

STATE OF NEW HAMPSHIRE
BEFORE THE
PUBLIC UTILITIES COMMISSION

Re: Request for Approval of Power Purchase Agreement
Between
Public Service Company of New Hampshire
and
Laidlaw Berlin BioPower, LLC

DE 10-195

TESTIMONY
OF
MARK E. SALTSMAN

1 **Q. Please state your name and address.**

2 A. My name is Mark E. Saltsman. My business address is Concord Steam Corporation, P.O.
3 Box 2520, Concord, NH 03302.

4 **Q. What is your position at Concord Steam Corporation?**

5 A. I am Vice President and General Manager.

6 **Q. Have you previously testified before the Commission?**

7 A. Yes. I have testified before the Commission in matters concerning Concord Steam
8 Corporation, a regulated utility.

9 **Q. What is the purpose of this testimony?**

10 A. I am filing this testimony to demonstrate to the Commission that the Laidlaw/PSNH PPA
11 that is before the Commission for approval is not in the interest of the public and more
12 specifically that it could cause significant harm to Concord Steam Corporation's
13 ratepayers. I will discuss the PPA's impact and harm to the wood-market in which
14 Concord Steam competes for its wood supply; the likelihood that the creation of such a
15 massive wood fired facility will create a monopolies in both the wood fuel market and the
16 Class I bio-mass REC market in violation of the principles of restructuring set forth in
17 RSA 374-F:1,I&II and the directives of Part II Article 83 of the New Hampshire
18 Constitution. I will also discuss how its expected operation will negatively impact
19 regional power supplies causing harm that will be detrimental to regional economics.

20 **BACKGROUND OF CONCORD STEAM CORPORATION**

21 **Q. Please provide a brief description of Concord Steam and it's operations.**

22 A. In 1938, Concord Steam Corporation ("Concord Steam"), a regulated utility, began
23 providing clean, efficient and safe steam to public and private customers within the City

1 of Concord through its central plant on Ward Avenue with a distribution system in
2 downtown Concord. In 1974 Concord Steam retrofitted it's boilers at the Ward Ave plant
3 to burn wood in response to the oil crisis/embargo. In 1980, Concord Steam entered into
4 a 30-year lease with the State of NH to lease the New Hampshire Hospital power plant.
5 Concord Steam then relocated its base of operations to the New Hampshire Hospital
6 campus, converted two of the oil-fired boilers to wood-fired and installed a new, higher
7 pressure wood-fired design boiler. In 1983, Concord Steam purchased from the State the
8 electric generating equipment and since that time has been co-generating electricity as a
9 byproduct of its thermal load. Concord Steam supplies steam to residential, commercial
10 and institutional customers, including government agencies such as the Concord School
11 District, City of Concord, the State of New Hampshire and the Federal Government.
12 Concord Steam also produces twenty-one hundred kilowatts (2.1 MW) of excess power
13 from its cogeneration process that it sells into the New England ISO market at market
14 price.

15 **Q. How many years has Concord Steam used wood as it's primary fuel?**

16 A. Concord Steam began burning wood as its primary fuel in 1974 and with the exception of
17 five (5) years (1997-2002), it has used wood fuel for the entire time. Approximately 31
18 years.

19 **Q. How much wood does Concord Steam Consume each year?**

20 A. In total, Concord Steam uses approximately fifty thousand (50,000) tons per year. By
21 comparison the majority of the wood-fired IPPs in New Hampshire consume
22 approximately two hundred to two hundred twenty thousand (200-220,000) tons per year,
23 PSNH's Schiller facility consumes approximately four hundred to four hundred fifty

1 thousand (400-450,000) tons per year and according to the testimony at the NHSEC, the
2 Laidlaw-Berlin project is expected to use seven hundred fifty to eight hundred (750-
3 800,000) tons per year. However, Robert Berti and James Dammann of North Country
4 Procurement, Inc. have calculated that Laidlaw will use 871,200 to 973-674 tons per
5 year.

6 **.Q. How does the cost of wood impact the cost of energy at Concord Steam facility?**

7 A. Concord Steam's use of wood fuel represents approximately eighty-three percent (83%)
8 of its fuel requirements. Therefore, price fluctuations in the cost of wood can result in
9 significant impacts to the overall cost of energy for Concord Steam ratepayers.

10 **Q. Who supplies the majority of Concord Steam's wood fuel?**

11 A. Concord Steam purchases the majority of its wood from multiple suppliers that harvest
12 the wood within a fifty-mile radius of the facility.

13 **Q. How does the Company view the current market place for wood fuel and what does
14 it expect for pricing?**

15 A. As with most energy markets, the wood markets have experienced some gyrations.
16 Based on market conditions at this time, Concord Steam has projected an average price
17 for whole tree chips of \$24/ton in its current Cost of Energy rate filing. Prices for wood
18 fuel during this same period at other plants will range from \$28-32/ton. This difference
19 in price is mostly due to higher demand and therefore competition in the regions
20 surrounding those plants.

21
22 During the last year wood fuel prices were approximately \$28/ton in the area surrounding
23 Concord, NH. Most of the competition for wood fuel lies to the north of Concord.

1 Hemphill Power (40 miles northwest) is currently paying \$25/ton (was \$30/ton);
2 Bridgewater Power (35 miles to the north) is paying \$28/ton (was \$32/ton). PSNH in
3 Portsmouth continues to pay an average of \$32/ton, which we consider above market
4 (PSNH has limited inventory capability and ½ of its procurement area is the Atlantic
5 Ocean, which effectively lengthens its procurement radius). Pinetree -Fitchburg (60
6 miles to the southwest) pays \$27/ton (was \$28/ton).

7 **IMPACT OF LAIDLAW ON CONCORD STEAM**

8 **Q. What near-term impact will the seventy-megawatt (70 MW) Laidlaw power facility**
9 **have on the wood market?**

10 A. Concord Steam has been purchasing wood fuel for more than thirty (30) years and has
11 developed an understanding the supply and demand nature of the wood fuel market place.
12 Concord Steam has also, in this period, witnessed how the market is based on the specific
13 locality of that supply and demand. The Laidlaw facility, because of its size will exceed
14 the locally available fuel in the wood basket and in the near-term will create excessive
15 demands on the wood market by expanding its reach for fuel into other more distant
16 wood baskets. This is evidenced by Laidlaw's need to enter into a wood fuel contract
17 with a supplier such as Cousineau's Forest Products whose harvest regions are, in most
18 cases, more than 100 miles away from the Laidlaw facility. In fact, Cousineau's Forest
19 Products wood-yard facility itself is located within fifteen (15) miles of Concord Steam
20 and over 130 miles from Laidlaw's facility. Cousineau's will draw on
21 south/southwestern NH and central/northern MA wood baskets that are even further
22 away from the Cousineau's wood-yard, in some cases as much as 75 miles. Wood that
23 ends up at Laidlaw from Cousineau's Forest Products wood-yard facility in many cases

1 will be from wood baskets that are over one hundred fifty (150) miles from the Berlin
2 facility. The result is that the Laidlaw project will create unnatural competition for the
3 wood fuel that is normally serving the wood fuel use facilities in central/southern NH as
4 well as those facilities that are located in central/northern MA upsetting the natural
5 supply and demand economics that have served the area well for over thirty (30) years.

6
7 In addition, there will be severe price instability as suppliers scramble to meet the market
8 demands. Concord Steam believes pricing will most certainly increase into the forty to
9 forty-five dollar (\$40-45.00) per ton range as soon as Laidlaw begins stockpiling wood
10 for its operation; and may increase even further if suppliers are unable to keep up with
11 the demand. Any external pressures on price, such as weather, demand for pulp and the
12 price of diesel fuel, will only exacerbate these price increases.

13
14 **Q. How will the increased fuel demand affect the cost of energy for Concord Steam**
15 **ratepayers?**

16 A. Concord Steam expects that the increase in fuel demand caused by Laidlaw will increase
17 the cost of wood to Concord Steam by at least 50% and possibly as much as 100%. This
18 conclusion is based on company experience whenever there are unusual market
19 conditions that occur within the wood fuel supply basket. We have witnessed this on a
20 number of occasions. When Concord Steam first began to burn wood fuel in 1974, there
21 was little competition for the wood. The supply was generally sawmill residue with some
22 whole tree chips from slash and pricing was in the six to eight dollars (\$6-8.00) per ton.
23 By 1979 Concord Steam was burning almost exclusively whole tree chips and the price

1 rose to the ten to twelve dollars (\$10-12.00) per ton range. In the 1980's several new
2 wood-fired IPPs were built over a period of four to five (4-5) years. During this period
3 Concord Steam witnessed a steady increase in the price of wood fuel into the fourteen to
4 sixteen dollars (\$14-16.00) per ton range. While the increase in fuel paid was significant
5 (a forty percent (40%) increase), because it occurred over a period of years, our
6 ratepayers were able to absorb it without suffering a "sticker shock" effect and our
7 energy charges were still much better than most of the alternatives. Moreover, because
8 the IPP plants were sized appropriately and located to take advantage of natural market
9 conditions that existed in the wood baskets surrounding each facility, pricing for fuel
10 thereafter stayed relatively stable and only increased at rates, for the most part, consistent
11 with normal inflation.

12
13 By 1997 when Concord Steam chose to quit using wood fuel the cost per ton was fifteen
14 to eighteen dollars (\$15-18.00) per ton. In 2002 Concord Steam made the business
15 decision to start using wood fuel again because pricing was reasonably stable in
16 comparison to the volatile fossil fuels market. When our facility upgrades in 2003 were
17 completed and we started using wood fuel again the price for wood fuel was sixteen to
18 nineteen dollars (\$16-19.00) per ton.

19
20 In 2006 wood fuel prices jumped to twenty-four to twenty-six dollars (\$24-26.00) per
21 ton. This fifty percent (50%) increase was a direct result of the Schiller plant, brought on
22 line in 2006 by PSNH that consumed over four hundred thousand (400,000) tons of wood
23 fuel per year. This increase in the demand for wood fuel resulted in an increase in the

1 cost of energy to Concord Steam ratepayers in one year in excess of thirty-five percent
2 (35%). As is evidenced by the attached graph in (Attachment A) it is clear that each
3 significant event in the wood market caused pricing to spike. It is also equally clear that
4 in the periods between significant events in the market that pricing was reasonably stable.
5 It should also be noted that while there has been some downward market correction after
6 the significant events, prices for the most part remained at levels much higher than what
7 they were prior to the market upset event. The second graph (Attachment B) illustrates
8 how that unusual market conditions in the past have caused significant increases to wood
9 fuel costs and it also illustrates what the expected impact of the Laidlaw facility will be.

10
11 Based on this experience, Concord Steam reasonably concludes that due to its sheer size
12 and the increase of 750,000- 973,674 tons of wood fuel demand in the market, that the
13 Laidlaw facility will cause a negative economic impact to our ratepayers that far exceeds
14 anything that has occurred in the past, including the opening of the Schiller plant.

15 **Q. What will be the long-term effects of this additional wood fuel demand?**

16 A. The estimated New Hampshire wood fuel demand on the market place with Laidlaw
17 included is upwards of two million tons annually. In order to meet this demand, after the
18 start up of Laidlaw, pricing will increase significantly above current levels and many of
19 the IPPs who are operating without long term PPAs and who must compete in the NE
20 ISO market for the sale of their power and will not be able to continue to operate at a
21 profit and as a result will close their doors. When that happens there will be somewhere
22 between nine hundred thousand to one million two hundred thousand (900,000-
23 1,200,000) tons of wood fuel that will not be purchased from local suppliers. This will

1 cause another disruption in the market place and many wood fuel suppliers will exit the
2 market place as the demand for fuel decreases. The result will be, in effect, a monopoly
3 of the wood supply by two facilities that are both serving the same end-user, PSNH.
4 PSNH will be in position to dictate wood pricing by locking out those suppliers who
5 don't meet its supply quantity and pricing demands as well as competitors for the wood
6 fuel, like Concord Steam, unwilling or unable to meet the pricing set by PSNH. It is
7 conceivable that Concord Steam will be the sole competitor to PSNH for wood fuel.
8 PSNH in that instance would control more than ninety-five percent (95%) of the market
9 place. It would then be easy for PSNH to tie up all supply quantities preventing Concord
10 Steam from purchasing any wood even if it was willing to pay the prices set by PSNH.

11
12 Concord Steam believes such a result would be in direct conflict with the directives of
13 Part II, Article 83 of the NH Constitution which recognizes that "Free and fair
14 competition in the trades and industries is an inherent and essential right of the people
15 and should be protected against all monopolies and conspiracies which hinder or destroy
16 it". A monopoly exists when one individual or enterprise has sufficient control over a
17 particular product or service to determine significantly the terms on which other
18 individuals have access to it. Moreover, when one person or entity is able to prohibit
19 competitors from entering the field or punish competitors who do, free and fair
20 competition is destroyed. This is precisely what the long term effect will be on the wood
21 market as well as the Class I bio-mass REC market. PSNH will end up with a monopoly
22 in the wood market and it has already shown that it intends to be coercive in its attempts
23 to monopolize the REC market as witnessed by its unwillingness to pursue the normal

1 request for proposal (RFP) process in its quest to secure a PPA for renewable bio-mass
2 power and RECs.

3 **Q. Do you believe that using the Schiller biomass price for the Laidlaw Project will**
4 **adversely affect the biomass market?**

5 A. Using Schiller's biomass price to establish future prices for the Laidlaw project does not
6 appear to be appropriate given Schiller's location on the coast and the resulting premiums
7 that it pays for biomass supply relative to the existing biomass IPPs. Under these
8 conditions, using the Schiller biomass price to establish prices for the Laidlaw Project,
9 does not promote efficient biomass purchasing by Laidlaw and could exacerbate the
10 adverse price impacts from the Laidlaw project, by establishing a higher price in the
11 market. Furthermore, having two large biomass projects in the market (i.e., the Laidlaw
12 Project and Schiller) whose cost recovery is not significantly affected by their biomass
13 purchasing practices, significantly distorts the biomass market and puts these other
14 biomass projects at a significant competitive disadvantage .

15 **Q. How do the IPPs impact Concord Steams ability to purchase wood?**

16 A. The wood-fired IPPs actual are a positive influence on the wood fuel market for Concord
17 Steam. The IPPs were strategically located and sized when they were first developed to
18 take advantage of localized wood baskets. In doing so, they created slight overlaps in the
19 wood basket market place that allowed the market to respond to fluctuations that
20 occurred in the supply and demand balances. If a plant was shut down in a particular
21 market, because of its size and location, its impact on the market was generally
22 insignificant as the other plants in the market overlap areas were able to absorb the
23 momentary increase in supply without much of a change in the pricing structure. In fact,

1 the way that the plants are sized and located they end up being very complementary to
2 one another, including Concord Steam. Concord Steam's use of wood is very seasonal
3 and limited in quantities. It relies on the IPPs to act as an outlet or a surge protector if
4 you will, for its seasonal demand. Because of the sizing and location of the IPPs,
5 Concord Steam is able to accomplish this without causing major disruptions in the market
6 place. If any one of these plants had been as large as Laidlaw and was taking wood
7 beyond a fifty-mile radius, located to close to Concord Steam or close to one another this
8 would not be the case.

9 **Q. Are there any market conditions that might protect Concord Steams ratepayers**
10 **even if the Laidlaw project is developed?**

11 A. If the Concord Power & Steam project that is being proposed here in Concord is
12 developed, there is a certain amount of protection for the ratepayers due to the purchasing
13 power that the proposed facility will have. Concord Steam currently makes its own
14 steam and because it is teamed up with a buyers group under the management of North
15 Country Procurement it has a relatively stable market place in which to work. Eventually
16 as the IPP's close, Concord Steam's wood demand will represent something less than
17 five percent (5%) of the NH wood market and therefore it will have little buying power in
18 the market place. However if it is able to buy its steam from the Concord Power &
19 Steam project, which will purchase approximately two hundred fifty thousand (250,000)
20 tons of wood per year, it is likely that the additional buying power (approximately
21 seventeen percent (17%) of estimated market share) will likely secure some price
22 protection for its ratepayers.

23 **Q. What options are available to Concord Steam if it is unable to competitively**

1 **purchase wood?**

2 A. Concord Steam has the ability to fuel switch to either #6/waste oil or natural gas if it is
3 unable purchase wood fuel at a reasonable price or if wood is unavailable due to supply
4 and demand imbalances.

5 **Q. At what point does wood fuel pricing begin to be uneconomical? What will be the**
6 **effect on Concord Steam and its ratepayers if Concord Steam is required to switch**
7 **to a fuel use blend.**

8 A. If wood fuel approaches thirty-eight to forty dollars (\$38-40.00) per ton, based on today's
9 cost of natural gas, it will become more economical to use natural gas. If Concord Steam
10 is forced to switch to its alternative fuels, it will require layoffs for some of its work force
11 who are employed to operate and maintain the wood boilers and associated wood
12 handling equipment. It will also expose the ratepayers to the more volatile fossil fuel
13 market which could (most likely will) result in significant spikes in the cost of energy.
14 Once Concord Steam has made the switch to fossil fuels, for reasons that are apparent, it
15 would not be able to then make a fast or easy transition back to burning wood if that fuel
16 choice becomes an economically viable option once again. Therefore the ratepayers
17 would be exposed to higher costs for longer periods of time then they would if we are
18 able to continue to a more stably priced wood fuel.

19 **LIDLAW'S BERLIN FACILITY IMPACT REGIONAL POWER SUPPLIES**

20 **Q. What impact if any will there be on the regional power supply?**

21 A. Because the price of wood will be in the thirty-four dollar (\$34.00) per ton range in order
22 for the Berlin facility to get the quantities of wood it will need (as evidenced by it's own
23 estimation in the PPA and in reality will be more likely in the \$40-45/ton range), it is

1 unlikely that the IPPs will be able to secure long term power contracts nor will they be
2 able to sell power into the ISO market at a profit. Concord Steam believes it will only be
3 a matter of time, probably within two years but certainly within five that they will need to
4 close their operations due to economic reasons.

5
6 If the IPPs are forced out of business for “competitive” reasons, there will be
7 approximately 95 MW of renewable biomass power that will be unavailable to the local
8 grid. It is also highly unlikely that any other facilities will be built in the near future to
9 help recover this loss. The end result is that while adding 70 MW of renewable bio-mass
10 power in Berlin may seem at first glance a real gain in renewable bio-mass power it will
11 actually result in a net decrease in overall power supplies.

12 **Q. Why do you believe that the Laidlaw Project is likely to cause the shut down of New**
13 **Hampshire’s existing IPP biomass projects?**

14 A. Analysis of the anticipated net margins (operating revenues from sales of energy,
15 capacity and RECs less variable operating costs) for typical IPP biomass projects at
16 different biomass prices indicates that their output levels will decrease significantly
17 because the net margins will likely be insufficient to cover typical fixed operating
18 expenses.

19 **Q. What impact if any will there be on the Renewable Energy Certificate market?**

20 A. Because PSNH has chosen to enter into a contract with Laidlaw that is tying up a
21 majority of the RECs that will be required in the NH REC market place (not only in
22 excess of its requirements but the requirements of others) for the foreseeable future, it
23 will make it difficult, if not impossible, for others to compete in that market place.

1

2

In addition, PSNH has chosen to purchase the power at cost that is well above market

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(\$141-148.00 per MWh). Pricing is being offered by other renewable projects at costs

4

that are much lower; some have proposed contracts in the range of \$110-115 per MWh.

5

In effect, this overpayment insures that the REC market won't seek its natural position

6

and therefore it will be difficult for all of the ratepayers of NH to receive RECs at costs

7

that are reflective of a truly competitive market.

8

Q. Does this conclude your testimony?

9

A. Yes, it does.