

**STATE OF VERMONT
PUBLIC SERVICE BOARD**

Petition of Vermont Transco, LLC, and)
Vermont Electric Power Company, Inc.)
(collectively, “VELCO”), and Green Mountain)
Power Corporation (“GMP”) for a Certificate of)
Public Good, pursuant to 30 V.S.A. § 248, for)
the “Gorge Area Reinforcement Project”,)
located in the municipalities of South Burlington)
and Colchester, Vermont, consisting of the)
following elements: (1) construction of a new)
VELCO 115/34.5 kV substation (“VELCO)
Lime Kiln substation”) and a new GMP 34.5 kV)
substation (“GMP Lime Kiln substation”) in the)
City of South Burlington across the Winooski)
River from the existing GMP Gorge substation;)
(2) upgrade of the existing GMP Gorge)
substation in Colchester; and (3) reconstruct)
approximately 700 feet of GMP’s existing 3307)
and 3308 34.5 kV lines between the GMP Lime)
Kiln and Gorge substations)

Docket No. 7460

**SUPPLEMENTAL PREFILED TESTIMONY OF
JOSH CASTONGUAY
ON BEHALF OF
PETITIONERS**

July 31, 2009

The purpose of Mr. Castonguay’s supplemental testimony is to describe load indicators in the Project load area, and to explain GMP’s planning decision to move forward with the Project.

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1 **1. Introduction**

2 Q1. Please state your name, business address, and occupation.

3 A1. My name is Josh Castonguay. My business address is Green Mountain Power
4 Corporation ("Green Mountain Power" or "GMP"), 163 Acorn Lane, Colchester,
5 Vermont. I am an Electrical Engineer employed by Green Mountain Power.

6

7 Q2. Did you submit prefiled testimony previously in this proceeding?

8 A2. Yes. I submitted prefiled testimony on July 25, 2008.

1

2 Q3. What is the purpose of your supplemental testimony?

3 A3. My testimony will describe load indicators in the Gorge Area Reinforcement
4 Project (“GAR Project” or “Project”) load area, and explain Green Mountain
5 Power’s planning decision to move forward with the Project.

6

7 **2. Load indicators in the GAR Project Load Area**

8

9 Q4. Please describe what you mean by “load indicators” in the GAR Project area.

10 A4. As set forth in the ITRON Gar Area load forecast, Exhibit Petitioners TGC-Supp-
11 2, while summer peak demand in the Project load area is expected to decline
12 slightly in 2009, excluding 2009, summer peak demand averages about 1.4%
13 growth over the 10-year forecast period. The “load indicators” that I refer to is
14 the information that we have at Green Mountain Power about certain construction
15 and customer activities occurring on this portion of our system which suggests
16 that not only will demand continue to increase in this area, but could materialize
17 very quickly depending upon changes in building occupancy and new
18 construction activities.

19

20 Q5. Please explain.

21 A5. One indicator of growth that we have seen in this area is construction activity in
22 the Winooski Falls area, particularly with the ongoing construction activities of a
23 new six-building addition currently under construction by the Community College

1 of Vermont. This new construction is expected to add approximately 750 KVA of
2 new load to our system. Another example is the ongoing construction at the
3 development known as Severance Corners. An ability to serve letter was
4 submitted for the Severance Corners project with a total estimated load of 1071
5 KVA. This project consists of a mix of residential and commercial, and is
6 currently under construction. An additional ability to serve was issued for the
7 same area with a total estimated load of 1133 KVA. This will be a separate
8 mixed residential and commercial project as well.

9
10 There are also a number of buildings that have been completed, and are in the
11 process of filling the space. This is considered 'ready load', which means the
12 demand is sitting there, but is just waiting to be utilized. There is no doubt that
13 during the tough economic times, filling these buildings has been made much
14 more difficult, but the issue is that when the economy turns around occupancy
15 rates will return to pre-recession and the demand will be back. The point of all of
16 this is not to assume that there is more growth than forecasted, but simply to
17 explain why we still see a 1.4% average growth occurring through 2018.

18
19 Q6. Are there other independent indicators of load growth in the GAR Area? Please
20 describe.

21 A6. Yes. As part of the Act 250 permitting process, developers are required to request
22 an "Ability To Serve" letter from the local electric utility. The developer sends a

1 letter with a description of their proposed project, and Green Mountain Power will
2 in turn estimate the load of the project and state whether or not we can serve this
3 load with the existing infrastructure. GMP is continuing to receive Ability To
4 Serve requests in the GAR area. The amounts from 2006 until now are shown in
5 the table below:

GAR Area Act 250 letters	
<i>year</i>	<i>KW - KVA</i>
Jan - Apr 2009	1100
2008	1833
2007	1790
2006	2779

6
7 It should be noted that an Ability To Serve does not always mean that the project
8 will come to fruition, but is another indicator of growth in the area. I should also
9 note that we also have found that Act 250 permits had been awarded, where an
10 Ability To Serve was not requested or provided by Green Mountain Power. An
11 example of this is the new St. Michael's Alumni Center. This was a recently
12 constructed facility that was permitted through Act 250, but did not obtain an
13 Ability To Serve from GMP.

14

15 **3. Green Mountain Power's Planning Decision to Move Forward with**
16 **the Project Transmission Upgrades**

17

18 Q7. Does Green Mountain Power seek to build and operate the Project upgrades by
19 the 2010-2011 need dates identified by Mr. LaForest?

1 A7. Yes. The current analysis shows a need date of 2010 for the GMP Gorge
2 substation upgrades, and a need date of 2011 for the remainder of the Project
3 upgrades (the VELCO/GMP Lime Kiln substations). The Gorge substation
4 upgrades would solve the loss of the 3307/08 line contingency, which would
5 expose about 4000 GMP customers to outages. Demand response, reducing load
6 with energy efficiency or the generation alternatives studied would not avoid the
7 need for the GMP Gorge substation upgrades. In fact, the generation alternative
8 requires the Gorge substation upgrades. For these reasons, we plan to proceed
9 with the permitting and construction of the Gorge substation upgrades as soon as
10 possible.

11
12 As far as generation, given the need to address the transformer overloading
13 problem by 2011, it has been determined that pursuing the generator as an
14 alternative, while electrically viable, is not economically feasible at this time, and
15 will not be pursued as a non-transmission alternative. This is reviewed in more
16 detail in Doug Smith's testimony. GMP and VELCO are continuing to pursue a
17 Certificate of Public Good for the entire GAR project.

18
19 Q8. What is the proposed construction sequencing for the GMP Gorge and new Lime
20 Kiln substation upgrades?

21 A8. As explained by Mr. Ostrander, the soonest Petitioners would expect construction
22 to be completed for the GMP Gorge upgrades is 2011, which is the same time-

1 frame when the remaining upgrades are needed. Green Mountain Power's
2 preferred construction sequencing would be to construct the Lime Kiln
3 Substations first, to allow for a stronger source during the re-construction of the
4 Gorge GMP substation.

5

6 **4. Conclusion**

7 Q9. Does this conclude your testimony?

8 A9. Yes it does.