I. SUMMARY

In this Order the Commission certifies as a Class I New Renewable Resource the output of the Verso Androscoggin, LLC (Verso) Recovery Boiler No. 2 (RB2) in Jay, Maine as 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 RB2, 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. § 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. Public Utilities Commission Amendments to Portfolio Requirement Rule (Chapter 311), Docket No. 2007-391, Order Adopting Rule and Statement of Factual and Policy Basis, (Oct. 22, 2007).

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. § 3210(3). The Act did not modify this 30% requirement.
(Order Adopting Chapter 311 Rule). The implementing rules designated the "new" renewable resource requirement as "Class I"\(^2\) 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 requirements; 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.\(^3\)

\(^2\) 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.

\(^3\) The 125\(^{th}\) Maine State Legislature amended 35-A M.R.S.A. § 3210 (2010), subsection 2, B-4, to provide additional guidance on the meaning of the term refurbish. The new language states that "to refurbish" means to make an investment in equipment or
Chapter 311, section 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 and 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.

B. Petition for Certification

On October 23, 2015, Verso, a subsidiary of Verso Paper Corporation, filed its Petition to certify its RB2 power plant located at the Androscoggin Paper Mill in Jay, Maine as a Class I New Renewable Resource under the refurbishment provision of the Commission’s renewable portfolio rules. Ch. 311, § 3(B)(3)(d). Commission Staff issued a protective order and Verso supplemented its Petition with confidential documents on November 12, 2015. Staff issued one additional information request and Verso responded with an additional filing on February 4, 2016. As required by Commission rules, the Commission provided interested persons with an opportunity to comment on Verso’s Petition, but no comments were submitted. The record in this case consists of these filings made by Verso.

RB2 provides steam to three steam turbines, TG-1, TG-2, and TG-3, resulting in combined total generation of between 18 and 24 MW.

The renewable generation facility at issue in this proceeding is the renewable output of RB2 and the three turbine generators it feeds (Verso Androscoggin Facility). Facilities, other than for routine maintenance and repair, to renovate, reequip or restore the renewable capacity resource.” P.L. 2011, Ch. 413, § 1.

In the Order Adopting Chapter 311 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.

RB2 is one of several steam generation sources contained in the Androscoggin Paper Mill. The Mill also produces steam from two oil-fired boilers, several natural-gas fired boilers, Recovery Boiler Number 1 (RB1), and a waste fuel incinerator (WFI). This steam feeds into TG1, TG2, and TG3 along with steam from RB2. RB1 was certified as a Class I New Renewable Resource on December 19, 2012. Request for Certification for RPS Eligibility (Verso Androscoggin, LCC), Docket No. 2012-00301, Order Granting New Renewable Resource Certification (December 19, 2012). The WFI also burns some renewable fuel to produce steam, but Verso has not sought Class I certification of these steam generation sources. The Commission has determined that a portion of a renewable generation facility can be certified as a Class I eligible resource. See Order Granting In Part and Denying In Part New Renewable Resource Certification in Docket No. 2012-81.
RB2 is a multi-fuel boiler that primarily burns biomass as the organic and combustible component of black liquor to produce steam. The three turbine generators fed by RB2 include: Turbine Generator Number 1 (TG1), a 51 year old (1965) steam turbine with a nameplate capacity of 25 MW; Turbine Generator Number 2 (TG2), a 49 year old (1967) steam turbine with a nameplate capacity of 25 MW; and Turbine Generator Number 3 (TG3), a 40 year old (1976) steam turbine with a nameplate capacity of 30 MW. According to Verso, the steam produced by RB2 normally generates between 18 MW and 24 MW of total electricity from the three turbine generators. In addition to the use of steam for electrical generation, steam extractions from these turbines provide steam for the Mill’s paper making process (Figure 1).

According to Verso’s Petition, RB2 was originally installed in 1976-77, and having a typical useful life of 20 years, is now, at nearly 40 years old, operating beyond its life expectancy. Since September 1, 2005, RB2 has received periodic capital investments that Verso claims have refurbished the facility. The Petition states the sum of all major

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6 Verso stated in its Petition that RB2 is fueled by black liquor “nearly 100% of the time, with auxiliary fuel (natural gas) being used only for startup, shutdown, and upset conditions.” Petition at 2.
refurbishments and capital invested into RB2 and its associated generators has totaled approximately $8.15 million. This investment has included new hot and cold side generating bank tubes, new tertiary level wall tubes, new refractometers, new stack breaching, new sootblower controls, a new continuous emission monitoring system, replacement of conveyor guides, #TG3 rotor bucket replacement, and upgrade of #TG2 and #TG3 gas density meters. Verso revised the total investment that could have been capitalized for tax purposes to $10.82 million7 in its answer to Staff’s information request, stating that the replacement of auxiliary oil burners with natural gas auxiliary burners should also be considered as part of its refurbishment Petition.

In its Petition, Verso proposes a formula to calculate the electricity production from the Verso Androscoggin Facility based upon its proportionate renewable steam production from RB2. The formula partitions the eligible energy from RB2 from the energy produced from other sources at the Androscoggin Mill, and applies this fraction to the total electrical generation output of the three turbines to arrive at the electrical generation attributable to the steam produced by RB2 from eligible renewable fuel.

III. DECISION
A. New Renewable Resource Certification

After considering Verso’s Petition and the additional information provided by Verso in response to Staff’s questions, the Commission finds that Verso’s RB2 has been refurbished pursuant to Chapter 311, section 3(B)(3)(d), and therefore its output qualifies as a Maine Class I New Renewable Resource. This decision to grant Class I certification for the Verso Androscoggin Facility is based upon the finding that Verso has satisfied each of the following elements of Class I New Renewable Resource eligibility: (1) Resource Type; (2) Capacity Limit; and (3) Vintage.

1. Resource Type

Verso’s Petition states that RB2 is fueled by “black liquor” nearly 100% of the time, with auxiliary fuel (natural gas) being used only for startup, shutdown, and upset conditions. Verso seeks Class I certification for only the portion of the generation derived from black liquor.

We find that the black liquor fuel burned in RB2 is an eligible renewable resource under the definition of biomass set forth in our Order Adopting Chapter 311 and reiterated in our Order Granting New Renewable Resource Certification for the Lincoln Paper and Tissue biomass facility because the heat generating portion of black liquor is a combustible and organic byproduct of the wood pulping process.8,9

7 $10.39 million of expenditures since 2005 were capitalized for Federal Tax purposes. February 4, 2016 Verso Androscoggin Responses at 2.
8 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
2. **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 capacity of this facility does not exceed this 100 MW limit so this provision is not an issue in this proceeding.

3. **Vintage**

Verso 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.

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. § 3210(2)(B-4).¹⁰

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¹⁰ 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).
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. Pub. Utils. Comm’n*, 2012 ME 74, ¶ 16. 44 A.3d 960, 964-65.

Pursuant to the Law Court’s analysis in *Covanta Maine*, 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 Maine*, 2012 ME 74, ¶¶ 17, 19, 44 A.3d at 365.

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. While the Law Court found in Covanta that the Commission must make a determination on refurbishment “by examining the nature and character of the expenditures without any quantitative requirement related to the amount spent or the ratio of the expenditures to the total value of the facility,”11 the Commission still examines the amount of the post-September 1, 2005 expenditures to determine the character of the investment and for purposes of determining whether the investment is more in the nature of routine maintenance and repair. However, in light of the direction provided by the Law Court in *Covanta Maine* we do not employ any quantitative threshold related to the amount spent.

In its Petition and supplementary materials, Verso provides a list of capital investments made to RB2 since September 1, 2005 totaling $10.39 million that was capitalized for Federal tax purposes. Most significantly, the cold side and hot side generating bank tubes, previously restored in 1990, were again restored in the years after 2005. The east precipitator collection conveyor, the screen tube upgrade, and the tertiary level wall tube replacement were also significant investments. These expenditures comprised the majority of the capital investments. Verso also states in the Petition that, in addition to other projects, it replaced the auxiliary oil burners with auxiliary natural gas burners. However, it is not clear that it would be appropriate to include investments related to non-renewable fuel generation for purposes of determining whether a renewable energy resource has been refurbished. However, setting this particular project aside, and noting that we do not make a finding on whether each of the remaining projects included in Verso’s filing independently meets the definition of a refurbishment investment, the Commission nonetheless finds that the nature, character and scope of a sufficient number of the investments in RB2 in the aggregate, go beyond routine maintenance or repairs, and are consistent with the statutory definition of refurbished. In particular, we find it significant that, in addition to

11 *Covanta Maine*, 2012 ME 74, ¶ 17, 44 A.3d at 965.
other investments, Verso refurbished the generating banks. Accordingly, the Commission finds that RB2 has been refurbished.

Furthermore, since the steam output of RB2 feeds into all three turbines at the Mill, we find that the refurbishment of RB2 is sufficient to certify the renewable-based electrical generation derived from the RB2 steam via TG1, TG2, and TG3.

ii. Operation Beyond the Facility’s Previous Useful Life

Verso seeks qualification of its investments under the useful life sub-prong of the refurbishment vintage category, stating that the “holistic refurbishment represents an investment . . . to enable the facility to continue operating beyond its previous useful life.” Petition at 6.12

RB2 was installed at the Androscoggin Mill campus in 1976-77. Other significant capital investments have been made in RB2 prior to 2005, including investment in the generating bank tubes in 1990 and the addition of an efficient Long Tube Economizer in 1991-92. Verso states in its Petition that while the actual useful life of a recovery boiler depends upon a condition specific evaluation, the typical useful life of a recovery boiler such as RB2 is 20 years.

While examination of the timing of investments may provide useful information, we do not necessarily agree that the timing of major investments in a facility is determinative of its useful life. There could be a situation in which a company may decide to make a significant investment in a generation facility for reasons other than extending its useful life and therefore the facility would not necessarily be operating beyond its previous useful life as a result of that investment. In this case, however, the record establishes that RB2 had significant safety and operational issues associated with corrosion that, if left unaddressed, would have ended the useful life of RB2 because it could not have continued to operate safely. The Commission finds that Verso has presented sufficient evidence that the Verso Androscoggin Facility had reached the end of its previous useful life.

B. Methodology for Calculating RECs

Verso proposes to use a proportional method for calculating the eligible REC generation associated with RB2. The proposed method for calculating REC production determines the qualifying MWh output of RECs by prorating the total generation output of TG1, TG2, and TG3 based on the energy produced by Class I eligible fuels in RB2 relative to the total energy produced by other fuels (in RB2) and other boilers that feed TG1, TG2 and TG3 (Proportional Method). The Commission has determined that this type of calculation is favorable for its simplicity, objectivity and replicability, which enables others who have not been involved in this proceeding and who are less familiar with a particular plant to more easily understand and verify the calculation.

12 Verso has not sought certification under the alternative technology sub-prong of the refurbishment category.
Therefore, the Commission certifies Verso’s RB2 as a new renewable resource and finds that the eligible RECs from RB2 shall be determined using the same Proportional Method approved by the Commission in its certification of the other recovery boiler, RB1, also located at Verso’s Androscoggin facility.\footnote{The Commission initially approved a proportional method for calculating the REC output for the RB1 in its Order dated December 19, 2012 (see Order Granting New Renewable Resource Certification in Docket No. 2012-0030) and then based on a request from Verso, modified the method by Order dated June 3, 2013. See Modification of Order Granting New Renewable Resource Certification in Docket No. 2012-00301. Verso requests in this proceeding that the REC output of RB2 be determined using the same method as for RB1 adopted in the Modification of Order.} Under this method, the RECs are calculated on an hourly basis using the following formula:

\[
((S_{REW} / S_T) * (G_1 + G_2 + G_3)) = \text{RECs}
\]

Where,

\[
S_T = (S_{RB1} + S_{RB2} + S_{WFI} + S_{PB1} + S_{PB2} + S_{HRSG})
\]

And,

\[
S_{REW} = (F_1 / (F_1 + F_2)) * S_{RB2}
\]

And as defined by,

\[
\text{RECs} = \text{Maine Class I Renewable Energy Credits}
\]

\[
S_T = \text{Total MMBtus of steam production}
\]

\[
S_{REW} = \text{MMBtus of the renewable steam produced by RB2}
\]

\[
F_1 = \text{Biomass fuel input to RB2 in total MMBtus}
\]

\[
F_2 = \text{Natural gas input to RB2 in total MMBtus}
\]

\[
G_1 = \text{Metered electrical production of Generator #1 in MWh}
\]

\[
G_2 = \text{Metered electrical production of Generator #2 in MWh}
\]
G₃ = Metered electrical production of Generator #3 in MWh

S₉¹ = Total MMBtus of Recovery Boiler #1 steam production
S₉² = Total MMBtus of Recovery Boiler #2 steam production
S₉⁴ = Total MMBtus of Waste-Fuel Incinerator (bark boiler) steam production
S₉⁵ = Total MMBtus of co-gen HRSG steam production
S₉⁶ = Total MMBtus of Power Boiler #1 steam production
S₉⁷ = Total MMBtus of Power Boiler #2 steam production

For the reasons stated above, and in accordance with the Proportional REC calculation method outlined above, the Commission grants certification of the renewable electrical generation derived from the output of Verso’s RB2 as a Class I new renewable resource eligible to satisfy Maine’s new renewable resource portfolio requirement pursuant to Chapter 311, § 3(B) of the Commission rules.

To the extent that any of the Class I RECs from the Verso Androscoggin Facility are for behind-the-meter generation, we conclude that Verso 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 facility. See Lincoln Paper and Tissue, LLC, Request for Certification for RPS Eligibility, Docket No. 2008-173, Order Granting New Renewable Resource Certification at 8 (January 27, 2009). Verso shall submit to the Commission an annual report by July 1st of each year that demonstrates compliance with this requirement.

Accordingly, the Commission

ORDERS

1. That the electrical generation of the Verso Androscoggin Facility derived from the renewable output of RB2 is certified as a Maine Class I New Renewable Resource;

2. That Verso shall use the Proportional Method to calculate qualifying RECs as outlined in the body of this Order;

3. That Verso, on an annual basis beginning on July 1, 2016, shall file with the Commission a compliance report showing the full basis for the calculation of the RECs generated from the Verso Androscoggin Facility. This report should include how the steam and electrical generation metering equipment associated with the Verso Androscoggin Facility including RB2 and TG1, TG2 and TG3 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 natural gas combusted in RB2 have been established and verified;

4. That Verso shall submit to the Commission an annual report by July 1st of each year that demonstrates compliance with the requirement that Verso 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 Verso Androscoggin Facility; and

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

Dated at Hallowell, Maine, this 1st day of April, 2016.

BY ORDER OF THE COMMISSION

/s/Harry Lanphear

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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.