I. SUMMARY

Pursuant to this Order, the Biomass Cogen generation facility of Catalyst Paper Operations Inc. located in Rumford, Maine (the Facility) is certified as a Class I New Renewable Resource that is eligible to satisfy Maine’s new renewable resource portfolio requirement pursuant to Chapter 311, § 3(B) of the Commission’s rules. This certification is for the generation from the steam produced by the combustion of renewable biomass in the Facility, pursuant to the calculation specified in this Order.

II. BACKGROUND

A. New Renewable Resource Portfolio Requirement

During its 2007 session, the Legislature enacted an Act To Stimulate Demand for Renewable Energy (Act). P.L. 2007, ch. 403 (codified at 35-A M.R.S.A. § 3210(3-A)). The Act added a mandate that specified percentages of electricity that supply Maine’s consumers come from “new” renewable resources.1 Generally, new renewable resources are renewable facilities that have an in-service date, resumed operation or were refurbished after September 1, 2005. The percentage requirement starts at one percent in 2008 and increases in annual one percent increments to ten percent in 2017, unless the Commission suspends the requirement pursuant to the provisions of the Act.

As required by the Act, the Commission modified its portfolio requirement rule (Chapter 311) to implement the “new” renewable resource requirement. Order Adopting Rule and Statement of Factual and Policy Basis, Docket No. 2007-391 (Oct. 22, 2007). The implementing rules designated the “new” renewable resource

1 Maine’s electric restructuring law, which became effective in March 2000, contained a portfolio requirement that mandated that at least 30% of the electricity to supply retail customers in the State come from eligible resources, which are either renewable or efficient resources. 35-A M.R.S.A. § 3210(3). The Act did not modify this 30% requirement.
requirement as “Class I” and incorporated the resource type, capacity limit, and the vintage requirements as specified in the Act. The rules thus state that a new renewable resource used to satisfy the Class I portfolio requirement must be of the following types:

- fuel cells;
- tidal power;
- solar arrays and installations;
- wind power installations;
- geothermal installations;
- hydroelectric generators that meet all state and federal fish passage requirement; or
- biomass generators, including generators fueled by landfill gas.

In addition, except for wind power installations, the generating resource must not have a nameplate capacity that exceeds 100 MW. Finally, the resource must satisfy one of four vintage requirements. These are:

1) renewable capacity with an in-service date after September 1, 2005;
2) renewable capacity that has been added to an existing facility after September 1, 2005;
3) renewable capacity that has not operated for two years or was not recognized as a capacity resource by the ISO-NE or the NMISA and has resumed operation or has been recognized by the ISO-NE or NMISA after September 1, 2005; or
4) renewable capacity that has been refurbished after September 1, 2005 and is operating beyond its useful life or employing an alternate technology that significantly increases the efficiency of the generation process.

Chapter 311, § 3(B)(4) of the Commission’s rules establishes a certification process that requires generators to pre-certify facilities as a new renewable resource under the requirements of the rule and provides for a Commission determination of resource eligibility on a case-by-case basis. The rule contains the information that must be included in a petition for certification and specifies that the Commission shall provide an opportunity for public comment if a petitioner seeks certification under vintage categories 2, 3, or 4. Finally, the rule specifies that the Commission may revoke a certification if there is a material change in circumstance that renders the generation facility ineligible as a new renewable resource.

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2 The “new” renewable resource requirement was designated as Class I because the requirement is similar to portfolio requirements in other New England states that are referred to as “Class I.” Maine’s pre-existing “eligible” resource portfolio requirement is designated as Class II.

3 In the Order Adopting Rule at 6, the Commission noted that a request for certification can be made at any time so that a ruling can be obtained before a capital investment is made in a generation facility.
B. Petition for Certification

On April 29, 2012, Catalyst Paper Operations Inc. (Catalyst) filed a petition to certify its Biomass Cogen generation facility located at the Rumford Mill in Rumford, Maine (“Facility”) as a Class I New Renewable Resource under the refurbishment provision of the Commission’s renewable portfolio rules. Ch. 311, § 3(B)(3)(d). After a protective order was issued by the Commission Staff, Catalyst supplemented its petition with confidential documents on May 10, 2016. Staff subsequently issued an information request and Catalyst responded on August 25, 2016. As required by our rules, the Commission provided interested persons with an opportunity to comment on Catalyst’s Petition. No comments were received.

According to the petition, the Facility is a behind-the-meter unit that consists of two PyroPower Circulating Fluidized Bed Boilers, one Steam Turbine Generator, and necessary auxiliary equipment. The Facility boilers burn a variety of solid fuels, including coal, tire derived fuel, internally generated or purchased wood residues, creosote treated wood, and paper mill sludge from Rumford Mill’s onsite wastewater treatment plant. Additionally, no. 6 fuel oil is used in the startup of the boilers. While the Facility was originally designed to burn 70% coal and 30% biomass, Catalyst states that the proportion of biomass has increased due to changes made to the Facility.

Catalyst asserts that the turbine generator and boilers are now operating six years beyond their typical useful life expectancy of twenty years and are capable of generating a maximum of 60 MW. Catalyst claims $16,856,000 of refurbishment investments since September 1, 2005 to such Facility components as fuel storage and delivery, air heaters, isolation valves, superheaters, economizers, heat exchangers, and various turbine upgrades, as well as process improvements to improve heat utilization and boiler uptime. All of Catalyst’s claimed refurbishment investments have been capitalized for federal tax purposes. Catalyst also notes an additional $6 million of annual maintenance expenditures spent on the Facility that, while not refurbishment, “is indicative of [Catalyst]’s commitment to keeping this equipment in efficient and reliable working order for the foreseeable future.” Finally, on August 25, 2016, Catalyst responded to a Commission Staff information request by, in part, describing the current fuel mix of the Facility’s boilers.

III. DECISION

After considering Catalyst’s petition and the additional information provided by Catalyst in response to Staff’s questions, the Commission finds that Catalyst’s Facility has been refurbished and is operating beyond its useful life pursuant requirements of Chapter 311, section 3(B)(3)(d), and therefore qualifies as a Maine Class I New Renewable Resource. The specific elements of Class I New Renewable Resource eligibility – resource type, capacity limit, and vintage – are discussed in turn below, in addition to special obligations particular to this Facility relating to behind-the-meter generation and the methodology for calculating RECs.
A. **Resource Type**

According to Catalyst’s petition and supplemental submissions, the Facility generates electricity by burning a combination of RPS eligible and non-RPS eligible fuels. Catalyst is requesting certification of the portion of fuels that would qualify as biomass under Chapter 311.

In the Commission’s Order adopting Chapter 311, the Commission concluded that, “without further legislative direction and in light of the unqualified statutory term ‘biomass,’ the Commission would adopt a relatively broad definition that includes all fuel derived from wood and wood byproducts (along with other organic sources).” Public Utilities Commission Amendments to Portfolio Requirement Rule (Chapter 311), Docket No. 2007-397, Order Adopting Rule and Statement of Factual and Policy Basis (Oct. 27, 2007). Under this definition of biomass, we find that the fuel mix consisting of internally generated or purchased wood residues, creosote treated wood, and paper mill sludge are eligible renewable resources.

B. **Capacity Limit**

Chapter 311, section 3(B)(2) provides that a new renewable resource other than wind must not have a nameplate capacity that exceeds 100 MW. The Commission has found that the capacity limit applies to the total renewable resource portion of a facility. While Catalyst does not provide the proportional capacity of the Facility related to the biomass fuels, it does represent that the total maximum electrical generation of the two boilers is 60 MW. Because this generation capability is below 100 MW, we find that Catalyst has satisfied the capacity limit element for Class I New Renewable Resource eligibility.

C. **Vintage**

Catalyst seeks certification under the refurbishment prong of the vintage criteria contained in Chapter 311, section 3(B)(3)(d). This refurbishment prong is also contained in the definition of “New” as applied to any renewable capacity resource in 35-A, MRSA § 3210(2)(B-4). The refurbishment prong defines a new renewable resource as a generation facility that:

- Has been refurbished after September 1, 2005 and is operating beyond its previous useful life or is employing an alternate technology that significantly increases the efficiency of the generation process.

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4 In the Commission’s Order certifying the Verso Bucksport biomass facility as a Class I New Renewable Resource, the Commission found that since Chapter 311, section 3(B)(1) defines a new renewable resource as a generation facility that generates electricity with the renewable fuels set forth in the rule, it would consider only the portion of the Bucksport Paper Mill’s nameplate capacity attributable to the renewable output, namely the Bucksport Biomass Plant, as constituting the renewable capacity resource. Verso Bucksport LLC, Request for Certification for RPS Eligibility, Docket No. 2011-102, Order Granting New Renewable Resource Certification at 6 (Nov. 23, 2011).
This prong is a two part test that requires the Commission to first determine whether the facility has been “refurbished,” and then to determine whether the facility is operating beyond its previous useful life or employing an alternate technology that significantly increases the efficiency of the generation process.

To clarify the meaning of refurbishment, the Legislature enacted an amendment to the refurbishment prong of the vintage requirement. Pursuant to the statutory amendment, “to refurbish” means “to make an investment in equipment or facilities, other than for routine maintenance and repair, to renovate, reequip or restore the renewable capacity resource.” 35-A M.R.S.A. § 3210(2)(B-4).

As stated by the Maine Law Court, the purpose of the refurbishment provision is to encourage the preservation of older existing renewable generation facilities by creating an incentive for owners to make the investments necessary to preserve and extend the useful lives of these older facilities. Covanta Maine, LLC v. Public Utilities Commission, 2012 ME 74, ¶ 16 (2012) (Covanta).

Pursuant to the Law Court’s analysis in Covanta, in the course of making its determination regarding whether there has been a refurbishment, the Commission must consider the nature and character of the expenditures to determine whether they were made for the purpose of repair or maintenance or for investment in equipment or facilities. Covanta, 2012 ME 74, ¶¶ 17, 19.

i. Refurbishment

The Commission’s practice in assessing whether a generation facility has been refurbished is to examine a collection of factors, including, but not limited to, the condition of the facility prior to the investments and the nature of the expenditures to determine whether they appear to be related to routine maintenance and repair.

Catalyst has provided a list of capital investments made to its Facility totaling over $16 million. Examples of claimed refurbishment projects from this list include cogen air heater tube replacement, cogen bottom ash screw upgrade, upgrade superheater loops, snake conveyor installation, upgrade 6A and 7A fuel feeders, and installation of cogen economizer shields. We do not make a finding on whether each of the projects included in Catalyst’s filing independently meets the definition of a refurbishment investment. Rather, we find that the nature, character, and scope of Catalyst’s investments in the Facility in the aggregate go beyond routine maintenance or repair. The aggregated refurbishment investments are therefore sufficient to certify the renewable-based electrical generation derived from the Facility as consistent with the statutory definition of a generation facility that has been refurbished after September 1, 2005.

5 The Commission interprets this language as making “explicit the Commission’s existing practice of disregarding investments made for routine maintenance and repair when looking at whether a facility has been refurbished.” Verso Bucksport LLC, Request for Certification for RPS Eligibility, Docket No. 2011-102, Order Granting New Renewable Resource Certification at 7, fn. 10 (Nov. 23, 2011).
ii. Operating Beyond the Facility’s Previous Useful Life

Catalyst seeks qualification of its investments under the useful life sub-prong of the refurbishment vintage category, stating that the “typical life expectancy of a [boiler] and turbine generator of the type in operation at the Rumford Mill is 20 years” and the Facility boilers and turbine are now twenty-six years old. Petition at 5. Consistent with our findings for the useful life of the Verso Androscoggin and Sappi Somerset recovery boilers, the Facility, at over twenty-six years old, is operating beyond its previous useful life.

D. Methodology for Calculating RECs

Catalyst proposes to calculate RECs by determining eligible steam generation from the Facility using the proportional method approved by the Commission for the C Recovery Boiler also located at Rumford Mill. The C Recovery Boiler is used primarily to recover energy from black liquor a paper making by-product, number 6 fuel oil supplements black liquor in the recovery boiler. The proportional steam method calculates the REC eligible steam output from the recovery boiler using the ratio of the heat value and volume of black liquor to the heat value and volumes of black liquor and fuel oil applied to the total steam produced in the boiler. Steam from the C Recovery Boiler then mixes with steam from the numbers 6 and 7 Circulating Fluidized Bed boilers before flowing through the number 4 turbine generator.

Catalyst proposes to similarly extend the proportional steam calculation to the steam output of the Facility boilers. These boilers burn six different fuels; internally generated or purchased wood residues, creosote treated wood, and paper mill sludge which are eligible fuels for REC certification, and tire derived waste, coal, and fuel oil which are not eligible. To derive the REC eligible steam output using the proportional method for these two boilers, Catalyst would use the ratio of the heat value and volumes of REC eligible fuels to the heat value and volumes of total fuel consumed. The amount of eligible energy produced by turbine generator 4 would then be calculated by applying the ratio of REC eligible steam output from all three boilers divided by the

6 Catalyst has not sought certification under the alternative technology sub-prong of the refurbishment category.


8 See Catalyst Response to Staff Written Information Request No. 1, #3 and illustrated in confidential Attachment 2 (Aug. 25, 2016).

total steam output from all three. This ratio applied to total electrical generation would provide the certified REC eligible power output.

The Commission generally favors the proportional method for calculating RECs due to its simplicity, objectivity, and replicability. Such a method enables those who have not been involved in this proceeding and who may be less familiar with a particular plant to understand and verify the calculation more easily. Therefore, we approve the methodology proposed by Catalyst and described above for calculating eligible REC generation associated with the Facility.

E. Behind-the-Meter

The Commission’s standard for RPS certification applicants that generate behind-the-meter has been to permit certification if the facility otherwise qualifies, but to require the applicant to retain GIS certificates or otherwise obtain GIS certificates necessary to satisfy Maine's RPS (both the original 30% and the “new” requirement) for that portion of the load that is served by the facility behind-the-meter. Therefore, Catalyst is required to submit to the Commission an annual report by October 1st of each year that demonstrates compliance with this requirement.

Accordingly, the Commission

ORDERS

1. That the electrical generation of the Catalyst Facility derived from the renewable output of the Biomass Cogen generation facility is certified as a Maine Class I New Renewable Resource.

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12 Id. at 8 (“The rationale for certifying the [facility] as a Class I resource is that it is a newly refurbished renewable facility that serves Maine load. Therefore, the service of that load should comply with the RPS requirements as would occur if that load was served by a competitive electricity provider or if [the applicant] chose to sell its generation into the market and purchase all of its electricity needs.”); see also RTT Solar, LLC, per pro. Revision Energy, LLC, Request for Certification for RPS Eligibility, Docket No. 2012-00547, Order Granting New Renewable Resource Certification at 9 (May 30, 2013).
2. That Catalyst shall use the Proportional Method to calculate qualifying RECs consistent with this Order and Catalyst’s Response to Information Request No. 1, Question No. 3;

3. That Catalyst, on an annual basis beginning on October 1, 2017, shall file with the Commission a compliance report showing the full basis for the calculation of the RECs generated from the Catalyst Rumford Mill Facility. This report should include how the steam and electrical generation metering equipment associated with the Catalyst Paper Rumford Facility related to the C-Recovery boiler and Circulating Fluidized Bed Boilers 6 and 7 have been calibrated; how the metered data have been reviewed, and (if applicable) corrected for accuracy; and how the MMbtu content of the black liquor and fuel oil combusted in the C-Recovery Boiler as well as the internally generated or purchased wood residues, creosote treated wood, paper mill sludge, tire derived waste, coal, and fuel oil combusted in Circulating Fluidized Bed Boilers 6 and 7 have been established and verified;

4. That Catalyst shall submit to the Commission an annual report by October 1st of each year that demonstrates compliance with the requirement that Catalyst must retain GIS certificates or otherwise obtain GIS certificates necessary to satisfy Maine’s RPS (both the original 30% and the “new” requirement) for that portion of its load that is served by the Catalyst Rumford Mill Facility; and

5. That Catalyst shall provide timely notice to the Commission of any material change in the characteristics or operation of the Catalyst Facility, including the type of fuel used in the generation process, from that described in the submissions filed by Catalyst in this proceeding. Catalyst shall also provide timely notice to the Commission of any material change in the characteristics or operation of other components of the Rumford Paper Mill that materially impact the characteristics, operation, or eligibility for certification of the Catalyst Facility.

Dated at Hallowell, Maine, this 24th day of October, 2016.

/s/ Harry Lanphear
Harry Lanphear
Administrative Director

COMMISSIONERS VOTING FOR: Vannoy
McLean
Williamson
NOTICE OF RIGHTS TO REVIEW OR APPEAL

5 M.R.S.A. § 9061 requires the Public Utilities Commission to give each party to an adjudicatory proceeding written notice of the party's rights to review or appeal of its decision made at the conclusion of the adjudicatory proceeding. The methods of review or appeal of PUC decisions at the conclusion of an adjudicatory proceeding are as follows:

1. **Reconsideration** of the Commission's Order may be requested under Section 1004 of the Commission's Rules of Practice and Procedure (65-407 C.M.R.110) within 20 days of the date of the Order by filing a petition with the Commission stating the grounds upon which reconsideration is sought. Any petition not granted within 20 days from the date of filing is denied.

2. **Appeal of a final decision** of the Commission may be taken to the Law Court by filing, within 21 days of the date of the Order, a Notice of Appeal with the Administrative Director of the Commission, pursuant to 35-A M.R.S.A. § 1320(1)-(4) and the Maine Rules of Appellate Procedure.

3. **Additional court review** of constitutional issues or issues involving the justness or reasonableness of rates may be had by the filing of an appeal with the Law Court, pursuant to 35-A M.R.S.A. § 1320(5).

**Note:** The attachment of this Notice to a document does not indicate the Commission's view that the particular document may be subject to review or appeal. Similarly, the failure of the Commission to attach a copy of this Notice to a document does not indicate the Commission's view that the document is not subject to review or appeal.