

A REPORT TO GREEN MOUNTAIN POWER

RELOCATION OPTIONS FOR THE
BELLOWS FALLS, VERMONT
BRIDGE STREET SUBSTATION

2007 SUPPLEMENT

INTRODUCTION:

Since the Substation Relocation Options Study was performed in 2001-2002, the Town of Rockingham requested that Green Mountain Power take a second look at Site #1, the Grist Mill Site.

BACKGROUND:

Following the April 3 meeting, Town Manager John Schempf asked GMP to investigate a new substation site located off of Mill Street near the old Gristmill and next to the National Grid Company switch yard. John stated that the Town Historical Society owns a 20 acre parcel on Mill Street and on behalf of the Town, John requested that GMP consider the new substation at this location.

In 2001, GMP commissioned DuBois & King, Inc., a consulting firm headquartered in Randolph, Vermont, to perform an area site study to locate the most favorable location for the Bridge Street Substation. The Gristmill site and the Bridge Street site (the site currently planned for the substation) were both considered for the study. Criteria for this study included:

- Land ownership
- Access to the substation; acceptable for our mobile substation which is an abnormally long and heavy piece of equipment.
- Connectivity to both distribution and transmission lines.
- Environmental impact created by substation and associated power lines that connect the substation. (Archeological impact, contaminated soil, tree removal, etc.).
- Conformance with local and regional and state planning rules and regulations.

The 2001 study identified Bridge Street as the most favorable site over the Gristmill site based on the above criteria. Specifically, GMP owns the Bridge Street site, there is no impact to historical buildings, the site offers good accessibility with very little additional site work required and it conforms with all planning rules and regulations.

COMPARISON, SITE #1 AND SITE #2:

Location 1 – Gristmill Site Next to National Gridyard

Advantages:

- The distribution line construction will eliminate 1 vault and approximately 600' of trench work required by the Town on Bridge Street. Most overhead lines will remain unchanged compared with the Bridge Street Plan.
- The substation could be less visible from public view at the Gristmill site and two distribution lines will be closer to the overhead system, the third further away.

Disadvantages:

- The Gristmill site is not owned by GMP and is in the EPA Brownfield Program (information available on the VDEC FTP website). The site is located in an area with high concentrations of volatile organic compounds (VOC's) and semivolatile organic compounds (SVOC'S) and metals. All earth work in this area would need to be done by an environmental contractor and soils would have to be handled appropriately and removed if necessary. The proposed costs and potential liability would be much greater compared with a "clean" site (Bridge Street). Currently there is an on-going environmental investigation at the site under EPA supervision. Investigations have not been completed nor has remediation. GMP's opinion is that the substation should not be located at the proposed Gristmill location due to environmental and safety considerations.
- Access to the site through an alley way, around sharp turns and across railroad tracks is problematic compared to the Bridge Street site. I have concerns about getting the GMP mobile transformer to the site in the event of an unexpected loss of electricity to the Town. Access to the substation is marginal for GMP to deploy its mobile substation that is 85' long (with tractor) and weighs more than 50 tons. There is a steep change in grade and a narrow space to maneuver when entering Mill Street. Major electrical failures often happen during severe weather events.
- A substation at this site will be served from the same transmission line that serves the Westminster Substation. Westminster is the back-up source of power for the Bellows Falls area. Therefore, if the transmission line is out of service, Bellows Falls has no back-up source of electricity.
- The substation will block the access road to the NGrid switch yard and will encroach on an existing NGrid easement.
- The substation will be located very near existing historic buildings.

Location 2 – Vacant Area South of Gristmill Site

Advantages:

- The distribution line construction will eliminate 1 vault and approximately 600' of trench work required by the Town on Bridge Street. Most overhead lines will remain the same currently planned.
- The substation could be less visible from public view at the Gristmill site.

Disadvantages:

- The vacant wooded area south of the Gristmill site and adjacent to Mill Street, which GMP does not own, would require extensive site work. For instance clearing and stumping of the lot, constructing an entrance road and parking area and permitting and construction for storm water drainage would be necessary. There appears to be ledge cropping in this area that would require additional test borings. If ledge is encountered, it would likely result in an expensive lot

preparation and road construction. Costly substation grounding would also be a result.

- Distribution line connections would require added construction costs, railroad permits, clearing for right-of-way and new easements.
- Transmission line connections would require new system impact studies with National Grid, TransCanada and Central Vermont Public Service Co. Currently the Bridge Street studies are well under way and being completed.
- A substation at this site will be served from the same transmission line that serves the Westminster Substation. Westminster is the back-up source of power for the Bellows Falls area. Therefore, if the transmission line is out of service, Bellows Falls has no back-up source of electricity.

EVALUATION TABLE

Resource Impacted	Site 1 Gristmill	Site 2 Bridge Street
Water Quality	2	2
Wetlands	1	1
Fish and Wild Life	1	1
Floodplain	1	1
Endangered Species	1	1
Historic District	6	4
Archeology	2	1
Hazardous Waste	10	1
Visual Impacts	4	4
Construction	8	2
Land Acquisition	4	1
Access to Transmission/Dist.	4	4
Maintenance Access	6	2
Total Points	50	24

*Sites are rated on a scale of 1 to 10 with 1 having the least potential for impacts or issues.

CONCLUSION:

Site #2 remains the preferred site for the new GMP Bellows Falls Substation. This conclusion was confirmed by the Rockingham Selectboard at their May 1, 2007 meeting following a presentation by GMP's Senior Electrical Engineer, Patrick Kearney.

In addition to the second look at Site #1, GMP has also reaffirmed the lack of Environmental Resource on or adjacent to the proposed project site thru review of mapped resources in the VGIS system (see exhibit) and reaffirmed that neither a Construction or Operational Stormwater Permit will be required. See March 23, 2007 letter from Daniel Mason, ANR, DEC, Stormwater Section.