

TO:

The Senate Committee on Finance:

My name is Alan Robertson. I'm a retired professional engineer and own and have managed 60 acres of forest in Sheffield, Vermont for over 35 years. I've been a member of the Vermont Woodlands Association for over 35 years and have been the Secretary for over 15 years; I have also been the Co-Chair of the Vermont American Tree Farm System program for over ten years, and was the VWA Tree Farmer of the Year in 2019. I'm honored and pleased to provide the following testimony on behalf of the Vermont Woodlands Association (VWA) in support of S. 161- the re-licensure of the Ryegate Plant owned by Stored Solar, LLC . (I have previously testified in favor of the previous bills for this facility in 2020 and 2021 and that testimony is below this testimony)

To repeat some of that past testimony, VWA is a Non-Profit (501(c) (3)) association of approximately 1000 landowners dedicated to the health and enhancement of the working forest in Vermont. Through education, outreach, and advocacy we are a Voice for Healthy Forests in the Green Mountain State. VWA believes in the sustainable management of our private forests, but successful management needs good markets for wood products, and most notably right now in Vermont, good markets for low quality wood. At present the low quality wood market is suffering due to past political decisions including New Hampshire's failure to support their biomass power plants, and for the past two years, the fallout from the Covid 19 virus. Not only does forest management suffer because of this but so, too, do forest landowners, the harvesting loggers, and forest products industry and all their employees. This plant's consumption of low quality wood represents a critical component in the forest products economy.

Understanding the need for low quality wood markets, how Vermont's two power plants impact this market, and whether there realistic alternatives to the Ryegate subsidy- due to the plant's low operational efficiency, appear to be the issues holding back your approval of the Ryegate relicensing.

First, despite all the careful harvesting that happens in Vermont, year after year, the forests continue to produce more wood than is cut. Today Vermont's forests are well to fully stocked (USFS- FIA) meaning there continue to be very large quantities of low quality wood- enough to both increase forest carbon storage and create a robust low quality wood resource.

Second, a healthy low quality wood market- literally for over half a century- has been recognized as critical to sustainable forest management and a landowners desire to improve the quality of their woodlot.

For most of that period the paper and pulp industry used the resource. As the mills and their market went away generating power became a way to use the low quality wood supply which is generated during the work associated with recognized good forest management. Now, that is questioned because - at the present moment- power may be produced cheaper using other fuels. Given Vermont's goal to develop power from green sources those future costs may rise, lowering the need for a subsidy.

The committee looked at alternatives to the plant, and the draft study done by FPR and the Agency of Commerce and Community Development listed several alternatives to Ryegate- out-of-state paper/pulp market, the wood pellet market, pyrolysis facilities (oils and biochar), and an insulation plant. While all of these alternatives are possible solutions, none are practical or

probable given the size of the resource available and the difficulty of achieving the needed funding and permitting for such facilities. So, realistically, the power plants really are the only way at present to deal with the absolute need to keep a healthy low quality wood market in Vermont.

(VWA has also advocated for combined heat and power plants (CHP's) in Vermont utilizing low quality wood. These facilities, if developed in Vermont as they have been in Europe, would easily handle the low quality wood resource. But the double permitting required (Act 250 AND Section 248) make their probability low at this time.)

It is our understanding that a serious, good faith attempt to develop a biochar facility using the waste heat is proposed by Stored Solar, LLC as an effort to increase its efficiency. This would provide another valuable resource which might make the plant more acceptable, and possibly lower the need for all of the subsidy. VWA has for some time, advocated for the construction of a robust biochar facility to use low quality wood and assist the agriculture (dairy) sector in solving various pollution problems. We think this should measurably factor into continuing the operation of the plant.

Finally, with the reality of all the other subsidies available to the green power industry, and the dairy and farming industry in Vermont from the state (Act 250, price supports, etc), why wouldn't you support a more level playing field for the forestry community and forest products industry in Vermont?

Respectfully,

AMR

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Trees are beautiful; use them wisely, we'll make more!

## Testimony in Support of S. 1 Baseload Renewable Power Portfolio Requirement

As passed by the Senate

Renewing the Ryegate Power Plant legislation

March 2021

My name is Alan Robertson. I'm a retired professional engineer and own and have managed 60 acres of forest in Sheffield, Vermont for over 35 years. I've been a member of the Vermont Woodlands Association for over 35 years and have been the Secretary for over 15 years; I have also been the Co-Chair of the Vermont American Tree Farm System program for over ten years. I'm honored and pleased to provide the following testimony on behalf of the Vermont Woodlands Association (VWA) for the enactment of senate Bill 1. (I have previously testified in favor of both this bill and previous bills for this facility earlier this year and on 13 February 2020.)

VWA is a Non-Profit (501(c) (3)) association of approximately 1000 landowners dedicated to the health and enhancement of the working forest in Vermont. Through education, outreach, and advocacy we are a Voice for Healthy Forests in the Green Mountain State. VWA believes in the sustainable management of our private forests, but successful management needs good markets for wood products, and most notably right now in Vermont, good markets for low quality wood. At present the low quality wood market is suffering due to past political decisions including New Hampshire's failure to support their biomass power plants, and for the past year, the fallout from the Covid 19 virus. Not only does forest management suffer because of this but so, too, do the harvesting industry and all their employees. This plant's consumption of low quality wood represents a critical component in the forest products economy.

The VWA board has discussed and reviewed the Ryegate legislation several times since 2020. We note that the Ryegate operation wood procurement policies are very similar to the exceptional Burlington Electric Department operation, and that the plant has invested in air quality upgrades. We also understand the management is seriously exploring ways to utilize the waste heat product generated by the plant- a very worthy goal. Given the need for a robust low quality wood market in order to further the Associations mission of sustainable forestry on private lands, we are very supportive of the continued operation of the Ryegate plant.

To emphasize the need for the Ryegate plant I would like to add the following additional comments:

. I had a small logging job (approx. 1 acre) done in July 2020 on one of my S-F stands severely damaged by a wind event on 29 May 2020. It was a very small harvest but the logger did develop a couple of truckloads of hardwood pulp, even after leaving a lot of coarse woody debris. The market was so glutted with low quality wood- because of the lack of markets- that one load ended up piled on the property- in the way of the planting I want to accomplish. I was eventually able to have my site contractor haul it away for firewood. This illustrates both the amount of legitimate low quality wood out in our forests as well as what careful landowners are experiencing in their efforts to perform well-managed sustainable silvicultural prescriptions.

. The renewable energy program in Vermont has been an exceptional

success with such facilities as BED, Ryegate, and the school heating program. But it clearly can grow as the availability of low quality wood from carefully managed forests, even with the introduction of upcoming carbon sequestration programs, is still not remotely fully utilized. I note that one of the questions asked repeatedly by legislators is, aren't there other markets/ways to deal with the low quality wood? The answer is yes there are, theoretically, other technical/market solutions including more efficient combined heat and power plants (CHP-type facilities, which we included in past testimony and recognized in the present legislation), Biochar production facilities, an enhanced school and municipal heating program, a robust pellet industry, and possibly other technologies. But all of those facilities require a state environment receptive to such siting and construction and that is a very difficult process in Vermont due, in no small part, to the permitting environment. That leaves Ryegate and BED as the only serious facilities to handle low quality wood at present.

. Most of what gets hauled out of the woods by the forest products industry is low value wood. But by doing this the remaining forest is of better quality and primed for future higher quality stems. If this wood isn't removed the labor and equipment needed to do logging and trucking can't economically survive simply in the sustainable harvest the higher quality stems. The result is the loss of the logging industry- jobs and equipment- and eventually the loss of the entire forest products industry.

Thank you for allowing us the opportunity to provide this testimony; if you have any questions or need any further information please feel free to contact me,

-AMR-

Al Robertson, PE (ret)

Vermont Tree Farm Committee

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Testimony in Support of S.190; BASELOAD RENEWABLE POWER PORTFOLIO  
REQUIREMENT

Renewing the Ryegate Power Plant Legislation

13 February, 2020

My name is Alan Robertson. I'm a retired engineer and own 60 acres of well- managed forest in Sheffield, Vermont. I've been a member of the Vermont Woodlands Association for over 25 years and have been the Secretary for over

15 years; I have also been the Co-Chair of the Vermont American Tree Farm System program for over ten years. I'm honored and pleased to provide the following testimony on behalf VWA for the enactment of senate Bill 190.

VWA is a Non-Profit (501(c)(3)) association of approximately 1000 landowners dedicated to the health and enhancement of the working forest in Vermont.

Through education, outreach, and advocacy we are a Voice for Healthy Forests in the Green Mountain State. VWA believes in the sustainable management of our private forests, but successful management needs good markets for wood products, and most notably right now in Vermont, good markets for low quality wood. At present the low quality wood market is suffering due to several recent political decisions including New Hampshire's failure to support their biomass power plants. Not only does forest management suffer because of this but so too, do the harvesting industry and all their employees. This plant's consumption of low quality wood represents a critical component in the forest products economy.

The VWA board met on January 17th and discussed the Ryegate legislation. We note that the Ryegate operation wood procurement policies are very similar to the exceptional BED operation, and that the plant has invested in air quality upgrades recently. Given the need for a robust low quality wood market in order to further the Associations mission of sustainable forestry on private lands, we are very supportive of the continued operation of the Ryegate plant.

We are hopeful that during the legislative process the Ryegate plant will negotiate a fair price for the future power costs, ensure appropriate procurement and continue the excellent harvesting procedures to support forest health, and that the plant will investigate potential efficiency increases through the development of uses for the waste heat the plant emits, as the Burlington Electric Department is doing.