

October 23, 2015

Mrs. Susan Hudson, Clerk
Vermont Public Service Board
112 State Street
Montpelier, VT 05620

Re: Vermont System Planning Committee reliability plan and energy
efficiency geotargeting recommendations

Dear Mrs. Hudson:

The Vermont System Planning Committee (VSPC) respectfully submits its recommendations for geographic targeting (GT) of energy efficiency as requested by the Public Service Board¹, and the need for reliability plans in accordance with the Docket 7873 & 7874 Attachment II, Screening Framework and Guidelines for Implementation of 30 V.S.A. § 8005a(d)(2). These recommendations were developed by the Geotargeting Subcommittee (GTS) of the VSPC and were adopted by the VSPC at its quarterly meeting on October 14, 2015. The consolidated recommendations including both energy efficiency geographic targeting and the identification of areas requiring new reliability plans is consistent with the process improvements that were approved by the Board on January 24, 2014 (EEU-2013-11).

SUMMARY

We make three recommendations in this letter:

1. One newly identified area “screens in” using the applicable screening tools for the potential to be resolved with non-transmission alternatives. The area in question is Hinesburg, which is in GMP’s service territory.
2. With regard to the status of current geographically targeted energy efficiency, no area is currently targeted, thus, no recommendation is needed regarding continuation or discontinuation of a current project.
3. The potential for new geographically targeted energy efficiency to cost-effectively avoid or defer an infrastructure project has not yet been determined pursuant to a reliability plan, so no new geographic targeting should be undertaken at this time.

Each of these recommendations is supported below.

¹ Pursuant to EEU-2010-06 Public Service Board Order of 2/16/2012, p. 6.

RECOMMENDATION 1—NEW RELIABILITY PLAN

Recommendation summary: GMP has identified a potential distribution issue in its Hinesburg area that screens in using the Docket 6290 screening tool. The VSPC recommends a reliability plan for the area. No other area has been identified that requires a reliability plan at this time.

Rationale for the recommendation

Paragraph 1 of the Docket 7873 & 7874 Attachment II, Screening Framework and Guidelines for Implementation of 30 V.S.A. § 8005a(d)(2) states that:

The Vermont System Planning Committee ("VSPC") processes, reporting mechanisms, public engagement, and subcommittees shall be utilized for the purpose of making recommendations to the Public Service Board ("Board") regarding constraints within the electric grid, and the potential for non-transmission alternatives ("NTAs"), including new Sustainably Priced Energy Enterprise Development ("SPEED") standard-offer plants, to mitigate those constraints, pursuant to 30 V.S.A. § 8005a(d)(2).... The VSPC shall make its recommendations to the Board no later than January 1 of each year², or more frequently if constraints are identified or analysis is completed mid-year.

This filing, and the process by which it was developed, are designed to fulfill the requirement of the quoted paragraph.

The screening framework provides that transmission and distribution (T&D) constraints shall be screened for their potential to be resolved by non-transmission alternatives using the NTA screening tool adopted by the VSPC pursuant to the Docket 7081 Memorandum of Understanding. Distribution constraints are screened for NTA potential using the screening tool established in Docket 6290. The host utility may use either screening tool to screen sub-transmission constraints. A constraint that "screens in" using the appropriate tool requires a reliability plan be filed by the utility by April 1 following the January 1 due date of the VSPC recommendation (or more frequently if constraints are identified or analyzed mid-year).

The Geotargeting Subcommittee (GTS) of the VSPC obtained reports from all utilities to identify any areas that screened in. Green Mountain Power, Vermont Electric Cooperative and VELCO described upcoming infrastructure projects. GMP identified the Hinesburg area as screening in. No other load growth related project was identified by any utility.

Summary of the Hinesburg reliability issue

The VSPC annual recommendations filed with the Board October 30, 2014, stated:

² Subsequent to the order quoted here, the VSPC made various process improvements to harmonize the energy efficiency geographic targeting process with its Docket 7873/7874 Screening Framework obligations. The process improvements resulted in an earlier (October 30) filing date for this letter, which fulfills the quoted "no later than January 1 of each year" requirement.

One other area remains the subject of on-going consideration: GMP's Hinesburg area. GMP presented its conclusions to the GTS that the reliability deficiency at issue cannot feasibly be addressed with non-transmission alternatives due to the long distance between the load center and the substation supply. Following several substantive discussions, the subcommittee's questions about the project were satisfied, but formal acceptance of the conclusion that project screens out has not yet occurred.

Following that filing, GMP continued to study the Hinesburg area. The company was able to identify a means to address the system protection issues posed by the distance between the load center and the substation at Charlotte. Remaining unresolved issues included potential for future area load growth, voltage constraints, high solar penetration, and motor starting limitations.

GMP engaged RES Americas to analyze a non-traditional solution for the Hinesburg area that would include battery storage to address voltage issues, coupled with a hybrid reactive compensation system to address both voltage and flicker concerns associated with solar generation and motor starts. GMP is currently determining the cost of these hybrid alternatives. Once costs are known, GMP will prepare an economic analysis of the transmission and distribution solution as compared with the alternatives. The company will file a reliability plan for the Hinesburg area by April 1, 2016.

RECOMMENDATION 2—NO AREA IS CURRENTLY GEOGRAPHICALLY TARGETED

Recommendation summary: With regard to the status of geographically targeted energy efficiency, no area is currently the focus of current geotargeting efforts, thus, no recommendation is needed regarding continuation or discontinuation of a current project.

RECOMMENDATION 3—NO NEW AREAS WARRANT GEOGRAPHICALLY TARGETED ENERGY EFFICIENCY

Recommendation summary: No area is currently the subject of an active reliability plan. It is premature to recommend geographically targeted energy efficiency to address the Hinesburg reliability issue until the reliability plan is completed.

Rationale for the recommendation

As described in recommendation 1, GMP's Hinesburg area has screened in for a reliability plan. The non-transmission alternatives analysis for the area is currently underway and will not be completed and filed until April 1, 2016. Given this timing, it is premature to recommend geographically targeted energy efficiency or any other specific NTA.

If geographically targeted energy efficiency is a component of the Hinesburg reliability solution, the VSPC will subsequently make recommendations with regard to relevant recommendations, according to the geographic targeting process approved by the Board on January 24, 2014 (EEU-2013-11).

Mrs. Susan Hudson, Clerk

October 23, 2015

Page 4 of 4

No other area is currently the subject of an active reliability plan. Reliability plans were previously filed for St. Albans and Rutland, but subsequent analysis showed that the needs in these two areas now arise beyond the 10-year horizon. GMP continues to monitor these areas.³

CONCLUSION

The VSPC respectfully submits the foregoing recommendations and welcomes questions from the Board.

Sincerely,

Deena L. Frankel
VSPC Secretary

cc: VSPC Distribution List

³ The supporting analysis for considering the St. Albans reliability plan inactive is reflected in GMP's St. Albans Reliability Plan filing with the Board dated February 7, 2014. The rationale for considering the Rutland area reliability plan inactive is reflected in the Vermont Long-Range Transmission Plan filed with the Board on June 25, 2015. In both cases, updated analysis showed that the deficiencies arise beyond the 10-year horizon at projected load levels for the areas.