

Information Request EDC-3-3

Request:

Refer to National Grid’s Response to EDC-1. Please provide high-level planning estimates of expected costs of transmission related EPS upgrades. Provide data in dollar-amount-per-kilowatt (“\$/kW”) and by group, where possible.

Response:

Referring to National Grid’s Response to EDC-1 (“EDC-1 Response”), Table 1 below provides high-level estimated low and high range \$/kW costs for the transmission related EPS upgrades referenced in such Response.

Table 1 allocates the high-level estimated transmission related \$/kW costs per Group Study region consistent with the DG capacity in MW per region as shown in the table in EDC-1 Response at 2-3. The low range estimated \$/kW transmission costs in Table 1 for each Group Study region are included in the high-level estimated interconnection costs of \$760.7 million for the Group Study regions in the table in EDC-1 Response at 4. The high range estimated \$/kW transmission costs in Table 1 for each Group Study region reflect the estimated \$380 million incremental cost added to the transmission EPS anticipated project work referenced in EDC-1 Response at 8.

Table 1

Distribution Group Study Regions	Total MW	Estimated Transmission Cost Range	
		\$/kW (Low)	\$/kW (High)
Ayer-Clinton	23	\$658	\$1,169
Barre-Athol	41	\$724	\$1,235
Gardner-Winchendon	54	\$208	\$718
Millbury-Grafton	16	\$658	\$1,169
MPL-East	35	\$874	\$1,385
MPL-Northwest	5	\$61	\$571
Shutesbury	20	\$377	\$887
Spencer-Rutland	62	\$1,306	\$1,817
Webster-Southbridge-Charlton	75	\$390	\$900
Average \$/kW	331	\$583	\$1,545

Notes to Table 1:

1. The estimates in Table 1 are separate from the approximately \$1.2B of regulated asset condition transmission work planned in Central/Western MA over the coming years, which will be recovered through the relevant New England regional or local rates. These asset condition projects are going to appropriately consider the 69kV to 115kV conversion described in EDC-1 Response at 7-8 in their respective scope development.
2. The estimates are not currently supported by comprehensive asset condition reports per substation and are subject to change.
3. Full verification that all of the substation plots and configurations can accommodate the enhanced 115 kV clearances (assumed in high \$/kW) has not yet been completed and may become a challenge in some areas.
4. Consistent with the ISO-NE planning procedures, New England Power Company will need to study all outputs from the distribution Group Studies so the right transmission upgrades are driven in the right timeframes.
5. The high level transmission cost estimates in EDC-1 Response and in Table 1 assume all transmission line work can be recovered under transmission local network service ("LNS") rates, and that the existing 115kV system needs the 69kV system to be converted, as otherwise the 115kV system will not be able to accommodate the total DG capacity National Grid contemplated enabling in EDC-1 Response.
6. As approximately 300MW of proposed DG studied in Central/Western MA in 2020 as part of the transmission Cluster Study Part 2 did not require any transmission upgrades, depending on the final points of interconnection and other changes to the transmission system since 2020, it is also possible there may be little to no new transmission upgrades prompted by the DG that is in queue in the Group Studies.