Azure Mountain Power
1 South River Road
St Regis Falls, NY 12980
*Direct Correspondance to:
Emmett Smith
emmettvsmith@gmail.com

January 8, 2017

Honorable Secretary Kathleen H. Burgess
Public Service Commission
Three Empire State Plaza
Albany, NY 12223-1350
*via electronic delivery

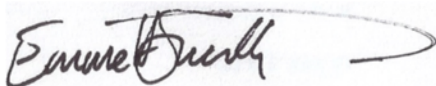
Case 15-E-0302 - Proceeding on a Motion of the Commission to Implement a Large-Scale Renewable Program and a Clean Energy Standard

RE: Comments on the "Staff Report Regarding Retention of Existing Baseline Resources Under Tier 2 of the Renewable Energy Standard Program" October 19, 2017, Case 15-E-0302

Dear Secretary,

Please find below comments on the "Staff Report Regarding Retention of Existing Baseline Resources Under Tier 2 of the Renewable Energy Standard Program" from Azure Mountain Power.

Respectfully Submitted,



Emmett V. Smith

Azure Mountain Power appreciates the opportunity to submit Comments on the above-referenced Staff Report in the CES Proceeding. AMP also appreciates the time and effort spent by Staff to address "Tier 2" and the "Renewable Baseline" more broadly.

AMP continues to strongly support broad and inclusive support for legacy renewables, and rejects the Commission's principal than any compensation for the attributes of "Renewable Baseline" resources must be based on a finding of financial need[1]. We believe the principles of parity between generators and value-based compensation should be adhered to as closely as possible. Further, we believe that NY-PSC's contention that the "Renewable Baseline" can be counted towards the "50 by 30" goal without tracking or compensation of all the renewable attributes is based on inconsistent logic and flawed legal analysis[2].

We continue to believe that the most cost-effective solution to retain the existing "renewable baseline" involves a mandate similar to Tier 2A as proposed in the CES Staff White Paper[3], which secures all RECs associated with power through legal contract and financial compensation. AMP participated in a study by Synapse Energy Economics on behalf of ACE-NY, filed in this proceeding last week[4]. We urge Staff and the Commission to carefully consider the findings of this Report.

We support and appreciate Staff's ongoing effort to include legacy hydro in VDER, in which we have participated. To avoid redundancy with other comments from legacy renewable producers, AMP will focus on specific changes proposed to the Maintenance Tier in the Staff Report as well as to further market opportunities in VDER. We must also emphasize, however, that these efforts will only prove effective for the retention of a very small subset of legacy renewable generators and must not be seen as the alternative to a larger solution as proposed in the Synapse Report.

MAINTENANCE TIER

First, it must be acknowledged that the AMP facility at St Regis Falls, NY would likely not currently be in operation without the Maintenance Tier. However, it would also not be in operation without an effort of extreme ingenuity and thrift, not to mention uncompensated time and labor, on the part of the Owners and the community to make up for a shortfall in a major construction project despite the MT award. The ongoing operation of the facility relies on manual operation without compensation. AMP appreciates Staff's efforts to improve the Maintenance Tier.

The Staff Report reiterates the following principle of the Commission:

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[1] "Order Adopting a Clean Energy Standard", New York Public Service Commission, August 25 2016, p. 117

[2] See "Request for Clarification" filed by Azure Mountain Power and Boralex Hydro Operations, Inc, Case 15-E-0302, January 8, 2018,

[3] "Staff White Paper on Clean Energy Standard", Case 15-E-0302, January 25, 2016, p22

[4] "Policies to Cost-Effectively Retain Existing Renewables in New York" Hopkins, Asa S., PhD; Fields, Spencer; Vitolo, Thomas, PhD, Synapse Energy Economics, December 22, 2017, Filed in Case 15-E-0302

"*The Commission intentionally established the maintenance category as a way to provide short term assistance in order to help facilities through difficult financial times in their operations, at a level "just sufficient for the owner, or its financial supporters, to continue to operate the facility. It was not intended to ensure a facility's profitability or a continued return for the facility owner or its investors.*"[5]

Any system which relies on the continued operation of facilities by private owners for no profit is fundamentally flawed. Ever since Deregulation, wholesale generation has, in theory, been governed by free-market principals. In New York we have entered the end-game of the deregulated wholesale market, where the least-cost producer controls the price, and the State is in the position of needing to provide above-market revenue to any facility that it does not wish to retire or exit. Intrusions into the market such as tax credits, RPS subsidies, and the ZEC bailout exacerbate this problem. NYPA curtailments are are further conclusive evidence of the breakdown of this marketplace. The percentage of the wholesale market served by natural gas has reached dangerous levels, resulting in cold weather price shocks, such as those being experienced now and in recent cold winters. A much larger solution is needed. AMP appreciates the efforts of Staff to improve the MT, but considers the measures here to be insignificant changes to a program which remains based on a fundamentally flawed premise.

However, we recognize that these larger concerns are outside the scope of this Report as requested by the Commission, and so we will respond to the specific recommendations herein.

FIVE PERCENT RETURN ON CAPITAL INVESTED

AMP has previously urged the Commission to include borrowing costs in any award based on the need for new capital investment, and so strongly supports the inclusion of a return on capital invested. This is particularly critical for facilities such as AMP which need to raise capital for improvements, rather than investing cash-on-hand.

FIVE PERCENT RISK CONTINGENCY

AMP supports the inclusion of a risk contingency. Previous to this Report, AMP has not studied this possibility, but it is immediately clear that 5% is too low to cover the risk associated with small hydro operation. For run-of-river facilities, output can vary widely year-to-year while operating costs are relatively stable. At our St Regis Falls facility, output has varied by approximately 25% over just the last five years. The way the MT is currently structured, payments are given based on production, and the risk of this volatility is entirely borne by the generator. If production is below the historical average, the full allocation of MT payments is not received; no further MT payments are given if the historical average production is exceeded.

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[5] "STAFF REPORT REGARDING RETENTION OF EXISTING BASELINE RESOURCES UNDER TIER 2 OF THE RENEWABLE ENERGY STANDARD PROGRAM" October 19, 2017, Case 15-E-0302, p7

Other environmental factors such as changes in stream ecology can also effect the cost of operation; the introduction of an invasive species of rice to our impoundment led to a large increase in operational labor over a multi-year period. Equipment failure is another risk; at 5%, the contingency would only allow for a few weeks of downtime, not including the cost of repairs. This also does not take into account that such failures are most likely to occur during spring runoff, when facilities are run at maximum and downtime is far more costly than normal.

AMP supports the inclusion of a Risk Contingency, but questions the methodology which suggested 5% was adequate to serve the purpose. As stated, 25% would be more accurate. We suggest that Staff work with generators to identify what an effective contingency would be, based on the requirements of real-world operation.

MAINTENANCE TIER AWARD CAPS

Staff has suggested placing caps on the amount of funding available to to Maintenance Tier facilities, at the cost of SCC minus RGGI for "Streamlined Review" facilities, and the Tier 1 REC price for "Case-by-Case Review" facilities[6]. The logic of this is simple to the mindset of a consumption-driven capitalist economy: why keep something old if you can get something new and shiny for cheaper? However, we in the hydroelectric industry tend to take a different view: older, proven technologies are best, newer things are more likely to break. This has been borne out, even in our own industry, as newer turbines are more problematic than old ones. Even today, I would take a bet that my machines, which have already been in nearly continuous operation since the United States entered World War I[7], will still outlast any new wind turbine put up tomorrow. The premise that new things are better than old things is flawed.

Regardless of the relative real-world value of the equipment, AMP contends that existing hydro facilities provide much greater economic benefits to New York citizens than new LSRs. The harnessing of upstate rivers for the production of hydroelectric power is what made industry and even settlement itself possible in many towns and cities. Subsequent development going back to the nineteenth century has depended on existing impoundments and flood control. It is difficult to underestimate the economic importance of the continued operation of these facilities, nearly all of which are now in private hands and dependent on profitable electricity sales. Any regulatory process which seeks to weigh the value of keeping a facility in operation should take into account the full economic value of the facility to the state's economy, not simply its competitiveness with other energy suppliers. We recognize that these may be considered externalities of different markets by the economic purist. However, local economic benefit has previously played a large role in granting and sizing Maintenance Tier awards.

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[6] "STAFF REPORT REGARDING RETENTION OF EXISTING BASELINE RESOURCES UNDER TIER 2 OF THE RENEWABLE ENERGY STANDARD PROGRAM" October 19, 2017, Case 15-E-0302, p19-20

[7] Though World War I officially began in 1914 with the invasion of Belgium by Germany, it was not until April of 1917 that the US Congress declared war and the United States entered the conflict on the side of France and Britain. Historians note that it was a combination of factors, including the ongoing interference of US-British shipping by German submarines, and the interception of the notorious Zimmerman telegram, which convinced Woodrow Wilson to enter the War.

STREAMLINED / CASE-BY-CASE REVIEW

AMP has advocated for the simplification of the Maintenance Tier award process and supports the introduction of a streamlined review. The proposal of submission of audited financial statements to take the place of complete open book review makes sense, though perhaps review level statements would be adequate. The continuing need for a higher level of review seems somewhat arbitrary, as does the difference in compensation.

CONTRACT TERMS

The proposed three-year standard contract term has both advantages and disadvantages. Certainly, some of the time saved by adopting a streamlined review process will be lost if the reviews themselves occur more frequently. However, AMP has also experienced that due the unpredictability of the market, an award amount offered in year one of a ten year contract may prove insufficient within a few years and need to be revisited.

It is important that longer term awards must also be available. Particularly if the Maintenance Tier is supposed to subsume the function of the Repowering provision under Tier 1 of the CES, very long contract terms must be available to facilities that need substantial capital upgrades.

REPOWERING

AMP has participated in the discussion about the Repowering category of Tier 1 under the CES, including filing comments on the CES Implementation Plan and participating in the June 5, 2017 Roundtable on the subject. We are disappointed that the Staff Report recommends eliminating the category altogether, as it had the potential to allow vintage generators to compete in the Tier 1 market at such time as the facility needed substantial upgrades. We do however understand Staff's logic that this option is somewhat redundant to the Maintenance Tier, and in fact if the Maintenance Tier itself was sufficiently robust to ensure long-term operation of baseline generators, including substantial capital upgrades, there would be no need for the Repowering provision. Although we do find that, all things being equal, it is easier to raise capital if the revenue source is not specifically predicated on "financial hardship."

Without the Repowering provision and with the current limited Maintenance Tier, AMP does not expect that any small hydro facility will survive the need for major capital expenditure in the future. This includes Relicensing, which most PURPA facilities will face within the next ten years.

RENEWABLE ATTRIBUTES

The Staff Report contains the following statement about renewable attributes:

> "… *participation in a voluntary power purchase agreement with a third party does not exclude an at-risk facility from receiving maintenance support; providing that the facility can meet the economic needs test and*

its environmental attributes are available for retention in New York by NYGATS for the life of the maintenance contract."[8]

It also contains the following footnote, referring to a facility which failed to qualify for a Maintenance Tier award:

"*One plant did could not enter into a contract with NYSERDA because its attributes were already committed to another entity.*"[9]

With the issuance of the CES Order and in several filings since, the PSC has asserted its right to count the "renewable baseline" towards the "50 by 30" goal without securing or even tracking the renewable attributes from baseline facilities[10]. The ongoing marketplace of unbundled RECs, many of which are exported, appears not to matter. It therefore seems inconsistent that the disposition of attributes from Maintenance Tier facilities, which originate from the Baseline, should be of importance. Tier 1 RECs procured by NYSERDA are sold to Utilities, who have a procurement mandate to buy them under the CES. There is no corresponding mandate for RECs from Maintenance Tier generators. It appears that they simply accumulate at NYSERDA.

As has been shown, the MT is not sufficient to support long-term operation. Unbundled REC sales may provide supplementary revenue at no cost to ratepayers. If NY-PSC is confident in its ability to claim generation associated with "renewable baseline" facilities regardless of unbundled REC sales, it should allow MT facilities to take advantage of this market.

As stated in a concurrent filing however[11], AMP believes that all RECs associated with the "Renewable Baseline" should be tracked, and only power associated with RECs which can be positively identified as retired on behalf of New York customers should be included when accounting for the "50 by 30" goal. If this principle were applied, NY-PSC would have an understandable interest in securing RECs from MT facilities. In this case we would suggest that they still be given a limited tradability which restricts them to the New York Control Area.

OPPORTUNITIES IN UNBUNDLED VOLUNTARY MARKETS

The Staff Report states:

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[8] "STAFF REPORT REGARDING RETENTION OF EXISTING BASELINE RESOURCES UNDER TIER 2 OF THE RENEWABLE ENERGY STANDARD PROGRAM" October 19, 2017, Case 15-E-0302, p24

[9] "STAFF REPORT REGARDING RETENTION OF EXISTING BASELINE RESOURCES UNDER TIER 2 OF THE RENEWABLE ENERGY STANDARD PROGRAM" October 19, 2017, Case 15-E-0302, p6

[10] See "Request for Clarification" filed by Azure Mountain Power and Boralex Hydro Operations, Inc, Case 15-E-0302, January 8, 2018,

[11] See "Request for Clarification" filed by Azure Mountain Power and Boralex Hydro Operations, Inc, Case 15-E-0302, January 8, 2018,

"*Staff believes that programs like CCA and other third party voluntary purchases are available to support existing renewable generators and are an important market options for existing CES renewable baseline resources that are not currently under a contract for their attributes.*"

AMP believes in the voluntary market as a potential source of revenue for baseline facilities which does not incur an additional cost on ratepayers. We very much appreciate Staff's efforts to help in developing these markets. However, as stated in a concurrent filing[12] in conjunction with Boralex Hydro Operations, Inc, current NY-PSC policy threatens to undermine this market rather than strengthen it. There is a fundamental flaw in this sector, the basis of which is the NY-PSC's assertion that it has the ability to count production towards the "50-by-30" goal without tracking or securing the RECs. We urge the Commission to consider this separate filing carefully and take action to disentangle the voluntary REC market from the "50 by 30" goal. Until this is resolved, the market will not function. No market can function where the units being traded are not treated consistently.

COMMUNITY CHOICE AGGREGATION

AMP also believes in the potential for unbundled REC purchases by CCAs to provide support for baseline renewables in the future, and is encouraged to hear this reflected in the Staff report. However, at present there is no such market, and in fact there are barriers to its formation in current state policy. Forming a CCA and offering a green power product is considered a "High Impact Action" under the Clean Energy Communities Program. In order to qualify for this appellation however, a CCA must purchase and retire Green-e certified RECs on behalf of its customers. New York's "renewable baseline" facilities do not qualify for Green-e certification, as a result of vintage[13] [14]. State policy therefore discourages the purchase of RECs from baseline facilities. We suggest that the incentive be adjusted to encourage CCAs to source RECs from in-state generators regardless of Green-e status.

At present it seems unlikely that this revenue will make a meaningful difference, however. The development of wind generation in the midwest and south has far outstripped the growth of the unbundled REC market, resulting in very low prices for undiscriminating customers. The Green-e product utilized by Sustainable Westchester, New York's only CCA to currently offer a green power product, trades for between \$.45 and \$.70 / MWh, or less than one-tenth of one cent per

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[12] [12] See "Request for Clarification" filed by Azure Mountain Power and Boralex Hydro Operations, Inc, Case 15-E-0302, January 8, 2018,

[13] "*Green-e Energy requires the highest level of environmental quality of any national standard in the United States for renewable energy. This means that renewable energy must come from qualifying sources of generation like wind, solar, low-impact hydropower, and certain types of biomass, that were built (or significantly upgraded) within the last 15 years*" "Fact Sheet: Green-e Energy Certification Program" Center for Resource Solutions, November 8 2012

[14] We further suggest that the analysis used by Green-e to judge the impact of a REC purchase in this case is flawed. High resource availability and tax credits has made development of wind resources in the midwest very profitable, regardless of revenue from unbundled REC sales. We submit that if a REC purchase is to have a meaningful climate impact, what really matters is the financial importance of that sale to the continued operation of the facility which produced it. Vintage is a flawed stand-in for this principal, as the situation of independent New York hydro clearly demonstrates.

kWh. This product is primarily sourced from out-of-state and does nothing to contribute to CES goals.[15]

AMP believes that the larger opportunity lies in the confluence of CCA and VDER, and the utilization of "Value Stack" crediting to meaningfully boost the value of production. Many hydro facilities are located at the center of towns and villages. As longstanding local businesses and critical infrastructure, many have close working relationships with municipal government and the community. Several are directly owned and operated by municipal governments. It is a natural fit to localize the benefits of the facilities through VDER. AMP encourages Staff and NY-PSC to work with CCA administrators to break down the barriers for VDER development by CCAs, through simplified or consolidated billing.

VALUE OF DISTRIBUTED ENERGY RESOURCES

AMP has been an active participant in the VDER proceeding, and continues to view this market segment as containing the most viable opportunities for continued operation of our facilities. We very much appreciate Staff's efforts to include small hydro in VDER and to work with us. We also appreciate the inclusion of VDER opportunities in this Report, and will continue to participate in these proceedings. We will also continue to advocate for VDER as a potential solution for other struggling small hydro facilities; however, this will only be a viable solution for some fraction of the "renewable baseline." To extend the opportunity to more hydro facilities, we strongly support efforts to expand project size caps and relax locational restrictions, as stated in the VDER Proceeding.

There do remain some inconsistencies with regard to small hydro in VDER, and ongoing discussion, as the Report references. The inconsistent treatment of renewable attributes from "baseline" facilities pose challenges. The question of the disposition of attributes in the absence of "E value" credit also remains unresolved. However we accept Staff's recommendation that the forum to advance these issues is the VDER Working Groups, and will continue our participation there. AMP very much appreciates the clarification that a facility receiving support under Tier 2 may also still be eligible for compensation under VDER[16].

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[15] Constellation Energy, supplier to Sustainable Westchester, refers to this product as "new mix wind." It consists of unbundled Green-e certified RECs, the typical price for which from Constellation ranges from $.45-$.70/MWh. While "New mix wind" may contain RECs from multiple states, it is unlikely that much if any would be from New York. Nearly all of the wind development in NY was done under the RPS, in which case the RECs are claimed by NYSERDA. Post-RPS wind RECs would not qualify for Green-e certification since such a project would have outlived its development contract. (Phone consult with representatives from Sustainable Westchester, Joule Assets, and Constellation Energy; and "Fact Sheet: Green-e Energy Certification Program" Center for Resource Solutions)

[16] "a facility receiving maintenance support under Tier 2 does not necessarily preclude it from receiving compensation under the Value of Distributed Energy Resources (VDER) tariff." p25