

State of New York
Public Service Commission

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

STAFF REPORT REGARDING RETENTION OF EXISTING BASELINE
RESOURCES UNDER TIER 2 OF THE RENEWABLE ENERGY STANDARD PROGRAM

Dated: October 19, 2017

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Appendix A - Illustrative Tier 2 Application

1. INTRODUCTION

On August 1, 2016, the New York Public Service Commission (Commission) issued an Order Adopting a Clean Energy Standard (August 2016 CES Order), which established two primary programs.¹ The first, the Renewable Energy Standard (RES), includes a Tier 1 obligation on all load-serving entities to financially support new renewable generation resources to serve their retail customers and a Tier 2, which supports the maintenance of certain at-risk baseline resource attributes from small hydro, wind and biomass generation facilities that demonstrate a financial need and that would cease operation without such support. The RES has a statewide goal that 50% of all electricity consumed in the State be sourced from renewable energy by 2030 (50 by 30 goal). The second major program, the Zero-Emissions Credit Requirement (ZEC Requirement), includes an obligation on load serving entities to financially support the preservation of existing at-risk nuclear zero-emissions attributes to serve their retail customers. These combined programs will help the State achieve its carbon reduction targets articulated in the 2015 State Energy Plan.

On December 15, 2016, the Commission issued an Order on Petitions for Rehearing (December 2016 Order), in response to requests to rehear or reconsider a number of issues decided in the August 2016 CES Order.² Among other things, the Commission directed Staff of the Department of Public Service (Staff) to prepare, for Commission review, recommendations for consideration of eligibility changes for Tier 2, in consultation

¹ Case 15-E-0302, et al., Clean Energy Standard, Order Adopting a Clean Energy Standard (issued August 1, 2016).

² Case 15-E-0302, supra, Order on Petitions for Rehearing (issued December 15, 2016).

with stakeholders. In a subsequent Order in this proceeding, the Commission directed Staff to file its report regarding Tier 2 eligibility, including options for repowering baseline resources, within 180 days of the issuance of that Order.³

In accordance with those directives, Staff submits this report on its recommendations for changes to the CES Tier 2. In developing this report, staff recognizes three formative principals. First, the Commission has directed that financial need is a mandatory component of any facility's Tier 2 request. Secondly, this report does not consider expanding or contracting the list of eligible technologies subject to Tier 2 from those considered eligible under the Renewable Portfolio Standard (RPS). Finally, this report recognize the importance of the contribution made by small hydro facilities toward achieving the 50 by 30 goal. As a result, this report considers the following recommendations: a revision to the vintage date to include eligible facilities in operation prior to January 1, 2015; an increase in the size threshold for hydroelectric facilities from 5 MW up to 10 MW; revisions to the "to-go-cost" standard for review of financial need; providing for a streamlined review process, while maintaining a more detailed review so that facilities can choose the one that best fits their needs; establishing a standard contract term of three years but

³ Case 15-E-0302, supra, Order Approving Phase 1 Implementation Plan (issued February 22, 2017) (CES Phase 1 Order). By a Ruling issued August 18, 2017, the Secretary granted a Staff request for an extension to file the required report regarding recommendations for eligibility changes to CES Tier 2. The extension was granted until October 5, 2017. By a subsequent Ruling, the Secretary granted a further extension until October 19, 2017, for Staff to file the required CES Tier 2.

allowing for contract renewal; and continue exploring avenues for voluntary purchases of existing renewable generation.

2. BACKGROUND AND PROCEDURAL HISTORY

Prior to the Commission's August 2016 CES Order, Staff issued a white paper on design options for the CES.⁴ The white paper included recommendations to develop new renewable resources under a Tier 1 component and provided an approach to maintain the baseline of existing renewable resources under a Tier 2 component, which was divided into sub-tiers 2A and 2B. Tier 2 contrasted from Tier 1 in that it was designed to support operating renewable energy facilities, which do not need the same level of financial support that Tier 1 resources require to attract financing required to build new generating facilities.

Tier 2A represented existing renewable resources that would be eligible to compete in other states' renewable energy programs once they rolled-off their existing 10-year RPS contract with the New York State Energy Research and Development Authority (NYSERDA) (primarily wind facilities that entered into commercial operation post 2006). The rationale for Tier 2A was that without additional revenue from the CES program, facilities with the option to do so will sell their output into other states' RPS programs thereby limiting their contribution to New York's overall renewable energy goals.

Tier 2B was intended to provide sufficient revenue to maintain New York's renewable baseline facilities not eligible for RPS programs in adjacent control areas. Tier 2B represented existing renewable resources with little opportunities to sell their resources outside of New York due primarily to size, location and vintage (e.g. the State's fleet of small

⁴ Case 15-E-0302, supra, Staff White Paper on Clean Energy Standard (issued January 25, 2016).

hydroelectric plants). Staff's rationale for the proposed Tier 2B was to provide these baseline resources with a revenue stream just above transaction costs to motivate the sale of attributes to obligated LSEs, while minimizing costs to ratepayers. Under New York's former RPS Maintenance Tier program, certain baseline resources that had no markets elsewhere and that were at risk of ceasing operation due to revenue shortfalls, were eligible for a case-by-case review for a maintenance contract to ensure preservation of their clean energy attributes.

The Commission's August 2016 CES Order did not adopt Staff's recommended Tiers 2A and 2B. With respect to Tier 2A, the Commission concluded that there was no imminent risk of losing the attributes of these baseline resources coming off of a contract with NYSERDA, and therefore, there is no need to provide these facilities with additional ratepayer support. Further, the Commission stated, in the event that out-of-state sales occur, it will reconsider what action, if any, is required in one of the CES triennial reviews prior to 2030.⁵

For Tier 2B, the Commission noted that "[t]here is no need for a Tier 2b except for the concern that the clean energy attributes of these facilities may be at risk because they may fail financially and retire for lack of sufficient overall revenues due to the failure of markets to fully internalize the value of their clean energy and fuel diversity benefits." Instead of adopting Staff's two-tiered Tier 2 proposal, the Commission renewed the former RPS Maintenance Tier, including

⁵ Massachusetts has recently released report seeking stakeholder input on options for expanding the Massachusetts Clean Energy Standard, including changes to the vintage requirement for eligibility (<http://www.mass.gov/eea/docs/dep/air/climate/shp-ces.pdf>). Staff will monitor has changes in neighboring CES programs.

the same eligible technologies, in a new Tier 2 of the RES program.

2.1. Tier 2 and History of the RPS Maintenance Tier

Currently, Tier 2 is limited to run-of-river hydroelectric facilities of 5 MW or less; wind facilities; and biomass direct combustion facilities. To be eligible, facilities must have begun commercial operation any time prior to January 1, 2003, and have been included in New York's baseline of renewable resources calculated when the former RPS program was first adopted. The Commission required that each facility seeking funds under Tier 2 be required to demonstrate a financial need, so that, but for the maintenance contracts, the facility will cease operations and no longer produce positive emission attributes. The Commission stated that Tier 2 maintenance contracts will be provided on a case-by-case basis and relief will be tailored to the situation presented. The criteria and process for determining eligibility are in Appendix D of the August 2016 CES Order. Tier 2 costs, which are expected to be limited in relation to the Tier 1 costs, are to be recovered from delivery customers in the same manner as in the RPS Program Maintenance Tier.⁶

Appendix D of the August 2016 CES Order provides the same criteria and process for determining eligibility for Tier 2 that was ultimately adopted by the Commission for the RPS Maintenance Tier in 2005.⁷ In October 2005, the Commission made clear that the level of support would at least need to be sufficient to allow the facility to cover its future operating costs and any necessary future capital costs ("to-go-costs"),

⁶ August 2016 CES Order at p. 117.

⁷ Case 03-E-0188, Supra, Order Approving Modifications to Maintenance Resource Category, (issued October 31, 2005) (October 2005 Order).

but need not cover all costs such as those that the facility owner would have to pay regardless of whether the facility was operating or not (sunk costs).⁸ In short, it should be just sufficient for the owner, or its financial supporters, to continue to operate the facility and that support should not be more than the level required to encourage new renewable facilities. The Commission further stated that "[S]upport should also not generally be provided for facilities that will continue to operate pursuant to provisions of contracts or law, even if financial losses result for the operators and/owners." Subsequently, Staff used the weighted average price of the then most recent RPS Main Tier solicitation to determine the cost of a new entrant.

Over the course of the RPS Program, the Maintenance Tier received ten applications for support resulting in awards by the Commission to four facilities.⁹ Of those ten applications, four were filed by one facility or their predecessor in support of direct biomass combustion plants. Two awards were made to small upstate hydroelectric plants. According to the RPS Annual Performance Report for the year ended December 31, 2016, \$38.5 million has been awarded to support approximately 43 MWs of baseline resources in the RPS program.

⁸ To-go-costs, also known as going forward costs, are the costs that a facility's owner could avoid by mothballing or retiring the plant and generally include: 1) labor and other operating and maintenance (O&M) costs; 2) future capital expenditures; 3) taxes and 4) operating risks (e.g., risks of equipment failures during operation).

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

2.2. Order on Petitions for Rehearing

Several petitions for rehearing or reconsideration were filed claiming that the Commission erred in its decision in the August 2016 CES Order by not including all baseline resources in the CES program and by not allowing zero-emitting baseline resources to receive the same level of financial support as the at-risk nuclear facilities for their clean emission attributes. In addition, several petitioners stated that the former RPS Maintenance Tier is an unworkable and onerous construct and the Commission's use of to-go-costs to determine the amount of support for maintenance contracts was insufficient. In its comments on the issue, Ampersand Hydro LLC (Ampersand) noted that the existing maintenance tier focus on to-go-costs are overly restrictive and that smaller facilities do not maintain large staffs to devote the time to prepare an application. They claim the overly restrictive definition of to-go-costs results in maintenance support that can be below those actually needed for facilities to remain in business.

In its December 2016 Order, while rehearing was not granted on Tier 2, the Commission did state that it is in the best interests of electric consumers to retain existing renewable resources, provided the cost of retention of the resources is less than the cost of replacing them with a new resource under the RES program. As a result, the Commission directed Staff to prepare recommendations on potential changes to Tier 2 without waiting for the first triennial review. Staff was instructed to consider the following factors in its report: the cost to consumers; changes in eligibility criteria; a showing of financial hardship; facility locational considerations; and program options. In addition, the Commission directed Staff to identify how complimentary initiatives such as the Community Choice Aggregation (CCA) may

be able to assist baseline renewable generators to remain in operation through voluntary renewable energy purchases. The Commission also directed Staff to consider how to treat new voluntary arrangements to purchase incremental¹⁰ electricity that does not qualify under the Tier 1 program but that can provide long-lasting benefit to New York.

2.3. Phase 1 Implementation Plan

As required by the August 2016 CES Order, Staff and NYSERDA filed a Phase 1 Implementation Plan (Phase 1 Plan) with the Commission on October 31, 2016. The Phase 1 Plan set forth the proposed details for implementing the RES program in 2017, including processes and procedures for eligibility certification for Tier 1 resources and for facilities seeking a maintenance contract under Tier 2.

As a component of the Tier 1 eligibility rules, Staff proposed a "repowering" category for renewable generators with the following criteria: (1) the Prime Mover had operated for the length of its useful life; (2) the Prime Mover had been completely replaced with a new one which was installed after January 1, 2015; (3) the replacement of the Prime Mover had resulted in a material increase of 15 percent or more in efficiency of production of the generation unit; and (4) 80 percent of the tax basis from the completed repowered facility is derived from capital expenditures made after January 1, 2015. The repowering option proposed in the Phase 1 Plan provided an opportunity for older vintage facilities that may be at the end of their useful life to remain in production.

On February 22, 2017, the Commission adopted the Phase 1 Plan with modifications. The Commission did not authorize a

¹⁰ Electricity from pre-2015 resources that was considered part of the baseline.

repowering option based on concerns that it may not be in ratepayer's best interest. Instead, it directed Staff to include the topic in its report to the Commission related to the cost effective retention of baseline resources (Tier 2).¹¹

2.4. Roundtable Forums and Comments

On June 5 and June 27, 2017, Staff conducted roundtable discussions with stakeholders to receive input on Tier 2 eligibility and repowering respectively.¹² Staff also invited stakeholders to submit written comments after each session. Azure Mountain Power (Azure Mountain); Ampersand Hydro, LLC (Ampersand); ReEnergy Holdings, LLC (ReEnergy); the Joint Utilities and Noble Environmental Power, LLC and Invenergy Renewables LLC (collectively the Joint Existing Filers) submitted written comments following the June 5 Tier 2 roundtable forum.¹³ Staff considered both the oral comments at each roundtable forum and the written comments received in forming its recommendations on Tier 2 and repowering, discussed below.

¹¹ Case 15-E-0302, supra, Order Approving Phase 1 Implementation Plan, p. 14.

¹² Webcast recordings of Forums can be found at <https://tinyurl.com/CES-Tier-2-Forums>.

¹³ Between September 27 and October 13, approximately 45 letters were filed in support of extending the 10-year RPS contracts for the Noble Environmental Power projects in Clinton and Franklin counties, which are due to expire in 2017 and 2018.

3. STAFF RECOMMENDATIONS

3.1. TIER 2

3.1.1 Eligibility

The August 2016 Order limited Tier 2 eligibility to run-of-river hydroelectric facilities of 5 MW or less; wind facilities; and biomass direct combustion facilities that were in commercial operation any time prior to January 1, 2003, and were originally included in New York's baseline of renewable resources calculated when the RPS program was first adopted. In order for a facility located outside the NYISO control area to be considered as included in the baseline, Staff recommends the same criteria used for Tier 1 eligibility, as articulated in the March 24, 2017 Phase 1 Implementation Plan and the New York Generation Attribute Tracking System (NYGATS) Operating Rules, be used for Tier 2 eligibility.

Accordingly, each facility seeking maintenance support would be required to demonstrate that their verifiable unit-specific generation was delivered to New York during 2014 and was subsequently considered as part of the baseline and not just part of a system-wide import mix from an adjacent control area. Likewise, a facility would be required to verify that its unit-specific generation was delivered to New York for the life of any Tier 2 contract. This demonstration can be made through verification of transactions in a regional generation attribute tracking system or through unit specific bilateral contracts that show delivery into New York.

3.1.2. Vintage

As noted above, Tier 2 is currently limited to those facilities that began commercial operation prior to January 1, 2003 and were included in New York's baseline of renewable resources calculated when the RPS program was first adopted.

However, the CES used a more recent period - calendar year 2014 - for its baseline. As a result, Staff recommends replacing the 2003 vintage requirement currently applied to Tier 2 with an updated requirement allowing eligible facilities, as discussed below, which were in commercial operation prior to January 1, 2015 to be eligible for Tier 2 support. This includes facilities that have previously received an RPS Main Tier or maintenance contract if the contract has expired and the facility can demonstrate and meet the financial need criteria discussed below.

3.1.3. Eligible Technologies

In their joint comments in this proceeding, ACENY, American Wind Energy Association, Advanced Energy Economy Institute and Northeast Clean Energy Council (collectively, Renewable Energy Parties) stated that the Commission should, at a minimum, broaden the technologies eligible for Tier 2 to include all technology types eligible for Tier 1. However, Renewable Energy Parties' comments do not offer any new information, not previously considered by the Commission at the time it established Tier 2, upon which to justify expanding the list of eligibility technologies.

The Commission has a longstanding policy of cost containment and has specifically directed Staff to consider the cost impacts to customers of any recommendations presented in this report. Likewise, the Commission has previously indicated that it will consider the impacts of resource attrition as part of future triennial reviews in the CES Proceeding. Therefore, at this time, Staff does not believe there is a compelling reason to revise the list of eligible technologies under Tier 2.

Further, Staff does not believe that it would be appropriate, or manageable, to extend maintenance tier support

to "Customer Sited Tier"¹⁴ resources. As in the past, Staff proposes to limit Tier 2 support to resources that are used exclusively to generate and inject into the electric system.

However, Staff is proposing to increase the run-of-river hydroelectric facility threshold size from 5 MW up to 10 MW. Staff does not disagree with comments, like those received from Brookfield, Ampersand and Azure Mountain, which note that small hydroelectric facilities are the most economically challenged since they produce fewer megawatt hours over which to cover their operating costs, much of which do not vary with the level of energy production, and therefore are more likely to be impacted by the current historically low electricity prices. According to the New York Independent System Operator, Inc.'s (NYISO) 2015 Load and Capacity Data report (Gold Book), which reports on 2014 generation, this new size threshold would include approximately 92% of all non-State-owned hydroelectric units generating in New York as part of the 2014 baseline.

3.1.4. To-Go-Costs

The to-go-cost standard used by the Commission for determining economic need for maintenance support in the prior RPS program was based on the economic and financial observation that, if a facility's going forward revenues exceed its going forward costs, then it is logical that the facility will continue operating. A unit that is not recovering its avoidable going-forward costs for a period of time would likely cease operating. It also represents a desire to avoid unnecessary costs to ratepayers.

¹⁴ "Customer Sited Tier" resources are located behind customers' consumption meters and serve to both reduce net consumption and, at times, inject into the distribution system. The RPS Maintenance Tier was not designed to address these resources and Staff does not recommend expanding Tier 2 for their inclusion.

In comments, several parties have objected to the use of to-go-costs, stating that the final calculation can result in revenue levels that are below those actually needed for facilities to remain in operation since the application of only to-go-costs removes a significant amount of expenses included in the calculation of net income. Some parties maintain that all costs, including sunk costs, should be included in the calculation. Furthermore, some suggest that at-risk facilities should get a rate of return on their investment. In its comments, ReEnergy stated that the application of the to-go-cost in the RPS Maintenance Tier has not allowed a facility owner to cover certain costs that are required in the ordinary course of business, nor has it allowed the owner to earn any return from the operation of its facility, thus eliminating any financial incentive for the owner to undertake the risks inherent in operating.

Under the RPS Program, a review under the Maintenance Tier was designed to provide a facility owner with sufficient funds necessary to meet only the shortfall between total projected future revenues and projected future expenses (i.e., to provide the facility a net income of zero). The to-go-cost standard is a well-established standard and widely used. The NYISO and Commission consider only to-go-costs when approving Reliability Must Run contracts for bulk generators (e.g. Dunkirk and Cayuga) that are needed for local reliability. The adjacent control area, PJM¹⁵ also has used to-go-costs in its Reliability Must Run contracts.

¹⁵ The PJM Interconnection is a regional transmission organization (RTO) that coordinates the movement of wholesale electricity in all or parts of Delaware, Illinois, Indiana, Kentucky, Maryland, Michigan, New Jersey, North Carolina, Ohio, Pennsylvania, Tennessee, Virginia, West Virginia and the District of Columbia.

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".¹⁶ It was not intended to ensure a facility's profitability or a continued return for the facility owner or its investors.

As a result, Staff continues to support the application of the to-go-cost standard. However, Staff's strict interpretation of the "just sufficient" language included in the October 2005 Order, may not have captured the inherent flexibility the Commission intended when it stated in that same Order, "that the level of support would at least need to be sufficient to allow the facility to cover its future operating costs and any necessary future capital costs" {emphasis added}. As a result, Staff acknowledges that some modifications to the application of the to-go-cost standard may be appropriate.

First, Staff understands that the use of forecasted revenues and forecasted expenses results in a risk that the maintenance support level calculated and offered may be insufficient to incent a developer to continue operations. In an effort to mitigate this risk, and further incent owners of existing renewable facilities to efficiently continue to operate their facilities, Staff is proposing to include, as a to-go-cost, a risk contingency component of a maintenance award equal to five percent (5%) of the forecasted Operation and Maintenance to-go-costs developed in the review process. This risk contingency will be included as a projected operating expense in the calculation of the facility's net income.

¹⁶ October 2005 Order at p.3

In addition, to encourage renewable facility owners to invest the capital necessary to maintain the operational ability of the facility, Staff proposes to provide, as a component of the to-go-cost, a return on capital for new capital expenditures required to maintain safe, efficient operation of the facility.¹⁷ The return on investment on new capital expenditure will not be considered in the calculation of the "risk contingency," proposed above. The rate of return to be applied to these new capital expenditures will be a generic weighted cost of capital as calculated by Staff and updated on an annual basis; the updated rate will be posted on the Commission's website.

3.1.5. Demonstration of Need

Under the RPS Maintenance Tier program, the procedures authorized by the Commission involved a case-by-case approach to establish the financial viability because of the difficulty in determining the specific financial conditions under which renewable facilities would be at-risk of ceasing operation. This approach allows for a review by Staff of those records and individual circumstances relevant to a facility's financial ability to continue operations. While it was the intent that such procedures would not be onerous, it was necessary that the review should include sufficient detail to assess the actual financial need and to minimize costs to ratepayers.

In comments, parties lament that the procedure for filing and review has become onerous and request modification. Some parties have described the application process as administratively cumbersome and have noted that small facility

¹⁷ New capital expenditures must be installed after the Tier 2 application process is initiated and any return on these investments will be subject to a showing that the investment was needed in order to maintain safe and reliable operation. Existing, or "sunk", capital costs will not be subject to a return as they are not considered to-go-costs.

owners do not maintain staff to devote to regulatory processes or time to prepare and process an application. Others describe the review process as an unworkable construct. Parties have asked that the Commission streamline the process by eliminating the case-by-case review and providing a fixed dollar amount award, set at either the societal cost of carbon, Tier 1 REC price, the ZEC price, or some fixed percentage of these reference prices.¹⁸ If the Commission deems a case-by-case review is still required, parties request that the Commission require Staff to perform an expedited review within a specified time period, noting the fact that Staff has no statutory timeframe to complete its review.

Staff believes that some level of facility specific review is necessary in order to ensure that ratepayer funded programs are managed in a way that minimizes costs while fostering the programs' goals; however, it agrees that the level of review for all applications need not necessarily be the same. Therefore, in an effort to streamline the review under Tier 2, Staff is proposing the following two options be available to eligible facilities:

1. Streamlined Review - a prescriptive process that will use a set of predetermined assumptions developed by Staff that will allow for expeditious review of any maintenance request. Petitions for maintenance contracts should be

¹⁸ Both houses of the New York State Legislature have introduced bills that would provide all existing renewable resources located in New York with support equal to 75% of the weighted average cost per REC that NYSERDA paid to acquire from Tier 1 eligible resources under the CES in the prior calendar year. (Senate Bill S5549A and Assembly Bill A7275A). Neither bill contains an analysis of the cost of the proposal.

filed with the Secretary.¹⁹ Each petition will be entered into the Department's Document and Matter Management System (DMM) and made available for public comment, expeditiously, pursuant to the State Administrative Procedures Act (SAPA) §202(1).²⁰ The Streamlined Review process will rely on an independent, third party verification of financial records provided. This verification is the responsibility of the applicant and must be submitted as part of the application in order for the application to be considered complete. The Streamlined Review will offer a standard three-year contract term.

2. Case-By Case Review - a more customized review for those facilities for which Staff's standardized assumptions may be less appropriate. The Case-by-Case approach would allow for the use of customized inputs and a more detailed review. It may also be used for situations where the standard three-year term may not be appropriate. The filing, notice and comment process would be the same as for a streamline application.

3.1.5.1. Streamlined Filing

According to the 2015 Gold Book, over 90% of the total number of facilities that Staff has proposed to be eligible for Tier 2 will be small hydroelectric facilities. The Streamlined Review process is intended to make filing the application less burdensome for these facilities. Under the Streamlined Review, the facility owner must submit audited financial statements, including a balance sheet, income statement and cash flow

¹⁹ See Case 17-E-0603, In the Matter of Maintenance Tier Applications.

²⁰ Petitioners should consider how they submit the required confidential data as part of a Tier 2 application.

statement, for the three most recently completed fiscal years. The information will be submitted in a standardized format developed by Staff. The application template will be posted on the Commission's website and will be updated over time to reflect changes to input data. An illustrative copy of the template worksheet is included as Appendix A.²¹

The financial forecast of revenues used in the template will be based on the then current NYISO CARIS forecast of energy prices for the forecasted period. Staff proposes to adjust the forecasted CARIS price to account for the variance between the historic bus price paid to the generator and the historic forecasted CARIS zonal price for the same historic time period. The forecasted capacity prices to be used will be the latest filed Staff "ICAP forecasts" per the January 21, 2016 Order in Case 14-M-0101.²² The forecasted expenses will continue to be based on to-go-costs including, a risk contingency component of a maintenance award equal to five percent (5%) of the forecasted Operation and Maintenance to-go-costs developed in the review process and a return on capital for future capital expenditures. Consistent with the current review process, intercompany allocations, with the exception of costs billed on a direct invoice basis for actual services provided to the applicant's facility, will not be included in to-go-costs.²³ Staff will use a standardized inflation factor to inflate the adjusted expenses for the contract term to develop the average

²¹ The proposed application template can be found at:
[http://www3.dps.ny.gov/W/PSCWeb.nsf/96f0fec0b45a3c6485257688006a701a/56c58a580d2cf2e185257fd4006b90ce/\\$FILE/68379900.xlsx/20171010%20August%202017%20Tier%20%20Report%20Appendix.xlsx](http://www3.dps.ny.gov/W/PSCWeb.nsf/96f0fec0b45a3c6485257688006a701a/56c58a580d2cf2e185257fd4006b90ce/$FILE/68379900.xlsx/20171010%20August%202017%20Tier%20%20Report%20Appendix.xlsx)

²² Case 14-M-0101, Reforming the Energy Vision, Order Establishing the Benefit Cost Analysis Framework, issued January 26, 2016.

²³ See Appendix A for details of to-go-costs.

maintenance award for the contract period.²⁴ Additionally, Staff will use a generic weighted cost of capital as calculated by Staff and updated on an annual basis; the updated rate will be posted on the Commission's website.

To accommodate a facility's request for the compressed review period, Staff proposes that the application and financial statements be accompanied by a report prepared by an independent certified public accountant that provides the auditor's attestation that the information included in the financial statements has been audited and accurately represents the operations of the facility seeking maintenance support. The applicant must also provide bid proposals and engineering reports to support any proposed capital additions and changes to the generation output resulting from those additions during the contract term.²⁵ Under the Streamlined Review, applicants would be eligible to receive an incentive to cover the projected shortfall between total forecasted revenues and total forecasted operating costs necessary to provide a net income of zero, up to a maximum incentive of the then current Social Cost of Carbon (SCC) price minus Regional Greenhouse Gas Initiative (RGGI).²⁶ Provided that the application is complete and correctly filed, Staff proposes to submit the request to the Commission, if an

²⁴ An existing Staff model will be used to develop the inflation rate. This inflation model is based on GDP price deflator and uses historical data from the US Bureau of Economic Analysis (BEA).

²⁵ The developer will be required to submit documentation to demonstrate that the required capital expenditures have been completed. Failure to provide the required documentation may result in the cancellation of maintenance support.

²⁶ Staff is recommending the use of the SCC minus RGGI in this review methodology because the maintenance support preserves the carbon-free emissions of a facility that might otherwise cease operations. Therefore, capping the level of support at the unsupported carbon cost is appropriate.

award is warranted, within 45 days. Prior to Commission action on the submission, the appropriate comment period must expire.

3.1.5.2. Case-by-Case Review

In addition to the Streamlined Review, an applicant may choose to open its books and records for a more detailed review and may propose other sources to determine energy price forecasts and increases to operating expenses. If an applicant chooses to proceed with this review, it could be awarded an attribute payment designed to cover the projected shortfall between total forecasted revenues and total forecasted operating costs necessary to provide a net income of zero, up to a maximum payment of the then current Tier 1 REC price, per the most recently published large-scale renewable solicitation.²⁷

3.1.6. Contract Term

In comments, some parties have indicated that a maintenance contract should be offered in terms as long as 20-years, while other parties, like the Joint Utilities, have stated that ratepayer supported interventions should be as short as possible. In recognition of the uncertainty in the current energy markets, Staff is proposing to minimize the contract terms where possible and proposes a three-year standard contract term whether the facility opts for the streamlined or the case-by-case review process.

3.1.7. Contract Renewal

Staff proposes that a facility may only seek a contract for maintenance support if it is not currently under an RPS or CES contract that was awarded in a competitive solicitation. Staff proposes that a facility be permitted to submit an application seeking a renewal of a maintenance

²⁷ At this time, the most recent Tier 1 REC price would be \$24.24 per MWh, as developed in RPS solicitation #11, completed in May 2016.

contract upon its expiration. The applicate must demonstrate that the financial need that predicated the initial award persists at the time of the renewal.

3.2. REPOWERING

As part of the CES implementation, the proposed Phase 1 Plan included a "repowering" category for vintage renewable generators. Similar to Tier 2, repowering of existing facilities share the underlying intention of preserving the generation of existing renewable resources if doing so costs less than replacing them with new resources. The rationale for this proposal was to encourage older vintage facilities that may be at the end of their useful life to remain in production. The repowering proposal included the following criteria: (1) the Prime Mover had operated for the length of its useful life; (2) the Prime Mover had been completely replaced with a new one which was installed after January 1, 2015; (3) the replacement of the Prime Mover had resulted in a material increase of 15 percent or more in efficiency of production of the generation unit; and (4) 80 percent of the tax basis from the completed repowered facility is derived from capital expenditures made after January 1, 2015.

Under the current CES rules, an existing renewable facility is permitted to bid any incremental generation, above its baseline production that results from capital improvements completed at the facility, into a competitive CES solicitations.²⁸ In comments submitted in this proceeding, parties have maintained that there are instances where it is operationally more efficient to replace an existing unit, or units, with newer technology, than repair the existing

²⁸ The incremental generation is subject to verification by an independent engineer's report, submitted as part of the CES provisional certification process.

equipment. These replacements may result in incremental generation from the existing site when compared to the existing technology (e.g., replacing an older wind turbine and blades with larger and more advanced equipment) and better assist in reaching the 50 by 30 goal. However, facility developers have stated that the cost of these replacements is often greater than the incremental revenue the developer would receive from an award based on the incremental generation alone. Developers have opined that New York State is not getting the full benefit of such potential replacements because the CES program does not compensate the developer for the full output of the new unit.

Some commenters also state that, absent repowering, it is possible that an owner of an older, yet operating, renewable facility may abandon that facility, removing the generating equipment and sell the site to a new developer, who will install new equipment on the same site and bid the output into a CES Tier 1 solicitation. In that situation, the commenters note that the CES program will incur greater costs than it otherwise would have if repowering was an available option to developers.

Staff is concerned that allowing an existing facility to be compensated for the entire output of a repowered facility, including generation included in the baseline, as part of a Tier 1 bid, could circumvent the financial needs test that the Commission requires for maintenance support under Tier 2. Staff also finds it unlikely that an owner would abandon a facility and its site as long as its ongoing operating revenues exceeded the expected costs. However, Staff concurs that there may be situations that warrant a significant capital expenditure; without which the facility may be forced permanently out of service. In these situations, the facility may be eligible for maintenance support under Tier 2 for the existing baseline output of the facility, including the cost of the required

capital project as an acceptable to-go-cost, assuming the facility could meet the required financial needs test when including the costs of the needed capital project to remain operational. Any additional output from the capital project, in excess of the baseline production would be eligible to be bid into a future Tier 1 solicitation.²⁹ Staff recommends prorating the costs from any such capital expenditure between that considered maintenance for the baseline generation and that which will go towards new incremental generation that can bid into a future CES Tier 1 solicitation. The proration should be based on the installed capacity, before and after the new capital project is completed. Additionally, in calculating revenue for the maintenance tier award, Staff will impute revenues for the incremental generation using the weighted average attribute payment from the most recently published large-scale renewable solicitation (currently \$24.24 per MWh).

Therefore, at this time, Staff is not recommending that the Commission modify the CES program to include a repowering option to allow the entire generation output of the facility be eligible for Tier 1.

3.3. VOLUNTARY MARKETS

Fostering growth of voluntary markets has always been an integral component of New York's renewable energy policies, beginning with the initial RPS program in 2004, when the Commission allocated a portion of the RPS goal to the voluntary market. The August 2016 CES Order affirms the objective of encouraging voluntary actions to contribute to the State's renewable energy objectives and discusses a number of initiative

²⁹ Additional revenues that may result from increment output, including any potential Tier 1 REC revenues, would be considered in the calculation of the maintenance tier application.

and efforts under the Reforming Energy Vision (REV) to spur that growth. As an example, in 2016 the Commission approved the CCA program that provides a framework to enable municipalities, and the communities they serve, to make community choices regarding their energy supply and supplier. Businesses and non-profits are increasingly interested in seeking the role of CCA administrators to help advance the goals of municipalities, which often seek a cleaner and cheaper energy supply, but also have an interest in supporting local renewable generation facilities.³⁰ NYSERDA, through the Clean Energy Fund, has programs to assist communities in developing a CCA program and other initiatives to promote clean energy.³¹

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. Also, 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 NYGATS³² for the life of the maintenance contract. In

³⁰ See ANCA, The Local E-Movement Presentation, which may be found at: <https://tinyurl.com/ANCA-CES-Presentation>.

³¹ The Clean Energy Fund Investment Plan: Communities Chapter (<https://www.nyserda.ny.gov/-/media/Files/About/Clean-Energy-Fund/CEF-Communities-Chapter.pdf>) identifies ways in which NYSERDA will engage and partner with local governments and communities in affecting energy choices.

³² The development of the NYGATS platform allows for the tracking of certificate retirements and exports. Staff and NYSERDA will develop reporting procedures that will allow Staff to monitor and, as necessary, report back to the Commission on REC activities which may be detrimental to the "50 by 30" goal.

addition, 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. However, the precise compensation and components of the value stack that may be available to an existing baseline facility are still being examined by Staff and stakeholders in the VDER proceeding. Staff recommends that facilities continue to seek guidance from the working groups in the VDER proceeding to advance these issues.³³

4. SUMMARY OF RECOMMENDATIONS

In summary, Staff recommends the following revisions to the eligibility criteria for Tier 2 for Commission Consideration:

- 1) Revise the vintage date to include all non-state owned, run-of-river hydroelectric facilities; wind facilities; and biomass direct combustion facilities, which are not currently under a contract to sell their environmental attributes associated with the energy produced, as eligible for support under Tier 2 if the facility was in operation prior to January 1, 2015.
- 2) Increase the eligibility size threshold for small hydroelectric facilities from 5 MW up to 10 MW.
- 3) Maintain the to-go-costs analysis but add a return on capital for future capital expenditures and a 5% risk contingency of forecasted Operation and Maintenance expenses.
- 4) Allow for a Streamlined Review for a maintenance contract with a three-year term, and financial support up to the

³³ Eligibility issues are discussed by the Value Stack Working Group in Case 15-E-0751, which uses the Document and Matter Management (DMM) number 17-01276 accessible at <http://www.dps.ny.gov>

- current Social Cost of Carbon price minus the Regional Greenhouse Gas Initiative price.
- 5) Allow a facility under a Case-by-Case review to receive a maintenance contract, with a three-year term, and financial support up to the then current Tier 1 REC price.
 - 6) Permit a facility to apply for a renewal of a maintenance contract upon its expiration.
 - 7) Continue to provide guidance to existing facilities in the VDER and other regulatory proceedings.

This sheet is the calculation of the pro forma income statement that will be used to determine if a Tier 2 (Maintenance) need exists. This sheet begins with income and expense data that will be completed by the applicant. The information included on this sheet is an example and reflects the activity of a hypothetical generator - XYZ Hydro. The income and expense items list reflect the typical items reflected in previous maintenance tier applications received by the Commission; an actual applicants items may vary. The entered data is then adjusted based on the data and information provided on the "General Data Sheet" tab.

Maintenance Tier Application for: **XYZ Hydro**
 Application Date: **1-Aug-17**
 Maintenance Tier Support Requested (\$/MWh): **\$3.86**
 Historic Period - 12 months ended: **31-Dec-16**
 NYISO Zone: **Central**

To be Completed by Applicant

	Historical				Adjusted Historical			Projected								
	2014	2015	2016	Average	Normalizing Adjustments	To Go Cost Adjustments	Adjusted Average	2018	Staff Adjustment	Adjusted 2018	2019	Staff Adjustment	Adjusted 2019	2020	Staff Adjustment	Adjusted 2020
Generation (MWh)	3,802	4,835	5,022	4,553			4,553	5,279.3		5,279.3	5,279.3		5,279.3	5,279.3		5,279.3
Average Historic Price	\$26.56	\$22.54	\$22.20													
Forecasted Energy Price								\$34.97		\$34.97	\$37.89		\$37.89	\$45.79		\$45.79
Revenue																
Energy Sales Revenues	\$101,000	\$109,000	\$111,500	\$107,167			107,167	\$184,621		\$184,621	\$200,020		\$200,020	\$241,744		\$241,744
Capacity and Ancillary Service Revenues																
Voluntary REC sales	-	4,500	3,200	2,567			2,567		4,950	4,950		4,716	4,716		7,742	7,742
NYSEER REC Contract																
Total Revenue	101,000	113,500	114,700	109,733			109,733	184,621	4,950	189,571	200,020	4,716	204,736	241,744	7,742	249,486
Other Income																
Total Income	\$101,000	\$113,500	\$114,700	\$109,733			109,733	\$184,621	\$4,950	\$189,571	\$200,020	\$4,716	\$204,736	\$241,744	\$7,742	\$249,486
Expense																
Fuel	-	-	-	-				\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Repairs and Maintenance	1,500	1,175	1,330	1,335			1,335	1,335.0	27.1	1,362.1	1,362.1	27.7	1,389.8	1,389.8	28.2	1,418.0
Supplies and Equipment	595	750	860	735			735	735.0	14.9	749.9	749.9	15.2	765.1	765.1	15.5	780.7
Transmission Charges	1,000	1,500	1,220	1,240			1,240	1,240.0	25.2	1,265.2	1,265.2	25.7	1,290.9	1,290.9	26.2	1,317.1
Environmental, Health and Safety	1,250	1,400	1,350	1,333			1,333	1,333.3	27.1	1,360.4	1,360.4	27.6	1,388.0	1,388.0	28.2	1,416.2
Testing Requirements	-	-	-	-			-	-	-	-	-	-	-	-	-	-
Registrations, Fee and Permits	1,000	1,525	1,570	1,365			1,365	1,365.0	27.7	1,392.7	1,392.7	28.3	1,421.0	1,421.0	28.8	1,449.8
Compensation and Benefits Expense:																
Direct Labor Salaries and Wages	65,000	67,500	71,000	67,833			67,833	67,833.3	1,377.0	69,210.4	69,210.4	1,405.0	70,615.3	70,615.3	1,433.5	72,048.8
Allocated Service Company Labor Salaries	7,500	5,500	6,200	6,400			6,400	6,400.0	129.9	6,529.9	6,529.9	132.6	6,662.5	6,662.5	135.2	6,797.7
Contracted Labor Salaries and Wages	-	-	-	-			-	-	-	-	-	-	-	-	-	-
Overtime	8,200	5,500	3,225	5,642			5,642	5,641.7	114.5	5,756.2	5,756.2	116.9	5,873.0	5,873.0	119.2	5,992.3
Incentive Compensation	-	-	-	-			-	-	-	-	-	-	-	-	-	-
Payroll Taxes	10,950	11,125	11,500	11,192			11,192	11,191.7	227.2	11,418.9	11,418.9	231.8	11,650.7	11,650.7	236.5	11,887.2
Worker's Compensation	5,500	6,600	6,780	6,293			6,293	6,293.3	127.8	6,421.1	6,421.1	130.3	6,551.4	6,551.4	133.0	6,684.4
Health Insurance	17,500	17,500	17,550	17,517			17,517	17,516.7	355.6	17,872.3	17,872.3	362.8	18,235.1	18,235.1	370.2	18,605.2
Pension	-	-	-	-			-	-	-	-	-	-	-	-	-	-
General Administrative Expenses:																
Administrative Service Fees	-	-	-	-			-	-	-	-	-	-	-	-	-	-
Postage and Shipping Charges	500	475	665	547			547	546.7	11.1	557.8	557.8	11.3	569.1	569.1	11.6	580.6
Professional Services	2,500	3,200	2,875	2,858			2,858	2,858.3	58.0	2,916.4	2,916.4	59.2	2,975.6	2,975.6	60.4	3,036.0
Legal Fees	-	-	25,000	8,333			(8,333)	-	-	-	-	-	-	-	-	-
Bank Service Charges	420	450	650	507			507	506.7	10.3	517.0	517.0	10.5	527.4	527.4	10.7	538.2
Government Relations	1,500	1,500	1,500	1,500			1,500	1,500.0	30.5	1,530.5	1,530.5	31.1	1,561.5	1,561.5	31.7	1,593.2
Utilities (Telephone, Electricity)	900	915	954	923			923	923.0	18.7	941.7	941.7	19.1	960.9	960.9	19.5	980.4
Insurance	10,000	10,500	11,000	10,500			10,500	10,500.0	213.2	10,713.2	10,713.2	217.5	10,930.6	10,930.6	221.9	11,152.5
Travel	-	869	-	290			290	289.7	5.9	295.5	295.5	6.0	301.5	301.5	6.1	307.7
Property Taxes (School and County)	15,900	16,105	16,105	16,037			16,037	16,036.7	325.5	16,362.2	16,362.2	332.2	16,694.4	16,694.4	338.9	17,033.3
Office Equipment, Software and Internet	1,050	1,325	1,300	1,225			1,225	1,225.0	24.9	1,249.9	1,249.9	25.4	1,275.2	1,275.2	25.9	1,301.1
Office Expenses	975	1,225	1,100	1,100			1,100	1,100.0	22.3	1,122.3	1,122.3	22.8	1,145.1	1,145.1	23.2	1,168.4
Advertising	-	-	-	-			-	-	-	-	-	-	-	-	-	-
Dues and Subscriptions	1,250	1,500	1,750	1,500			1,500	1,500.0	30.5	1,530.5	1,530.5	31.1	1,561.5	1,561.5	31.7	1,593.2
Other	2,500	3,875	4,580	3,652			3,652	3,651.7	74.1	3,725.8	3,725.8	75.6	3,801.4	3,801.4	77.2	3,878.6
Interest Expense	25,650	25,500	26,000	25,717			25,717									
Depreciation	51,100	51,100	51,100	51,100			51,100									
Subtotal - Operations and Maintenance Costs	\$234,240	\$238,614	\$267,164	\$246,673			246,673	\$161,523	\$3,279	\$164,802	\$164,802	\$3,345	\$168,147	\$168,147	\$3,413	\$171,560
Contingency Adder (@5% of O&M)								8,076	164	8,240	8,240	167	8,407	8,407	171	8,578
Subtotal - O&M Plus Contingency	\$234,240	\$238,614	\$267,164	\$246,673			246,673	\$169,599	\$3,443	\$173,042	\$173,042	\$3,513	\$176,554	\$176,554	\$3,584	\$180,138
Allocated InterCompany Charges																
Going Forward Capital Expenditures																
Debt Service/Return on Investment - New Cap Ex Only								33,555.8		33,555.8	33,555.8		33,555.8	33,555.8		33,555.8
Depreciation on New Cap Ex Only								19,400.0		19,400.0	19,400.0		19,400.0	19,400.0		19,400.0
Total Expense	\$234,240	\$238,614	\$267,164	\$246,673			246,673	\$222,555	\$3,443	\$225,997	\$225,997	\$3,513	\$229,510	\$229,510	\$3,584	\$233,094
Net Income	(\$133,240)	(\$125,114)	(\$152,464)	(\$136,939)			\$8,333	(\$37,934)	\$1,507	(\$36,427)	(\$25,977)	\$1,203	(\$24,774)	\$12,234	\$4,157	\$16,391
Implied maintenance REC required				\$30.08				\$11.37		\$6.90			\$4.69			\$0.00
Award Cap										\$17.70			\$18.51			\$17.65
Recommended Award										\$6.90			\$4.69			\$0.00
																\$3.86

Notes:
 Expenses are inflated using the ORE Calculator, using historical and forecasted GDP price index from the sources that the Commission authorized to use in rate proceedings.
 For this period the Calculator returns an annual inflation factor of 2.03%

DPS Template
 The average price is the amount that the attribute payment will be set at for the life of the Tier 2 contract.

Average Annual CES Tier 2 Support

DPS Template
 The CES Tier 2 Attribute Payment is set at the lesser of the calculated need of the SCC-RGGI price.

DPS Template:
 In this example, the legal fees were for a personal injury claim. It is unlikely that a similar claim will occur during the Tier 2 contract term; as a result the expense was "normalized" out of the historic costs.

DPS Template:
 Since the Depreciation and Interest expense items relate to existing capital, they cannot be classified as "to-go-costs" and are removed as sunk costs.
 Depreciation and a return for new capital expenditures is included below.

