

STATE OF SOUTH DAKOTA
BEFORE THE
PUBLIC UTILITIES COMMISSION

In the matter of the Petition of Gevo Net-Zero 1, LLC to have Kingsbury Electric Cooperative, Inc. Assigned as its Electric Provider in the Service Area of Otter Tail Power Company))))))	Consolidated Docket Nos. EL24-024 and EL24-025
In the Matter of the Petition of Dakota Renewable Hydrogen, LLC to Have Kingsbury Electric Cooperative, Inc. Assigned as it's Electric Provider in the Service Area of Otter Tail Power Company)))))	

PRE-FILED INTERVENOR TESTIMONY
OF EVAN BUCKMILLER

ON BEHALF OF KINGSBURY ELECTRIC COOEPRATIVE, INC.

Q: Please state your name and business address for the record.

A: Evan Buckmiller. My business address is 511 Hwy. 14 West DeSmet, SD 57231.

Q: Please state your title and responsibilities.

A: General Manager for Kingsbury Electric Cooperative, Inc. (KEC"). I am responsible for the Operations of the cooperative and oversee 9 employees to ensure safe, reliable power to our members.

Q: Have you attached a resume or CV?

A: Yes. See Exhibit marked K-1.

Q: What is the purpose of your direct testimony?

A: To provide testimony regarding KEC's ability to provide retail power and construct reliable transmission and infrastructure in conjunction with East River Electric Cooperative, Inc. ("East River") to serve the energy needs of Gevo Net-Zero 1, LLC ("NZ1") and Dakota Renewable Hydrogen, LLC ("DRH"). This will include addressing the requirements of SDCL 49-34A-56, explaining the relationship between KEC, East River, Basin Electric Power Cooperative ("Basin Electric"), KEC's rates relevant to serving the energy needs of NZ1 and DRH, financial impacts of the costs associated with serving their respective loads and to support NZ1 and DRH concerning their petitions to have KEC assigned as it's electric provider in the service area of Otter Tail Power Company ("OTPC") and the Western Area Power Administration ("WAPA"). I incorporate herein KEC's to Intervene filed in each of the above dockets.

Q: What is the relationship between KEC, East River, and Basin?

A. East River, KEC and Basin Electric are part of a three-tiered cooperative power supply network. KEC is a member-owner of East River, and East River is a member-owner of Basin Electric. KEC has one board representative on East River's board, and East River has one board representative on Basin Electric's board. Basin Electric generates power from a mix of generation sources including coal, natural gas, wind, solar, hydropower, recovered energy, oil/diesel/jet fuel and market purchases. Basin Electric's maximum winter generating capacity is 8,112 megawatts. At the end of 2023, Basin Electric operated 5,217 megawatts of wholesale electric generating capacity and had 8,112 megawatts of generating capacity within its resource portfolio. Basin Electric and WAPA deliver power over high-voltage transmission lines to delivery point substations where it sells that power at wholesale to East River. East River owns approximately 260 substations which contain transformers that step down voltage to 115 kV or

69 kV and delivers power across its over 3,300-mile transmission system to distribution substations. KEC takes delivery from East River substations and steps down voltage to levels at which it can be used in homes, on farms or in businesses across eastern South Dakota and western Minnesota.

Q: Tell us a little more about KEC:

A: Kingsbury Electric Cooperative is an electric cooperative located in east central South Dakota serving the majority of Kingsbury County since 1948. We are made up of approximately 1,000 member owners and have a peak load of 7,000kw-7,400kw. Kingsbury Electric consisted of six elected board members elected by the membership. Kingsbury Electric Cooperative maintains over 600 miles of overhead and underground line. Currently Kingsbury Electric Cooperative is experiencing significant load growth with large dairy and hog facilities located in our service territory.

Q: Do you have a map of Kingsbury's territory?

A: Yes.

Q: How will KEC serve the energy needs of NZ1 and DRH?

A: Pursuant to a wholesale power contract East River sells and delivers to KEC and KEC purchases and receives from East River, all electric power and energy that KEC requires to serve all of KEC's electric loads. East River will deliver wholesale power to KEC and KEC will deliver retail power to NZ1 and DRH. NZ1 and DRH intend to purchase power from KEC via a large load rate. The large load rate recognizes the competitive nature of large end use loads while recovering power supply and investment costs associated with these loads. The rate is set at power supply cost plus other system costs, which recovers maintenance, administrative expenses, and other system-wide costs. The large load rate is subject to periodic review by the KEC Board

of Directors and can be modified to reflect the cost of operations and/or changes in wholesale rates.

Q: What effect, if any, will KEC serving NZ1 and DRH have on KEC's existing customers' rates, East River's existing customers' rates, and Basin's existing customers' rates?

A: East River and KEC rates are designed to recover costs directly associated with the load and system-wide shared costs. Adding loads the size of NZ1 and DRH will decrease the system cost recovery on other rate classes.

Q: What happens if there is rate recovery above cost, or margins due to the large load additions?

A: Rate recovery above cost, or margins, collected by cooperatives are used to supplement short-term capital needs and are returned to members over time.

Q: Q: Will KEC's and East River's cost to serve NZ1 and DRH be an economic detriment to their customers.

A: No. The cost to serve is anticipated to be beneficial in the long run for the members.

Q: Briefly explain the history between East River, KEC, NZ1, and DRH.

A: East River and KEC provided a bid for electric service for the NZ1 project in April/May of 2021 on the initial project. East River and KEC were informed that NZ1 had selected OTPC to serve the NZ1 project. In May 2023 we were contacted by the project to reenter negotiations because the parties could not come to terms for electric service. East River and KEC resubmitted a proposal in May 2023 and executed a term sheet in August of 2023 for electric service. NZ1 and DRH executed KEC Large Load Applications for Membership and Electric Service August of 2023 and March of 2024, respectively. Contribution in Aid of Construction Agreements were

executed in March of 2024 and Electric Service Agreements were negotiated in the last quarter of 2024.

Q: Are you familiar with the power requirements of NZI and DRH?

A: Yes. They have shared their power requirements with us. The electric service to each shall be firm, NZ1's electric demand will be 40-45 MW at a 90% load factor, and DRH's electric demand will be 20-25 MW with an expected demand of 90% load factor. The details of both respective power requirements are set out in Pre-Filed Direct Testimony of Ronald Borchardt, Vice President of Project Engineering for Gevo, Inc. and NZI and Clay Norrbom, President of Zero6 Energy Inc. and the Managing Member.

Q: Will NZ1 and DRH have a contracted minimum demand of two thousand kilowatts or more?

A: NZ1 and DRH each have negotiated with KEC an Electric Service Agreement ("ESA") that requires KEC to supply electric demand not to exceed 49 MW and 25 MW respectively. In addition, NZ1, DRH and KEC have agreed to with East River's consent to include in each of their ESAs the following provision: Minimum Demand. Notwithstanding the Customer's requirements for kW demand or use of kWh energy, the demand for billing purposes hereunder shall be not less than 2,000 kW for any billing period. The contracted minimum demand requirement for the reasons stated above and/or in their respective petitions and pre-filed testimony filed in each of these consolidated dockets incorporated herein.

Q: Has the KEC Board approved the ESA's for NZ1 and DRH?

A: Yes.

Q: Will there be an adequate power supply available to NZ1 and DRH?

A: Yes. Basin Electric, East River's primary source of power will fulfill NZ1's and DRH's demand and energy requirements by using Basin Electric generation and/or market purchases. The wind farm is being designed to provide the amount of electrical energy required by the NZ1 Project on a net-monthly basis, with KEC as the contracted electric supplier and electric transmission provided by East River. When the wind farm produces more energy than can be consumed by the NZ1 Project, the wind farm will export any such excess energy in accordance with its interconnection and related agreements. When the wind farm is not producing energy, the NZ1 Project will be receiving grid energy based on its retail electric service agreement from KEC and will be subject to whatever generation resource mix KEC receives from its generation provider. NZ1 and DRH will be provided firm capacity for the entire load with the capacity requirement for the project from Basin Electric. According to the 2024 SPP Resource Adequacy Report Basin Electric has a total capacity of 4,216 MW, a net Peak Demand of 3,482.4 MW, a resource adequacy requirement of 4,004.7 MW and an excess capacity of 211.3 MW resulting in a LRE planning reserve margin of 21.1%.

Q: Can you describe the developments and improvements to be undertaken by KEC and East River to provide electric service to DRH and NZ1?

A: Yes. KEC and East River will design, construct and install, or cause to be designed, constructed and installed, all service delivery facilities to a demarcation point of interconnection with NZ1 and DRH at a switch on the 34.5 kV bus reasonably necessary to provide service to each of them. East River will add and upgrade its transmission system including a new substation on the site to the extent reasonably necessary to meet the initial peak capacity requirements of 65 MW for NZ1 and DRH. KEC and/or East River will own, operate and maintain the facilities once installed. All revenue metering will be provided by KEC.

KEC and East River entered into separate Contribution in Aid of Construction (CIAC) Agreements with NZ1 and DRH that contain details of the developments and improvements. The developments and improvements are subject to change as final design is not completed. Exhibit 5 of NZ1's depicts a diagram of East River's upgrade plan. The plan includes the rebuild of facilities along with a conversion from 69 kV to 115 kV for three sections of the East River system from the Carpenter substation to the Kingsbury County substation (across the road from the project location), Arlington substation to Kingsbury County substation, and VT Hanlon substation to Kingsbury County substation. The transmission plan is detailed in the Kingsbury County Substation Request Transmission System Study as "Option 2."

Q: Can you describe the timing of the improvements you have identified above?

A: It will take approximately 56 weeks to construct and install the substation from the date of commencement of construction. The substation will be ready to serve load approximately 56 weeks from the date of commencement of construction. It will take approximately 136 weeks to construct and install the transmission system from the date of commencement of construction.

Q: Can you describe the economic factors related to the development and improvements?

A: I can describe some. East River is in a better position to describe the economic factors associated with the transmission buildout. The transmission buildout cost to KEC is minimal. Economic factors relevant to KEC pertain in part to significant new growth. NZ1 and DRH operating as part Gevo will provide a projected 695,000 tons of animal feed and protein annually as well as 34mm pounds of low carbon corn oil. The corn basis for the region is estimated to improve 20 to 25 cents. Job creation is significant with 90 full time jobs at NZ1 and an additional 15 at the wind farm. During construction over three years an estimated 1500 full

time jobs will be created. Housing development and ancillary business creation will impact mutual municipalities. The regional economic impact is projected at over 250 million annually. This project will be the largest capital investment in South Dakota history impacting all of South Dakota for the future.

Q: Will NZ1 and DRH pay their share of East River's transmission buildout that isn't covered under the CIAC agreement?

A: Yes, NZ1 and DRH will pay for their share of the transmission buildout which is included in the rate recovery of system-wide costs. The cost is recovered on both the demand and energy charges. Costs attributable directly to the new load will be recovered from NZ1/DRH at cost. Some of the transmission investment will be includable in SPP and the return on investment for those assets is specified in the East River Annual Transmission Revenue Requirement (ATRR) template filed with SPP and FERC, a public document. The portion of transmission that is not directly attributable to the load or that is not includable in SPP will be recovered through East River and KEC rates at cost.

Q: Will the proposed build-out to serve NZ1 and DRH duplicate utility infrastructure or otherwise be excessive?

A: No, it won't. There isn't adequate utility infrastructure to provide service to the NZ1 and DRH/Project now. Anyone that serves their loads will have to build millions of dollars in additional transmission and related infrastructure to adequately serve them at this location. East River can better answer this question as to additional transmission and infrastructure and that is their role in the project. As it relates to KEC this project does not require overbuild or provide any unnecessary duplication of facilities. The proposed upgrades will provide support for new loads anticipated in KEC service territory. In addition to the NZ1 and DRH load, additional

dairy load and digester loads are being considered in Kingsbury County. New dairy loads are expected to be in the 8.5 to 10 MW range with new digester loads up to 7.5 MW. The most certain dairy loads are in western

Kingsbury County with an additional dairy expected in southeast Kingsbury County.

Q: Did East River perform any studies on the proposed load additions to East River's transmission system?

A: Yes. East River can provide you the details of the study and the process.

Q: Will NZ1's or DRH's energy needs be given priority over KEC's other customers in the event of an energy shortfall on the transmission system?

A: The SPP Balancing Authority decides when an energy emergency is entered into and if and how much a load shed is needed to maintain compliance. KEC does not dictate when load shed occurs nor how much. East River has developed a load shed procedure to work with the Transmission Operator in the event of an energy shortfall on the SPP transmission system. NZ1 will be treated in the plan in a similar manner to other industrial firm loads member consumers within the East River system.

Q: Does this conclude your pre-filed written testimony?

A: Yes.

Dated this ____ day of November, 2024

Evan Buckmiller