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**Energy and Technology Committee**

**Governor's Bill No. 882 - AAC Climate Change Mitigation and Home Energy  
RB No. 952 - AAC Certain Solar Energy Projects  
RB No. 6523 - AAC Virtual Net Metering Credits for Manufacturers**

**Testimony of Duncan S. Broatch, Sole Member/Manager**

I am pleased to provide the following testimony on behalf of Summit Hydro, LLC; a Connecticut company building, operating and maintaining hydroelectric projects since 1983.

Connecticut's energy supply is 40% nuclear, 55% gas, 5% renewable. The 5% renewable portion is 37.5% solar, 37.5% biomass/trash, 25% hydro.

Hydro is the oldest, most proven, most widely used, most efficient (92% overall) renewable in the world. Connecticut's industry was built on hydro at the many mills dotted along our rivers. Many still operate today providing a reliable supply of carbon free, renewable electricity.

However, many of the 30 operating hydro's in CT are at risk of shutting down due to low energy purchase rates. There are currently no programs in CT that serve existing hydro. Thus, many are on Rate 980 which is the Locational Marginal Price (LMP) ISO spot market or avoided cost, last year averaging only about 2 cents/kWh.

To put things in perspective:

I own and operate the 100 kW Dayville Pond Hydroelectric Project which I spent 1.5 years rebuilding and putting (back) on line in 1995. It's DPUC approved long term power contract has expired and now it receives Rate 980. Last year the average price paid for its energy was 2 cents/kWh resulting in a gross revenue of only \$7000.00. From this I paid expenses of insurance, operator labor, maintenance, improvements, and relicensing budget resulting in a loss of over \$8,000.00. These existing hydro projects need and deserve better energy purchase rates.

In terms of Renewable Energy Credits (REC's) existing hydro used to qualify for Class II. But on 10/4/17 PURA's Docket 03-12-13 suddenly and unexpectantly revoked Class II qualification from all hydro leaving just trash-to-energy facilities to qualify as Class II.

Connecticut is far behind in terms of allocating hydro. Other New England states offer programs such as net metering for existing hydro. To fix this oversight we need to modify and pass the subject Bills to include hydro in the existing Net Metering programs. would help to level the playing field for renewables in CT.

It is a requirement that hydro projects in the US must be licensed by FERC. The licensing procedure is an exhaustive multi-agency process. A typical License term is 40 years thus many are going through the expensive relicensing process now. New licenses contain requirements that impose significant civil and operational costs including dam safety and environmental improvements (such as fish ladders).

Many cannot afford these improvements. If these projects shut down the FERC regulation disappears, and the dams pose a higher safety risk. In addition, the environmental improvements, including fishways, will not be built. It is in the best interest of CT citizens to provide reasonable support for these FERC licensed hydro projects, so they are not shut down and they continue to generate renewable energy under the regulation of FERC.

In consideration of the above I respectfully request your support to add the following wording to Bills 882, 952 and 6523. Please feel free to contact me if any questions.

**Attachment to Testimony 3-3-21:  
(Proposed wording is underlined)**

**Connecticut General Statutes  
CHAPTER 283\*  
TELEPHONE, GAS, POWER AND WATER  
COMPANIES**

**Sec. 16-244u. Virtual net metering.** (a) As used in this section:

(1) “Beneficial account” means an in-state retail end user of an electric distribution company designated by a customer host or an agricultural customer host in such electric distribution company's service area to receive virtual net metering credits from a virtual net metering facility or an agricultural virtual net metering facility;

(2) “Customer host” means an in-state retail end user of an electric distribution company that owns, leases or enters into a long-term contract for a virtual net metering facility and participates in virtual net metering;

(3) “Agricultural customer host” means an in-state retail end user of an electric distribution company that uses electricity for the purpose of agriculture, as defined in subsection (q) of section 1-1, owns, leases or enters into a long-term contract for an agricultural virtual net metering facility and participates in agricultural virtual net metering;

(4) (A) “Unassigned virtual net metering credit” means, in any given electric distribution company monthly billing period, a virtual net metering credit that remains after both the customer host and its beneficial accounts have been billed for zero kilowatt hours related to the generation service charges and a declining percentage of the transmission and distribution charges on such billings through virtual net metering;

(B) “Unassigned agricultural virtual net metering credit” means, in any given electric distribution company monthly billing period, an agricultural virtual net metering credit that remains after both the agricultural customer host and its beneficial accounts have been billed for zero kilowatt hours related to the generation service charges and a declining percentage of the transmission and distribution charges on such billings through agricultural virtual net metering;

(5) “Virtual net metering” means the process of combining the electric meter readings and billings, including any virtual net metering credits, for a municipal, state or agricultural customer host and a beneficial account related to such customer host's account through an electric distribution company billing process related to the generation service charges and a declining percentage of the transmission and distribution charges on such billings;

(6) “Small Hydroelectric Virtual Net Metering” means the process of combining the electric meter readings and billings, including any virtual net metering credits, for an Eligible Hydroelectric Virtual Net Metering Facility customer host and a beneficial account related to such customer host's account through an electric distribution company billing process related to the

generation service charges and a declining percentage of the transmission and distribution charges on such billings. Electric distribution companies shall not provide Small Hydroelectric Virtual Net Metering services to a customer host who is an electric distribution company, aggregator, retail energy supplier, or energy broker;

(7) “Virtual net metering credit” means a credit equal to the retail cost per kilowatt hour the customer host may have otherwise been charged for each kilowatt hour produced by a virtual net metering facility that exceeds the total amount of kilowatt hours used during an electric distribution company monthly billing period; and

(78) (A) “Virtual net metering facility” means a Class I renewable energy source or a Class III source that: (i) Is served by an electric distribution company, owned, leased or subject to a long-term contract by a customer host and serves the electricity needs of the customer host and its beneficial accounts; (ii) is within the same electric distribution company service territory as the customer host and its beneficial accounts; and (iii) has a nameplate capacity rating of three megawatts or less; and

(B) “Agricultural virtual net metering facility” means a Class I renewable energy source that is operated as part of a business for the purpose of agriculture, as defined in subsection (q) of section 1-1, that: (i) Is served by an electric distribution company on land owned or controlled by an agricultural customer host and serves the electricity needs of the agricultural customer host and its beneficial accounts; (ii) is within the same electric distribution company service territory as the agricultural customer host and its beneficial accounts; and (iii) has a nameplate capacity rating of three megawatts or less; and

~~(8)(C)~~ “Eligible hydroelectric virtual net metering facility” means an existing hydroelectric facility that is (i) located within the State of Connecticut, (ii) a run-of-the-river, or run-of-release hydropower facility, and (iii) has a nameplate capacity of three megawatts or less.

(9) “Declining percentage of the transmission and distribution charges” means, during the period commencing on the first day of commercial operation of a virtual net metering facility or an agricultural virtual net metering facility and ending after one year, eighty per cent of the transmission and distribution charges, during the period commencing at the beginning of the second year of commercial operation of a virtual net metering facility or an agricultural virtual net metering facility and ending after one year, sixty per cent of the transmission and distribution charges, and commencing at the beginning of the

third year of commercial operation of a virtual net metering facility or an agricultural virtual net metering facility and for each year thereafter, forty per cent of the transmission and distribution charges.

(b) Each electric distribution company shall provide virtual net metering to its municipal, state or agricultural customer hosts and shall make any necessary interconnections for a virtual net metering facility or an agricultural virtual net metering facility. Upon request by a municipal, state or agricultural customer host to implement the provisions of this section, an electric distribution company shall install metering equipment, if necessary. If a virtual net metering facility is already interconnected to the electric distribution company's system, the existing interconnection shall serve this purpose without the need for modification, study or technical review, excepting necessary changes to the facility's metering. For each municipal, state or agricultural customer host, such metering equipment shall (1) measure electricity consumed from the electric distribution company's facilities; (2) deduct the amount of electricity produced but not consumed; and (3) register, for each monthly billing period, the net amount of electricity produced and, if applicable, consumed. If, in a given monthly billing period, a municipal, state or agricultural customer host supplies more electricity to the electric distribution system than the electric distribution company delivers to the municipal, state or agricultural customer host, the electric distribution company shall bill the municipal, state or agricultural customer host for zero kilowatt hours of generation and assign a virtual net metering credit to the municipal, state or agricultural customer host's beneficial accounts for the next monthly billing period. Such credit shall be applied against the generation service component and a declining percentage of the transmission and distribution charges billed to the beneficial accounts. Such credit shall be allocated among such accounts in proportion to their consumption for the previous twelve billing periods.

(c) An electric distribution company shall carry forward any unassigned virtual net metering credits earned by the municipal or state customer host or unassigned agricultural virtual net metering credits earned by the agricultural customer host from one monthly billing period to the next until the end of the calendar year. At the end of each calendar year, the electric distribution company shall compensate the municipal, state or agricultural customer host for any unassigned virtual net metering generation credits at the rate the electric distribution company pays for power procured to supply standard service customers pursuant to section 16-244c and a declining percentage of the transmission and distribution charges.

(d) For facilities participating in the small hydroelectric virtual net metering program, the virtual net metering facility owner shall have the option for the electric distribution company to purchase virtual net metering credits from the customer host, rather than allocating such credits. The virtual net metering facility owner must provide written notice to the electric distribution company of its election to either allocate or have virtual net metering credits purchased by the electric distribution company. For virtual net metering credits purchased under this provision Section 8d, the electric distribution company will make payment by issuing a check to the virtual net metering facility owner each billing period, unless otherwise agreed in writing.

(e) At least sixty days before a municipal or state customer host's virtual net metering facility or an agricultural customer host's agricultural virtual net metering facility becomes operational, the municipal, state or agricultural customer host shall provide written notice to the electric distribution company of its beneficial accounts. The municipal, state or agricultural customer host may change its list of beneficial accounts not more than once annually by providing another sixty days' written notice. The municipal or state customer host shall not designate more than five beneficial accounts, except that such customer host may designate up to five additional nonstate or municipal beneficial accounts, provided such accounts are critical facilities, as defined in subdivision (2) of subsection (a) of section 16-243y, and connected to a microgrid. The agricultural customer host shall not designate more than ten beneficial accounts each of which shall (1) use electricity for the purpose of agriculture, as defined in subsection (q) of section 1-1, (2) be a municipality, or (3) be a noncommercial critical facility, as defined in subdivision (2) of subsection (a) of section 16-243y.

~~(ef)~~ (1) On or before October 1, 2013, the Public Utilities Regulatory Authority shall conduct a proceeding to develop the administrative processes and program specifications, including, but not limited to, a cap of ten million dollars per year apportioned to each electric distribution company based on consumer load, for credits provided to beneficial accounts pursuant to subsection (b) of this section and payments made pursuant to subsection (c) of this section, provided the municipal, state and agricultural customer hosts, each in the aggregate, and the designated beneficial accounts of such customer hosts, shall receive not more than forty per cent of the dollar amount established pursuant to this subdivision.

(2) In addition to the provisions of subdivision (1) of this subsection, the authority shall authorize six million dollars per year for municipal customer hosts, apportioned to each electric distribution company based on consumer

load, for credits provided to beneficial accounts pursuant to subsection (b) of this section and payments made pursuant to subsection (c) of this section where such municipal customer hosts have: (A) Submitted an interconnection application to an electric distribution company on or before April 13, 2016, and (B) submitted a virtual net metering application to an electric distribution company on or before April 13, 2016.

(3) In addition to the provisions of subdivisions (1) and (2) of this subsection, the authority shall authorize, apportioned to each electric distribution company based on consumer load for credits provided to beneficial accounts pursuant to subsection (b) of this section and payments made pursuant to subsection (c) of this section three million dollars per year for agricultural customer hosts, provided each agricultural customer host utilizes a virtual net metering facility that is an anaerobic digestion Class I renewable energy source and not less than fifty per cent of the dollar amount for such agricultural customer hosts established under this subparagraph is utilized by anaerobic digestion facilities located on dairy farms that complement such farms' nutrient management plans, as certified by the Department of Agriculture, and that have a goal of utilizing one hundred per cent of the manure generated on such farm.

(4) In addition to the provisions of subdivision (1), (2) and (3) of this subsection, the authority shall authorize up to twenty five (25) cumulative megawatts of eligible small hydroelectric virtual net metering capacity to participate in the program. Such eligible hydroelectric virtual net metering facilities shall be included in the small hydroelectric virtual net metering cap and excluded from other virtual net metering program cost cap limitations. Small hydroelectric virtual net metering shall survive until the cumulative megawatt capacity of eligible hydroelectric facilities, defined in this section, is reached. The authority shall determine an appropriate and proportionate method of allocating costs of eligible hydropower facilities to ensure that the costs of the program are shared collectively among all ratepayers of the electric distribution companies.

(f) On or before January 1, 2013, and annually thereafter, each electric distribution company shall report to the authority on the cost of its virtual net metering program pursuant to this section and the authority shall combine such information and report it annually, in accordance with the provisions of section 11-4a, to the joint standing committee of the General Assembly having cognizance of matters relating to energy.

(g) A municipal, state, public housing authority, low-income customers, moderate-income customers, low-income service organizations, or agricultural

customer host shall be allowed to aggregate all electric meters that are billable to such customer host.

(h) Where a virtual net metering facility or agricultural virtual net metering facility requires a permit from the Department of Energy and Environmental Protection under chapter 446c or chapter 446d and the municipal, state or agricultural customer host has submitted a virtual net metering application to the electric distribution company for such virtual net metering facility or agricultural virtual net metering facility on or before December 1, 2015, and the electric distribution company has accepted such virtual net metering application, such municipal, state or agricultural customer host shall have eighteen months from the date of the issuance of the final permit from the Department of Energy and Environmental Protection to cause such virtual net metering facility or agricultural virtual net metering facility to become operational.