitated the activation of the microgrid. Representatives will be determined by the chief executive officer of each entity that is a party to this MOU. If at such time an incident is established in a formal structure such as with an incident management team, the emergency manager or incident manager should be engaged regarding priority between facilities being powered by the microgrid and/or at what level. There may be a time when a facility is cut from the microgrid and a legacy generator is used.

a. **Large Island -** If the microgrid is established and the 5 MW Pitkin Solar Farm is operational and creating power, the microgrid shall be powered by the Pitkin Solar Farm as the main power source, with any additional power delivered by onsite solar and the BESS. Pitkin Solar Farm will also recharge the BESS when in this configuration
b. **Small Island -** If the microgrid is set up and the 5 MW Pitkin Solar Farm is non-operational, the microgrid shall be powered by the BESS and by any onsite solar power located within the Small Island. The Small Island is defined as the areas containing the PitCo PW, RFTA AMF, and Airport, along with the BESS and other metered facilities between the Libby Switchgear and the McLain Flats Switchgear
c. **Taking Facilities Offline -** There may be events that will best serve all entities to have one or more facilities operate their respective legacy generator systems, at such time that entity must switch their facility off of the microgrid.

Blue Sky Operations

Blue Sky Operations are when the grid is functioning in a normal, “every day” type operation. The BESS may participate in a distribution tariff system with HCE. This arrangement will be made for each BESS during its commissioning between the owner and HCE. Additionally, each entity's solar facilities shall function as normal, “every day” operations. Each solar facility shall have its own operating agreement with HCE.

10. The Microgrid Maintenance

It is expected that routine maintenance will be undertaken by each entity on the pieces of equipment listed in the Ownership section above. **Each entity** shall be responsible for the costs associated with the upkeep for their equipment, if at some time, equipment needs to be replaced, taken offline, or another action that will affect the operations of the microgrid, notice shall be sent to all parties.

11. The Microgrid Ownership

The assets identified in Paragraph 6, 7, and 8 above will be procured and installed during the project by the party responsible for doing so. Each asset will be owned by the individual entity that procured the asset. All of the assets need to be integrated together to operate the microgrid and will operate as a cohesive system. The amount of generation and storage

is designed to be modularly expanded. The parties to this MOU will each follow their entities procurement and best practices to procure its elements of this system

12. Project Funding and Cash Flow

Funding has been dedicated by each entity through their organizations budgeting and funding processes. Additionally, two State of Colorado Department of Local Affairs (DOLA) grants have been secured by Pitkin County. The first was secured to perform a feasibility study which developed the concept for this project. The final task of this study is the development and execution of this MOU.
The second grant is the DOLA RNEW and was secured to provide funding for Phase 1 as outlined in the Project section of this agreement.

a. **DOLA Grants.** County shall be responsible for administering the grants through DOLA and will file reports, claim reimbursements, and complete any other administrative tasks necessary to administer the grants.
b. **County** shall invoice HCE and RFTA for their portions of the project funding minus any outstanding project related expenses.
c. **County** shall reimburse HCE the difference for equipment costs if HCE's expenses exceed that of its contribution to the project.
d. Phase 1 of this project is to be funded by **Pitkin County, HCE, and RFTA** and a State of Colorado, DOLA RNEW Grant:

2023 Appropriations:

DOLA RNEW:	$1,700,000
County - Airport:	$ 500,000
County - General Fund:	$1,077,500
HCE	$ 213,750
RFTA	$ 213,750
Total:	**$3,705,000**

2024 Appropriations:

County - General Fund:	$ 400,000
County - REMP Fund:	$ 500,000
HCE	$ 286,250

13. Future Phases

Future Phases will be designed to accommodate the available budget for that phase. Phase 1 design is being undertaken in such a way to facilitate various aspects of the future phases such as the infrastructure needed to expand BESS 1, and the 30% design for BESS 2 and 3 in addition to the 30% design documents for solar PV at the PitCo PW Facility and RFTA AMF. The project has been contemplated with BESS 2 and 3 being 1.5 MW up to 8 MWH BESS at the Airport and the RFTA AMF, with exact locations to be determined. Also, at full build out the PitCo PW Facility would have ~ 100 KW of additional solar PV and the RFTA AMF would have ~ 300 KW of additional solar PV. No single entity

shall be mandated to build future phases as lined out in this document, however, continued participation as described below in the ownership, operation, and maintenance portions of this document are critical to the success of the project. Any entity undergoing a phase considered herein shall notify and work with all project partners to complete its execution.

14. Other Agreements

- **a.** Separate agreements for the BESS to participate in a distribution tariff system with HCE will be made during that piece of equipment's commissioning. This arrangement will be made for each BESS during its commissioning between the owner and HCE.
- **b.** Each entity's solar facilities shall function as normal, "every day" operations. Each solar facility shall have its own operating agreement with HCE

15. Effective Date

The "Effective Date" of this Agreement shall be the date upon which the last party signs this Agreement.

16. Termination

Except as otherwise provided herein, this Agreement shall only be terminated upon ninety (90) days written notice of one party to all the other parties included herein. Upon any termination of this Agreement, the Members hereto shall have no liability to each other hereunder, except for liabilities, if any, accrued on or prior to the date of termination.

17. No Waiver of Governmental Immunity

The County and RFTA and their directors, officials, officers, agents, and employees are relying upon and do not waive or abrogate, or intend to waive or abrogate by any provision of this Agreement the monetary limitations or any other rights, immunities, or protections afforded by the Colorado Governmental Immunities Act, C.R.S. § § 24-10-101, et seq., as it may be amended from time to time.

18. Modification

No provision or term of this Agreement may be amended, modified, revoked, supplemented, waived, or otherwise changed except by a written instrument duly executed by the parties hereto or the parties' successors and/or assigns.

19. Notice

Any notice required or permitted under this Agreement shall be in writing and shall be provided by electronic delivery to the e-mail addresses set forth below *and* by one of the following methods 1) hand-delivery or 2) registered or certified mail, postage pre-paid to the mailing addresses set forth below. Each party by notice sent under this paragraph may change the address to which future notices should be sent. Electronic delivery of notices shall be considered delivered upon receipt of confirmation of delivery on the part of the sender. Nothing contained herein shall be construed to preclude personal service of any notice in the manner prescribed for personal service of a summons or other legal process.

Copy to:

Pitkin County Manager
Jon Peacock
530 E. Main Street, Suite 302
Aspen Colorado, 81611
Email: jon.peacock@pitkincounty.com

With a copy to:
Pitkin County Attorney's Office
530 East Main St., Suite 301
Aspen, Colorado 81611 Aspen, Colorado 81611
Email: attorney@pitkincounty.com

Roaring Fork Transportation Authority
Attn: Chief Executive Officer
Dan Blankenship
2307 Wulfsohn RD
Glenwood Springs Colorado 81601
Email: dblankenship@rfta.com

With a copy to:
RFTA General Counsel
2307 Wulfsohn RD
Glenwood Springs Colorado 81601
ptaddune@rfta.com

Holy Cross Electric
Attn Chief Executive Officer
Bryan Hannegan
3799 HWY 82
P.O. Box 2150
Glenwood Springs, CO 81602-2150
Email: bhannegan@holycross.com

This Memorandum of Understanding was approved by the _____
at its regular meeting held on the ____ day of _____, 2024

In Witness whereof, the parties hereto have caused this agreement to be executed as of the day and year first above written.

APPROVED AS TO FORM:

_____

ATTEST:

_____ BY: _____

Sam Engen, County Clerk Francie Jacober, Chair

APPROVED AS TO FORM:

_____ _____

John Ely, County Attorney Jon Peacock, County Manager

By: _____ ATTEST:_____
Bryan Hannagen Holy Cross CEO

By:_____ ATTEST:_____
Dan Blankenship RFTA CEO