

5 NTA SCREENING OF PROPOSED SOLUTIONS

NTA screening was conducted for the proposed solutions using the current screening form located on the VPSC web site at

<http://www.vermontspc.com/VPSC%20Subcommittees/Preliminary%20NTA%20Screening%20Tool%20rev3%20p1.pdf>.

St Albans solution

Question 1: Is the proposed project's cost expected to exceed \$2,000,000?

Answer 1: Yes

Question 2: Could elimination or deferral of all or part of the upgrade be accomplished through the use of non-transmission alternatives?

Answer 2: No. The load level at which the project is needed is 900 MW, which is approximately 75% of the projected 2009 summer peak load level.

Question 3: Is the likely reduction in costs from the potential elimination or deferral of all or part of the upgrade greater than \$1,000,000

Answer 3: No. See response to question 2.

Georgia-St Albans voltage instability solution

Question 1: Is the proposed project's cost expected to exceed \$2,000,000?

Answer 1: Yes

Question 2: Could elimination or deferral of all or part of the upgrade be accomplished through the use of non-transmission alternatives?

Answer 2: Yes. The load level at which the project is needed is beyond the projected 2009 summer peak load level but before the 2018 summer peak load level.

Question 3: Is the likely reduction in costs from the potential elimination or deferral of all or part of the upgrade greater than \$1,000,000

Answer 3: Don't know.

Middlebury solution

Question 1: Is the proposed project's cost expected to exceed \$2,000,000?

Answer 1: Yes

Question 2: Could elimination or deferral of all or part of the upgrade be accomplished through the use of non-transmission alternatives?

Answer 2: No. The load level at which the project is needed is 700 MW, which is approximately 60% of the projected 2009 summer peak load level.

Question 3: Is the likely reduction in costs from the potential elimination or deferral of all or part of the upgrade greater than \$1,000,000

Answer 3: No. See response to question 2.

Blissville solution

Question 1: Is the proposed project's cost expected to exceed \$2,000,000?

Answer 1: Yes

Question 2: Could elimination or deferral of all or part of the upgrade be accomplished through the use of non-transmission alternatives?

Answer 2: No. The load level at which the project is needed is 800 MW, which is approximately 70% of the projected 2009 summer peak load level.

Question 3: Is the likely reduction in costs from the potential elimination or deferral of all or part of the upgrade greater than \$1,000,000

Answer 3: No. See response to question 2.

Hartford solution

Question 1: Is the proposed project's cost expected to exceed \$2,000,000?

Answer 1: Yes

Question 2: Could elimination or deferral of all or part of the upgrade be accomplished through the use of non-transmission alternatives?

Answer 2: No. The load level at which the project is needed is 1000 MW, which is approximately 85% of the projected 2009 summer peak load level. This load level assumes that the Bradford capacitor bank can be subdivided into smaller capacitor banks. Otherwise, the reliability concerns occur at the 700 MW load level, which is approximately 60% of the projected 2009 summer peak load level.

Question 3: Is the likely reduction in costs from the potential elimination or deferral of all or part of the upgrade greater than \$1,000,000

Answer 3: No. See response to question 2.

Chelsea solution

Question 1: Is the proposed project's cost expected to exceed \$2,000,000?

Answer 1: Yes

Question 2: Could elimination or deferral of all or part of the upgrade be accomplished through the use of non-transmission alternatives?

Answer 2: Yes.

Question 3: Is the likely reduction in costs from the potential elimination or deferral of all or part of the upgrade greater than \$1,000,000

Answer 3: Don't know.

North Rutland solution

Question 1: Is the proposed project's cost expected to exceed \$2,000,000?

Answer 1: Yes

Question 2: Could elimination or deferral of all or part of the upgrade be accomplished through the use of non-transmission alternatives?

Answer 2: No. The load level at which the project is needed is 1000 MW, which is approximately 85% of the projected 2009 summer peak load level.

Question 3: Is the likely reduction in costs from the potential elimination or deferral of all or part of the upgrade greater than \$1,000,000

Answer 3: No. See response to question 2.

Ascutney solution

Question 1: Is the proposed project's cost expected to exceed \$2,000,000?

Answer 1: Yes

Question 2: Could elimination or deferral of all or part of the upgrade be accomplished through the use of non-transmission alternatives?

Answer 2: Yes. The solution addresses two concerns. One is the substation configuration concern, which occurs before 2009. This concern cannot be deferred by non-transmission alternatives. The other concern is inadequate transformation capacity, which also occurs before 2009. However, if the 46 kV deficiencies were addressed, the transformer solution would be needed in 2013, where the transformer itself would overload.

Question 3: Is the likely reduction in costs from the potential elimination or deferral of all or part of the upgrade greater than \$1,000,000

Answer 3: Don't know.

Bennington solution

Question 1: Is the proposed project's cost expected to exceed \$2,000,000?

Answer 1: Yes

Question 2: Could elimination or deferral of all or part of the upgrade be accomplished through the use of non-transmission alternatives?

Answer 2: No. The substation configuration concern occurs before 2009. This concern cannot be deferred by non-transmission alternatives.

Question 3: Is the likely reduction in costs from the potential elimination or deferral of all or part of the upgrade greater than \$1,000,000

Answer 3: No. See response to question 2.

Voltage support solutions

Question 1: Is the proposed project's cost expected to exceed \$2,000,000?

Answer 1: Yes

Question 2: Could elimination or deferral of all or part of the upgrade be accomplished through the use of non-transmission alternatives?

Answer 2: No. The low voltage concerns occur before the projected 2009 summer peak load level. The high voltage concerns occur before the projected 2009 light load level.

Question 3: Is the likely reduction in costs from the potential elimination or deferral of all or part of the upgrade greater than \$1,000,000

Answer 3: No. See response to question 2.

St Johnsbury solution

See the NTA screening for the Lyndonville project presented to the VPSC at <http://www.vermontspc.com>

K-186 overload solution

Question 1: Is the proposed project's cost expected to exceed \$2,000,000?

Answer 1: Yes

Question 2: Could elimination or deferral of all or part of the upgrade be accomplished through the use of non-transmission alternatives?

Answer 2: No. This overload is not effectively influenced by load reductions in Vermont load. This overload is also affected by load in New Hampshire and regional power transfers.

Question 3: Is the likely reduction in costs from the potential elimination or deferral of all or part of the upgrade greater than \$1,000,000

Answer 3: No. See response to question 2.

K-31 overload solution

Question 1: Is the proposed project's cost expected to exceed \$2,000,000?

Answer 1: Yes

Question 2: Could elimination or deferral of all or part of the upgrade be accomplished through the use of non-transmission alternatives?

Answer 2: No. This overload is not effectively influenced by reductions in Vermont load. This overload is also affected by load in New Hampshire and regional power transfers.

Question 3: Is the likely reduction in costs from the potential elimination or deferral of all or part of the upgrade greater than \$1,000,000

Answer 3: No. See response to question 2.

K-149 overload solution

Question 1: Is the proposed project's cost expected to exceed \$2,000,000?

Answer 1: Yes

Question 2: Could elimination or deferral of all or part of the upgrade be accomplished through the use of non-transmission alternatives?

Answer 2: Yes. However, this overload is also affected by load in New Hampshire and regional power transfers. The amount of load reduction in Vermont will need to increase over time in order to maintain the deferral benefits.

Question 3: Is the likely reduction in costs from the potential elimination or deferral of all or part of the upgrade greater than \$1,000,000

Answer 3: Don't know.

T-198 overload solution

Question 1: Is the proposed project's cost expected to exceed \$2,000,000?

Answer 1: Yes

Question 2: Could elimination or deferral of all or part of the upgrade be accomplished through the use of non-transmission alternatives?

Answer 2: No. This overload is not effectively influenced by reductions in Vermont load. This overload is also affected by load in New Hampshire and regional power transfers.

Question 3: Is the likely reduction in costs from the potential elimination or deferral of all or part of the upgrade greater than \$1,000,000

Answer 3: No. See response to question 2.

K-32 overload solution

Question 1: Is the proposed project's cost expected to exceed \$2,000,000?

Answer 1: Yes

Question 2: Could elimination or deferral of all or part of the upgrade be accomplished through the use of non-transmission alternatives?

Answer 2: Yes. However, this overload is also affected by load in New York and regional power transfers. The amount of load reduction in Vermont will need to increase over time in order to maintain the deferral benefits.

Question 3: Is the likely reduction in costs from the potential elimination or deferral of all or part of the upgrade greater than \$1,000,000

Answer 3: Don't know.

Coolidge autotransformer overload solution

Question 1: Is the proposed project's cost expected to exceed \$2,000,000?

Answer 1: Yes

Question 2: Could elimination or deferral of all or part of the upgrade be accomplished through the use of non-transmission alternatives?

Answer 2: Yes. However, this overload is also affected by load in New York and New Hampshire and regional power transfers. The amount of load reduction in Vermont will need to increase over time in order to maintain the deferral benefits.

Question 3: Is the likely reduction in costs from the potential elimination or deferral of all or part of the upgrade greater than \$1,000,000

Answer 3: Don't know.

Barre solution

Question 1: Is the proposed project's cost expected to exceed \$2,000,000?

Answer 1: Yes

Question 2: Could elimination or deferral of all or part of the upgrade be accomplished through the use of non-transmission alternatives?

Answer 2: Yes.

Question 3: Is the likely reduction in costs from the potential elimination or deferral of all or part of the upgrade greater than \$1,000,000

Answer 3: Don't know.

Solution to overall system voltage and thermal concerns

Question 1: Is the proposed project's cost expected to exceed \$2,000,000?

Answer 1: Yes

Question 2: Could elimination or deferral of all or part of the upgrade be accomplished through the use of non-transmission alternatives?

Answer 2: Yes.

Question 3: Is the likely reduction in costs from the potential elimination or deferral of all or part of the upgrade greater than \$1,000,000

Answer 3: Don't know.