STATE OF NEW YORK
PUBLIC SERVICE COMMISSION

At a session of the Public Service Commission held in the City of Albany on August 13, 2020

COMMISSIONERS PRESENT:

John B. Rhodes, Chair
Diane X. Burman
James S. Alesi
Tracey A. Edwards
John B. Howard

CASE 17-T-0816 - Petition of Central Hudson Gas and Electric Corporation for a Certificate of Environmental Compatibility and Public Need for the Rebuild of the Approximately 23.6 Mile H and SB Electric Transmission Lines to 115 kV Standards in the City of Kingston, and Towns of Ulster and Saugerties in Ulster County, and the Town of Catskill and Village of Catskill, Greene County.

ORDER ADOPTING JOINT PROPOSAL

(Issued and Effective August 14, 2020)

BY THE COMMISSION:

## INTRODUCTION

On December 29, 2017, Central Hudson Gas and Electric Corporation (Central Hudson or the Applicant) filed an application pursuant to Public Service Law (PSL) Article VII proposing to rebuild and operate approximately 23.6 miles of two electric transmission lines (the H and SB lines) in Ulster and Greene Counties (the Project or the Facility). On May 29, 2020, Central Hudson filed a Joint Proposal that purported to resolve all issues in this matter. In this Order, we adopt the Joint Proposal with the minor exception of some terms that are self-executing agreements governing the relationships among the

parties and unnecessary to our review. Accordingly, we grant to the Applicant, pursuant to PSL Article VII § 121, a conditional Certificate of Environment Compatibility and Public Need (Certificate).

## BACKGROUND

Central Hudson's Article VII application proposes a rebuild of existing 69 kV transmission lines designated "H" and "SB." The Applicant stated that the rebuild will generally occur within an existing 23.6-mile-long right-of-way (ROW), with approximately 1.2 miles of the H line relocated to avoid the State designated Great Vly Wildlife Management Area. The H and SB lines connect the Hurley Avenue Substation in the Town of Ulster, Ulster County and the North Catskill Substation in the Town of Catskill, Greene County, a right-of-way length of approximately 23.6 miles. According to Central Hudson, the Project is being undertaken to maintain reliable transmission service within Central Hudson's service territory.

The H and SB lines currently operate at 69,000 volts (69 kV). The rebuild design voltage will increase the lines' capability to 115,000 volts (115 kV), however the lines will continue to operate at 69 kV until the increase in voltage is needed. As originally proposed, Central Hudson planned to remove and replace all structures, insulators, electrical conductors associated with the existing H and SB 23.6-mile long ROW except 24 structures planned for retention.

By letter dated April 3, 2018, the Secretary informed Central Hudson of deficiencies in its application. Central Hudson responded with supplemental and revised application materials on May 24, 2018, and provided additional information on June 8, 2018, in response to DPS Staff's request for information.

With its Application, Central Hudson requested waivers from certain application requirements such as Department of Transportation maps which are no longer available and aerial photographs that were not made within the time frame required by Commission regulations. By order issued May 18, 2018, the Commission granted Central Hudson's waiver requests.[1] By letter dated June 14, 2018, the Secretary informed Central Hudson that the application was filed or otherwise in compliance with Section 122 of the Public Service Law (PSL).

By Notice issued July 17, 2018, the Secretary scheduled an information session and Public Statement Hearing in Saugerties, Ulster County, for August 7, 2018. One individual at the Public Statement Hearing representing the Town of Saugerties raised concerns about visual impact assessment to historic structures within the Town, the Great Vly Wetland (Vly) and the Trumpbour Farm. The Town of Saugerties also submitted written comments on August 17, 2018. The Town's written comments repeated the concern that certain historic resources of the Town were overlooked in the Application.[2] The Town supports the relocation of the transmission facility out of the Vly and agrees with the importance of minimizing disturbance to the bottom of the wetland, even if it results in the existing structures remaining visible a few feet above the water line. Other than the omitted historical structures, the Town generally appreciated the thoroughness of the Application.

On August 8, 2018, the Administrative Law Judge held a prehearing conference in Albany. At the conference, the parties indicated their intent to enter settlement negotiations. On August 27, 2018, Central Hudson filed a notice of its intent to

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[1] Order Granting Waivers (issued May 18, 2018).

[2] As described below, the Applicant submitted a Supplemental Visual Impact Assessment on November 21, 2018, (Exhibit 21) to address the Town's concern.

commence settlement negotiations. Those negotiations culminated in the filing of the Joint Proposal on May 29, 2020, attached here as Appendix A. In addition to Central Hudson, the Joint Proposal is signed by Trial Staff of the New York State Department of Public Service designated to represent the public interest in this proceeding (DPS Staff), the New York State Department of Environmental Conservation (DEC), and the New York State Department of Agriculture & Markets (DAM).

The Applicant also provided several revised exhibits, as well as affidavits swearing to testimony that was filed with the Application in support of the Application's various exhibits. The ALJs issued a Ruling Admitting Evidence on June 2, 2020.

## Joint Proposal

The Joint Proposal provides the most updated description of the Project. The Project consists of the rebuild and re-conductoring to 115 kV specifications of the existing 69 kV H and SB lines located between the Hurley Avenue Substation in the Town of Ulster, Ulster County and the North Catskill Substation in the Town of Catskill, Greene County, New York. The H and SB lines will initially be operated at 69 kV and will require future modifications at the three substations and one tap station in order to operate at 115 kV.[3]

The Project will generally occur within an existing approximately 150-foot-wide ROW. The Joint Proposal provides for approximately 1.2 miles of the H Line route to be relocated out of the Vly. The total distance of the H and SB lines is approximately 23.6 miles and the individual lengths of the H and SB lines are 12.2 and 11.4 miles, respectively. The proposed

[3] The Commission would also need to approve an amendment to the Certificate.

new line will be comprised of single-circuit facilities on single, two and three-pole structures made of self-weathering Corten steel and designed in accordance with industry standards. Further details concerning the Project description are contained in Appendix B of the Joint Proposal.

As a result of the settlement discussions, the Joint Proposal provides for certain changes to the Project from Central Hudson's original Application. The modifications include: i) changes to several structures from direct-bury to engineered concrete foundations, reducing or eliminating necessary guying; ii) changes to the design at the southern end of the project to accommodate a recreational trail (Rail Trail project);[4] iii) different structure locations at the Kosco/Heritage Energy Facility in order to better accommodate existing commercial operations at the site; iv) different structures in the area of the Bluestone Wild Forest to eliminate a ROW width deficiency; v) the replacement of five structures in Catskill that originally were thought to be structurally adequate to avoid replacement; and vi) additional environmental impact minimization not contemplated with the original filing.

Need for the Project

The Joint Proposal sets forth the need for the Project as primarily based on the deteriorating condition of the H and SB lines that if not corrected could impact the reliability of the lines. The existing 69 kV lines were installed in 1928 as double circuits on steel lattice structures; the double circuits

[4] According to the Joint Proposal, Ulster County is in the process of finalizing a design for the Rail Trail project where there is currently a footpath authorized by Central Hudson for recreational use just north of the Hurley Avenue substation. The Rail Trail is being planned and constructed as a public recreational trail which will go from Kingston to the Ashokan Reservoir. More details regarding the Rail Trail project are provided below.

subsequently were converted to single circuits with two conductors per phase. Some of the original lattice structures have been replaced as needed. Central Hudson assessed the condition of the structures in 2015 and determined that 32.0% of the existing structures needed replacement or the addition of mid-span poles to correct sag; an additional 35.5% of the structures required repair. If mid-span structures were installed to correct sag, it is very likely that adjacent tangent structures would also require replacement. Nine structures were replaced in 2017-2018 due to severe condition issues. The continuing deterioration and need for the proposed project are also evidenced by the need to replace an additional five structures in Catskill that Central Hudson originally thought were adequate to avoid replacement.

The Joint Proposal indicates that the Project will be designed and constructed for operation at 115 kV. However, the lines will operate at 69 kV until conditions require the higher voltage. The Applicant indicates that it expects conditions requiring the 115 kV capacity within a timeframe such that "rebuilding for just 69 kV use would be short sighted and not cost efficient."[5] The Joint Proposal indicates conditions requiring the higher voltage include sudden load growth that cannot be mitigated with non-wires alternative projects; increased Upstate New York/Southeast New York (UPNY-SENY) flow resulting in overload conditions on the 115 kV Feura Bush (National Grid) to North Catskill line; and/or a need to increase hosting capacity for photovoltaic generation and electric storage projects.

Further, according to the Joint Proposal the H and SB lines are the sole transmission supply for the peak distribution

[5] Joint Proposal, Section III, p. 9.

load (35-40 MWs) currently served by the Saugerties and Woodstock Substations. The lines also provide important input capability to the northwest portion of Central Hudson's service area. The Joint Proposal states that rebuilding the lines will improve reliability to the northwest area, as well as to the Lehigh Cement Company in the Towns of Saugerties and Catskill, as the H Line is the only source of supply for the plant.

Project Costs

The Joint Proposal states that the preliminary cost estimate is $41,046,000. A more definitive cost estimate will be available once a Certificate is granted and the Certificate Conditions and requirements of the Environmental Management & Construction Plan (EM&CP) can be factored into the cost estimate. The Joint Proposal states that Central Hudson will provide a full accounting of all Project costs, including an explanation of any variances between projected and actual costs upon completion of the Project.

For its estimate, Central Hudson used cost data from the recently completed 11-mile A & C-Lines 115 kV rebuild project,[6] in addition to identifying and accounting for project components unique to the H and SB Lines. Additional cost drivers, not in the original cost estimate, have been identified as planning and design for the Project have progressed. The incremental cost drivers include additional engineered concrete foundation structures to remove guying at certain locations; a design change at the southern end of the project to accommodate a recreational trail as discussed below; replacement of five

[6] Case 13-T-0469, Central Hudson Gas & Electric Corporation-Article VII A and C 115 Kilovolt Line Rebuild, Pleasant Valley, LaGrange, Wappinger and East Fishkill, Dutchess County, Order Adopting the Terms of the Joint Proposal and Granting Certificate of Environmental Compatibility and Public Need (issued March 30, 2015).

additional structures in Catskill; additional matting in non-State regulated wetland; incremental contingency dollars; elimination of a ROW width deficiency in the area of the Bluestone Wild Forest; heavy earthwork required for access roads in several areas; acquisition of easements through quarry areas for permanent access; and special handling of lead-coated lattice structures.

Much of the work is expected to be awarded to contractors specializing in specific trade work including line work, hole drilling and civil site work. Further, because the Project's construction activities are of relatively short duration, the Joint Proposal indicates that the Project is not expected to attract new residences, commercial or industrial activities. Because construction will occur predominantly within an existing ROW, no disruptions to any residential, commercial, agricultural or industrial uses or other loss of business income are anticipated either. The Joint Proposal concludes that the Project will not significantly impact the local economy and no economic impact mitigation is necessary.

Environmental Impacts

Due to the Project's status as a rebuild primarily along an existing right-of-way, the environmental impacts are expected to be minimal and largely limited to temporary, construction-related disturbances and inconvenience. The Joint Proposal indicates that its terms and conditions minimize the Project's environmental impacts to the maximum extent practicable. The Project has been reviewed with respect to potential impacts to land uses, visual, cultural, terrestrial and wildlife resources, wetlands and water resources, topography and soils, noise, transportation, communications, and electric and magnetic fields. As noted in the Joint Proposal, by making use of a large portion of the existing right-of-way, the

Project's proposed route, access points and configuration avoids or minimizes the disturbance of natural habitat, and minimizes disturbance of residential, agricultural and commercial properties and emergency activities and traffic.

The Joint Proposal states that the proposed Project including the design modifications developed by the signatory parties represents the minimum adverse environmental impact. The Joint Proposal notes that most impacts are related to construction and will be temporary, short-term, and not significant in nature.

Great Vly Reroute

Currently, a 0.6-mile section of the H Line is located within the Vly wetland, adjacent to the DEC designated Great Vly Wildlife Management Area. The Vly wetland is an environmentally sensitive area providing habitat for a variety of species. According to the Joint Proposal the wetland also presents unique challenges to the Project. Most of the wetland is submerged and requires extensive use of timber or other matting for access. Further, upland access from the east is limited due to terrain requiring travel routes to generally parallel the ROW in the Vly.

The proposal to relocate the Project out of the Vly is intended to minimize the Project's impact to this sensitive area, as well as increase accessibility to the Facility for Central Hudson when necessary for maintenance and repair. The total length of the reroute is approximately 1.16 miles[7] and it will be located further east on the Lehigh quarry property. The relocated line will require approximately 5.2 acres of additional clearing with the remainder in previously disturbed areas of Lehigh quarry lands.

[7] The existing section is 1.18 including 0.6 miles in the Vly.

The Vly Reroute will result in removal of 16 structures, both upland and wetland. The Joint Proposal states that Central Hudson will coordinate with the landowner to develop a demolition plan for the structures to be removed from inundated areas. The Joint Proposal anticipates that the structures will either be cut above the water level or, if feasible, removed entirely. Any remaining portions will be left in a manner that allow them to be easily located by individuals and wildlife that may utilize the inundated areas. The Joint Proposal indicates that Central Hudson will retain its existing easement as necessary to maintain the structures in a safe condition. Central Hudson will include specific construction techniques for work in the Vly in the EM&CP. The Joint Proposal also includes a provision for the presence of an environmental inspector during all construction activities in the Vly.

The Vly Reroute is not expected to impact the northern long-eared bat or the Indiana bat. Any tree cutting for the reroute will be outside the 5-mile buffer from the nearest known hibernaculum of the northern long-ear bat or the nearest known hibernaculum or summer roost of the Indiana bat.

The least bittern and king rail are state-listed threatened species and are assumed to be present in the Vly. Central Hudson will comply with a no work restriction from April 15 to August 15 in habitat suitable for these species. The restriction does not apply to utilizing the existing quarry access roads. Further, Central Hudson will brief construction personnel on the sensitive biological and environmental resources that could occur on the Project ROW.

The Joint Proposal states that the short-term costs of acquiring an easement from Leigh and clearing additional ROW are expected to be significantly outweighed by reduced cost of future maintenance and improved line access allowing for better

response times for planned and unplanned maintenance. Similarly, the Signatory Parties agree the environmental impacts of the reroute, even though they include clearing some mature forest vegetation, will be outweighed by the environmental benefits associated with removing the line from the Vly. This is particularly true if Central Hudson can remove the structures entirely.

No excavations in the wetland are anticipated. Portions of the reroute may be more visible. However, others will be less visible than the existing facility and the Joint Proposal concludes that the Vly reroute will not affect the use and enjoyment of adjacent properties.

Land Use

Land use in the vicinity of the Project is characterized by a mix of undeveloped forest land, rock quarries, successional old field and shrubland, agricultural land, wetlands and suburban areas. The mixture of land use is consistent along the ROW. The Joint Proposal states that the Project is not expected to have a significant impact on land use. Central Hudson already owns/holds easements on most of the land on which the Project will take place. The Project will require the acquisition of some additional property rights required, including danger tree rights as discussed below.

Impacts to vegetation have been minimized by primarily utilizing existing ROW and avoiding areas of mature forest and undisturbed wetlands. Measures to avoid or minimize impacts to vegetation will also include: identifying and delineating sensitive areas (such as wetlands); complying with regulatory requirements regarding the movement of firewood to minimize the spread of invasive species; educating the construction workforce on respecting the boundaries of off-limit areas; including best management practices in the EM&CP and employing them during

construction; and maintaining a clean work area. After construction activities are completed, disturbed areas will be seeded and stabilized with mulch where necessary, to reestablish vegetative cover. A seed mix consisting of native plant species appropriate to the area adjacent to the Project ROW will be utilized except in agricultural areas.

The Joint Proposal acknowledges that both temporary and permanent impacts to the identified vegetative community types will result from the construction and long-term maintenance of the proposed Facility. Construction impacts to vegetation include mowing of brush, and increased exposure and disturbance of soil along access routes, at structure sites and wire pulling sites. Loss of vegetation can also lead to loss of food and cover for wildlife, increased soil erosion and sedimentation and disruption of the normal nutrient cycling.

Following construction, vegetation within the ROW will be reestablished and allowed to regenerate to the native pre-construction successional communities and conditions. Details of vegetation management activities will be included in Central Hudson's EM&CP. After construction, vegetation within the ROW will be maintained in accordance with the Central Hudson's Commission-approved Transmission Right-of-Way Vegetation Management Plan (VMP). Herbicide applications will be restricted to comply with the EM&CP and the VMP.[8] In addition, the Certificate Conditions place restrictions on application of herbicides in areas with livestock requiring Central Hudson to coordinate with the agricultural producer and

[8] The VMP either incorporates by reference or includes as an attachment any relevant permits (e.g., DEC General Permit issued specifically to Central Hudson, the DEC-issued Pesticide General Permit, governing the application, use and control of herbicides).

the agricultural inspector prior to herbicide application. Further, such application can only take place when livestock can be appropriately isolated including the producer moving livestock to another pasture, or if necessary, Central Hudson would be required to install and maintain temporary fencing for the affected areas for the duration of application and any potential residual effects according to the grazing restrictions listed on the relevant herbicide's label. No cherry species will be accessible to livestock as a result of construction activities or ROW maintenance.

Impacts to vegetative cover are largely limited to those caused by temporary soil disturbances, and selective clearing in old fields, successional and early successional shrubland, and agricultural fields where non-compatible species per the EM&CP and Central Hudson's VMP will be removed from the ROW. Permanent alteration of the vegetative cover type will only result in the forested area of the proposed Vly Reroute. There, removal of vegetation will be confined to the ROW of the reroute and where danger trees exist. The proposed Certificate Conditions require that the danger trees be flagged and only removed in consultation with DPS Staff.

With certain exceptions contained in the Certificate Conditions, or as otherwise described in the EM&CP, Central Hudson will replace trees - over four inches in diameter breast height, or shrubs - over four feet tall that are damaged or destroyed by construction, operation, or maintenance activity within the following year with an equivalent type of trees or

shrubs.[9] This requirement is also subject DEC rules regulating the sale, purchase, possession, propagation, introduction, importation, and transport of invasive species in New York.[10]

The Joint Proposal concludes that the proposed Project is compatible with the existing land uses in the vicinity of the Project ROW and is not anticipated to change the existing land uses. All replacement structures will be located within the existing ROW, except the reroute of the ROW proximate to the Vly and to address a ROW width deficiency near the Bluestone State Forest property. Impacts to residential and commercial properties crossed by the ROW will be temporary and limited to construction-related noise and traffic.

The Joint Proposal states that Central Hudson will address potential encroachments onto the existing ROW that may impinge the Applicant's property rights on a case-by-case basis pursuant to an Encroachment Plan to be submitted as part of the EM&CP.

Visual Resources

Central Hudson conducted a Visual Impact Analysis for the Project to determine the anticipated change in visual resources including whether there will be a change in the character or quality of views with respect to significant scenic and aesthetic resources as a result of the Project.[11] The Visual Impact Analysis begins with evaluation of existing conditions,

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[9] Central Hudson is not required to replace trees or shrubs with an equivalent type if: such type will interfere with the proper clearing, construction, operations or future maintenance of the certified Project as determined by the Certificate Holder; replacement would be contrary to sound ROW management practices, or to an approved VMP applicable to the Project; or the relevant real property owner declines replacement.

[10] 6 NYCRR Part 575.

[11] Exhibit 20, Application, Appendix I

and an inventory of visual resources including State Park and Scenic Areas of Statewide Significance, within a study area consisting of a five-mile radius[12] around the Project Site. The study area was modeled electronically to identify potential receptor points based on elevation and the screening potential of vegetative cover. Field evaluation was conducted for 57 viewpoints identified by the modeling. Fifteen of those were selected as representative viewpoints and photo simulations were created for the representative viewpoints.

The replacement of existing lattice structures will generally decrease visibility of the transmission facility but in some locations, particularly looking along the ROW, visibility will increase.

The Joint Proposal states that overall the Project will not have a negative impact on visual resources within the study area. The Joint Proposal does indicate that visual impacts will occur in a few locations along State Highways, but that the Project will not negatively impact other sensitive receptors, and there will be no visual impact to any Scenic Areas of Statewide Significance or designated Scenic Byways. The Joint Proposal states that overall the Project will not have a negative impact on visual resources within the study area.

The Joint Proposal notes the comments provided by the Town of Saugerties regarding several historic-eligible sites.[13] In response to the Town's comments, Central Hudson provided an evaluation of those sites in a Supplemental Visual Impact

[12] The five-mile radius is intended to represent a long-range view.

[13] According to the Joint Proposal, the sites were listed in an unpublished 2005 historic survey prepared in coordination with the Town Historic Preservation Commission.

Analysis,[14] which indicates that in 2005 the Town of Saugerties prepared a report that evaluated 155 older structures within the Town, of which 82 were deemed by the Town as eligible for listing on the National Register of Historic Places. The Supplemental Visual analysis indicates that the Project could be viewed by 27 of the 82 structures but field evaluation of the 27 structures determined that the Project could be seen from only three locations. According to the Joint Proposal, at one Register-eligible structure, multiple existing towers will be replaced with tangent poles at the same structure locations. Further, at two Register-eligible structures, where the existing views of individual structures are screened, the new tangent poles are proposed for the same locations as the existing structures. The Joint Proposal concludes that the H and SB Lines Rebuild Project will not cause any incremental visual impacts to any of the Register-eligible structures identified by the Town of Saugerties.

The Joint Proposal also states that Central Hudson will assess the need for landscape improvements, including vegetation planting, earthwork or installed features to screen or landscape the Project with respect to road crossings, residential areas, and substations and present the results of such an assessment to DPS Staff.

The Second Supplemental Visual Impact Assessment included updated simulations in the areas related to design changes in the area of the Bluestone Forest, the County Rail Trail project and the five additional structures to be replaced in Catskill. The Second Supplemental Visual Impact Assessment concluded that, while the changes to the structures assessed would be noticeable on the local road network traveled by the

[14] Exhibit 21.

public, at most locations, views contain other utility infrastructure resulting in consolidation of visual impacts.

Cultural, Architectural, and Historic Resources

The Joint Proposal notes that Phase I, Phase 1B and Phase II archeological investigations for the Project were conducted to determine potential impacts from the Project on cultural resources.[15] The investigations indicate the presence of two stone culverts in the former O&W railroad alignment that are not expected to be impacted by proposed structure locations but that should be protected from heavy equipment crossings. The Joint Proposal indicates that Ulster County has committed to building bridges over the culverts as part of the County Rail Trail project. If the bridges are not installed prior to construction of the proposed Facility, Central Hudson will use plates or pads to protect the culverts from construction equipment.

The investigations also indicated the location of several archeological finds and sites. The Joint Proposal states that the Office of Parks, Recreation and Historic Preservation (OPRHP) agreed that no further archeological work is required at all but two of those locations. One of the locations is part of the Vincent Precontact Site and likely to be considered National Register eligible. Central Hudson has agreed to the OPRHP's recommendation to avoid the Vincent site or conduct Phase III data mitigation work at the site. The other location is not likely to be considered National Register eligible. However, a portion of the site was not included in the Phase II evaluation. Therefore, Central Hudson will utilize

[15] Exhibit 23, Application Appendix J.

matting for any access routes that cross that location. The Joint Proposal indicates OPRHP does not object to this approach.

Additional archeological field work was conducted as a result of the design changes resulting from the settlement discussions. The addendum to the Phase IB Report related to the design changes found no significant deposits or finds and concluded that no further work was necessary. According to the Joint Proposal, OPRHP concurs with this conclusion.[16] Finally, to further ensure that the impacts to cultural resources are minimized to the maximum extent practicable, the proposed Certificate Conditions would require Central Hudson to protect archeological materials or human remains or burial grounds that may be encountered during construction.

Terrestrial and Wildlife Resources

Wildlife

The Joint Proposal states that the Project ROW provides habitat primarily for birds that prefer brush, forest edge, agriculture lands, wetlands, and open cliffs. Field work revealed the presence of habitat suitable for attracting significant concentrations of migrating or wintering waterfowl, shorebirds, songbirds, hawks or other species. Of the species likely to occur on the ROW, the only one listed by the DEC as endangered is the peregrine falcon. No endangered bird species listed by United States Fish and Wildlife Service are expected to be found on the ROW. Five species identified in the New York State Breeding Bird Atlas as state-listed threatened species,[17]

[16] Exhibit 17A

[17] The King rail, least bittern, pied-billed, grebe, northern harrier, and bald eagle.

and five state-listed species of special concern,[18] are associated with the habitat found on or adjacent to the ROW. No listed endangered, threatened or special concern mammal species were observed during field surveys. A total of 39 species of reptiles and amphibians have been documented within the area crossed by the proposed Project. Seven herpetological species were observed during the 2014 and 2017 field surveys, none of which are listed as endangered or threatened.

Three species of reptiles and amphibians that are listed as threatened or endangered by NYNHP or the USFWS occur or are expected to occur within the vicinity of the proposed Project area. These species include timber rattlesnake, bog turtle, and northern cricket frog. The Joint Proposal indicates that none of these species have been documented to occur on the Project ROW.

According to the Joint Proposal, the only known winter hibernaculum or summer roost site for the Indiana Bat is south of the Hurley Avenue substation, the most southern portion of the Project. The Joint Proposal concludes that because the Project does not encroach upon the 2.5-mile radius around the closest documented summer roost site for the Indiana Bat, impacts will be avoided and no cutting restrictions for this species are necessary.

The Northern Long-Eared Bat is listed as threatened at both the state and federal level. The Joint Proposal states that there is a northern long-eared bat hibernaculum within 5 miles of the Project area at the north end of the Project and at the south end of the Project. The Joint Proposal indicates that in order to avoid impacts to this species, Central Hudson, to the extent practical, will leave standing snag and cavity trees

[18] Cooper's hawk, red-shouldered hawk, osprey, northern goshawk, sharp shinned hawk.

occurring between one-quarter mile and five miles of the hibernation site, or within 1.5 miles of a summer occurrence for the Northern Long-Eared Bat. If leaving a snag or cavity tree standing is not possible, Central Hudson will only remove such trees between November 1 and March 31 unless their removal is necessary for protection of human life and property, including the potential loss of electric service.

The bald eagle is listed as threatened in New York and is protected federally. According to the Joint Proposal, no nesting sites have been observed during field reconnaissance in preparation for the filing of the Application. However, New York Natural Heritage Program data indicates that a bald eagle nest has been documented within 1 mile of the Project area. In order to ensure the Project will avoid impacting bald eagles, at least two weeks prior to construction, Central Hudson will visually inspect the Project ROW, access roads, and all other construction areas for the presence of bald eagles. The Joint Proposal states that if during construction of the Project and associated facilities, any bald eagle nest is discovered within 0.25 mile of Project activities, Central Hudson will notify the DEC and DPS Staff within 24 hours of the discovery. The nest will not be disturbed unless DPS Staff authorizes such disturbance after consultation with DEC. The 0.25 mile area will be marked if permissible and the area will be avoided until DPS Staff, after consultation with NYSDEC, authorizes activities in the environmentally sensitive area. The Joint Proposal provides that when the view from the nest is obstructed by trees, topography etc., the marked off-limits area may be reduced to 660 feet.

The least bittern and king rail marsh birds occur or are expected to occur based on available habitat within or near the Vly. To avoid any impact to the least bittern and king rail

marsh birds, for activities within or adjacent to the Vly, the Joint Proposal indicates that no construction activities will take place within or near the Vly from April 15 to August 15 except for accessing existing active quarry roads.

The Joint Proposal indicates that incidental injury and mortality should be limited to sedentary or immobile species unable to be relocated during construction. More mobile species are expected to vacate disturbed areas of the ROW. The Joint Proposal states that direct loss of wildlife will be minimized by avoiding disturbance of forest and wetlands, to the extent practicable, and primarily utilizing existing cleared ROW and access routes for construction activities.

According to the Joint Proposal, wildlife habitat impacts will be minimized by primarily siting the Project within the existing ROW. The Vly reroute, consisting of 1.2 miles of new ROW will remove the transmission facility from a sensitive environmental area which will minimize the Project's construction impacts to this important resource and minimize and perhaps avoid future impacts related to maintenance or repair.

The Joint Proposal concludes that potential impacts to wildlife and wildlife habitat from the Project will be largely temporary, restricted to the period of construction. Once Central Hudson has restored disturbed areas, restoration habitat on the ROW will be maintained similarly to current conditions in the ROW consistent with the VMP. Therefore, no significant long-term change is expected to wildlife or habitat from the Project's construction or operation.

Wetlands and Water Resources

Exhibit 4 of the Application describes the surface water and groundwater resources within the ROW. The Joint Proposal notes that the Project area occurs within the Middle Hudson DEC hydrologic unit, which is part of the Upper

Hudson River Basin. The largest surface water features crossed by the Project are Plattekill Creek, Saw Kill, Catskill Creek, and Esopus Creek. Numerous small named and unnamed streams also occur within the area of the Project ROW, five of which are protected streams.

The Joint Proposal also states that Federal Emergency Management Agency (FEMA) floodplain mapping indicates several 100-year flood hazard areas crossed by the ROW. In total, the ROW will cross approximately 2.63 miles of FEMA 100-year flood zone.

The Joint Proposal states that because the Project must cross state mapped streams and their Tributaries and floodplain areas, temporary impacts to such water resources cannot be fully avoided. No new permanent stream crossings are proposed. The Joint Proposal also notes that the Project will not lead to an increase in impervious surfaces or permanent changes to the contours and therefore, permanent impacts to FEMA designated 100-foot flood zones will be avoided.

The Joint Proposal also notes that there are two potential aquifers, and four DEC mapped freshwater wetlands and 20 federal wetlands located within or immediately adjacent to the approximately 150-foot wide ROW. The aquifers are not considered primary aquifers and are not expected to be impacted by the Project.[19] The wetlands are considered Class II or Class III wetlands which the Project may impact temporarily. The Joint Proposal states that Project construction could temporarily impact up to 27.5 acres of DEC and federal

[19] Primary aquifers are highly productive aquifers presently utilized as sources of water supply by major municipal water supply systems.

jurisdictional wetlands but less than 0.02 acres of permanent impacts are expected.

The Joint Proposal concludes that impacts to wetlands will be avoided or minimized through careful siting measures including siting new structure outside of delineated wetlands. Also, construction access will primarily occur along existing access-ways avoiding new wetland crossings. Indirect impacts to wetland water quality and vegetation could also occur as a result of earth disturbance and soil erosion, siltation and sedimentation. These impacts will be temporary and will be minimized through appropriate construction, erosion control and restoration practices. Further, existing vehicular crossing locations will be used whenever possible.

The Joint Proposal acknowledges that the Project will create some permanent impacts, which it describes as minor, to wetlands associated with the installation of new structures. The Joint Proposal claims those impacts will be offset by the removal of existing lattice tower structures. The Signatory Parties expected that Project construction activities in wetlands and other waters of the United States over which the United States Army Corps of Engineers has jurisdiction will be authorized by the Corps under Section 404 of the Clean Water Act[20] (33 U.S.C. § 1344) and such impacts will be quantified and described in a Nationwide Permit Preconstruction Notification. The proposed Certificate Conditions would also require Central Hudson to provide specific fuel tank and hazardous chemical storage provisions in the EM&CP to ensure impacts to water and other resources related to spills or leaks are avoided or minimized.

[20] 33 USC §1344

Fish

According to the Joint Proposal, several streams and wetlands crossed by the Project ROW, including tributaries to the Hudson River, support fish populations. The Esopus Creek is the only classified trout stream within the Project area. Some of the streams have provisions for public access and are used for recreational fishing. Similarly, areas of wetland habitat, as well as areas of open water or flowing water that could provide habitat for fish occur within and near the ROW.

The Joint Proposal concludes that impacts to fish and fish habitat have been largely avoided through careful siting, and to the extent practicable, use of previously disturbed crossings. Where waterbodies must be intersected, appropriate matting will be used to ensure that any impacts are temporary and minimal.

Topography and Soils

The Joint Proposal describes the Project as located within the Hudson Mohawk Lowlands[21] and the Catskill Mountains physiographic division in New York State. A few areas of isolated steep slopes are part of the proposed route. The Signatory Parties report that widespread blasting is not anticipated, based on the surface geology in the area of the Project, but also that a blasting plan will be prepared and included in the EM&CP, if necessary.

Because the majority of ROW is already established, other than improvements to existing or construction of new access roads, it is not anticipated that topography or soils will be permanently affected by the construction and operation of the Project. The proposed approximately 1.2-mile Vly Reroute also minimizes impacts by siting the electric transmission line

[21] The Hudson Mohawk Lowlands extend 3 to 6 miles east of the Hudson River.

within previously disturbed quarry areas for 0.7 miles. Soil impacts associated with tower removal and replacement, and access improvements will generally be temporary. These impacts will be minimized through proper construction and restoration activities.

During construction proper erosion controls will be installed consistent with the New York State Standards and Specifications for Erosion and Sediment Control," (NYSSESC) also known as the "Blue Book." Excavated soils will be used for backfilling when appropriate and suitable imported clean fill that is visually free of invasive species will be used when necessary. Grading and other soil disturbing activity will be minimized through use of existing access routes to the maximum extent practicable. After construction, disturbed areas will be seeded and mulched as described in the Project Storm Water Pollution Prevention Plan (SWPPP). Central Hudson will specify and define erosion control measures as part of the SWPPP and the EM&CP.

Noise

Noise will be generated during Project construction by vehicles and equipment operating along access roads and at structure work pads, laydown areas and pulling sites. At times, different construction activities may occur simultaneously, resulting in multiple sources of noise being present at one time. The Joint Proposal indicates that Noise impacts will be minimized by requiring that all equipment be maintained properly, muffling according to manufacturer's specifications and comply with State Environmental regulations.[22]

The Joint Proposal would limit construction activities to the hours of 7:00 a.m. and 7:00 p.m. Monday through Saturday

[22] 6 NYCRR Part 450: Noise from Heavy Motor Vehicles.

to further minimize construction noise impacts. However, the proposed Certificate Conditions would allow for construction activities to continue beyond those hours, if required for safety, reliability or continuous operation requirements. The Joint Proposal includes a provision requiring Central Hudson to notify DPS staff, the affected landowner, and the affected municipality, 24 hours in advance if possible, when construction is expected to go beyond permissible hours.

Operation of the Facility is not expected to cause significant noise impacts because the Project is designed below the corona threshold. According to the Joint Proposal, Project inspections and maintenance will occur annually, but will generally be of short duration, are not expected to result in adverse noise impacts, and will not require specific mitigation measures.

Invasive Species

The Joint Proposal and proposed Certificate Conditions also address invasive species which are considered a potential threat to sensitive ecological resources including wetlands and streams. Invasive species are present in at least 90% of the delineated wetlands or their immediate vicinity including such species as purple loosestrife, common reed grass, multiflora rose, common buckthorn, Tartarian honeysuckle, Morrow's honeysuckle, Japanese stilt grass, and oriental bittersweet.

Central Hudson will prepare an Invasive Species Management Plan (ISMP), which must comply with DEC's invasive species regulations,[23] in order to minimize the spread of such species as part its EM&CP. Specific measures to be implemented in order to minimize the spread of invasive species include contractor/employee training; inspection of construction

[23] 6 NYCRR 575.

materials; minimizing ground disturbance; specific vegetation clearing and disposal practices; equipment cleaning; and appropriate site restoration practices.

Transportation

The Joint Proposal explains the proposed Project's potential to impact transportation. It notes that two public airports were identified in the vicinity of the proposed Project alignment: the Kingston-Ulster Airport in Kingston, New York and the Green Acres Airport in Livingston, New York. The Joint Proposal explains that Central Hudson evaluated the Project against Federal Aeronautical Administration (FAA) aeronautical standards. Although some of the structures exceed certain FAA standards, or aeronautical surfaces, the existing structures exceed the same surfaces and those structures do not pose a threat to aviation. Therefore, the Signatory Parties do not expect the FAA will find that the proposed structures pose a hazard to air navigation. The proposed Certificate Conditions require Central Hudson to secure evidence of an FAA determination that the final design of the structures will have no impact (or will have impacts mitigated by FAA-directed modifications to such final design).[24]

The Signatory Parties do not anticipate any negative impacts to railroads. The Project will not intersect any railroads. A portion of the H line is adjacent to a CSX rail line, but the Joint Proposal does not propose to move the Facility any closer to the railroad.

The Joint Proposal indicates that the Project could impact up to 42 federal, state, county, local, or private roadways in Greene and Ulster Counties. In order to minimize

[24] Certificate Condition 12.

impacts to the roadways, the Certificate Conditions require Central Hudson to coordinate with the NYS Thruway Authority (NYSTA), the Department of Transportation and local authorities as appropriate. Further, Central Hudson will be required to use industry standards and procedures for maintaining safe traffic operations according to the traffic and safety procedures outlined in the latest edition of the Manual on Uniform Traffic Control Devices. Detailed Work Zone Traffic Control plans for each work zone and roadway crossing are also required. Highway Work Permits will be acquired through the appropriate agency prior to construction at each road location.

The Rail Trail maintained by Ulster County, is located at the south end of the SB Line within the proposed work zone for 12 structures. Central Hudson will consult and cooperate with Ulster County for excluding public traffic from this area during the construction and restoration period.

Communications

Central Hudson evaluated potential effects the proposed Project could have on communication systems within the vicinity of the Project.[25] More specifically, Central Hudson arranged for there to be a Tower Study, Off-AirTV analysis, Land Mobile & Emergency Services Report, Microwave Study, MobilePhone Report, and AM and FM Radio Report, and this evaluation determined the potential effect the Project will have on these communication systems. In summary, once the transmission lines are operational, it was determined that the Project will have no effect on communication systems.

Electric and Magnetic Fields (EMF)

Electric and magnetic fields were analyzed to compare existing EMF levels to the levels expected following the

[25] Exhibit 14, (Exhibit E-5 and Appendix E of the Application).

proposed rebuild of the two transmission lines (see Appendix G of the Application). The analysis indicates that EMF values from the Projects are expected to be below the limits as governed by the Commission's policy at the ROW edges.[26]

Impacts On Active Farming Operations

According to the Joint Proposal, the Project ROW crosses land currently in agriculture production for a total distance of approximately 2.7 miles according to aerial photography.[27] Approximately 24% of the soils within the Project area are either prime farmland or farmland of statewide importance. The Joint Proposal indicates that the Project is expected to cause temporary impacts to soils associated with agricultural production. The proposed Certificate Conditions require Central Hudson to work with agricultural producers to minimize these temporary impacts. The Joint Proposal also requires the implementation of protection measures, as directed by DAM Staff, or as contained in DAM guidelines. The Joint Proposal would also require full restoration of agricultural soils impacted during construction. In addition, Central Hudson

[26] The Commission's Statement of Interim Policy on Magnetic Fields of Major Electric Transmission Facilities (issued September 11, 1990) (Interim Policy) states that Article VII transmission circuits must be designed, constructed and operated such that magnetic fields at the edges of their rights of way (measured one meter above ground) will not exceed 200 milligauss (mG) when the circuit phase currents are equal to the winter-normal conductor rating. Regarding electric fields, the Interim Policy adopts Commission Opinion 78-13 (issued June 19, 1978), which established an electric field strength interim standard of 1.6 kV/m for Article VII electric transmission facilities at the edge of the right-of-way, one meter above ground level, with the line at rated voltage.

[27] National land use data indicates that the Project will cross cultivated crops for 4.3 miles.

will be required to retain a qualified Agricultural Inspector. Specific measures will be described in the EM&CP.

Project Alternatives

The Application and exhibits in the record describe the availability and impact of alternatives to the Project. The Signatory Parties agree that the Project proposed in the Joint Proposal as described Appendix B, is preferred to any of the considered alternatives, including an undergrounding alterative. The proposed location, an existing ROW, is preferred due to the relatively minimal impacts to wetlands, floodplains, topography, and residential areas. The Joint Proposal states that alternative routes, except for the proposed Vly reroute, would either cause increased impacts, increased costs, or fail to accomplish the goals of the proposed Project. Regarding the Vly reroute, the Joint Proposal concludes, based on an analysis contained in Central Hudson's Application[28] that the Vly Reroute is the best alternative and that reconstructing the line through the Vly is not preferred. The Joint Proposal also concludes that the no-action alternative, leaving the existing H and SB lines in their current state, is not viable based on the condition of the lines.

The Joint Proposal also describes alternative equipment that was considered for the Project including different structure types. However, typical single-pole davit arm structures were selected as less impactful. Various alternative configurations at the Rail Trail area outside the

[28] Exhibit 3, Table 3.4.5 (Alternatives (Exhibit 3 to the Application filed December 29, 2017, Revised Exhibit 3 to the Application filed on May 25, 2018, and Revised Exhibit 3 to the Application filed on April 20, 2020)

Hurley Avenue Substation were also considered. The proposed configuration, combining the distribution and transmission lines onto single poles was selected because it will result in a net decrease in the number of structures in the area.

The Joint Proposal also notes that Central Hudson considered the potential for burying portions of the electrical transmission lines. Areas considered for burial were sections along the ROW within the vicinity of high to medium density residential and commercial land uses. The Joint Proposal concludes that undergrounding in these areas may reduce visual impacts in portions of the Project area, it would require a considerable amount of additional soil disturbance and increase the potential for adverse impacts to water resources during underground crossing of waterbodies. Also, the reduction of visual impacts would be negligible because the H and SB Lines share ROW with other utility lines undergrounding on these lines would not eliminate the visual impacts from the other transmission lines. The Joint proposal also states that the cost of installing the Project underground would be approximately 5 to 10 times the cost and result in longer restoration times.

The Joint Proposal notes that Central Hudson considered non-wires alternatives including energy efficiency, demand management and distributed generation.[29] The Joint Proposal notes that those measures are all viable methods to reduce load and alleviate potential overload situations during peak load. However, the Joint Proposal concludes that the measures do not address reliability and infrastructure concerns addressed by the Project. The Joint Proposal states that the Project is needed to replace structures and conductors that

[29] See Exhibit 13.

are in disrepair. Because the Project is replacing existing infrastructure, any alternative solution would be required to obviate the need for the transmission line by offsetting local area load at both the Saugerties (~22 MW peak) and Woodstock (~22 MW peak) Substations.

NYISO Concerns

Central Hudson's load flow analyses indicated that this project would increase the UPNY-SENY transfer limit by less than 25 MW. Based on that analysis, on October 31, 2015, NYISO Staff indicated that since this project is not expected to impact interface transfer limits by more than 25 MW, no System Impact Study would be required.

State and Local Laws

In accordance with the Commission's rules, Exhibit 7 of the application sets forth all of the local ordinances that are applicable, or potentially applicable, to the Project.[30] Although Central Hudson asserts that it will construct and operate the Project in conformance with most of these laws, it does request that certain provisions be waived by the Commission pursuant to its authority under Article VII.

The Joint Proposal specifically identifies (i) local fencing, screening and landscaping requirements, (ii) maximum height restrictions and minimum setback requirements, and (iii) local inspection and stop-work authorities relative to building construction, fire protection and flood protection as examples of subject matter for which waivers have been sought. The rationales underlying these requests for relief are also asserted in the Joint Proposal; in summary, the local provisions are either duplicative – associated standards already exist in

[30] 16 NYCRR § 86.8.

the Article VII process – or lack the requisite technical specificity appropriate to high-voltage transmission facilities.

As indicated above, Exhibit 7 includes the full list of local laws for which Central Hudson seeks a waiver or partial waiver. These are as follows: City of Kingston Chapter 130 – Advertisements and Billboards; Chapter 166 – Blasting; Chapter 172 – Building Construction (§§ 172-5, 172-7, 172-11); Chapter 255 – Storage of Hazardous Materials; Chapter 300 – Noise (§§ 300-5, 300-6); Chapter 353 – Stormwater Management and Erosion and Sediment Control; Chapter 373 – Trees (§§ 373-8, 373-10); Chapter 390 – Traffic Control; Chapter 405 – Zoning (§§ 405-31, 405-32); Town of Ulster Chapter 61 – Building Construction and Fire Prevention; Chapter 87 – Flood Damage Prevention (§ 87-13 (c)); Chapter 96 – Grass, Weeds and Noxious Vegetation (§§ 96-1, 96-2, 96-3); Chapter 117 – Noise (§ 117-3); Chapter 190 – Zoning Code (§§ 190-21, 190-69); Chapter A196 – Site Plan Review Regulations (§ A196-12); Town of Saugerties Chapter 96 – Construction Codes, Uniform (§ 96-6); Chapter 125 – Fire or Explosion Hazards; Chapter 245 – Zoning (§§ 245-12, 245-13, 245-21, 245-26, 245-27 D, 245-33, 245-34, 245-35, 245-48); Town of Catskill Chapter 39 – Joint Waterfront Commission (§ 39-3); Chapter 87 – Building Code Administration (§ 87-6); Chapter 123 – Noise (§§ 123-2, 123-3, 123-5); Chapter 155 – Waterfront Consistency Review (§§ 155-2, 155-5, 155-6); Chapter 160 – Zoning, Article IV, District Regulations (§§ 160-17, 160-19); Village of Catskill Zoning Regulations, Article III, District Regulations (§§ 3.8, 3.8.1, 3.8.6); Article IV, Supplementary Regulations (§ 4.3); Article VIII Zoning Board of Appeals (§ 8.2); Chapter 172 – Building Construction.

Here again, the justification underlying each waiver request is provided; in many instances, the local requirements are preempted by Public Service Law § 130, while in others they

are deemed unduly restrictive "in relation to typical transmission line construction practices." The Signatory Parties to the Joint Proposal all agree that the justifications provided in Exhibit 7 are persuasive, and it is notable that no local jurisdiction has objected to Central Hudson's waiver requests.

Additional property rights

Most of the rebuild to the H and SB lines will take place within an established and maintained electric transmission ROW in which Central Hudson, to a great extent, already holds ROW easement rights. There are fee owned parcels on each line, with approximately 1.7% (1,083 linear feet) of the H line and 3.8% (2,266 linear feet) of the SB line held by fee ownership.

Vly Reroute

A 0.6 mile section of the H line crosses the Vly. This portion of the line will be relocated further east on the Lehigh quarry property in order to minimize the Project's impact on the Vly and its habitat and to improve future access to the line. Central Hudson has worked with the quarry to identify a suitable route for the Project, and an anticipated easement agreement is contingent upon receipt of a Certificate for the Project.

Bluestone Forest

A width deficiency on the existing ROW was discovered on the SB line near Hallihans Hill Road. The Bluestone Forest, which is Forest Preserve Land protected under the New York State Constitution, occupies a small portion of this deficiency (0.431 acres), such that it lacks the requisite 50-feet of clearance from the ROW.

To resolve the problem, the ROW will be extended to the east/southeast onto other properties that Central Hudson acquires in easement for that purpose; the SB line will thus

shift slightly eastward away from the forest, creating the necessary 50-feet of clearance. Assessments have been conducted to ensure that the shift does not result in additional visual, archeological or historic structure impacts.

Rail Trail

A natural, unpaved footpath currently exists on property owned by Central Hudson between structures SB#1 and SB#13 just north of the Hurley substation in Ulster County, where it travels through the ROW in a direction generally parallel with the SB line. Although Central Hudson has authorized the recreational use of this footpath, Ulster County is in the process of finalizing the design of an updated, paved Rail Trail which will extend from Kingston to the Ashokan Reservoir and require a new agreement with Central Hudson.

To accommodate the Rail Trail, Central Hudson intends to combine the SB line and the co-located I line[31] along with two distribution circuits serving the Kingston area on one monopole. The associated proposed structures would be approximately 110-feet aboveground. While this entire portion of the Rail Trail will have to be shut down by Central Hudson during construction of the SB line, no change to the existing ROW is necessary and Central Hudson does not require additional property rights for the Rail Trail.

Danger Trees

Central Hudson has assessed its existing easement agreements and property rights along the H and SB lines; with limited exceptions, it possesses the right to trim, cut or remove trees that present a hazard to the transmission lines. Those parcels on which danger-tree rights have yet to be acquired will all be identified on the EM&CP, and Central Hudson

[31] The 115 kV I line is not otherwise involved in this Project.

intends to negotiate with relevant landowners to obtain such rights. In the event it does so,[32] the newly acquired easements will be maintained as required by Central Hudson's Transmission Right of Way Vegetation Management Plan, which has already been approved by the Commission.

Finally, to ensure perpetual system reliability, Central Hudson will continually re-evaluate the lines vis-à-vis danger trees and pursue easement rights as necessary.

Access Rights

Where off-ROW access rights are deemed necessary for the Project, they will be identified on EM&CP drawings. Prior to beginning construction in any such area, Central Hudson will obtain all requisite access rights.

Conformance to Long-Range Plans for Expanding the Electric Power Grid

The 69 kV H and SB transmission lines were originally installed in 1928 as double circuit steel lattice structures, portions of which have since been replaced with wood poles. A 2015 assessment indicated that 32% of the lines' structures required replacement and an additional 35% needed maintenance repairs. Indeed, some of these identified liabilities, including damaged towers and deficient insulators, prompted the replacement of 9 full structures in 2017 – 2018.

In the event the lines continue to deteriorate to the point they are rendered unusable, Central Hudson would need to procure an alternate source for the load currently supplied from the Saugerties and Woodstock substations. Completion of the Project then, which is projected to occur by December 2022,

[32] Where negotiations are unsuccessful, Central Hudson will obtain "all danger tree rights within three years of EM&CP approval or within that time period commence condemnation proceedings unless it obtains approval from the Secretary to extend such time frame."

would both enhance the reliability of Central Hudson (as well as its interconnected network) and produce related economic benefits, as the new construction and increased clearances for the 115 kV design will result in fewer line trips. More specifically, Central Hudson estimates yearly loss reductions of approximately 4,100 MWhr for an annual energy cost reduction of about $130,000.[33]

Miscellaneous

In addition to the foregoing, the Joint Proposal contains several paragraphs labelled "General Provisions." These paragraphs, 1 through 7, consist of agreements by and among the signatories to the Joint Proposal. They are self-executing and do not require any Commission action.

## DISCUSSION AND CONCLUSION

The Joint Proposal filed here is supported by Central Hudson, DPS Staff, DEC and DAM, all of which have been active participants throughout this proceeding. It addresses the statutory and regulatory issues surrounding Central Hudson's request for a certificate to reconstruct, maintain and operate the H and SB transmission lines. It also adequately considers the probable environmental impacts of the rebuild and details the steps necessary to ensure that any such adverse impacts are minimized to the extent possible given currently available technology and the nature and economics of potential alternatives.

A finding of public need is fully supported by the record. The reconstructed lines will replace aging, less reliable lines that were originally constructed more than 90 years ago. They will improve reliability in a way that

[33] These estimates are based on 2016 hourly flows and NYISO Zone G locational based marginal prices.

minimizes costs and adverse environmental impacts. While various alternatives to the proposed rebuild were identified and evaluated, we find that none of them are as economically or environmentally beneficial as the preferred option reflected in the Joint Proposal.

Additionally, as previously indicated, the Joint Proposal provides a full account of the environmental impacts potentially resulting from the proposed rebuild and demonstrates that adequate mitigation measures will be taken to minimize any adverse impacts. Mitigation measures will also be considered in Central Hudson's forthcoming EM&CP, which will be available for review and comment by interested parties and affected jurisdictions. In this regard, we find that the public and all interested parties have been provided a full opportunity to participate during this entire proceeding. It is also clear, and we so find, that the parties have adhered to our settlement rules and guidelines.

Appendix C to the Joint Proposal contains proposed findings. These findings are detailed and well-supported by the record and we accordingly adopt them as our findings in this matter; they are incorporated here by reference.

The parties' proposed certificate conditions appear in Appendix D to the Joint Proposal. There are seventeen categories of conditions consisting of: Conditions of the Order; Laws and Regulations; Public Health and Safety; Environmental Management and Construction Plan; Notices and Public Complaints; Construction, Operation, Maintenance, and Restoration; Herbicide Use; Inspection and Oversight; Roads and Highways; Cultural Resources; Terrestrial and Wildlife Resources; Water Resources; Agricultural Resources; Petroleum and Hazardous Substances; Contractors and Contractor Supplies/Materials; Invasive Species; and Water Quality Certification.

In total there are 144 conditions in Appendix D, some of which are multi-part. These certificate conditions comprehensively reflect the parties' agreements as set forth in the body of the Joint Proposal. They adequately protect public health and safety and are otherwise in the public interest, as they minimize the Project's potential adverse impacts to the maximum extent practicable.

In light of all of the above, we grant Central Hudson a Certificate of Environmental Compatibility and Public Need subject to the discussion in this order and the certificate conditions in Appendix D to the Joint Proposal.

The Commission orders:

1. With the exception of some of the "General Provisions" discussed above, the terms of the May 29, 2020 Joint Proposal, Attachment A to this order, including the conditions in Appendix D, subject to the discussion in the body of this order, are adopted and incorporated into and made a part of this order.

2. The motion of Central Hudson for Commission waiver of certain local laws as identified in the application and in the body of this Order is granted.

3. This proceeding is continued.

By the Commission,

(SIGNED) MICHELLE L. PHILLIPS
Secretary

STATE OF NEW YORK
PUBLIC SERVICE COMMISSION

Case 17-T-0816 - Application of Central Hudson Gas & Electric Corporation For a Certificate of Environmental Compatibility and Public Need Pursuant to Article VII of the Public Service Law to Rebuild the H and SB Lines of Approximately 23.6 miles from 69 kilovolts to 115 kilovolt standards in the City of Kingston and Towns of Ulster and Saugerties in Ulster County, and the Town of Catskill and the Village of Catskill in Greene County.

# JOINT PROPOSAL

By: Central Hudson Gas & Electric Corporation
Staff of the New York State Public Service Commission
New York State Department of Environmental Conservation
New York State Department of Agriculture and Markets

Dated: May 29, 2020
Albany, New York

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**STATE OF NEW YORK**
**PUBLIC SERVICE CORPORATION**

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## JOINT PROPOSAL

This Joint Proposal, which includes Appendices A through H attached hereto and incorporated herein, is made on the 29th day of May, 2020 by and among Central Hudson Gas & Electric Corporation ("Central Hudson", the "Applicant" or the "Company"), Staff of the New York State Department of Public Service ("DPS Staff"), the New York State Department of Environmental Conservation ("DEC"), the New York State Department of Agriculture & Markets ("DAM"), and the Town of Saugerties (collectively referred to as the "Signatory Parties").

## INTRODUCTION

On December 29, 2017, Central Hudson filed with the New York State Public Service Commission ("Commission") application documents (the "Application"), pursuant to Article VII of the New York Public Service Law ("PSL"), for a Certificate of Environmental Compatibility and Public Need ("Certificate") authorizing the rebuild of the approximately 23.6 mile existing 69 kilovolt (kV) H and SB transmission lines to 115 kV standards located between the Applicant's Hurley Avenue Substation in the City

of Kingston in Ulster County to the North Catskill Substation in the Town of Catskill in Greene County, New York (the "Project").

With the Application, Central Hudson also sought waivers from certain mapping requirements contained in the Commission's regulations (§§ 86.3(a)(1), 86.3(a)(2), and 86.3(b)(2)), as well as a waiver of the requirement that Central Hudson provide a System Reliability Impact Study (§ 88.4(a)(4)). A Notice of Proposed Rulemaking (i.e. the waiver request) was published in the New York State Register on February 7, 2018.

On February 6, 2018, Central Hudson filed a revised Exhibit 9 related to the cost of the proposed Project.

In a letter dated April 3, 2018, the Secretary to the Commission ("Secretary") notified Central Hudson that its Application was deficient and also made numerous requests for information.

On May 18, 2018, the Commission issued an Order Granting Waivers. The Commission noted that no comments had been received as a result of the publication of the Notice of Proposed Rulemaking in the State Register, that DPS Staff did not oppose the motion, and granted Central Hudson's waiver request in full, subject to certain additional requirements related to §§ 86.3(a)(2) and 86.3(b)(2).

On May 25, 2018, Central Hudson submitted its response to the deficiencies enumerated in the Secretary's April 3, 2018 letter, including revised Exhibits 2, 3, 5, 6, 9, and E-1 and Appendix B. Subsequently, in a letter dated June 14, 2018, the Secretary notified Central Hudson that the Application was filed or otherwise in compliance with PSL § 122 as of June 14, 2018.

On June 8, 2018, July 13, 2018, and August 24, 2018, Central Hudson submitted to the parties responses to the Secretary's Requests for Information (RFI) contained in her April 3, 2018 letter. The June 8 and July 13, 2018 responses were filed with the Secretary on June 8 and July 13, 2018 and are included in the Evidentiary Record as Exhibits 28 and 29, respectively. An update to the August 24, 2018 response was filed with the Secretary on April 20, 2020 and is included in the Evidentiary Record as Exhibit 30. A Gas Induction Study, also in response to the RFI, was filed on April 20, 2020 and is included in the Evidentiary Record as Exhibit 31.

A Notice of Public Statement Hearing and a Procedural Conference were subsequently issued on July 17, 2018 by Administrative Law Judges ("ALJ") Dakin Lecakes and Anthony Belsito. A Public Statement Hearing was held at the Frank D. Greco Building in the Town of Saugerties on August 7, 2018 at 7:00 p.m. Prior to the Public Statement Hearing, DPS Staff and representatives of Central Hudson made presentations for the benefit of the public about the Project and the Article VII process[1].

The Town of Saugerties submitted comments on the Application voicing concerns that the historic resources of the Town (as identified in an unpublished 2005 survey performed by the Town[2]) were overlooked in the environmental study for the Application on August 7, 2018. As detailed below in this Joint Proposal under the Aesthetic, Visual and Recreational Resources section, a Supplemental Visual Impact Assessment was

[1] In addition to these presentations, prior to the filing of the Application, in September 2017, Central Hudson conducted Open Houses in Saugerties and Lake Katrine, New York. See Appendix D to the Application and Central Hudson's August 24, 2018 response to Request for Additional Information regarding Central Hudson's public outreach.

[2] A summary of the survey report is available online at: https://townsaugerties.digitaltowpath.org:10234/content/Generic/View/100.

performed to address the Town's comments and filed with the Secretary November 21, 2018 and is contained in the Evidentiary Record as Exhibit 21.

A Procedural Conference of the active parties was held before ALJs Dakin Lecakes and Anthony Belsito in Albany, New York on August 8, 2018. At the Procedural Conference, representatives of the Signatory Parties attended and primarily addressed schedule and outstanding discovery.

After exploratory discussions among the parties, a Notice of Impending Negotiations was sent to all active parties and duly filed with the Commission on August 27, 2018. Settlement conferences were held in person [or by telephone] on September 6, October 10, October 31, November 27, December 4, and February 19, March 6, 2019, April 4, 2019, April 23, 2019, May 22, 2019, May 29, 2019, June 14, 2019, July 2, 2019, July 10, 2019, August 6, 2019, August 27, 2019, September 12, 2019, October 23, 2019, November 19, 2019, and December 11, 2019. In addition, to better frame the concerns of some of the active parties in the context of appropriate Certificate Conditions, Technical Conferences were held on January 8, January 22, February 1, 2019, March 6, March 22, April 4, April 30, July 8, September 27, and October 25, 2019.

As a result of these discussions, the Project was modified as follows: (1) to change several structures from direct-bury to engineered concrete foundations resulting in the reduction or removal of guying at certain structure locations; (2) to change the design at the southern end of the project to accommodate a recreational trail; (3) to change the structure locations at the Kosco/Heritage Energy Facility in order to better accommodate the existing commercial operations occurring at the site; (4) to change the location of the structures in the area of the Bluestone Wild Forest to eliminate a ROW width deficiency;

(5) the replacement of five (5) structures in Catskill that originally were thought to be structurally adequate to avoid replacement; and (6) to provide additional environmental impact minimization not contemplated with the original filing. These changes are described further below in this Joint Proposal, in the Appendices to this Joint Proposal (e.g., the additional engineered concrete foundations are mentioned in Appendix B), or in responses to Information Requests (or updates thereto) that are in the Evidentiary Record. As a further result of these changes, on April 20, 2020, Central Hudson filed with the Commission updates to several exhibits and the date on which this filing is made is reflected in Appendix A to this Joint Proposal.

After thorough discussion of the issues, the Signatory Parties recognize that the parties' various positions could be addressed through settlement and agree that settlement is feasible. The Signatory Parties further believe that this Joint Proposal gives fair and reasonable consideration to the interests of customers, the transmission owners, and the public in assuring the provision of safe and adequate service.

## TERMS OF THE JOINT PROPOSAL

### I. GENERAL PROVISIONS

1. It is understood that each provision of this Joint Proposal is in consideration and support of all the other provisions of the Joint Proposal and is expressly conditioned upon approval of the terms of this Joint Proposal in full by the Commission. If the Commission fails to adopt the terms of this Joint Proposal in full, the Signatory Parties to the Joint Proposal are free to individually pursue their respective positions in this proceeding without prejudice or to accept the Commission's modifications.

2. The Signatory Parties agree to submit this Joint Proposal to the Commission along with a request that the Commission adopt the terms and provisions of this Joint Proposal as set forth herein. The Signatory Parties agree that construction, and operation of the Project (as defined herein), in compliance with the Joint Proposal and with the Proposed Certificate Conditions (set forth in Appendix D), will comply with PSL Article VII and with the substantive provisions of applicable state law referenced in the Proposed Commission Findings set forth in Appendix C to this Joint Proposal.

3. All Signatory Parties fully support approval of this Joint Proposal in its entirety. The Signatory Parties recognize that certain provisions of this Joint Proposal contemplate actions to be taken in the future to effectuate fully this Joint Proposal. Accordingly, the Signatory Parties agree to cooperate with each other in good faith in taking such actions.

4. In the event of any disagreement over the interpretation of this Joint Proposal or implementation of any of the provisions of this Joint Proposal which cannot be resolved informally among the Signatory Parties, such disagreement will be resolved in the following manner:

a. the Signatory Parties will promptly convene a conference and in good faith attempt to resolve any such disagreement; and

b. if any such disagreement cannot be resolved by the Signatory Parties, any Signatory Party may petition the Commission for resolution of the disputed matter.

5. This Joint Proposal does not constitute a waiver by the Company of any rights it may otherwise have to apply for additional or modified permits, approvals, or

certificates from the Commission or any other agency in accordance with relevant provisions of law.

6. This Joint Proposal does not constitute a waiver of authority by any state agency with respect to the enforcement of applicable laws and regulations that is the subject of its jurisdiction.

7. This Joint Proposal is being executed in counterpart originals and is binding on each Signatory Party when the counterparts have been executed.

8. Appendix A attached hereto lists the testimony, affidavits and exhibits that constitute the evidence agreed upon by the Signatory Parties to be admitted as record evidence in this proceeding (collectively, the "Evidentiary Record"). The Evidentiary Record includes responses to information requests ("IRs") produced in this proceeding (Exhibits 24, 25 and 26) which the Signatory Parties believe contribute accurate, material and relevant information to the Evidentiary Record in support of the Project described in this Joint Proposal. The Signatory Parties have not included all other IR responses in the Evidentiary Record because they have either been superseded by changes to information in the Evidentiary Record or are not required to support the Project as described in this Joint Proposal.

9. Appendix G to the Joint Proposal contains further definition of certain terms and phrases used within the Joint Proposal and/or the Certificate Conditions and can be utilized to further discern the intent of the parties entering into this Joint Proposal.

## II. DESCRIPTION OF PROJECT LOCATION

10. As discussed in more detail in the Application and Appendix B, Central Hudson is proposing to rebuild the approximately 23.6 mile existing 69 kilovolt (kV)

H and SB transmission lines, to 115 kV standards, located between its Hurley Avenue Substation in the Town of Ulster in Ulster County to the North Catskill Substation in the Town of Catskill in Greene County, New York. The Project Right-of-Way ("Project ROW" or "ROW") as described below includes access roads, laydown areas, and marshaling yards utilized as part of the Project.

11. The Signatory Parties agree that the Description and Location of Facility set forth in Appendix B to this Joint Proposal accurately describes the location and configuration of the Project as they recommend it to be approved by the Commission.

## III. ENVIRONMENTAL COMPATIBILITY AND PUBLIC NEED

12. The Commission must consider the totality of all relevant factors in making its finding of environmental compatibility and public need. The relevant factors include, without limitation, the need for the Project, cost, environmental impact (including on active farming operations), availability and impact of alternatives, undergrounding considerations, conformance to long-range plans, electric system reliability, state and local laws, and the public interest, convenience, and necessity.

### A. Need for the Project

13. Exhibit E-4 of the Application (Exhibit 13 of the Evidentiary Record but referred to herein as Exhibit E-4) explains that the Project is primarily needed to address the deteriorating condition of the H and SB Lines. The existing 69 kV H and SB Lines originally were installed in 1928 as double circuit steel lattice structures using 1/0 Cu conductor for each of the circuits; the double circuits subsequently were converted to single circuits with two 1/0 Cu conductors per phase. Some of the steel lattice structures have been replaced with wood poles through the years and, more recently, some have

been replaced with steel poles due to their declining condition (as part of Central Hudson's high priority replacement program). An assessment of the condition of the structures was conducted in 2015 and revealed that 32.0% of the lines' structures were in need of replacement or the addition of mid-span poles to correct sag issues; an additional 35.5% of structures are in need of maintenance repairs. Issues found include: damage to numerous tower legs; many insulators in need of replacement; tower foundation issues; woodpecker damage to wood poles; and need for mid-span structures to correct sag issues. In addition, the installation of mid-span structures most likely would result in the need to replace adjacent tangent structures. Some identified issues found were severe enough to prompt replacements of nine (9) structures in 2017-2018.

14. While the lines will be designed and constructed for 115 kV operation, they will continue to be operated at 69 kV in the near term. Future operation at 115 kV will be needed for any of the following: sudden load growth that cannot be mitigated with non-wires alternative projects; increased Upstate New York/Southeast New York (UPNY-SENY) flow resulting in overload conditions on the 115 kV Feura Bush (National Grid) to North Catskill line; and a need to increase hosting capacity for photovoltaic and storage projects. Given what the Applicant considers to be reasonably likely scenarios, rebuilding for just 69 kV use would be short sighted and not cost efficient. Future modifications at the three substations and one tap station would be required prior to 115 kV operation as detailed in Exhibit E-2, Other Facilities (Exhibit 11 of the Evidentiary Record).

15. Moreover, in addition to being the sole transmission supply for the 35-40 MWs of peak distribution load currently served from the Saugerties and Woodstock Substations, the H and SB Lines provide an important input to the system in the northwest

portion of Central Hudson's franchise area (Northwest Area). The proposed Rebuild would provide increased reliability and provide a more reliable source to the Northwest Area. The H Line also is the sole supply for the Lehigh Cement Company in the Towns of Saugerties and Catskill and the Rebuild will ensure further reliability for this customer.

**B. Cost**

16. Central Hudson projected that the Project would cost $41,046,000. The cost estimate provided is a preliminary cost estimate. A more refined and definitive cost estimate cannot occur until after the Certificate is issued, taking into account all Certificate Conditions and requirements of the Environmental Management & Construction Plan ("EM&CP"). Therefore, after the completion of construction, Central Hudson will provide a full accounting of all Project costs, including an explanation of any variances between projected and actual costs.

17. In order to establish the preliminary cost estimates, Central Hudson has used historical cost data from the recently completed 11-mile A & C-Lines 115 kV rebuild project (Case 13-T-0469). In addition to using this historical data for cost estimating purposes, Central Hudson identified and accounted for a variety of project components unique to the H and SB Lines.

18. The cost estimate was based upon original conceptual estimates that did not include some of the unique components of the H and SB Project that have since been identified as project planning and design has matured. The additional cost drivers include additional engineered structures (concrete caisson foundations) to remove guying at certain locations; change in design at the southern end of the project for a recreational trail (discussed below); elimination of a ROW width deficiency in the area of the Bluestone

Wild Forest; replacement of five (5) structures in Catskill that originally were thought to be structurally adequate to avoid replacement; environmental impact minimization not contemplated (additional matting at non State-regulated wetlands); the addition of contingency dollars; heavy earthwork required for access roads in several areas; acquisition of easements through quarry areas for permanent access; and special handling of lattice structures with lead coating.

19. It is expected that a significant portion of the work will be awarded to contractors specializing in specific trade work (line work, hole drilling, civil site work, etc.). Such work would not be finally bid and issued until after the EM&CP is approved. The Project's construction activities, which are of relatively short duration and will occur predominantly within an existing ROW, will not necessarily attract new residences, commercial or industrial activities nor will it disrupt any residential, commercial, agricultural or industrial uses or otherwise cause a loss of business income. Consequently, the Project will not significantly impact the local economy. Accordingly, no mitigation is deemed necessary for economic impacts.

**C. The Great Vly Reroute**

i. Reason for the Vly Reroute

20. The Great Vly ("Vly") is an environmentally sensitive area primarily consisting of freshwater wetlands, which are habitat for a variety of species. There is currently a 0.6-mile section of the H Line that crosses a section of the Vly wetland which is adjacent to the DEC designated Great Vly Wildlife Management Area. This wetland presents unique challenges to the Project, of which the most problematic is access. Much of the Project ROW in the Vly is submerged wetland, which requires extensive use of

timber or other mats for access. Access from the eastern upland area is extremely limited due to terrain, so travel routes will run generally parallel to the ROW in the Vly. Additionally, environmental impacts during construction are a concern for this area. In order to minimize the Project's impact to the Vly and its habitat, and to improve future access to the line, the Project will relocate this portion of the H Line further east on the Lehigh quarry property. The total length of the new route is approximately 1.16 miles, as compared to the previous existing route of 1.18 miles which included 0.6 miles in the Vly (the "Vly Reroute").

ii. Scope of Work

21. The proposed H Line relocation will necessitate clearing 100 feet of a new 150-foot wide ROW as well as additional danger trees as needed. Approximately one-half of the 1.2-mile Vly Reroute requires tree clearing (approximately 5.2 acres). The remainder of the ROW is in previously disturbed areas of Lehigh quarry lands.

22. The Vly Reroute will involve both upland and wetland structure removals. In total, 16 structures will be removed in this segment (although two of these structures will be replaced with structures in nearly the same location (i.e., H-51 and H-52). Of these 16 structures, 9 are physically inside or directly on the banks of the Vly and include two abandoned lattice structures not currently connected to the line. In coordination with the landowner, for those structures which are being removed from inundated areas of the Vly, Central Hudson will prepare a demolition plan which will include either cutting the structures above the water level or, if feasible, removing them entirely in an environmentally acceptable manner. Any remaining portions will be protected in a manner so that those who may utilize the inundated area (individuals and wildlife alike)

will be able to identify where the structures are above the water level. Central Hudson will retain its easement with the landowner in case any maintenance is required if some of the structures are abandoned and cut in place. The EM&CP will detail measures to address the maintenance of the markers or protective measures on portions of structures left in place.

23. The Vly Reroute includes 14 new structures (H40, 41, 41A, 42-53). To plan the Vly Reroute around the Vly, Central Hudson worked with the Lehigh landowner to identify an agreeable route that also serves the needs of the Project, reduces environmental impact, and allows long-term access.

iii. Environmental Protection

24. As noted above, there is presently a 0.6-mile section of the H Line that crosses the Vly. The EM&CP will contain general provisions relating to the construction techniques to be used to access the structures to be removed. An environmental inspector will be present during all construction activities in the Vly.

25. The Indiana bat (endangered) and northern long-eared bat (threatened), both discussed in more detail below, are listed pursuant to endangered species statutes at both the state and federal level. The only known winter hibernaculum or summer roost site for the Indiana Bat is south of the most southern portion of the Project (the Hurley Avenue substation). The tree cutting that will occur for the Vly Reroute is outside of the 5-mile buffer from the nearest hibernaculum for the northern long-eared bat established under NYSDEC guidance for that species. In addition, the Vly reroute is outside of the 5-mile buffer from a northern long-eared bat hibernaculum located on the northern part of

the Project ROW. Therefore, with regard to the Vly Reroute, there will be no impact to these species.

26. The least bittern and king rail (discussed more fully below) are state-listed threatened species. The preferred habitats for these species are freshwater wetlands with dense vegetation such as cattail species or scrub-shrub. A discussion with Wildlife Biologists from DEC on May 12, 2017 concurred that the presence of these species were assumed in the Vly based on historical sightings and no surveys were required. To avoid potential impacts to the least bittern and king rail and their habitat, Central Hudson will comply with a time of year restriction such that no work may occur from April 15 to August 15 in occupied habitat for such species. The time of year restriction does not apply for purposes of access on the existing quarry access roads.

27. Although the transmission line will not significantly alter or reduce available habitat for any of the listed species, during construction of the Project, Central Hudson will brief construction personnel on the sensitive biological and environmental resources that could occur on the Project ROW.

iv. Vly Reroute Benefits

28. Although a portion of the Vly Reroute includes mature forest vegetation, a significant portion of the Vly Reroute is within former quarry lands that have some successional growth. While the Vly reroute will cause initial short-term costs, including obtaining an easement from Lehigh and clearing the new ROW, these initial costs are significantly outweighed by the long-term economic and environmental benefit of the Vly Reroute.

29. Most notably, if the structures can be completely removed from the Vly, the Vly Reroute will eliminate all future environmental impacts to the wetland (C-21) and associated habitat from operation and maintenance of the H-Line. Temporary environmental impacts to the wetland and associated habitat will be reduced due to the shorter time required for removing existing structures as opposed to removing and replacing the structures; no excavations in the wetland is anticipated.

30. The Vly Reroute will significantly reduce the cost of future maintenance and the improved line access will allow for an improved response time for both planned and unplanned future maintenance.

31. Although there might be some incremental additional visibility in some areas of the proposed Vly Reroute, there are other areas where visibility will be reduced (e.g., in the Vly), and therefore overall, permanent impacts to land use (i.e., the Project will not affect the use and enjoyment of adjacent properties) will either not occur or be reduced.

**D. Environmental Impact**

32. The Evidentiary Record (including the Application [particularly Exhibit 4], testimony, affidavits and exhibits to the record – see Appendix A) describe the nature of the probable environmental impacts of the Project and are briefly summarized below. Given that most of the Project is a rebuild along existing ROW, the environmental impacts are expected to be minimal and largely limited to temporary, construction-related disturbance and inconvenience.

33. The Signatory Parties agree that the Project, as this Joint Proposal and the accompanying Appendices propose it to be located and configured, represents the minimum adverse environmental impact considering the state of available technology and

the nature and economics of the various alternatives and other pertinent considerations. The proposed route, access points, and configuration are preferred because the Project makes use, to a great extent, of existing ROW, avoids or minimizes the disturbance of natural habitat, is reasonable in terms of cost, and minimizes disturbance to residential, agricultural, commercial properties, traffic and emergency operations.

34. The Project has been reviewed with respect to potential impacts to land uses, topography and soils, fish and wildlife, wetland and water resources, visual and recreational resources, cultural resources, transportation, communications, noise, and electric and magnetic fields ("EMF"). With the design modifications developed by the signatory parties and identified in paragraphs 163 (Bluestone Forest) and 164 (Ulster County Rail Trail Project ["Rail Trail"]), the Project represents the minimum adverse environmental impact, particularly since nearly all impacts will be temporary, short-term, and insignificant in nature and are primarily associated with construction.

i. Land Use

35. Project construction activities will primarily occur within an existing approximately 150-foot-wide ROW which, to a large extent, Central Hudson utilizes by easement rights. Any additional property rights required, including danger tree rights, are discussed below in Section K.

36. Land use in the vicinity of the Project is characterized by a mix of undeveloped forest land, rock quarries, successional old field and shrubland, agricultural land, wetlands and suburban areas. The suburban areas are characterized by low to medium density residential and light commercial development. This mixture of land use is consistent along the ROW.

37. Residential and commercial uses are primarily located along major transportation corridors such as State Route 28, U.S. Highway 209, State Route 212, State Route 9W and State Route 23.

38. Vegetated portions of the ROW are typically characterized by successional shrubland communities, with off-ROW communities dominated by mixed hardwood forests. Suburban areas are scattered throughout the ROW and its adjacent area. In these locations, the ROW is predominantly maintained successional cover types or disturbed/managed areas (i.e. roads, lawns, and trails). These suburban areas are primarily located off of the major roads listed above, with local roads providing direct access.

39. The majority of the impacts to vegetation have been minimized through proposed routing that avoids areas of mature forest and undisturbed wetlands by following a previously developed ROW. However, both temporary and permanent impacts to the identified vegetative community types will result from the construction and long-term maintenance of the proposed electric transmission line. Construction-related impacts to vegetation include mowing of brush, and increased exposure/ disturbance of soil along access routes and at structure sites and wire pulling sites. Along with direct loss or damage of vegetation, these impacts may result in a loss of wildlife food and cover, increased soil erosion and sedimentation, and a disruption of normal nutrient cycling. Proposed mowing within the ROW retains the root mass of shrubs and other vegetation, mitigating soil disturbance and facilitating future regrowth. Following construction, vegetation within the ROW will be reestablished and allowed to regenerate to the pre-construction successional (native) communities and conditions as will be described in the

EM&CP. These communities will continue to be maintained on the ROW in accordance with the Applicant's Commission-approved Transmission Right-of-Way Vegetation Management Plan ("TROWVMP").

40. During construction, operation and maintenance, Central Hudson or its Contractors will comply with limits on applying such herbicides as specified in the EM&CP (during construction) and the TROWVMP (during operation and maintenance). The TROWVMP either incorporates by reference or includes as an attachment any permits (e.g., DEC General Permit issued specifically to Central Hudson, the DEC-issued Pesticide General Permit, governing the application, use and control of herbicides).

41. In addition, the Certificate Conditions provide that, to the maximum extent practicable, herbicide application in agricultural areas with livestock during construction associated clearing will be performed in consultation with the agricultural producer and the agriculture inspector, and performed during times when livestock can be isolated from such application, including allowing ample time to allow the agricultural producer to move livestock to another pasture. If that cannot occur, then Central Hudson would be required to install and maintain temporary fencing for the affected areas for the duration of application as well as during potential residual effects according to herbicide's grazing restrictions as documented on the specific herbicide label.

42. Changes in vegetative character will be minimal since only temporary impacts resulting from soil disturbance and selective clearing are anticipated in old fields, successional and early successional shrubland, and agricultural fields where non-compatible species per the EM&CP and Central Hudson's TROWVMP will be removed from the ROW. Change to vegetative cover type will only occur in the forested area of

the proposed Vly Reroute. Vegetation removal will be largely confined to the ROW of the reroute and where danger trees exist. Where danger trees exist, the proposed Certificate Conditions require those trees to be flagged for removal in consultation with DPS Staff. Vegetation will be disposed of in accordance with the EM&CP. There will be no cherry species accessible to livestock.

43. Unless described otherwise in the EM&CP and subject to specific exceptions identified in the Certificate Conditions, certain trees damaged or destroyed, by construction activities, operation and maintenance, regardless of where located, will be replaced within the following year by Central Hudson with the equivalent type of trees or shrubs

44. A potential threat to sensitive ecological resources (e.g., wetlands and streams) is the risk of introduction or spread of invasive, non-native plant species, either through the movement of topsoil, gravel, construction equipment, or during restoration activities. Invasive species percent coverage and species vary greatly throughout the ROW, but were observed in at least 90% of the delineated wetlands or their immediate vicinity. Field surveys identified the following invasive species as the most prominent within the Project area: purple loosestrife, common reed grass, multiflora rose, common buckthorn, Tartarian honeysuckle, Morrow's honeysuckle, Japanese stiltgrass, and oriental bittersweet.

45. Central Hudson will prepare an Invasive Species Management Plan ("ISMP"), to be included as an attachment to the EM&CP, which it will implement during construction to minimize the spread of invasive species throughout the Project. The ISMP will comply with DEC's invasive species regulations (6 NYCRR Part 575). Central

Hudson shall seek DPS, DEC and DAM's acceptance of such a plan as part of its comments on the EM&CP. The goal of the ISMP will be to prevent expansion of invasive species as a result of construction of the Project. Controlling the spread of the target species will be achieved through the implementation of the following measures: 1) contractor/employee training; 2) construction materials inspection; 3) minimization of ground disturbance; 4) specific vegetation clearing and disposal practices; 5) equipment cleaning; and 6) site restoration practices.

46. The Project is compatible with the existing land uses in the vicinity of the Project ROW and is otherwise not anticipated to change the existing residential, commercial and agricultural uses (discussed below) adjacent to the ROW. Additionally, because the Project will occur primarily within an existing established and maintained electric transmission ROW, impacts to land use on and adjacent to the proposed transmission line are anticipated to be minimal. All replacement structures will be located within the ROW and no expansion of the ROW is proposed with the exception of the re-route of the ROW proximate to the Vly and to address a ROW width deficiency in the area of the Bluestone State Forest property. Impacts to residential and commercial properties crossed by the ROW will be limited to construction-related noise and traffic. These impacts will be short-term and temporary. Any potential encroachments in the Project ROW that the Applicant determines may contravene the Applicant's property rights will be addressed by the Applicant on a case-by-case basis pursuant to the Encroachment Plan that will be attached to the EM&CP.

47. Measures to avoid or minimize impacts to vegetation will also include 1) identifying and delineating sensitive areas (such as wetlands), and complying with

regulatory requirements regarding the movement of firewood to address invasive species infestations, 2) educating the construction workforce on respecting and adhering to the physical boundaries of off-limit areas, 3) employing best management practices (to be described in the EM&CP) during construction, and 4) maintaining a clean work area within the designated construction sites. Following construction activities, temporarily disturbed areas will be seeded (and stabilized with mulch if necessary), to reestablish vegetative cover in these areas. Other than in agricultural fields, a seed mix consisting of native plant species appropriate to the area adjacent to the Project ROW will be utilized to revegetate these areas.

ii. Topography and Soils

48. The Project is located within the Hudson Mohawk Lowlands and the Catskill Mountains physiographic division in New York State. The Hudson Mohawk Lowlands extend 3 to 6 miles east of the Hudson River. Maximum elevations in the Project area are 400–500 feet above mean sea level ("amsl").

49. The terrain in the Project area consists of rolling hills with 100–250 feet of relief. The Project route includes a few isolated areas of steep slopes observed in association with grade cuts.

50. There are areas where bedrock is exposed, specifically at the Lehigh and Peckham quarries. However, bedrock that does exist under the Project ROW will not impede construction. Bedrock is primarily comprised of easily excavated sedimentary rock such as shale, greywacke, and siltstone. Blasting will only be used if other techniques, such as auguring or ripping, are not practical. Therefore, widespread blasting

is not anticipated. However, if blasting is required, a blasting plan will be prepared and included in the EM&CP.

51. In general, mapped soils in the area of the Project ROW are predominantly silt and sandy loams and are well drained to somewhat excessively drained, with less than 10% of the soils being in poorly drained areas.

52. Because the majority of ROW is already established, other than improvements to existing or construction of new access roads, it is not anticipated that topography or soils will be permanently affected by the construction and operation of the Project. Other than structure foundations and certain gravel accessways, no impervious surfaces are proposed, and soil impacts associated with tower removal and replacement, and access improvements will generally be temporary. Utilizing previously disturbed areas such as the existing ROW (and associated access routes and structure sites) significantly minimizes potential impacts to topography, bedrock and soil conditions.

53. Potential impacts associated with soil disturbance (e.g., erosion, sedimentation) have been minimized by siting the Project within the previously disturbed ROW for 22.4 miles of 23.6 miles and following existing access routes to the extent practicable. The proposed approximately 1.2-mile Vly Reroute also minimizes impacts by siting the electric transmission line within previously disturbed quarry areas for 0.7 miles.

54. Temporary disturbance of soils within the ROW will result from construction activities include, grading for access routes and work pads, and the installation of structure grounding systems. Grading will normally be performed on access routes and work pads to provide a safe, level surface for construction equipment.

55. Excavated soils resulting from structure foundation or pole removals will be used for backfill, where feasible, but imported fill may also be used to ensure the integrity of the pole installation. If any soils to be excavated for the Project construction are unsuitable for use as backfill, suitable imported clean fill that is visually free of invasive species will be used. Any excess soils will be reused on site or properly disposed of off-site. If such excess soils contain invasive species, they will be handled pursuant to Central Hudson's ISMP.

56. Existing access routes will be utilized to the maximum extent practicable. As a result, grading for temporary access routes will be minimal. However, existing access routes may require maintenance and or enhancements in order to allow for the safe passage of construction equipment and other vehicles. Where grading must occur, temporary erosion control measures will be applied to stabilize disturbed soils, as necessary, and consistent with the New York State Standards and Specifications for Erosion and Sediment Control," ("NYSSESC") also known as the "Blue Book." Following construction, disturbed areas will be seeded and mulched as described in the Project Storm Water Pollution Prevention Plan ("SWPPP"), and will be indicated in EM&CP.

57. Specific erosion control measures will be defined and provided as part of the SWPPP and the EM&CP. Prior to commencing construction activities, erosion control devices such as straw bales and/or silt fence will be installed as needed between the work areas and any downslope surface waters or wetlands, to reduce the risk of soil erosion and siltation. Following construction, disturbed areas will be stabilized and restored.

iii. Agricultural

58. The Project ROW crosses cultivated crops for a total distance of 4.3 miles (based on national land cover data). However, based upon aerial photo interpretation and field observations, approximately 2.7 miles of the proposed route traverse areas that are currently in agricultural production. In these areas, the access routes and work at structure sites will temporarily impact soils associated with agricultural production. Central Hudson will work with agricultural producers to mitigate temporary impacts to agricultural operations with necessary Project crossings where needed. Approximately 24% of the soils within the Project area are either prime farmland or farmland of statewide importance. Agricultural protection measures will be utilized to limit soil erosion and compaction in agricultural areas as directed by DAM guidelines and/or upon consultation with DAM Staff and landowner/agricultural producer. Specific measures will be described in the EM&CP.

59. Measures to protect soils on agricultural lands will be undertaken during and after construction and will include full restoration of soils in agricultural use. To the extent practicable, work will be completed in winter months to avoid disturbing saturated soils and existing farm roads and adjacent public roads will be utilized for access to areas of the ROW in agricultural land. For construction activities within agricultural lands, topsoil in the work area will be protected through the use of timber mats or temporary stripping and stockpiling in accordance with DAM requirements. One-time low ground pressure equipment could be utilized in place of DAM access guidelines upon consultation with DPS and DAM staff. After construction, topsoil will be decompacted and/or redistributed as necessary to restore preconstruction conditions.

60. The Project route intersects one agricultural district: Ulster County District 4. See Exhibit 4, Figure 4-2 of the Application. Approximately 5.1 miles of the proposed route is immediately adjacent to or within the agricultural district boundaries, particularly along the southern section of the ROW in Ulster County. The agricultural portions of the ROW and adjacent areas are primarily hayfields and row crops.

61. Impacts to agricultural land will be limited. These impacts may result from the use of access routes to proposed and existing structure locations, as well as construction work pads associated with the removal of existing poles and the installation of new structures. All work conducted within agricultural lands will be conducted in accordance with the Certificate Conditions as well as with DAM guidelines in consultation with the landowner/agricultural operator. To further mitigate potential impacts to agriculture land, Central Hudson will be required to retain a qualified Agricultural Inspector.

iv. Fish and Wildlife

62. Fish and wildlife resources within the area of the ROW were determined based on information included in the New York State Breeding Bird Atlas ("BBA"), the New York State Reptile and Amphibian Atlas and other publications. This information was supplemented through correspondence with the New York Natural Heritage Program ("NYNHP"), online consultation with the U.S. Fish and Wildlife Service ("USFWS"), Information for Planning and Conservation ("IPaC") website, and via a data sharing agreement with the DEC to determine the potential presence of state or federally listed endangered, threatened or state designated species of special concern within the Project area. In addition, actual wildlife occurrence and potential wildlife habitat were observed and

documented during field observations and assessment of existing habitat conducted during the summer of 2014 and 2017.

a. Wildlife

63. Field reviews conducted during the summer of 2014 and 2017 confirmed that the ROW provides habitat primarily for common birds that prefer brush, forest edge, agriculture lands, wetlands, and open cliffs. During field reviews in 2017, it was confirmed that there exists the presence of suitable habitat that would attract significant concentrations of migrating or wintering waterfowl, shorebirds, songbirds, hawks or other species.

64. Of all the bird species likely to occur on the ROW (based on range and habitat requirements or BBA data), the peregrine falcon is the only species listed by the DEC as endangered. No endangered bird species are listed by USFWS. Five species identified in the BBA are state-listed threatened species (king rail, least bittern, pied-billed grebe, northern harrier, and bald eagle), as well as five state-listed species of special concern (Cooper's hawk, red-shouldered hawk, osprey, northern goshawk, sharp-shinned hawk). These species are associated with open forests, forest edge habitat, open waters, and open fields/meadows, all of which can be found on or adjacent to the ROW. Of the species listed above, only the northern harrier was observed during the 2017 surveys.

65. The occurrence of mammalian species along the Project ROW was documented entirely through a general field survey and evaluation of available habitat. This survey effort suggests that up to 31 different species of mammal could occur in this area. Of these, a total of six species (or sign of their occurrence) were actually observed

along the ROW. All of the observed species are common and widely distributed throughout New York State. No listed endangered, threatened or special concern mammal species were observed.

66. A total of 39 species of reptiles and amphibians have been documented within the area crossed by the proposed Project. Seven herpetological species were observed during the 2014 and 2017 field surveys, none of which are listed as endangered or threatened.

67. Forestland is found commonly along the edge of the existing ROW and within a section of the reroute to avoid the Vly. These wooded areas provide habitat for forest bird species and common mammals, none of which are currently identified as threatened or endangered.

68. The successional shrubland and scrub-shrub wetland communities along the ROW provide nesting and escape cover for a variety of wildlife bird and mammalian species.

69. Agricultural, successional old field, and wet meadow habitat along the Project ROW provide potential habitat for open country bird species. These areas are also used as foraging areas by aerial insectivores such as bats, swallows, and flycatchers. Agricultural fields, such as the corn and hayfields along the Project, provide a food source for Canada geese, migrating waterfowl species, white-tailed deer, and wild turkeys. During the growing season, the herbaceous vegetation in these areas supports abundant insect populations, which serve as an important food source for nesting songbirds. The vegetation itself provides forage in the form of seeds and foliage, which

is utilized by sparrows, finches, woodchuck, whitetail deer, and eastern cottontail, and other small mammals.

70. Incidental injury and mortality should be limited to sedentary/sessile species that are unable to relocate from disturbed areas during construction. More mobile species should be able to vacate the areas of the ROW that will be disturbed. Direct loss of wildlife will also be minimized by avoiding disturbance of forest and wetlands, to the extent practicable, and utilizing existing cleared ROW and access routes for most construction activities.

71. Potential habitat impacts described above have been minimized by siting the Project within 22.4 miles of existing maintained ROW, however 1.2 miles of the new ROW (Vly Reroute) is being accomplished to remove future construction impacts to the Vly. Most of the Project's potential impacts to wildlife and wildlife habitat will be largely temporary and restricted to the period of construction. Once construction is complete, human activity, soil disturbance and impacts to vegetation will cease, and disturbed areas will be restored. Over the long-term, habitat on the ROW will be maintained in low growing vegetation similar to current conditions in the ROW consistent with the TROWVMP. Although reduction in the number of structures on the ROW will result in a slight increase in the acreage of early successional communities, habitat will not be significantly changed as a result of the proposed Project. Central Hudson will restore the ROW in accordance with the proposed certificate conditions and as detailed in the EM&CP.

72. Three species of reptiles and amphibians that are listed as threatened or endangered by NYNHP or the USFWS occur within the 7.5-minute USGS quadrangle maps that includes the proposed Project area. These species include timber rattlesnake,

bog turtle, and northern cricket frog. However, none of these species have been documented to occur on the Project ROW.

73. As noted above, NYS BBA data for blocks crossed by the Project ROW indicate the occurrence of five state-listed threatened or endangered avian species. These species include the endangered peregrine falcon and the threatened bald eagle, king rail, least bittern, northern harrier, and pied-billed grebe. Although these 5 species were listed by the NYS BBA, not all of them have been documented to occur on the Project ROW.

74. The Indiana bat is listed as endangered at both the state and federal level. Indiana bats typically hibernate in mines and caves but roost in crevices and the bark of trees during the warmer months of the year. The only known winter hibernaculum or summer roost site is south of the most southern portion of the Project (the Hurley Avenue substation). Since the 2.5-mile radius of the closest documented summer roost site for the Indiana Bat does not encroach upon the north side of the Hurley Avenue substation (where the Project begins), impacts have been avoided and no cutting restrictions for this species are necessary.

75. The Northern Long-Eared Bat is listed as threatened at both the state and federal level. Northern Long-Eared Bats typically hibernate in mines and caves, but roost in crevices and the bark of trees with a diameter at breast height of greater than or equal to 3 inches during the warmer months of the year. According to correspondence from the NYNHP and DEC data, there is a northern long-eared bat hibernaculum within 5 miles of the Project area at the North end of the Project and at the south end of the Project. To address ROW width deficiencies or where there are completely new access routes, the

only restriction on cutting which applies relates to cutting of certain vegetation on areas not previously part of the established ROW. Therefore, to avoid impacts to this species, during construction, in any area of the Project ROW, access roads, marshalling yards, and any other areas where Project activities are occurring between one-quarter mile and 5 miles of a hibernation site, or within 1.5 miles of a summer occurrence for the Northern Long-Eared Bat, it is recommended that snag and cavity trees be left standing. If it is not possible to leave snag and cavity trees left standing, Central Hudson has agreed that such trees will only be removed between November 1 and March 31 unless their removal is necessary for protection of human life and property (which includes the potential loss of electric service).

76. The bald eagle is listed as threatened in New York and is protected federally. Bald eagle habitat includes large areas of undisturbed forests close to a water body. These waterbodies include but are not limited to lakes, reservoirs, rivers, marshes and coasts. Nesting sites are typically selected along shorelines as well, and the proximity to water allows for access to fish, their primary food source. Although no nesting sites have been observed during site reconnaissance in preparation for the filing of the Application, NYNHP data does indicate the documented occurrence of bald eagle nest within 1 mile of the Project area.

77. As a result, at least two weeks prior to construction, Central Hudson will visually inspect the Project ROW, access roads, marshalling yards and any other areas where Project activities are conducted to determine if any bald eagle nests are present.

78. To avoid impacts to bald eagle nests, if during construction of the Project and associated facilities, any bald eagle nest is discovered within 0.25 mile

(environmentally sensitive area) of Project activities, Central Hudson will notify the DEC and DPS Staff within 24 hours of the discovery and the nest will not be disturbed unless authorized by DPS Staff, after consultation with DEC. The 0.25 mile environmentally sensitive area will be marked, where Central Hudson has property rights to allow such marking, and this area will be avoided until DPS Staff, after consultation with NYSDEC, authorizes activities in the environmentally sensitive area. In the presence of a visual barrier (i.e. tree line, topography) that obstructs the view from the nest and shields it from work activities, the environmentally sensitive area may be reduced to 660 feet.

79. The least bittern and king rail marsh birds are listed as threatened at the state level. Both species typically use shrub swamps and non-tidal freshwater cattail marshes for breeding habitat. NYNHP data indicates the documented occurrence of the least bittern and king rail and their habitat within and near the Vly.

80. To avoid any impact to the least bittern and king rail marsh birds, for activities within or adjacent to the Vly, Central Hudson will comply with a time of year restriction such that no work may occur from April 15 to August 15. The time of year restriction does not apply for purposes of access on the existing active quarry access roads.

b. Fish

81. The proposed Project intersects several perennial streams that support fish populations. The most significant of these are Plattekill, Esopus, and Catskill Creeks, all of which are tributaries to the Hudson River. The Esopus Creek is the only classified trout stream within the Project area. Although some of these streams are located on private property, Plattekill, Esopus and Catskill Creeks have provisions for public access (i.e.,

public fishing easement) and receive use as recreational fisheries. No listed endangered, threatened or special concern fish species have been documented along the Project ROW.

82. In addition, areas of wetland habitat, as well as areas of open water or flowing water that could provide habitat for fish have been largely avoided through careful siting, and to the extent practicable, use of previously disturbed crossings. Where intersected, these habitats will be crossed using matting that will be removed following construction. Therefore, any impact to aquatic or wetland-dependent species will be minor and short term.

83. Because it is anticipated that there will not be long-term change to the existing habitat on the ROW, there should be no significant change in the fish and wildlife community utilizing the Project area before and after construction. Impacts to fish and wildlife resources will be limited by reducing on-ROW and off-ROW disturbance to the extent possible. By routing the Project construction activity mostly within existing ROW, incidental injury and mortality, and habitat alteration will be minimized. The manner in which silt and sedimentation impacts on aquatic wildlife, fish and benthic organisms will be avoided or reduced to the extent practicable will be described in the EM&CP. Although new stream and wetland crossings have been reduced to the minimum number possible by utilizing existing crossings, where new crossings are required, special crossing techniques will be utilized to minimize adverse effects on aquatic organisms at and downstream of the crossing locations.

84. ROW management will involve periodic trimming to maintain early successional vegetation in accordance with the TROWVMP. The ROW will continue to

provide food and cover for wildlife that prefers old-field and shrub-dominated habitat. Where the classified trout stream(s) are present along the proposed Project ROW, vegetated streamside buffer areas will be maintained to provide fish cover, wildlife travel corridors, and shade (to maintain cool water temperature).

vi. Wetland and Water Resources

85. As described in Exhibit 4 of the Application, surface water and groundwater resources within the ROW were identified through review of existing mapping and field investigations conducted along the proposed approximately 150-foot wide ROW corridor. This review resulted in the identification of 108 surface water features (perennial, intermittent and ephemeral streams) along the proposed route.

86. The Project area occurs within the Middle Hudson DEC hydrologic unit, which is part of the Upper Hudson River Basin. The largest surface water features crossed by the Project are Plattekill Creek, Saw Kill, Catskill Creek, and Esopus Creeks. Numerous small named and unnamed streams also occur within the area of the Project ROW, five of which are protected streams. Streams that intersect the ROW, both named and unnamed, are primarily intermittent features that drain through a mix of undeveloped deciduous forest, active agricultural land, and old fields located in the vicinity of the Project. These streams are typically less than 3 feet wide and can be categorized as a mix of intermittent and perennial streams. Smaller intermittent and perennial streams within the ROW are usually associated with wetland complexes.

87. According to Federal Emergency Management Agency (“FEMA”) floodplain mapping, there are several 100-year flood hazard areas that are crossed by the ROW. The larger of these flood hazard areas are associated with Esopus Creek. Smaller flood

hazard areas are associated with certain tributaries to Esopus Creek, Saw Kill, Plattekill Creek, Sawyer Kill, and Catskill Creek. In total, the ROW will cross approximately 2.63 miles of FEMA 100-year flood zone.

88. Given that the Project must cross state mapped streams as well as their tributaries, floodplain areas cannot be avoided. However, no increase in impervious surfaces or permanent changes to the contours are proposed and as a result no permanent impact will occur within FEMA designated 100-foot flood zones.

89. According to DEC mapping, two potential aquifer areas occur within the area of the Project. These mapped aquifer areas occur in the City of Kingston, and the Towns of Ulster and Saugerties. Neither of these mapped aquifer areas are considered primary aquifers, which are “known to be highly productive or whose geology suggests abundant potential water supply, but which are not intensively used as sources of water supply by major municipal systems at the present time." Residences within the area of the Project primarily obtain drinking water from individual groundwater wells or municipal sources.

90. Four DEC mapped freshwater wetlands are located within or immediately adjacent to the approximately 150-foot wide ROW. These wetlands are located within the Towns of Catskill and Saugerties, and include wetlands C-14, C-16, C-21, and S-7. According to DEC data, all of these are Class II or Class III wetlands. Based upon the on-site wetland delineation, it is anticipated that the construction of the proposed Project could temporarily impact (this includes matting impacts) up to 27.5 acres of DEC and federal jurisdictional wetlands along the ROW but only permanently impact 0.0167 acres of such wetlands collectively.

91. Review of USFWS National Wetland Inventory ("NWI") mapping indicates the presence of 20 federal wetlands within 15 feet of the Project ROW (including the DEC regulated wetlands identified above). The majority of these wetlands are forested/shrub communities, while emergent wetlands and open water occur to a lesser extent.

92. Based on the results of on-site investigations, wetlands within the Project area are a mix of emergent, scrub-shrub, forested wetland, and open water cover types. These wetland communities are common in New York State.

93. No new permanent stream crossings are proposed. However, temporary crossings will be required in some locations, and streams adjacent to the Project ROW could be temporarily affected by siltation and sedimentation from soils exposed during construction. Temporary impacts related to construction at or near temporary stream crossings could include loss of habitat for aquatic organisms, loss of streamside vegetation and associated shade, streambed disturbance, bank erosion, and downstream turbidity and siltation. None of the streams along the Project ROW are known to support trout spawning (i.e., classified as (ts) streams). However, the Esopus Creek, a class B(t) stream, crosses the ROW but the Project will not impact this stream.

94. Impacts to wetlands will be avoided or minimized through careful siting measures. Wherever practicable, new structure locations have been sited outside the boundaries of delineated wetlands. Additionally, construction access will primarily occur along existing access-ways that will not require new wetland crossings. Impacts to wetlands will primarily occur where temporary work areas and access routes occur within or adjacent to wetlands. Indirect impacts to wetland water quality and vegetation could also occur as a result of earth disturbance and soil erosion, siltation and sedimentation

from construction activities elsewhere on the ROW. The majority of these impacts will be temporary and can be minimized through appropriate construction, erosion control and restoration practices. There will be some minor permanent impacts to wetlands associated with the installation of new structures, although these will be off-set by the removal of existing lattice towers.

95. It is expected that Project construction activities in wetlands and other waters of the United States over which the United States Army Corps of Engineers ("USACE") has jurisdiction will be authorized by the USACE under Section 404 of the Clean Water Act (33 U.S.C. § 1344) and such impacts will be quantified and described in a Nationwide Permit Preconstruction Notification.

96. The direct impacts of wetland/stream crossings will be minimized by utilizing existing vehicular crossing locations whenever possible. Special crossing techniques or equipment restrictions (e.g., with temporary mats or geotextile/gravel access roads), and erosion and sedimentation control measures will be utilized to reduce impacts to water quality, surface water hydrology and aquatic organisms. Clearing of vegetation along stream banks will be kept to a minimum. Disturbance to the bed and banks of streams will be avoided when possible through use of crossing techniques such as matting, or avoidance.

97. To further protect stream and wetland resources the Certificate Conditions provide fuel tank and hazardous chemical storage provisions to be included in the EM&CP. Appropriate emergency cleanup procedures have been developed to assure proper agency notification and quick clean-up of any spills to mitigate the potential impact of such occurrences.

vii. Aesthetic, Visual and Recreational Resources

98. As described in Exhibit 4 of the Application, a Visual Impact Analysis ("VIA") was performed for the Project to determine the anticipated change in visual resources, including whether there will be a change in the character or quality of views with respect to significant scenic and aesthetic resources as a result of the Project (see Exhibit 20 [Appendix I of the Application]).

99. The VIA process includes a multi-step approach in determining if there will be changes in visual resources. The first step includes evaluating existing conditions and conducting an inventory of visual resources, such as State Parks and Scenic Areas of Statewide Significance ("SASS"), within a five-mile radius of the Project Site (VIA Study Area). The five-mile radius is representative of the limits of the VIA Study Area because it is considered a long-range view. Next, the VIA Study Area was modeled electronically to identify potential receptor points based on elevation and potential vegetative cover at an average height of 40 feet to consider the screening capacity of existing trees. From this analysis, 57 different viewpoints were identified and then evaluated in the field with the naked eye or sometimes with binoculars to assess the actual visibility of the existing H and SB Lines. Field studies were conducted during vegetation leaf-off conditions and without snow cover on the ground or in the vegetation. The next phase of the VIA included selecting 15 representative viewpoints for photo simulations to depict the visual changes that may result from the Project. These simulations were compared with the existing viewpoints to determine the potential visual impact of the Project.

100. The VIA determined that the views from many viewpoints will not change as a result of the Project. In some instances, replacement of existing lattice structures with

monopole structures will result in an overall decrease in the visibility of the line. From a few locations, primarily looking along the ROW, the Project will have a slightly higher overall visibility than what currently exists. With the exception of a few locations along State Highways, there will be no visual impacts to any sensitive receptors including no impacts to SASS or designated Scenic Byways.

101. The Town of Saugerties commented on the Applicant's VIA that several historic-eligible sites referenced in an unpublished 2005 historic survey prepared in coordination with the Town Historic Preservation Commission were not evaluated in the VIA. In response, Central Hudson arranged for the evaluation of locations contained in the 2005 survey. As a result of this evaluation, Central Hudson filed a Supplemental VIA. See Exhibit 21.

102. The Supplemental VIA notes that in 2005 the Town of Saugerties prepared a report that evaluated 155 older structures within the Town and the Town identified 82 structures that they deemed eligible for listing on the National Register of Historic Places. The Supplemental VIA evaluation of potential visual impacts determined that 27 of the 82 structures could potentially have views into the Project. Field evaluation of the 27 locations determined that there were no views of the Project from 24 of the 27 locations. At one Register-eligible structure, multiple existing towers will be replaced with tangent poles at the same tower locations. At two Register-eligible structures there are screened views of single existing towers. The two existing towers will also be replaced with new tangent poles at the same locations. Consequently, the Supplemental VIA found that the H and SB Lines Rebuild Project will not cause any incremental additional visual impacts to any Register-eligible structures identified by the Town of Saugerties.

103. Even though there only is an incremental visual impact, upon completion of the Project, Central Hudson will conduct an assessment of the need for landscape improvements, including vegetation planting, earthwork or installed features to screen or landscape the Project with respect to road crossings, residential areas, and substations and present the results of such an assessment to DPS Staff. Depending on location, the installation of any such landscape or plantings may require agreement and coordination with landowners.

104. In connection with the assessment noted above of the need for landscape improvements, Central Hudson will replace all trees over four inches in diameter breast height or shrubs over four feet in height damaged or destroyed by construction, operation and/or maintenance activities, regardless of where located, within the following year with the equivalent type of trees or shrubs (as long as they are not invasive species), except if such replacement is contrary to sound ROW management principles, is inconsistent with an existing easement or other agreement (not held by Central Hudson) with the landowner, the landowner declines to have such replanting performed, or if there is otherwise an agreement with the landowner to pursue an alternative resolution.

105. As a result of certain design changes (e.g., Rail Trail, Bluestone Forest area) or decisions to replace certain structures which were previously proposed to remain (5 structures in Catskill), a Second Supplemental VIA was prepared. See Exhibit 22. The Second Supplemental VIA included updated simulations in the areas investigated and focused on determining whether there were any additional visual impacts on designated sensitive visual receptors. As a result of this analysis, the Second Supplemental VIA concluded that, while the changes to the structures assessed would be noticeable on the

local road network traveled by the public, at most locations, views contain existing non-Project utility infrastructure which results in consolidation of visual impacts within these views.

viii. Cultural Resources

106. As discussed in Exhibit 4 of the Application, a Phase I archeological investigation for the Project was conducted to determine potential impacts from the Project on cultural resources. The Phase I report is included as Exhibit 23 to the Evidentiary Record and as Appendix J to the Application.

107. A review of historic records from the Office of Parks, Recreation, and Historic Preservation's ("OPRHP") Cultural Resources Information System ("CRIS") was performed and found that 16 previously identified archeological sites are located within or adjacent (i.e., less than 200 feet from the Project limits) to the Project. A Phase 1B archaeological investigation was conducted between July 6 and July 21, 2017.

108. The Phase 1B investigation identified six locations with precontact artifacts and three with historic artifacts. Five of the prehistoric locations are new records, and may define new precontact sites; one of the locations is part of the Vincent Precontact Site. The three historic locations included artifacts that were either from filled landforms or they were likely from the 20th century. The identified historic artifacts were significantly disturbed and were not considered positive historic finds.

109. Two of the precontact locations contained several artifacts indicating that they are sizable archeological sites with a diffuse scatter of precontact materials. More testing was recommended to determine if the remaining four precontact artifact locations are isolated precontact finds or precontact sites that contain multiple artifacts.

110. As part of the Phase I investigations conducted in 2017, archeological fieldwork at two portions of the H and SB Lines Rebuild Project (the Skordilis Property in the Town of Saugerties, and the O & W railroad alignment in the City of Kingston) had been deferred in 2017, and was instead conducted in July 2018. Also, two "civil design roads" (access routes whose construction requires significant grading and landscape modification) had been designed since 2017, and fieldwork was conducted for them in July 2018 as well.

111. Site visits were conducted on July 23 and 24, 2018 to observe and photograph existing conditions within the Project. As a result, an Addendum to the Phase I report (Phase IB Addendum) and a Phase II Archeological site evaluation (Phase II Evaluation) was conducted and a report was prepared and submitted to OPRHP in October 2018.

112. As part of the Phase IB Addendum work, shovel tests were excavated at standard intervals except in locations where there were previously identified archeological sites, where an 8-meter (25 ft) interval was used.

113. All precontact (Native American) cultural material identified during the fieldwork was collected. For the Phase IB Addendum survey, nine new electrical transmission structure locations were sampled with 18, hand-excavated shovel tests. Also, the two civil design roads were sampled with ten more shovel tests. One location contained precontact artifacts. Historic artifacts were noted, but not collected, in a handful of the O&W Railroad alignment tests. The two stone culverts in the former O&W railroad alignment did not appear to be close enough to any of the new transmission structures to be affected by them. However, in the absence of railroad structures or some other means

of distributing their weight, heavy equipment traversing them might damage the stone culverts. Thus, unless the County as part of the Rail Trail construction installs bridges over these existing stone culverts sufficient to accommodate Central Hudson equipment (something the County has made a commitment to do), Central Hudson will use plates or pads above the stone culverts to protect them and this will be further detailed in the EM&CP as necessary. No cultural materials or features were found as a result of the further work at the two civil design roads.

114. During the Phase IB Addendum work, an evaluation was conducted at five new transmission structure locations (H #15 to H #19) on the Skordilis Property, or where the structures had to be accessed through the property. One chert debitage flake was recovered in non-native soils. This site was subjected to further testing during the Phase II Site Evaluation.

115. The Phase II Evaluation addressed four archeological finds and three archeological sites. The *finds* were identified based on recovering a single precontact artifact at each find location; the *sites*, on the other hand, were bona fide archeological deposits of multiple artifacts.

116. Out of the seven sites, six were not National Register Eligible ("NRE"), and one was NRE but had some disturbance in the location of the new structure. The six sites are Precontact Find SB #5, the portion of TRC-6-NYP near SB #45, Precontact Find H #13, Precontact Find H #41, Precontact Find H #112, and Precontact Site H #122.

117. The seventh site, the Vincent Site, is likely to be considered National Register eligible. Avoidance or further archeological work (a Phase III data mitigation) has been recommended for the Vincent Site.

118. In a letter to DPS dated February 1, 2019, OPRHP confirmed its review of Central Hudson's October 2018 Phase IB Addendum Report and Phase II Evaluation. OPRHP agreed that no further archeological work need to be performed at five of the six non-NRE sites. However, because there is a northern portion of TRC-6-NYP that was not included in the Phase II evaluation, Central Hudson will utilize matting for any access routes that cross the northern portion of TRC-6-NYP, a measure OPRHP has indicated it has no concerns with, and this will be included in the EM&CP. With regard to the Vincent Precontact Site, OPRHP concurred with the Phase II Evaluation recommendation that this Site is eligible for listing in the New York State and/or National Registers of Historic Places ("S/NRHP") and recommended that the project avoid impacts to the site, or conduct a Phase III data recovery, a recommendation that will be implemented by Central Hudson in consultation with OPRHP Staff.

119. As a result of certain design changes (Rail Trail area, Bluestone Wild Forest area, Heritage/Kosco Energy property) or a decision to no longer retain certain structures south of the Catskill Substation, additional archeological field reconnaissance and shovel testing was performed to determine whether any of the new structure locations as a result of these redesigns or decisions regarding structures required any further archeological work based on the presence of significant archeological deposits or finds. This Partial Redesign Addendum to the Phase IB Report found no such significant deposits or finds and concluded that no further work was necessary. This report was submitted to the OPRHP on November 25, 2019. On December 9, 2019, OPRHP responded that it concurs with the report's conclusion that no significant archeological resources were identified as a result of the work described in the Partial Redesign Addendum and that no

additional archeological work is needed. A copy of the December 9, 2019 letter is included as part of Exhibit 17A of the Evidentiary Record.

120. Finally, as further mitigation to ensure that the impacts to cultural resources are minimized to the maximum extent practicable, Central Hudson will be required to take certain action if archeological materials or human remains or burial grounds are encountered during construction.

ix. Transportation

121. Two public airports were identified in the vicinity of the proposed Project alignment: the Kingston-Ulster Airport (FAA ID: 20N) in Kingston, New York and the Green Acres Airport (FAA ID: 1A1) in Livingston, New York. The Kingston-Ulster Airport is in the City of Kingston and is approximately 2.2 miles (11,616 feet) east of the nearest transmission structure in the Project. The Green Acres Airport is in Hudson, NY and is approximately 12 miles (63,360 feet) northeast of the nearest transmission structure in the Project.

122. Preliminary screening was conducted according to the criteria set forth in Title 14 of the Code of Federal Regulations ("CFR") Part 77 and by using the FAA Notice Criteria Tool. The intent of the screening was to assess the need to file a FAA Form 7460-1, *Notice of Proposed Construction or Alteration* for any structures proposed as part of the Project and estimate the number of structures for which filing may be required.

123. The notification requirements identified by the FAA's standards do not necessarily result in the FAA limiting a structure's height; however, it triggers an FAA evaluation of the proposed structure's characteristics relative to aeronautical navigation.

124. The Applicant evaluated every fifth proposed structure as well as several additional structures proposed at topographical high points for the potential to exceed the FAA aeronautical standards. Eight of the screened structures on the SB[3] Line were found to exceed either the Notification Surface or the Approach Surface, and none of the screened structures on the H Line were found to exceed the Notification Surface or the Approach Surface. None of the screened structures on either the SB Line or the H Line were found to exceed any other FAA aeronautical surfaces. The Applicant does not anticipate the FAA will find that the proposed structures that exceed either the Notification Surface or the Approach surface pose a hazard to air navigation; the existing structures that will be replaced under the Project also exceed these same surfaces.

125. Prior to the commencement of construction, Central Hudson will secure evidence of a FAA determination that the final design of the structures proposed for the Project will have no impact (or will have impacts mitigated by FAA-directed modifications to such final design) on the public use airports referenced above and in Exhibit E-6.

126. The Project ROW does not intersect a railroad crossing. However, a portion of the H Line ROW is adjacent to CSX railroad property in the Town of Saugerties. The Project does not propose to move the H Line facilities any closer to the railroad; therefore, no impact to CSX railroad is anticipated. It is unlikely that it will become necessary for Central Hudson to acquire permits or enter into any agreements with CSX.

127. The Project could impact up to 42 federal, state, county, local, or private roadways in Greene and Ulster Counties. Starting at the Hurley Avenue Substation in the Town of Ulster, the SB Line proceeds generally north for approximately 11 miles. The

[3] No new structures were found to exceed either the Notification Surface or the Approach Surface as a result of the redesign area identified in Section III.K below.

SB line runs parallel to and west of Interstate 87 (I-87 or NYS Thruway) for approximately 10 miles until it crosses the NYS Thruway. After crossing I-87, the SB Line continues north for approximately one mile to the Saugerties Substation near NY Route 32 in the Town of Saugerties. The potential work zones and roadway crossings for the SB Line Rebuild could impact up to nine roadways in the Town of Ulster and nine roadways in the Town of Saugerties.

128. The SB line crosses over the NYS Thruway between proposed structures SB #112 and SB #113 near Churchland Lane in the Town of Saugerties. On October 9, 2017, the NYS Thruway Authority issued an Occupancy Permit to Central Hudson for the SB line aerial crossing of the NYS Thruway which is the first step in obtaining a Highway Work Permit for the NYS Thruway Crossing.

129. Starting at the Saugerties Substation located just north of NY Route 32 in the Town of Saugerties, the H Line proceeds north for approximately 12 miles. The H Line is generally located east of I-87 and west of US Route 9W until reaching the North Catskill Substation near the US Route 9W and NY Route 23 interchange in the Town of Catskill. The potential work zones and roadway crossings for the H Line Rebuild could impact up to eight roadways and/or private driveways in Ulster County. At proposed structure H #46 the line transitions into Greene County with the work zones and roadway crossings potentially impacting 16 roadways and/or private driveways in the Town of Catskill.

130. The Applicant will coordinate with the NYS Thruway Authority (“NYSTA”) through the Highway Work Permit process to ensure that disruption to traffic on the NYS Thruway is very limited to minimize impacts to the travelling public. The Applicant shall comply with the mitigation measures contained in the permit received from the NYSTA.

131. During construction, the ROW will be accessed at the public and private roads or through other existing and proposed access points. The construction activity, use and frequency will vary considerably from location to location. While using construction access points, the Applicant will use industry standards and procedures for maintaining safe traffic operations according to the traffic and safety procedures outlined in the latest edition of the Manual on Uniform Traffic Control Devices ("MUTCD"). Where required for permitting through state, county and municipal agencies, detailed Work Zone Traffic Control plans will be completed for each work zone and roadway crossing. Highway Work Permits will be acquired through the appropriate agency prior to construction at each road location.

132. The number of vehicle trips generated by the construction crews for transmission structure setting and conductor pulling as well as pre- and post-construction activities will vary from location to location. Construction related traffic is dependent mainly upon the number of structures being accessed from a particular route with construction vehicle traffic increasing when specific activities are occurring, but may cease between activities. For example, hole drilling, structure setting, line pulling, structure removal, and restoration activities will all result in construction vehicle traffic, but traffic interruptions would be reduced between activities if work is not occurring in a particular area.

133. To minimize potential construction effects to adjacent landowners and users of local highways, Central Hudson will provide timely information regarding the planned construction activities and schedule. Central Hudson will also coordinate with the New York State Department of Transportation ("NYSDOT"), NYSTA, county officials, and local

highway departments to develop and implement Maintenance and Protection of Traffic ("MPT") plans to ensure safe and adequate traffic operations along roadways used by construction vehicles.

134. The majority of the H and SB Lines are routed through areas characterized by forested, agricultural, and vacant land intermixed with residential developments and some areas of medium to higher density development. The majority of the lines are not commonly visited or accessed by the public; however, there are some areas where the ROW is directly adjacent to residential and commercial properties. As a result, proper signage will be posted and/or construction personnel will be on site in these areas to control public access during construction and provide safe conditions for pedestrians. The Rail Trail, which is maintained by Ulster County, is located at the south end of the SB Line within the proposed work zone for 12 structures. In consultation and cooperation with the County (including the manner in which the public shall be notified), Central Hudson will shut down this area to any public traffic during the construction and restoration period, most of which occurs on property owned by the Applicant.

x. Communications

135. In Exhibit E-5 (Exhibit 14 of the Evidentiary Record) and Appendix E (Exhibit 16 of the Evidentiary Record) to the Application, Central Hudson evaluated any potential effects the proposed Project could have on communication systems within the vicinity of the Project. More specifically, Central Hudson arranged for there to be a Tower Study, Off-Air TV analysis, Land Mobile & Emergency Services Report, Microwave Study, Mobile Phone Report, and AM and FM Radio Report, and this evaluation determined the potential effect the Project will have on these communication systems. In summary, once

the transmission lines are operational, it was determined that the Project will have no effect on communication systems.

xi. Noise

136. Noise will be generated during Project construction, primarily from vehicles and equipment operating along access roads and at structure work pads, laydown areas and pulling sites. The construction equipment to be used is similar to that used during typical public works projects, tree service operations, and blasting (if necessary). Central Hudson anticipates that it is unlikely that blasting activities or jack hammering will occur. Various construction activities may occur simultaneously with multiple construction crews potentially operating within the Project ROW. Thus, multiple sources of noise may be present at any one time. Construction sound will be attenuated with increased distance from the source.

137. Noise impacts will be minimized and mitigated by requiring that all equipment be maintained in good operating condition, and that all motors and engines will be muffled according to manufacturer's specifications and will comply with State Environmental Law, Subchapter E, Part 450 (Noise from Heavy Motor Vehicles). Any faulty noise suppressor will be repaired or replaced, equipment will not be left running unnecessarily, and existing tall growing vegetation that serves as a noise barrier will be maintained to the maximum extent practical.

138. Noise impacts will also be mitigated by limiting construction activities to the hours of 7:00 a.m. and 7:00 p.m. Monday through Saturday. If, due to safety, reliability or continuous operation requirements (including as necessary to coordinate outages for the convenience of residents or businesses), construction activities are required to occur

on Sundays or after 7 p.m., Central Hudson will notify DPS staff, the affected landowner, and the affected municipality. Notice will be given at least 24 hours in advance unless the Sunday or after 7:00 p.m. construction activities are required for safety reasons that arise less than 24 hours in advance.

139. Noise generated by the operation of 115kV transmission lines typically contributes little to area noise levels. Since the Project design is below the corona threshold, operation of the proposed transmission lines is not expected to result in adverse noise impacts.

140. Routine Project inspections and maintenance will occur annually, but will generally be of short duration, are not expected to result in adverse noise impacts, and will not require specific mitigation measures. ROW vegetation maintenance will require the use of chain saws or other equipment (i.e., UTV, mower, skidder).

xii. Electric and Magnetic Fields

141. Electric and magnetic fields ("EMF") were analyzed to compare existing EMF levels to the levels expected following the proposed rebuild of the two transmission lines (see Appendix G of the Application).

142. The Commission's Statement of Interim Policy on Magnetic Fields of Major Electric Transmission Facilities, effective September 11, 1990, states that Article VII transmission circuits will be designed, constructed and operated such that magnetic fields at the edges of their rights of way (measured one meter above ground) will not exceed 200 milligauss ("mG") when the circuit phase currents are equal to the winter-normal conductor rating. For electric fields, the Interim Policy states and adopts Opinion 78-13, from Cases 26529 and 26559, effective June 19, 1978, which established an electric field

strength interim standard of 1.6 kV/m for Article VII electric transmission facilities at the edge of the right-of-way, one meter above ground level, with the line at rated voltage. Based on the results of the analysis, the Project electric and magnetic field values are projected to be below the limits as governed by the PSC guideline and Policy at the ROW edges.

xiii. Other Facilities

143. The H and SB Lines are co-located with a Central Hudson gas transmission line ("AH Line") in the Towns of Saugerties and Catskill for approximately 4.8 miles. As part of the project planning, Central Hudson contracted with Orion Magnetics, LLC, to perform an analysis of the alternating current (AC) interference effects on this 10.75" outside diameter steel gas pipeline resulting from the electric rebuild project. The results of this analysis determined that during AC steady-state operation of the electric transmission lines, there are several locations along the AH gas pipeline where voltage and current density levels on the pipeline may be above the limits established by industry standards that are specified for personnel safety as well as pipeline integrity.

144. In order to mitigate (reduce) the electrical effects on the gas pipeline to acceptable levels, a solution has been designed that will be installed as part of the Project. The solution consists of installing (burying) grounding conductors (zinc ribbon) between the pipeline and the transmission lines at specified locations, totaling approximately 2.8 miles. These grounding conductors would be connected to the pipeline through solid-state decoupling devices and would not affect the pipeline's existing cathodic protection system. The grounding conductor installation entails mechanically digging a narrow ditch approximately 3-foot deep, laying the conductor, backfilling and

restoring the surface. Wider excavations are required where the grounding gets connected to the gas pipe.

**E. The Availability and Impact of Alternatives**

145. The Application and exhibits in the record describe the availability and impact of alternatives to the Project and are summarized briefly below. Considering all factors, the Signatory Parties agree that the Project as described in Appendix B, is preferable, on balance to any of the alternatives considered, including an undergrounding alterative. The location is preferred due to its relatively minimal impacts to wetlands, floodplains, topography, and residential areas. The selected route and configurations (including equipment and circuits) are preferred because they use existing electric transmission corridors, avoid impacts to existing land uses, and otherwise have minimal impact (especially in light of the fact that other transmission structures exist along nearly the entire length all of the ROW).

146. The Project as designed and proposed is to replace most of the structures and all of the conductors. The rebuild will utilize single-pole, davit arm steel structures with some two-pole and three-pole swing angle and strain dead end structures. The new structure heights vary but average approximately 78 feet tall (above ground). This height increase is for an improved shielding angle and increased ground clearance. Where appropriate, Central Hudson intends to reuse several H and SB Lines structures that are deemed to be in good serviceable condition. The design replaces the one existing static wire (0.349” dia.) with one Optical Ground Wire (“OPGW”) (0.699” dia.) and the six existing copper conductor wires (0.368” dia.) with three larger Aluminum conductor

steel-reinforced cable ("ACSR") conductor wires (1.063” dia.). All wires will be non-specular.

147. The majority of the Project will utilize the existing Central Hudson ROW. To the extent the design requires additional property rights, those situations are discussed below. The Project as designed and proposed includes a 1.2 mile reroute around the Vly. Potential alternatives that can meet Project goals include the use of different equipment and/or pole structures. Other alternatives considered that do not meet these goals are alternative routes (except one) and leaving the H and SB Lines in their current state (the no-action alternative).

i. Alternative Equipment

148. The alternative equipment options that could be used to fulfill the goals of the Project involve the use of different types of transmission structures. H-Frame structures were considered; however, typical single-pole davit arm structures were chosen instead as a less impactful alternative. Since the existing lines were originally constructed as a double circuit line (6-conductors, but have since been jumpered to act as a single circuit), a similar design was considered but was not chosen. The more standard 3-conductor single circuit was preferred. At the Rail Trail area outside the Hurley Avenue Substation, alternatives were considered concerning the multiple lines running parallel to the Rail Trail (two transmission lines and two distribution lines) and it was decided to combine all these circuits onto single poles, resulting in a net decrease in the number of poles in this area.

ii. Alternative Routes

a. General Alternative Routes

149. Alternative routes are not a viable or sensible option for the vast majority of the Project. The current H and SB Lines are within a Central Hudson maintained ROW. Additionally, the H and SB Lines must both meet at the Saugerties Substation. Therefore, any alternate routes would require the lines to return to the Saugerties Substation. Alternative routes would result in the purchasing of land or obtaining easements for a new ROW which is not an economically viable option. Additionally, it is reasonable to assume a new ROW would require vegetation clearing as well as the construction of access roads along the ROW. It would also introduce transmission line structures into views where they currently are not present. Utilizing the existing ROW avoids the need for such additional environmental impacts and is consistent with Commission policy. Therefore, in most locations, alternative routes are not an economical or environmentally viable alternative. It is important to consider that the existing transmission lines supply electricity to several distribution areas along the ROW. An alternative route, or even the co-location of the transmission lines within other Central Hudson leased ROW's, has the potential to eliminate the supply of power to these distribution areas, unless there is substantial modification to the distribution areas and/or their point of connection with the transmission system. This would result in additional construction and disturbance to the communities served by the H and SB Lines. Therefore, a major routing alternative is not considered to be practical.

150. Notwithstanding the conclusions above, an effort was made to identify potential alternative routes for both the H and the SB Lines. For both lines, the

alternative would increase the length of the Project by over 4 miles (see Table 3.4.3.a of Exhibit 3) of the Application, increase the cost (both during construction and for maintenance purposes), require a much more significant property rights acquisition that the Project proposed, would lengthen the Project schedule, and in light of the elongated schedule, increase the short-term environmental impacts. See Exhibit 3, Table 3.4.3.b of the Application.

b. The Vly Reroute

151. As previously discussed in Section III.C., the Vly Reroute has been incorporated into the Project design. An evaluation of the environmental setting, including potential cultural resources, has been included in Exhibit 4 of the Application, as has a discussion of any impacts and required mitigation. Moreover, the EM&CP will contain specific construction techniques and mitigation for construction of the Project, including the Vly reroute. An analysis contained in Exhibit 3 of the Application (Table 3.4.5) shows why the Vly Reroute is in the best interest of the Project and that the alternative of reconstructing the line through the Vly is not a preferred option.

iii. Alternative Methods to Fulfill Energy Requirements

a. No Action Alternative

152. The conductor on the H and SB Lines is nearing the end of its useful in-service life and requires replacement. In order to ensure stability and reliability in the electric grid that services the communities and businesses in this area, the Lines must be rebuilt to carry the new conductor safely. A no action (no build) alternative would result in further degradation of the existing facilities and reduced system reliability. This would have a direct negative impact on the electrical service being provided to residents and

business in the vicinity of the project. Should the lines deteriorate to a state where they are unusable, Central Hudson would need to find an alternate source for the load currently supplied from the Hurley Avenue Substation. In order to ensure a stable and reliable electric service to the surrounding communities, Central Hudson must rebuild the H and SB Lines, thus the no action alternative is not a viable option.

b. Energy Efficiency, Demand-Side Management and Distributed Generation

153. As discussed in Exhibit E-4 (Exhibit 13 in the Evidentiary Record), the proposed rebuilding of the existing 69 kV H and SB lines is based on infrastructure issues associated with the physical condition of the existing transmission lines. The transmission lines were constructed in 1928 and a condition assessment identified that a significant number of structures require replacement. In addition, a number of mid-span poles are required to correct sag issues and there are a significant number of structures that are in need of maintenance repairs. Some identified issues found were severe enough to prompt replacements of nine (9) structures in 2017-18.

154. Energy efficiency measures, demand-side management, and distributed generation are all viable methods to reduce load and alleviate potential overload situations during peak load. However, they do not address reliability and infrastructure concerns. The Project is needed to replace structures and conductors that are in disrepair. The existing H & SB Lines were installed in 1928 using 1/0 7 Strand Copper conductor. Even though copper conductor has very good resistance to corrosion, the 1/0 7 Strand Copper on this line and others of similar vintage have been showing signs of deterioration. As a result, energy efficiency measures, demand-side

management, and distributed generation were not considered viable alternatives to the proposed Project.

155. The Central Hudson Non-Wires Alternative Suitability Criteria Matrix[4] indicates that project types suitable for NWA solutions include Load Relief and Reliability based projects. Reliability projects entail projects for remote single source regions or customer required enhanced reliability projects (i.e., redundant supplies). As indicated above, the H and SB rebuild project is an infrastructure-based project that is not conducive to a NWA solution. Any alternative solution would be required to obviate the need for the transmission line by offsetting local area load at both the Saugerties (~ 22 MW peak) and Woodstock (~ 22 MW peak) Substations. Since this Project does not meet the suitability criteria, the use of a NWA solution in this application is not practical and Central Hudson eliminated a NWA as a viable alternative method that would fulfill the energy requirements with comparable costs.

## F. Active Farming Operations that Produce Crops, Livestock and Livestock Products

156. The Project route intersects one agricultural district, Ulster County District 4. Although there are areas of agricultural significance with the areas adjacent to the Project ROW in Greene County, the ROW does not pass directly through any agricultural district in Greene County. The agricultural portions of the ROW and adjacent areas are primarily hayfields and row crops.

157. Agricultural operations may be disrupted on a short-term basis, depending upon the timing of construction and any seasonal constraints on construction

[4] See Appendix 1: CHG&E Integrated Planning Process with NWA Suitability Analysis of the Joint Utilities' – Supplemental Information on the Non-Wires Alternatives Identification and Sourcing Process and Notification Practices, in Cases 16-M-0411 and 14-M-0101.

activities. Central Hudson will make every effort to coordinate construction activities with ongoing farming activities in effort to minimize disruption and crop damage. These impacts may result from the use of access routes to proposed and existing structure locations, as well as construction work pads associated with the removal of existing structures and the installation of new structures. All work conducted within agricultural lands will be conducted in accordance with relevant agricultural Certificate Conditions as well as with NYSDAM guidelines in consultation with NYSDAM staff and the landowner/agricultural operator. To further mitigate potential impacts to agriculture land, Central Hudson will be required to retain a qualified Agricultural Specialist/Inspector for each phase of the Project.

158. Based on the above, the Project should have a minimum adverse impact on active farming operations that produce crops, livestock and livestock products, considering the state of the available technology and the nature and economics of the various alternatives, and ownership and easements rights of the impacted property.

**G. Underground Considerations**

159. Central Hudson considered the potential for burial of portions of the electrical transmission lines. Areas considered for burial were sections along the ROW within the vicinity of high to medium density residential and commercial land uses. Areas adjacent to agricultural, forested, industrial, or other low-density development would be constructed as overhead single-pole structures as per current design. While this alternative may reduce visual impacts in portions of the Project area, it would require a considerable amount of additional soil disturbance and have a larger potential for adverse impacts to water resources. For example, this alternative would require the trenching of

wetlands and or stream channels within the ROW that would be crossed by the buried line. Due to these direct impacts and the greater potential for indirect impacts from soil erosion, this was considered to be the least environmentally sensitive alternative. Also, the H and SB Lines share ROW with other utility lines, both electric and gas, in many of the high to medium density residential and commercial areas. In these locations, installing the H and SB Lines underground would not eliminate the visual impacts from the other transmission lines that are not planned for underground construction. The cost of burial of even small portions of the electric transmission lines would be approximately 5 to 10 times the cost of the preferred alternative. This alternative could also result in a longer restoration times during power outages or line failure within the buried portions of the electric transmission lines.

**H. Conformance to Long-Range Plans for Expanding the Electric Power Grid**

160. As described in Section III.A., "Need for the Project," and described in more detail in Exhibit E-4 of the Application (Exhibit 13 of the Evidentiary Record), the H and SB Project includes the rebuilding of the existing 69 kV transmission lines to 115 kV requirements located between the City of Kingston in Ulster County and Town of Catskill in Greene County. The existing 69 kV H and SB Lines originally were installed in 1928 as double circuit steel lattice structures using 1/0 Cu conductor for each of the circuits; the double circuits subsequently were converted to single circuits with two 1/0 Cu conductors per phase. Some of the steel lattice structures have been replaced with wood poles through the years. An assessment of the condition of the structures was conducted in 2015 and revealed that 32.0% of the lines' structures were in need of replacement or the addition of mid-span poles to correct sag issues; an additional 35.5% of structures

are in need of maintenance repairs. Issues found include: damage to numerous tower legs; many insulators in need of replacement; tower foundation issues; woodpecker damage to wood poles; and need for mid-span structures to correct sag issues. In addition, the installation of mid-span structures most likely would result in the need to replace adjacent tangent structures. Some identified issues found were severe enough to prompt replacements of nine (9) structures in 2017-2018.

161. The proposed rebuild will have both reliability and economy benefits for Central Hudson and its interconnected network. Reliability benefits are twofold: increased reliability to the Saugerties and Woodstock substations; and a more reliable source to Central Hudson's Northwest Area. This increased reliability would be in the form of fewer line trips associated with new construction and the increased clearances for 115 kV design. Based on 2016 hourly flows and New York Independent System Operator ("NYISO") Zone G Locational Based Marginal Prices ("LBMPs"), Central Hudson estimates an annual reduction in losses of approximately 4,100 MWhr for an annual energy cost reduction of approximately $130,000.

162. The proposed completion of work (in-service) is by December 2022. If work is not completed by this date, the higher risk of a system failure due to the aging infrastructure will remain or even be exacerbated. Extended delays will result in the continued deterioration of existing facilities that could result in either reduced reliability or a need to repair or replace individual structures and conductor sections; these new structures or spans may require subsequent replacement when the lines are rebuilt. Should the lines deteriorate to a state where they are unusable, Central Hudson would

need to find an alternate source for the load currently supplied from Saugerties and Woodstock substations.

## I. System Impact Study

163. Central Hudson's load flow analyses indicated that this project would increase the UPNY-SENY transfer limit by less than 25 MW. Based on that analysis, on October 31, 2015, NYISO Staff indicated that since this project is not expected to impact interface transfer limits by more than 25 MW, no System Impact Study would be required.

## J. State and Local Laws

164. Exhibit 7 of the Application (Exhibit 7 of the Evidentiary Record) identifies, for each local jurisdiction, every substantive local legal provision (ordinance, law, regulation, standard, and requirement) potentially applicable to the Project, as well as every such local legal provision that Central Hudson requests that the Commission not apply because, as applied to the Project, such local legal provision is unreasonably restrictive in view of the existing technology, factors of costs or economics, or the needs of the consumers.

165. The following are examples of the local laws from which Central Hudson has requested relief, as well as the corresponding justifications for these requests:

(i) local inspection and stop-work authorities relative to building construction, fire protection, and flood protection, as these are otherwise granted as a result of the Article VII process; (ii) minimum setback requirement and maximum height restrictions, on the grounds that these do not account for technical specifications regarding clearance, reliability criteria, span lengths, and directional requirements for high-voltage

transmission facilities; and (iii) local screening, fencing, and landscaping requirements, because the standards required by the National Electrical Safety Code ("NESC"), the Certificate and in the EM&CP are or will be sufficiently thorough and detailed to serve these purposes.

166. No local jurisdiction has filed any objection to Central Hudson's requests, set forth in Exhibit 7 of the Application, that the Commission not apply specified local laws. The Signatory Parties agree that the justifications set forth in Exhibit 7 of the Application provide sufficient basis for the Commission to refuse to apply the identified ordinances.

167. Except for those provisions Central Hudson specifically requested in Exhibit 7 that the Commission refuse to apply, Central Hudson will comply with, and the location of the facility as proposed conforms to, all substantive State and local legal provisions that are applicable to the Project. Pursuant to PSL Section 130, "no state agency, municipality or any agency thereof may require any approval, consent, permit, certificate or other condition for the construction or operation of [the Project]."

**K. Additional Property Rights**

168. Rebuild of the H and SB Lines will primarily occur within an existing established and maintained electric transmission ROW for which to a large extent, Central Hudson holds ROW rights in easements. There are a few fee owned parcels for each line. The H-Line has only approximately 1,083 linear feet of line held by fee ownership which represents about 1.7% of the line. The SB-Line has only approximately 2,266 linear feet of line held by fee ownership which represents about 3.8% of the line.

i. Vly Reroute

169. There is a 0.6 mile section of the H Line that crosses the Vly. In order to minimize the Project's impact to the Vly and its habitat, and to improve future access to the line, this portion of the H Line will be relocated further east on the Lehigh quarry property. To minimize environmental impact and allow long-term access, Central Hudson worked with Lehigh quarry to identify a route agreeable to them that also serves the needs of the Project. An easement agreement with Lehigh will be contingent upon receipt of a Certificate for the Project.

ii. Bluestone Forest

170. An existing ROW width deficiency was discovered near Hallihans Hill Road on the SB Line. The overall deficiency covers 4 parcels. The deficiency includes a 156-foot-long, 0.029 acre triangle on the east side of the line and a 1,357 foot long, 0.440 acre section on the west side of the line. At its narrowest point the edge of ROW is only 27 feet from the designed wire location; this is 23 feet short of the required 50 feet to ROW edge. The New York State Bluestone Wild Forest ("Bluestone Forest"), which is considered Forest Preserve Land protected under the New York State Constitution, occupies approximately 0.431 acres of this deficiency. When the SB Line was constructed in the 1920s, it continued straight through the land now owned by New York State. In 1994, the SB Line was relocated to avoid the State property. However, this relocation did not allow for the required 50 feet to the edge of ROW. The resolution to this issue is that the ROW is being extended to the east/southeast onto other properties to be acquired by Central Hudson in easement. The ROW extension is an odd shape due to the angle in the ROW, but at the widest part of the extension it will be going out

approximately 31 feet; and affects about 258 feet (straight longest length of the polygon) of the ROW. The acquisition of the easements on the east side of the ROW will allow Central Hudson to slightly shift the line eastward, away from the Bluestone Forest boundary, creating the required 50-foot clearance to edge of ROW on the west side (thus eliminating the deficiency).

171. As assessment of the potential visual impact with this shift in the location of the structures has been performed (see Section III.D.vii above) and concluded that there is no additional visual impact. Similarly, a supplemental cultural resource investigation (see Section III.D.viii) has demonstrated that the change in structure locations in the area of the Bluestone Forest presents no additional archeological or historic structure impact.

iii. Rail Trail

172. Ulster County is in the process of finalizing its design of the Rail Trail where there is currently a trail (footpath) authorized by Central Hudson for recreational use just north of the Hurley Avenue substation. The Rail Trail is being planned and constructed as a public recreational trail which will go from Kingston to the Ashokan Reservoir. From its location just north of the Hurley Avenue Substation (the southernmost part of the Project), the Rail Trail travels through the ROW generally in a direction parallel with the SB Line. The current Rail Trail is generally located on an old abandoned railroad rail bed and is natural (i.e, it is not finished with imported stone, asphalt, pavers or any other such material). The Rail Trail is on Central Hudson owned property and is located approximately from structures SB#1 to SB#13. The Rail Trail continues in both southwestern and eastern directions where it no longer parallels the SB-Line. The new

Rail Trail would be a paved trail and requires a new agreement with Central Hudson. To accommodate the Rail Trail, Central Hudson has proposed to combine the SB Line and the co-located I Line (a 115 kV line not involved in this Project) along with two distribution circuits (serving the Kingston area) on one monopole. In the Application, Central Hudson had proposed a double-circuit structure in the area of the rail trail with no underbuild where the resulting structures would range in height from 90-100 feet aboveground. The now proposed structures, carrying the SB and I Lines, along with two distribution circuits, would be approximately 105-110 feet aboveground. Central Hudson will shut down this entire portion of Rail Trail during construction of the SB-Line. No change in the ROW will be required and the width of the Central Hudson-owned property is wider than the ROW. Therefore, even if a minor change is needed in the ROW (and this would be shown in the EM&CP), Central Hudson would not need additional property rights for the Rail Trail.

iv. Danger Trees

173. Central Hudson will identify and pursue the acquisition of danger tree rights on land that lies beyond the existing ROW where it currently has none. Central Hudson has evaluated its easement agreements and property rights along both the H and SB Lines. Based on this review, with very limited exceptions, it has the right to remove danger trees or trees that have the potential to menace the transmission lines. The parcels for which danger tree rights are still required will be clearly identified on the EM&CP.

174. Central Hudson will continually re-evaluate, identify and pursue danger tree rights as needed in these limited areas to ensure system reliability. Where danger tree rights currently do not already exist, Central Hudson shall work with

landowners along the edge of the ROW to acquire these danger tree rights. To the extent that Central Hudson is not successful in obtaining those rights through negotiations, Central Hudson shall acquire all danger tree rights within three years of EM&CP approval or within that time period commence condemnation proceedings unless it obtains approval from the Secretary to extend such time frame.

175. Any newly acquired permanent easement areas and danger tree easement areas will be maintained in accordance with Central Hudson's Commission-approved TROWVMP. Where danger trees do exist, they will be flagged for removal in consultation with DPS Staff. Typical easement language includes the right to trim, cut and remove trees on property that is adjacent to the ROW corridor.

176. Central Hudson will also continue to comply with the Commission's Orders Requiring Enhanced Transmission Right-of-Way Management Practices by Electric Utilities issued on June 20, 2005 in Case 04-E-0822 and May 27, 2011 in Case 10-E-0155, including the required annual reports.

v. Access Rights

177. Central Hudson has identified where off-ROW access routes are required for the Project, and such access routes will be identified on the EM&CP drawings. Central Hudson will obtain such access rights prior to the commencement of construction in the area where such access is required.

## L. Public Interest, Convenience, and Necessity

178. As stated in Appendix D of the Application, Central Hudson conducted public outreach and information efforts in support of the Project. Legal Notice of the filing was published in the following publications for two consecutive weeks prior to

the Article VII Application filing: the Daily Freeman and The Daily Mail. In addition, copies of the Application were provided to the following libraries for public inspection: Saugerties Public Library and Town of Ulster Public Library. Owners of property within or adjacent to the transmission lines ROW were sent letters advising them of the upcoming Project and advising of on-going environmental studies and surveying being performed. In July and August 2017, Central Hudson met with municipal leaders from the Towns of Ulster, Catskill and Saugerties and City of Kingston, in which it (1) gave an overview of the project, showing location on maps; (2) gave an overview of the Article VII process, including the opportunity for municipality and public review and comment; (3) explained the Vly Reroute being planned; and (4) explained that Central Hudson was reaching out to town leaders at that time to start having public information open house events. In September 2017, two public open house events were held with Central Hudson personnel familiar with all aspects of the Project available to informally address questions and concerns from the public. A Public Statement Hearing was held on August 7, 2018 in which members of the public could provide comments on the application and petition. In addition, Central Hudson established a website for the Project. Information about the Project can be found on this website with a link to the Commission website for Project filings. Prior to commencement of work, Central Hudson will be required to provide notice to all landowners and residents that abut the Project ROW of the commencement of construction. Additional notification will be provided to landowners and residents as construction approaches in the vicinity of their property. Such notification will include a toll-free phone number that can be used to obtain additional information.

## IV. PROPOSED FINDINGS

179. The Signatory Parties agree that the record in this proceeding supports the Proposed Commission Findings set forth in Appendix C attached hereto.

## V. PROPOSED CERTIFICATE CONDITIONS

180. The Signatory Parties agree that the Proposed Certificate Conditions set forth in Appendix D attached hereto are acceptable and appropriate for inclusion in a Certificate of Environmental Compatibility and Public Need authorizing construction and operation of the Project.

## VI. ENVIRONMENTAL MANAGEMENT & CONSTRUCTION PLAN

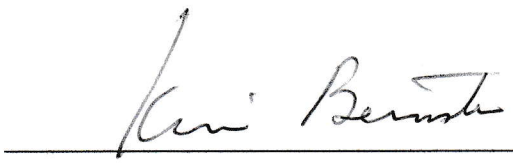
181. The Signatory Parties agree that the Specifications for the Development of the Environmental Management & Construction Plan set forth in Appendix E attached hereto are acceptable and appropriate for application to the Project as described herein.

182. The Signatory Parties agree that the Additional Specifications for the EM&CP for Construction in State-Regulated Wetlands and Waterbodies set forth in Appendix F attached hereto are acceptable and appropriate for application to the Project as described herein.

## VII. WATER QUALITY CERTIFICATION

183. The Signatory Parties agree that the record in this proceeding supports the water quality certification substantially in the form of Proposed 401 Water Quality Certification set forth in Appendix G attached hereto.

**IN WITNESS WHEREOF, the Signatory Parties hereto have this day signed and executed this Joint Proposal.**



Central Hudson Gas & Electric Corp.

By: Kevin M. Bernstein, Esq.

**IN WITNESS WHEREOF, the Signatory Parties hereto have this day signed and executed this Joint Proposal.**

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New York State Department of Public Service

By: Andrea M. Cerbin, Esq.

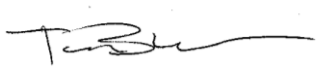
**IN WITNESS WHEREOF, the Signatory Parties hereto have this day signed and executed this Joint Proposal.**

New York State Department of Environmental Conservation

By: Mark D. Sanza, Esq.

May 29, 2020

**IN WITNESS WHEREOF, the Signatory Parties hereto have this day signed and executed this Joint Proposal.**



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New York State Department of Agriculture and Markets

By: Tara B. Wells, Esq.

# APPENDIX A

## LIST OF TESTIMONY, AFFIDAVITS AND EXHIBITS TO BE ADMITTED

**Testimony**:

Direct testimony of Erika Reeves; Christopher Rottkamp; Patrick Robinson; Kyle Bragg; Brett Arteta; Rich Wright; Susan Moberg; Dennis Jimeno; Michael Torcello; Thomas Powell, PE; Daniel McClure, PE; Igor Gerzen; Jeffrey Shoemaker; Kevin Franke; Matthew Kirk; and Matthew Lesniak sponsoring Exhibits 1 through 9 (Exhibits 1 through 9 to the Application as supplemented in this proceeding (the "Application")), Exhibits 10 through 15 (Exhibits E-1 through E-6 to the Application) and Exhibits 16, 17,18 to 20, 23 and 27.

**Affidavits**:

Affidavits of Erika Reeves; Christopher Rottkamp; Patrick Robinson; Kyle Bragg; Brett Arteta; Rich Wright; Susan Moberg; Dennis Jimeno; Michael Torcello; Thomas Powell, PE; Daniel McClure, PE; Igor Gerzen; Jeffrey Shoemaker; Edward Duffy; Kevin Franke; Matthew Kirk; and Matthew Lesniak adopting the testimony and otherwise sponsoring and supporting Exhibits 17A, 21 to 22, 24 to 26, and 28 to 32.

**Exhibits**:

Exhibit 1: The Application, and General Information (Exhibit 1 to the Application)

Exhibit 2: Location of Facilities (Exhibit 2 to the Application filed December 29, 2017, Revised Exhibit 2 to the Application filed on May 25, 2018, and Revised Exhibit 2 to the Application filed on April 20, 2020)

Exhibit 3: Alternatives (Exhibit 3 to the Application filed December 29, 2017, Revised Exhibit 3 to the Application filed on May 25, 2018, and Revised Exhibit 3 to the Application filed on April 20, 2020)

Exhibit 4: Environmental Impacts (Exhibit 4 to the Application and Revised Exhibit 4 to the Application filed on April 20, 2020)

Exhibit 5: Design Drawings (Exhibit 5 to the Application filed December 29, 2017, Revised Exhibit 5 to the Application filed on May 25, 2018 and Revised Exhibit 5 to the Application filed on April 20, 2020)

Exhibit 6: Economic Effects of Proposed Facility (Exhibit 6 to the Application filed on December 29, 2017 and Revised Exhibit 6 to the Application filed on May 25, 2018)

Exhibit 7: Local Ordinances (Exhibit 7 to the Application)

Exhibit 8: Other Pending Filings (Exhibit 8 to the Application)

Exhibit 9: Cost of Proposed Facilities (Exhibit 9 to the Application filed on December 29, 2017, Revised Exhibit 9 to the Application filed on February 6, 2018, and Revised Exhibit 9 to the Application filed on May 25, 2018)

Exhibit 10: Description of Proposed Transmission Facilities (Exhibit E-1 to the Application filed on December 29, 2017, Revised Exhibit E-1 to the Application filed on May 25, 2018, and Revised Exhibit E-1 to the Application filed on April 20, 2020)

Exhibit 11: Other Facilities (Exhibit E-2 to the Application)

Exhibit 12: Underground Construction (Exhibit E-3 to the Application)

Exhibit 13: Engineering Justification (Exhibit E-4 to the Application and Revised Exhibit E-4 filed on April 20, 2020)

Exhibit 14: Effect on Communications (Exhibit E-5 to the Application and Revised Exhibit E-5 filed on April 20, 2020)

Exhibit 15: Effect on Transportation (Exhibit E-6 to the Application)

Exhibit 16: Communication Studies (Appendix E to the Application)

Exhibit 17: Agency Correspondence (Appendix C to the Application)

Exhibit 17A: Post Application Agency Correspondence (filed on January 29, 2020)

Exhibit 18: Public Outreach (Appendix D to the Application)

Exhibit 19: EMF Report (Appendix G to the Application)

Exhibit 20: Visual Impact Assessment (“VIA”) dated December 2017 (Appendix I to the Application)

Exhibit 21: Supplemental VIA Report dated November 2018 (filed on November 21, 2018)

Exhibit 22: Second Supplemental VIA Report dated December 2019 (filed on January 29, 2020)

Exhibit 23: Cultural Resource Investigation Report (Appendix J to the Application)

Exhibit 24: Responses (including updated Responses) to IRs DPS- 1 to DPS-27 (filed on April 17, 2020)

Exhibit 25: Responses (including updated Responses) to IRs DEC-1 to DEC-4 (filed on April 17, 2020)

Exhibit 26: Responses (including updated Responses) to IRs DAM-1 to DAM-7 (filed on April 17, 2020)

Exhibit 27 Wetland Delineation Report (Appendix H to the Application)

Exhibit 28 Response to Request for Information filed on June 8, 2018

Exhibit 29 Response to Request for Information filed on July 13, 2018

Exhibit 30 Response to Request for Information submitted to the parties on August 24, 2018 and filed on April 20, 2020 (Cross sections)

Exhibit 31 Response to Request for Information submitted to the parties on August 24, 2018 and filed on April 20, 2020 (Public outreach)

Exhibit 32 Response to Request for Information (Gas Induction Study) filed on April 20, 2020

# APPENDIX B

## DESCRIPTION AND LOCATION OF FACILITY

### General Project Description

The Project proposed by the Applicant, Central Hudson Gas & Electric Corporation ("Central Hudson" or the "Applicant") is the Rebuild of H and SB Transmission Lines (the "Project") and consists of the rebuild and re-conductoring (to 115 kilovolt ("kV") specifications) of the existing 69 kV H and SB transmission lines ("H and SB Lines") located between the Hurley Avenue Substation in the Town of Ulster, Ulster County and the North Catskill Substation in the Town of Catskill, Greene County, New York. The Project will generally occur within an existing approximately 150-foot-wide right-of-way ("ROW"), and span approximately 23.6 miles through the City of Kingston, and the Towns of Ulster and Saugerties in Ulster County, and the Village of Catskill and the Town of Catskill in Greene County. Approximately 1.2 miles of the H Line route is proposed to be relocated to avoid a sensitive environmental resource area designated by the New York State Department of Environmental Conservation ("DEC") as the Great Vly Wetland (Vly) located adjacent to the Great Vly Wildlife Management Area.

Both the H and SB Lines will initially be operated at 69 kV and, when deemed appropriate, will be operated at 115 kV. The total distance of the H and SB lines is approximately 23.6 miles. The individual lengths of the H and SB lines are 12.2 and 11.4 miles, respectively.

The proposed new line will be comprised of single-circuit facilities on single, two and three-pole structures installations designed and constructed to meet 115 kV specifications. The types of structure material will be self-weathering Corten steel. The steel pole design will be in accordance with industry standards.

The clearances for the proposed Project will be governed by the latest edition of the National Electrical Safety Code ("NESC"). Some of the typical requirements of the NESC include clearances to ground, adjacent transmission lines, railroads, buildings, and a host of other facilities. As an added factor of safety, Central Hudson adds an additional five feet to all specified ground clearance values.

The NESC specifies both the minimum structural loads to determine the required structural capacity, and the clearances to ground, adjacent transmission lines, railroads, buildings and other facilities, to safely energize parts and wires. Due to different location-specific constraints, there will be a variety of different structure types used for the Project. The predominant structure type that will be used for this Project is the single-pole structure equipped with davit arms. The structures will typically be 70 to 85 feet above the ground, and directly embedded in the ground. The direct embedded structure is economical and involves burying a part of the pole directly into the ground, then backfilling with suitable material (e.g., the removed material, if appropriate, and/or crushed stone). Galvanized

steel casings (also referred to as cans or culverts) are typically installed as casings in the hole of select direct embed structures where soil conditions warrant their use. In addition to the direct-embed structures, approximately thirty-seven (37) structures are designed to have concrete caisson foundations. These are typically referred to as "engineered structures", and for these installations, reinforced concrete foundations are constructed in place, and the steel poles are placed directly on the foundations and secured with anchor bolts. The foundations and poles are designed for the specific soil conditions and pole loading at each particular location. These engineered structures are used for a variety of reasons, including the ability to not use guy wires, or where excessive pole heights and loads exceed the design capabilities of direct-embed structures.

**General Description of Facility Location**

The existing H and SB transmission lines are located between Kingston in Ulster County and Catskill in Greene County, New York. The rebuild of the H and SB Lines will generally occur within an existing approximately 150-foot-wide right-of-way and spans approximately 23.6 miles through the City of Kingston, Village of Catskill, and Towns of Ulster, Saugerties, and Catskill. Approximately 1.2 miles of the H Line route is proposed to be relocated to avoid a sensitive environmental resource area designated by the DEC as the Vly. Throughout the remainder of the H and SB Lines, the rebuild project will remove and replace all structures, insulators, electrical conductors, associated transmission components of the existing H and SB 23.6-mile long ROW with the exception of 18 structures that will be retained. These 18 structures include those which must be or were replaced on an emergency basis ("high priority repair") or were determined to be structurally sound and will not need to be replaced as part of the Project. There are currently 256 existing transmission structures within the H and SB Lines ROW, which will be replaced with 236 new/replacement structures. The new line will have 255 structures in total.

At the south end of the Project in Ulster, the existing SB Line leaves the Hurley Avenue Substation, runs 0.6 miles east before turning north and continuing for 9.8 miles through the Town of Ulster, City of Kingston, and Town of Saugerties. Within the Town of Saugerties, the SB line crosses Interstate 87 and then continues north for another 1.0 miles before terminating at the Saugerties Substation. From the Saugerties Substation, the H Line continues north approximately 3.5 miles before entering the Great Vly in the Towns of Saugerties and Catskill. The H Line continues along the edge of the Vly for approximately 0.6 miles, before exiting the Vly and continuing east. Once exiting the Vly, the H Line continues east to a Line Tap in the quarry, and then proceeds generally north approximately 7 miles, terminating at the North Catskill Substation in the Town of Catskill.

The newly replaced transmission structures will remain almost entirely within an existing ROW and, other than as necessary along off-ROW access roads to accommodate the passage of equipment and for construction activity, no significant new vegetation clearing will be required. However, the proposed H Line relocation in the vicinity of the Vly will necessitate clearing of a new ROW. This minor reroute will require tree clearing of a 100-

foot width within the 150-foot ROW, as well as any potential hazard trees within the immediate vicinity. Approximately one-half of the 1.2-mile reroute requires tree clearing (5.2 acres), as the remainder is in previously disturbed areas of Lehigh quarry lands.

In addition, other Central Hudson owned utilities presently occupy or intersect portions of the H and SB Lines ROW. These include a gas transmission line, four additional overhead electric transmission lines, and multiple overhead electric distribution lines. The H and SB Lines are co-located with one or more transmission systems for a length of approximately 7.2 miles. These co-locations are detailed below.

- The H and SB Lines are co-located with a Central Hudson gas transmission line ("AH Line") in the Towns of Saugerties and Catskill for approximately 4.8 miles. The gas line is initially co-located with the SB Line beginning at proposed structure SB #113 and continues colocation with the remainder of the SB Line to the Saugerties Substation. From the Saugerties Substation, the AH Line continues along the H Line beginning at proposed structure H #3 and continues in the Town of Catskill until John Schultz Road near proposed structure H #38. At that point, the AH Line leaves the ROW and heads west along West Camp Road.

- The SB Line is co-located with Central Hudson's 69 kV I electric transmission line ("I Line") for approximately 0.8 miles in the Town of Ulster. The electric transmission lines are collocated starting at the Hurley Avenue Substation until proposed tower SB #13 near Route 29 where the I Line diverges from the SB Line and continues to the southwest.

- The SB Line is co-located with Central Hudson's 115 kV HP electric transmission line ("HP Line") for approximately 0.7 miles in the Town of Ulster from proposed tower SB #29 near US Highway 209 to proposed tower SB #36; and then turns east, exiting the SB Line ROW.

- The SB Line is collocated with Central Hudson's 69 kV SR electric transmission line ("SR Line") for a short distance of approximately 0.3 miles. This colocation begins near the northbound ramp of New York State Thruway (Interstate 87) Exit 20 at proposed structure SB #118 and continues until the Saugerties Substation.

- The H Line is collocated with Central Hudson's 69 kV CL electric transmission line ("CL Line") for approximately 1.55 miles in the Town of Catskill and 0.35 miles in the Village of Catskill. The CL Line enters H Line ROW near proposed structure H #118 and continues parallel until the H Line terminates at the North Catskill Substation.

# APPENDIX C

## PROPOSED COMMISSION FINDINGS

1. Based upon the information provided in Exhibit 13 of this Joint Proposal, supported by the testimony of Patrick Robinson, Kyle Bragg, Chris Rottkamp, and Rich Wright, the electric transmission rebuild project ("Project" or "Proposed Rebuild") for which Central Hudson Electric & Gas Corporation ("Central Hudson" or the "Applicant") seeks a Certificate of Environmental Compatibility and Public Need ("Certificate") is needed to address the deteriorating condition of the H and SB Lines, and to allow for future load growth. More specifically, the existing 69 kV H and SB Lines originally were installed in 1928 as double circuit steel lattice structures using 1/0 Cu conductor for each of the circuits; the double circuits subsequently were converted to single circuits with two 1/0 Cu conductors per phase. An assessment of the condition of the structures was conducted in 2015 and revealed that 32.0% of the lines' structures were in need of replacement or the addition of mid-span poles to correct sag issues; an additional 35.5% of structures are in need of maintenance repairs. Issues found include: damage to numerous tower legs; many insulators in need of replacement; tower foundation issues; woodpecker damage to wood poles; and mid-span sag issues. The installation of mid-span structures most likely would result in the need to replace adjacent tangent structures.

   In addition to being the sole transmission supply for the 35-40 MWs of peak distribution load currently served from the Saugerties and Woodstock Substations, the H and SB Lines provide an important input to the system in the northwest portion of Central Hudson's franchise area (Northwest Area). The Proposed Rebuild would provide increased reliability (in the form of fewer line trips) to the Saugerties and Woodstock Substations.

2. Based upon the information provided in Exhibits 2, 3, 4, 14, 15, 16, 19, 20, 21, 22, 23, and 24, supported by the testimony of Erika Reeves, Chris Rottkamp, Edward Duffy, Susan Moberg, Dennis Jimeno, Michael Torcello, Thomas Powell, Daniel McClure, Igor Gerzen and Jeffrey Shoemaker, and the mitigation measures set forth in the Certificate Conditions, the Project will be designed, constructed and operated in a manner that avoids or minimizes impacts to environmental resources. The nature of the probable environmental impacts resulting from the Project includes:

   (a) Minimal incremental visual impacts from the construction of the Rebuild Project, relocation, and reconstruction of certain existing lines;

   (b) Construction impacts on wetlands and streams and waterbodies crossed by the Project;

   (c) Potential impacts to threatened and endangered species;

(d) Selective clearing of undesirable woody species or saplings on some segments of the Project's right-of-way, but because almost the entire Project will be built along existing electric transmission corridors, the amount of clearing is more limited than it would be if new corridors were being created;

(e) Temporary disturbance and inconvenience, including noise and debris, associated with construction activities;

(f) Temporary construction impacts on agricultural lands, which will be minimized by the use of existing transmission corridors; and

(g) Maximum calculated electromagnetic fields at the edge of the Project's right-of-way that comply with the Commission's guidelines.

3. Based upon the information provided in Exhibits 2, 3, 4, 14, 15, 16, 19, 20, 21, 22, 23 and 24, supported by the testimony of Erika Reeves, Chris Rottkamp, Edward Duffy, Susan Moberg, Dennis Jimeno, Michael Torcello, Thomas Powell, Daniel McClure, Igor Gerzen and Jeffrey Shoemaker, and the mitigation measures set forth in the Certificate Conditions, the Project represents the minimum adverse environmental impact, considering the state of available technology and the nature and economics of the various alternatives and other pertinent considerations. By utilizing existing transmission corridors to the maximum extent practicable, the effect of the Project on agricultural lands, wetlands, and river corridors traversed is minimized. The Project does not traverse any parkland. The Project crosses Plattekill Creek, Saw Kill, Catskill Creek and Esopus Creek. The use of structures proposed by Central Hudson instead of steel lattice structures and reducing the number of guyed structures will facilitate continued agricultural operations within the right-of-way.

4. No part of the Project will be located underground. Underground alternatives to the Project were examined; however, undergrounding the Project would have significantly increased costs, environmental and construction impacts and system operating impacts.

5. Based upon the information provided in Exhibit 13, supported by the testimony of Rich Wright, the Project conforms to the requirements and planning objectives of the New York Independent System Operator and is consistent with the Applicant's long-range plans for their transmission facilities. The Project will serve the interests of electric system economy and reliability.

6. Based on the information provided in the Application and as conditioned in the Proposed Certificate Conditions, the Project conforms to applicable state laws and regulations.

7. Based upon the information provided in Exhibit 7, supported by the testimony of Erika Reeves, the location of the Project conforms to the substantive provisions of the applicable local laws and regulations issued thereunder, except those laws and regulations which the Commission refuses to apply because it finds, based on the

justifications set forth in Exhibit 7, that as applied to the Project, such are unreasonably restrictive in view of the existing technology, or of factors of cost or economics, or of the needs of consumers whether located inside or outside of such municipality.

8. Based on the entire record as listed on Appendix A, the Project will serve the public interest, convenience and necessity.

# APPENDIX D

## PROPOSED CERTIFICATE CONDITIONS

The Certificate of Environmental Compatibility and Public Need (the "Certificate") for Case 17-T-0816 granted to Central Hudson Gas & Electric Corporation ("CHG&E" or the "Certificate Holder"), pursuant to Article VII of the New York State Public Service Law ("PSL"), authorizing a project to rebuild existing 69 kilovolt (kV) H and SB transmission lines (H and SB Lines) located between the City of Kingston in Ulster County and the Town of Catskill in Greene County, New York to 115 kV requirements (the "Project"), is subject to the following conditions:

### A. Conditions of the Order

**1.** The Certificate Holder shall, within 30 days after the issuance of the Certificate, file with the Secretary to the Commission (the "Secretary") either a petition for rehearing or a verified statement that it accepts and will comply with the Certificate. Failure to comply with this condition shall invalidate the Certificate.

**2.** If the Certificate Holder decides not to commence construction of any portion of the Project, it shall so notify the Secretary in writing within 30 days of making such decision and shall serve a copy of such notice upon all parties in the same manner and at the same time as it files with the Secretary.

**3.** If construction of the Project hereby certified is not commenced within 18 months after the Certificate Holder files a verified statement that it accepts and will comply with the Certificate, the Certificate may be vacated with notice to the Certificate Holder.

**4.** Except for deadlines established by statute, the Secretary may extend any deadlines established by this order for good cause shown.

### B. Laws and Regulations

**5.** Each substantive Federal, State, and local law, regulation, code, and ordinance applicable to the Project shall apply, except to the extent that the Commission has expressly refused to apply any substantive local law or regulation as being unreasonably restrictive as discussed herein.

**6.** No State or municipal legal provision purporting to require any approval, consent, permit, certificate or other condition for the construction or operation of the Project authorized by the Certificate shall apply, except (i) those of the PSL and regulations and orders adopted thereunder, (ii) those provided by otherwise applicable

state law for the protection of employees engaged in the construction and operation of the Project, and (iii) those permits issued under a federally-delegated or –approved environmental permitting program.

**7.** The Certificate Holder shall construct the Project in a manner that conforms to all applicable standards of the American National Standards Institute ("ANSI") including, without limitation, the National Electrical Safety Code ("NESC"), Institute of Electrical and Electronics Engineers ("IEEE") Standard IEEE C2, and any stricter standards adopted by the Certificate Holder. Upon completion of the Project, the Certificate Holder shall certify to the Secretary that the Project was constructed in full conformance with the NESC.

**8.** The Certificate Holder shall coordinate all work performed at state and municipal road and highway crossings with the appropriate state and municipal officials and shall obtain the required authorization for such work, subject to the Commission's continuing jurisdiction as appropriate.

**9.** The Certificate Holder shall coordinate with the appropriate municipal agencies and police departments for traffic management of roads under municipal jurisdiction.

**10.** A copy of each permit or approval received by the Certificate Holder from the issuing agencies, including all necessary USACE Nationwide permits for construction in federal wetlands affected by the Project, any required permit pursuant to §404 of the Federal Clean Water Act, shall be provided to the Secretary by the Certificate Holder promptly after receipt by the Certificate Holder of such permit or approval and before commencement of construction across any affected area.

**11.** If the Certificate Holder believes that any action taken, or determination made, by a State or municipal agency in connection with this Certificate is unreasonable or unreasonably delayed, the Certificate Holder may petition the Commission, upon reasonable notice to that agency, to seek a resolution of any such unreasonable or unreasonably delayed requirement. Such agency may respond to the petition, within five (5) business days, to address the reasonableness of any requirement or delay.

**12.** The Certificate Holder shall secure and provide to the Secretary, prior to commencement of construction, evidence of a Federal Aviation Administration ("FAA") determination that the final design of the structures proposed for the Project will have no impact (or will have impacts mitigated by FAA-directed modifications to such final design) on the public-use airports identified in Exhibit E-6 of the Application.

## C. Public Health and Safety

**13.** The Certificate Holder shall design, engineer and construct the Project such that its operation shall comply with the electric and magnetic field standards

established by the Commission in Opinion No. 78-13, issued June 19, 1978, and the Statement of Interim Policy on Magnetic Fields of Major Electric Transmission Facilities, issued September 11, 1990.

**14.** The Certificate Holder shall comply with the requirements for the protection of underground facilities set forth in 16 NYCRR Part 753 “Protection of Underground Facilities.”

**15.** The Certificate Holder shall take appropriate measures to minimize fugitive dust and airborne debris from construction activity. Exposed soils and roadways shall be wetted as needed during extended dry periods to minimize dust generation. To the extent practicable, water for dust control shall come from municipal water supplies/sources.

**16.** The Certificate Holder shall ensure that parking for Project construction workers shall be in designated areas which do not interfere with normal traffic, cause a safety hazard, or interfere with existing land uses. These parking areas shall be designated in the Environmental Management and Construction Plan (EM&CP).

**17.** Direct vehicular disturbance to properties shall be minimized by accessing the Project right-of-way (“ROW”) from existing roadways or approved off-ROW access roads identified in the EM&CP.

**18.** For each road crossing and location where construction vehicles will access the Project ROW from local roadways, the Certificate Holder shall implement a Maintenance and Protection of Traffic (“MPT”) plan that identifies procedures to be used to maintain traffic and provide a safe construction zone for those activities within the roadway right-of-way. The MPT plans shall address temporary signage, lane closures, placement of temporary barriers, and traffic diversion.

a) All signage utilized shall comply with the New York State Department of Transportation (NYSDOT”) Manual of Uniform Traffic Control Devices. Placement of signs shall be determined in consultation with the jurisdictional agency.

b) Flagmen shall be present at all times when equipment is crossing any road, when equipment is being loaded or unloaded, and where two-lane traffic has been reduced to one lane. All flagging operations shall comply with 17 NYCRR Part 131.

**19.** The Certificate Holder or its supplier, as the case may be, shall obtain any permits from applicable agencies required for the delivery of oversized components for the Project.

**20.** A comprehensive gas line safety plan shall be provided in the EM&CP. The plan shall include:

a. Crossing method;
b. Survey marking;

c. What, how and when construction activities will be limited; and,
d. Safety training requirements.

**21.** The Certificate Holder shall have the right to require that any person seeking to access the Project area first be appropriately trained in environmental protection and safety, including gas line safety.

**22.** The Certificate Holder shall engineer and construct the Project to be fully compatible with the operation and maintenance of nearby electric, gas, telecommunication, water, sewer, and related facilities; details of such other facilities and measures to protect the integrity, operation, and maintenance of those facilities are presented in the Environmental Management & Construction Plan ("EM&CP"). The Project shall be designed and constructed to avoid adverse effects on the cathodic protection system and physical conditions of existing structures and any fuel gas pipelines. Protection measures used to mitigate AC interference effects on the cathodic protection for fuel gas pipelines shall be described in the EM&CP and performed before the end of construction.

## D. Environmental Management and Construction Plan

**23.** The terms of this Certificate and the environmental protection measures contained in the Application shall be incorporated into the EM&CP. The EM&CP shall be prepared in accordance with the Specifications for Development of EM&CP attached as Appendix E to the Joint Proposal ("EM&CP Specifications"). The EM&CP shall not be inconsistent with the Certificate Holder's then-effective Transmission Right-of-Way Vegetation Management Plan ("TROWVMP"), except where a conflict with a provision of the Certificate would otherwise be created.

**24.** The Certificate Holder shall not commence construction until it has received a "Notice to Proceed with Construction" letter sent by the Director of Facility Certification and Compliance of the Office of Electric, Gas and Water or their designee.

**25.** Prior to EM&CP approval, deviations from the certified centerline, design height, location, number of structures, and structure types shall be allowed for appropriate environmental or engineering reasons, except where a conflict with a provision of the Certificate would be created. An explanation for the proposed deviation and supporting documentation shall be provided in the EM&CP.

**26.** The Certificate Holder shall not begin construction, nor shall it commence any proceedings under the Eminent Domain Procedure Law to acquire permanent ROW, temporary ROW, or off-ROW access until the Commission has approved the EM&CP. Surveying, soils testing, and such other related activities as are necessary for the preparation of the final design plans are not considered construction and therefore are permitted.

**27.** To calculate the three-year period for acquisition of property pursuant to the Eminent Domain Procedure Law, the date of Commission approval of the EM&CP covering the affected parcel shall be regarded as the date on which this Article VII proceeding was completed.

**28.** The Certificate Holder shall file an electronic copy of the proposed EM&CP with the Secretary and, contemporaneously, unless directed otherwise by the Secretary, serve the proposed EM&CP as follows below. An affidavit of service indicating upon whom copies of the EM&CP were served shall be filed with the Secretary within three (3) business days after the time the EM&CP is filed.

a. Three hard copies and three electronic copies to DPS Staff;
b. two electronic copies and one hard copy shall be served on NYSDEC Central Office in Albany;
c. one electronic and one hard copy on the Region 3 and Region 4 office of the NYSDEC;
d. one hard copy on the Commissioner of the OPRHP;
e. one hard copy on the New York State Department of Agriculture and Markets (NYSDAM);
f. one hard copy on the Region 4 office of the NYSDOT;
g. one hard copy on the New York State Thruway Authority;
h. one hard copy on any other New York State agency (and its relevant regional offices) that requests the document; and
i. one searchable electronic copy on active parties on the service list who request the document;
j. One hard copy on the local municipal document repositories and one electronic copy posted on the Project website.

Service upon state agencies shall be in the same manner and at the same time as filing with the Secretary. The Certificate Holder also shall place one electronic copy (including the Project website) and one hard copy for inspection by the public at the same public library repositories where the Application has been made available.

**29.** Contemporaneously with filing and serving the EM&CP as specified in Condition 28, the Certificate Holder shall provide notice, in the manner specified below, a written notice that the EM&CP has been filed (the “EM&CP Filing Notice”).

a) The Certificate Holder shall serve a copy of the EM&CP Filing Notice, in language reasonably understandable to the average person, on all parties to this proceeding (except those upon whom the foregoing paragraph requires the Certificate Holder to serve a copy of the proposed EM&CP), the Project service list and on all persons required to be served with the Application by statute or regulation.

b) The Certificate Holder shall deliver by first class mail a copy of the EM&CP Filing Notice to the owners of all properties that abut the ROW and all properties on which property rights are required.

c) The Certificate Holder shall include a copy of the EM&CP Filing Notice in the proposed EM&CP.

d) The Certificate Holder shall publish a copy of the EM&CP Filing Notice in a newspaper or newspapers of general circulation near the Project, including at least one free newspaper publication, if any exists in the immediate area.

e) The EM&CP Filing Notice delivered to the owners of properties on which property rights are to be acquired shall be accompanied by a description of the type of property rights required for the Project with respect to such property (*e.g.*, fee, easement, lease, etc.).

**30.** The EM&CP Filing Notice shall contain, at a minimum, the following:

a) a statement that the EM&CP has been filed;

b) a general description of the certified Project and the revisions contained in the EM&CP since the Certificate was issued;

c) a listing of the locations and the websites (including the Project website) where the Certificate Holder and DPS have made the EM&CP available for public inspection;

d) a statement that any person desiring an electronic copy of the EM&CP or additional information about a specific geographical location or specific subject may request it from the Certificate Holder;

e) the name, address, and telephone numbers of an appropriate Certificate Holder representative;

f) the e-mail address and postal address of the Secretary and the DPS website; and

g) a statement that any person may be heard by the Commission on any matter or objection regarding the EM&CP by filing written comments with the Secretary and the Certificate Holder within 45 days of the date the EM&CP was filed with the Commission, or within 45 days of the date of the newspaper publication of a copy of the EM&CP Filing Notice, whichever is later.

**31.** A certificate of service indicating upon whom all the EM&CP Filing Notices were served shall be filed with the Secretary within three (3) business days after the time the EM&CP is filed, and shall be a condition precedent to approval of the EM&CP. When available, proof of publication of the newspaper notice(s) of filing the EM&CP, including a copy of such notice, shall be filed with the Secretary.

**32.** After the issuance of this Certificate and the EM&CP has been approved by the Commission:

a) The Certificate Holder shall report any changes it proposes to the approved EM&CP to DPS Staff. If the change involves the original jurisdictional area of another agency, DPS Staff will consult such agency. After consultation (if required per above) DPS Staff will refer any proposed changes that will not result in any increase in adverse environmental impacts or are not directly related to contested issues decided during the proceeding to the Director of Facility Certification and Compliance of the Office of Electric, Gas and Water or their designee for approval. DPS Staff will refer all other proposed changes to the Commission for approval.

b) Upon being advised that DPS Staff will refer a proposed change to the Commission, the Certificate Holder shall notify all parties as well as property owners or lessees whose property is affected by the proposed change. The notice shall: (1) describe the original conditions and the requested change; (2) state that documents supporting the request are available for inspection at specified locations, (3) state that persons may comment by writing or calling (followed by written confirmation) to the Commission within twenty-one (21) days of the notification date, and (4) provide the Secretary's email address, phone number, and mailing address. Any delay in receipt of written confirmation will not delay Commission action on the proposed change.

c) The Certificate Holder shall not execute any proposed change until the Certificate Holder has received oral or written approval, except in emergency situations threatening personal injury, property, or severe adverse environmental impact. Any oral approval from DPS Staff will be followed by written approval from the Director of Facility Certification & Compliance of the Office of Electric, Gas and Water or their designee or the Commission.

## E. Notices and Public Complaints

**33.** Until notice of Project completion is provided to the Secretary as provided in Certificate Condition 43, the Certificate Holder shall make available to the public a toll-free or local phone number of an agent or employee who will, for the duration of construction of the Project, be available to receive complaints, if any, from the public about the construction of the Project, and such agent or employee must respond with acknowledgement of the receipt of the complaint within 1 business day. That number shall include a recorded outgoing message that will, when a call is not answered by a person, provide the caller with: (i) the number for the Certificate Holder to be called at any time in case of emergency, (ii) the phone number and email address of the Secretary, and (iii) the phone number of the Commission's Environmental Compliance Section.

**34.** The Certificate Holder's Project website shall provide a means for the public to communicate to the Certificate Holder about the Project (e.g., to register

complaints or ask questions) through either a direct link to a complaint form or email or by providing the contact information (phone and/or email address) of a representative of the Certificate Holder who can respond to such communications.

**35.** The Certificate Holder shall report to DPS Staff every complaint that cannot be resolved after reasonable attempts to do so, and describe the actions taken to address the complaint, within ten (10) business days after receipt of the complaint.

**36.** a) No less than two (2) weeks before commencing construction, the Certificate Holder shall notify the public of the anticipated date that construction will commence, as follows:

(1) provide notice to local officials, Ulster and Greene County Departments of Emergency Communications and emergency personnel along the entire Project route;

(2) provide notice to local media, including at least one free newspaper publication, if any exists in the immediate area, for dissemination;

(3) provide notice for display in the repositories identified in the Service List of the Application, the Certificate Holder's Project website, and other public places (such as general stores, post offices, Town halls, community centers and conspicuous community bulletin boards).

(4) Provide notice to persons who own properties that are crossed by or abut the ROW, and persons who reside on such properties (if different from the owner).

b) The notice or notices under this paragraph shall be written in language reasonably understandable to the average person and shall contain:

(1) a map of the Project;

(2) a brief description of the Project;

(3) the anticipated date for start of construction and estimated date for Project completion;

(4) the name, mailing address, local or toll-free telephone number, and email address of an employee or agent of the Certificate Holder who will, for the duration of construction of the Project, be available to receive complaints, during construction of the Project;

(5) a statement that the Project is under the jurisdiction of the New York State Public Service Commission, which is responsible for

enforcing compliance with environmental and construction conditions, and which may be contacted at an address, email, and telephone number to be provided in the notice; and

(6) the location of Project filings, Including document repositories and the Project website URL.

c) Upon distribution, a copy of the form of the notice or notices under this paragraph and the Project Service List shall be submitted to the Secretary.

**37.** The Certificate Holder shall notify all persons who own properties that are crossed by or abut the Project ROW, and all persons who are non-owner residents on such properties, of the planned construction activities in the vicinity of such property and anticipated schedule affecting such property at least seven (7) days, but no more than forty five (45) days, prior to the commencement of construction. The Certificate Holder shall deliver such notice by first class mail or, for any one or more non-owner residents, the Certificate Holder, at its option, may instead affix the notices to the doors of the residences. The notice shall include contact information of the Certificate Holder. The Certificate Holder shall provide a copy of the generic form of such notice, and the certificate of service, to the Secretary prior to the commencement of construction.

**38.** The Certificate Holder shall provide all construction contractors providing services for construction of the Project ("Contractors") with complete copies of the Certificate, the approved EM&CP, which includes the NYSDEC-issued State Pollutant Discharge Elimination System ("SPDES") General Permit for Stormwater Discharge from Construction Activity ("SPDES General Permit"), any permit issued pursuant to Section 404 of the Federal Clean Water Act and the Section 401 Water Quality Certification.

**39.** The Certificate Holder shall notify all Contractors that the Commission may seek to recover penalties for violation of the Certificate and other orders issued in this proceeding, not only from the Certificate Holder, but also from its Contractors, and that Contractors also may be liable for other fines, penalties and environmental damage.

**40.** The Certificate Holder shall inform the Secretary in writing at least five (5) days before commencing construction of the Project.

**41.** The Certificate Holder shall provide DPS Staff, NYSDAM and the NYSDEC with weekly status reports summarizing construction of the Project and indicating construction activities and locations scheduled for the next two weeks.

**42.** Within ten (10) days after the Project is placed in service, the Certificate Holder shall notify the Secretary in writing of that fact.

**43.** Within ten (10) days of the completion of final restoration of the Project, the Certificate Holder shall notify the Secretary in writing that all restoration has been completed in compliance with this Certificate and the approved EM&CP.

## F. Construction, Operation, Maintenance and Restoration

**44.** At least two (2) weeks prior to the start of construction of the Project, the Certificate Holder shall hold a preconstruction meeting to which it shall invite its contractors, DPS Staff, NYSDAM, NYSDOT, and the NYSDEC. An agenda, the location, and an attendee list shall be agreed upon between DPS Staff and the Certificate Holder. Notification of the meeting shall be at least 10 days prior to the meeting date.

**45.** The Certificate Holder shall supply draft minutes from the preconstruction meeting to all attendees for corrections or comments, and thereafter the Certificate Holder shall issue the finalized meeting minutes to all attendees and invitees.

**46.** If, for any reason, the Contractors retained by the Certificate Holder cannot finish the construction of the Project, and one or more new contractors are needed, there shall be another preconstruction meeting with the same format as outlined above.

**47.** The Certificate Holder shall confine line construction activities to access routes, work pads and marshaling yards detailed in the EM&CP.

**48.** Construction shall not commence on either the H or SB line until the Certificate Holder has obtained 85% of the rights necessary for construction, operation and maintenance of said line. A detailed construction schedule and location timeline identifying the construction segments shall be provided to DPS Staff, NYSDAM and NYSDEC prior to construction.

**49.** The Certificate Holder shall acquire all danger tree rights within three years of EM&CP approval or within that time period commence condemnation proceedings.

**50.** At least two (2) weeks (or as authorized by DPS Staff) before construction begins in any area, the Certificate Holder shall, in such area: a) delineate both edges of the Project ROW, as certified; b) stake and/or flag all on- and off-ROW access roads and all work pads and pulling pads; c) mark all environmentally sensitive areas; d) flag any known danger trees to be removed in such area for review and acceptance by DPS Staff; and e) notify DPS Staff when the above-described field stakeout is completed in such area.

**51.** Construction activities on the Project shall be confined between the hours of 7:00 a.m. and 7:00 p.m. Monday through Saturday. If, due to safety, reliability or continuous operation requirements (including as necessary to coordinate outages for the convenience of residents or businesses), construction activities are required to occur on Sundays or after 7:00 p.m., the Certificate Holder shall notify DPS Staff, the affected landowner(s), and the affected municipality. Such notice shall be given at least 24 hours in advance unless the Sunday or after 7:00 p.m. construction activities are required for safety reasons that arise less than 24 hours in advance. The Certificate Holder shall implement noise mitigation measures set forth in Section 14.0 of the EM&CP.

**52.** The Certificate Holder shall:

a) comply with the provisions of 6 NYCRR Part 192, Forest Insect and Disease Control, and ECL § 9-1303 and any quarantine orders issued thereunder;

b) not create a maximum chip depth greater than three (3) inches, except for chip roads or for invasive species control; these areas will be specified in the EM&CP; and

c) not place chips (temporarily or permanently) in wetlands, agricultural fields, floodways or within 50 feet of streams.

**53.** Unless described otherwise in the EM&CP, all trees over four inches in diameter breast height or shrubs over four feet in height damaged or destroyed, by construction activities, operation and maintenance, regardless of where located, shall be replaced within the following year by the Certificate Holder with the equivalent type of trees or shrubs subject to the provisions of 6 NYCRR Part 575, Prohibited and Regulated Invasive Species, except if:

a) equivalent type replacement trees or shrubs would interfere with the proper clearing, construction, operations or future infrastructure and/or vegetation maintenance of the certified Project as determined by the Certificate Holder;

b) replacement would be contrary to sound ROW management practices, or to any approved TROWVMP applicable to the Project; or

c) the owner of land where the damaged or destroyed trees or shrubs were located declines replacement (or other recorded easement or license holder with the right to control replacement declines replacement).

**54.** Existing transmission facility components removed or replaced as part of construction of the Project shall be removed from the ROW to appropriate destinations and handled appropriately as per the EM&CP.

**55.** All Project areas shall be thoroughly cleared of debris related to electric line construction or removal, such as nuts, bolts, spikes, wire, pieces of steel, matting debris and other assorted items prior to restoration.

**56.** The Certificate Holder shall remove the preexisting trash and debris on the ROW (between structures SB57 and SB59) in the vicinity of the edge of the ROW abutting the Bluestone Forest, as determined by the Construction Supervisor, the Environmental Inspector and DPS Staff.

**57.** During the initial construction of the Project, there shall be no mid-span splices in any of the new conductors installed on the Proposed Line.

**58.** Neither the Certificate Holder nor any Contractors in its employ shall construct any new, or improve any existing, access road unless such road is described and shown in the EM&CP unless it is utilizing an established quarry road after consultation with DPS Staff, which still may be subject to the change notice procedure. Should the need arise for additional off-ROW access, the Certificate Holder shall submit a request to DPS Staff, consistent with the procedures recited in Certificate Condition 32.

**59.** The Certificate Holder shall include the Stormwater Pollution Prevention Plan (SWPPP), the MS4 approvals, and NYSDEC's letter of acknowledgement authorized under the SPDES General Permit in the EM&CP. The Certificate Holder shall develop the EM&CP in accordance with the SWPPP requirements in NYSDEC's then current SPDES General Permit for Stormwater Discharges from Construction Activity.

**60.** The Certificate Holder shall adhere to the NYSDEC's then effective New York State Standards and Specifications for Erosion and Sediment Control, (NYSSESC) also known as the "Blue Book" or take such alternative erosion and sediment control measures as approved in the EM&CP).

**61.** The Certificate Holder shall ensure that all erosion control devices in areas of disturbances are in place and functional by the end of the work day.

**62.** The Certificate Holder shall utilize fill that consists of clean soil, sand and/or gravel and that is free of the following substances: asphalt, slag, fly ash, broken concrete, demolition debris, garbage, household refuse, tires, woody materials including tree or landscape debris and metal objects.

**63.** Project areas shall be restored to original grades and conditions with permanent re-vegetation and erosion controls appropriate for those locations unless the EM&CP specifies otherwise. Disturbed pavement, curbs and sidewalks shall be restored to their original preconstruction condition or improved.

**64.** The Certificate Holder shall be responsible for checking culverts to ensure that they are not crushed or blocked prior to or during construction. If a culvert is found to be damaged the Certificate Holder shall replace such culvert structure to maintain proper drainage or propose an alternative measure following the procedures in Condition 32 after consultation with the affected landowner.

**65.** The Certificate Holder shall take measures to prevent unauthorized access to and along the Project ROW, including the following:

a) posting signs at the ROW edges or on the first structure off the road edge in those locations where the ROW intersects public roads;

b) performing outreach to educate and inform the public concerning the risks and impacts of unauthorized access;

c) working with local law enforcement officials on an as-needed basis in an effort to prevent future trespassing; and/or

d) identifying existing and proposed gate locations on the Plan and Profile drawings. Final determination of locations of gates and berms shall be made during a post-construction assessment of the Project, in consultation with DPS Staff and the affected landowner.

**66.** The Certificate Holders shall, upon completion of the Project:

a) conduct an assessment of the need for landscape improvements, including vegetation planting, earthwork or installed features to screen or landscape the Project with respect to road crossings, residential areas, and substations in consultation with and acceptance by DPS Staff;

b) prepare plans for any visual mitigation found necessary, and, in connection therewith, removal, rearrangement and supplementation of existing landscape improvements or plantings should be considered, as appropriate;

c) consult with and obtain acceptance from DPS Staff on the content and execution of its assessment, resultant landscaping plan specifications and materials list; and,

d) present draft assessments and plans to DPS Staff for review, and file a final plan with the Secretary within one year after the date the Project is placed in service.

**67.** Upon completion of the Project, the Certificate Holder shall conduct its routine vegetation maintenance in accordance with its TROWVMP adopted pursuant to 16 NYCRR Part 84. Applicable provisions of the Certificate and the approved EM&CP shall be accommodated in any design, construction, operation, and maintenance

associated with the Project.

## G. Herbicide Use

**68.** Only herbicides specified in the EM&CP shall be applied during construction of the Project. If the Certificate Holder desires a change to the herbicides specified in the EM&CP for use during construction of the Project, including mix proportions, additives (with the exception of dyes), or method of application, the Certificate Holder shall submit the proposed change for approval pursuant to Certificate Condition 32 of this Certificate. No change inconsistent with the labeling for such herbicides shall be approved.

**69.** The Certificate Holder shall comply with the current effective NYSDEC general permit for herbicide applications in State-regulated wetlands and the 100-foot adjacent areas associated with those wetlands.

**70.** The supervising certified applicator for herbicide applications shall be familiar with and understand the applicable provisions of this Certificate and the most recent version of the Certificate Holder's TROWVMP.

**71.** Herbicide application within wetlands and the 100-foot adjacent areas associated with State-regulated wetlands shall be performed via low volume foliar spray from backpack sprayer, cut stem and/or stump treatment, and basal bark treatment methods consistent with approved treatment methods in the most recent version of the Certificate Holder's TROWVMP.

**72.** During construction, to the maximum extent practicable, herbicide application associated with clearing in agricultural areas with livestock shall be performed in consultation with the agricultural producer and the agriculture inspector, and performed during times when livestock can be isolated from such application. The Certificate Holder shall provide ample time to allow the agricultural producer to move livestock to another pasture. If there are no options to move livestock the Certificate Holder shall install and maintain temporary fencing for the affected areas for the duration of application as well as during potential residual effects according to herbicide's grazing restrictions as documented on the specific herbicide label.

## H. Inspection and Oversight

**73.** The Certificate Holder shall use inspectors during construction for Project oversight as follows: (a) at least one environmental inspector employed full-time on the Project; (b) at least one construction inspector employed full-time on the Project; (c) at least one agricultural inspector employed part-time on the Project; (d) at least one safety inspector who will inspect the work site from time to time; and (e) at least one quality assurance inspector who will inspect the work site from time to time. The environmental inspector may be used to satisfy the requirement for an agricultural

inspector if the person is qualified to do so and is approved by NYSDAM.

**74.** During periods of relative inactivity on the Project, after consultation with and acceptance from DPS Staff, the Certificate Holder may temporarily decrease the number of hours worked by inspectors and the extent of their presence at the Project site commensurate with the decline in Project activity.

**75.** The environmental inspector shall have stop work authority over all aspects of the Project.

**76.** The environmental inspector shall be on site at the Great Vly when active construction work (matting installation and removal, structure and electrical component removal, and installation of erosion and sediment control measures) is occurring in the wetland associated with the Great Vly (C-21).

**77.** The inspectors shall be equipped with sufficient documentation and transportation and communication equipment to effectively monitor each Contractor's compliance with the provisions of every order issued in this proceeding and applicable sections of the PSL, the ECL and regulations issued thereunder, the §401 Water Quality Certification, and the EM&CP.

**78.** The names and qualifications of the inspectors shall be submitted to DPS Staff at least two (2) weeks prior to the start of construction. The environmental inspector's qualifications shall satisfy those of a "Qualified Inspector" pursuant to the SPDES General Stormwater Permit for construction activity.

**79.** The Certificate Holder's employees, contractors and subcontractors assigned to the construction of the Project and inspection of such construction work shall be properly trained in their respective responsibilities.

**80.** The authority granted in the Certificate and any subsequent order(s) in this proceeding is subject to the following conditions necessary to ensure compliance with such order(s):

a) The Certificate Holder shall regard DPS Staff representatives (authorized pursuant to PSL §8) as the Commission's designated representatives in the field. In the event of any emergency resulting from specific construction or maintenance activities that violate or may violate the terms of the Certificate or any other order in this proceeding, such DPS Staff representatives may issue a stop work order for that location or activity.

b) A stop work order shall expire 24 hours after issued unless confirmed by a single Commissioner. If a stop work order is confirmed, the Certificate Holder may seek reconsideration from the confirming Commissioner or the whole Commission. If the emergency prompting the issuance of a stop work order is resolved to the satisfaction of the Commissioner or the Commission, the stop work order will be

lifted. If the emergency has not been satisfactorily resolved, the stop work order will remain in effect.

c) Stop work authority will be exercised sparingly and with due regard to potential environmental impacts, economic costs involved, possible impact on construction activities, and whether an applicable statute or regulation is violated. Before exercising such authority, DPS Staff representatives will consult (wherever practicable) with the Certificate Holder's representatives possessing comparable authority. Within reasonable time constraints, all attempts will be made to address any issue and resolve any dispute in the field. In the event the dispute cannot be resolved, the matter will be brought immediately to the attention of the Certificate Holder's Project Manager and the DPS Director of Facility Certification & Compliance of the Office of Electric, Gas and Water or their designee. In the event that a DPS Staff representative issues a stop work order, neither the Certificate Holder nor the Contractor will be prevented from undertaking any safety-related activities as they deem necessary and appropriate under the circumstances. The issuance of a stop work order or the implementation of measures as described below may be directed at the sole discretion of the DPS Staff representative during these discussions.

d) If a DPS Staff representative discovers a specific activity that represents a significant environmental threat that is or immediately may become a violation of the Certificate or any other order in this proceeding, the DPS Staff representative may -- in the absence of responsible Certificate Holder supervisory personnel, or in the presence of such personnel who, after consultation with the DPS Staff representative, refuse to take appropriate action -- direct the field crews to stop the specific potentially harmful activity immediately. If responsible Certificate Holder personnel are not on site, the DPS Staff representative will immediately thereafter inform the Construction Inspector or Environmental Inspector of the action taken. The stop work order may be lifted by the DPS Staff Representative if the situation prompting its issuance is resolved;

e) If the DPS Staff representative determines that a significant threat exists such that protection of the public or the environment at a particular location requires the immediate implementation of specific corrective measures, the DPS Staff representative may, in the absence of responsible Certificate Holder supervisory personnel, or in the presence of such personnel who, after consultation with the DPS Staff representative, refuse to take appropriate action, direct the Certificate Holder or its Contractors to implement the corrective measures identified in the approved EM&CP. The field crews shall comply with the DPS Staff representative's directive immediately. The DPS Staff representative will immediately thereafter inform the Certificate Holder's Construction Inspector or Environmental Inspector of the action taken.

**81.** The Certificate Holder shall organize and conduct site-compliance audit inspections and/or meetings for DPS Staff as needed, but not less frequently than once per month during the construction and restoration phases. Such inspections and/or

meetings shall conclude upon the final sign-off of the SWPPP by the SWPPP inspector or as agreed to by the Certificate Holder and DPS Staff.

a) The monthly inspections and/or meetings shall include:

(1) a review of the status of compliance with all conditions contained in the Certificate and any other order issued in this proceeding and with all other legal requirements and commitments;

(2) a field review of the Project site, if necessary;

(3) a review of all complaints received, and their proposed or actual resolutions;

(4) a review of any significant comments, concerns or suggestions made by the public, local governments, or other agencies, and the Certificate Holder's response(s);

(5) a review of the status of the Project in relation to the overall schedule established prior to the commencement of construction; and

(6) other items the Certificate Holder or DPS Staff considers appropriate.

b) The Certificate Holder shall provide a written record of the results of the inspection and/or meeting, including resolution of issues and additional measures to be taken, to all active parties.

**82.** The Certificate Holder may require site inspectors/visitors to supply their own personal protective equipment for any tours of construction sites. This shall include a properly fitted, currently valid, hardhat, safety glasses with side shields, and steel or ceramic-toed boots at any time while on site, unless the inspector/visitor is in a vehicle or in a construction trailer.

**83.** To better ensure a safe working environment for all persons at each Project work site, the Certificate Holder shall require its contractors or subcontractors, before any person who is authorized by the Certificate Holder to be present at the site that day, or any representative of a regulatory agency present on official business, commences performing or observing Project activities, to give such person an on-site tailboard safety briefing. The Certificate Holder shall ensure that: (a) any document that a person participating in a tailboard safety briefing is required to sign at such briefing is legible; and (b) the person conducting the briefing shall use his/her best efforts to give accurate and complete responses to all requests by such persons for clarification of the scope of work, construction methodology, and other pertinent personal safety information. Site inspectors are responsible for interpreting these rules for their non-

English speaking and reading-impaired employees. If a person participating in a tailboard safety briefing who signed such a document desires a copy thereof, he/she shall request it in writing and the Certificate Holder shall provide a copy thereof to the requester within 48 hours of the request.

## I. Roads and Highways

**84.** During construction of the Project, paved surfaces of all public and private roads shall be protected from heavy equipment damage. Should any pavement damage occur, it shall be restored by Certificate Holder.

**85.** The Certificate Holder shall minimize the impact of the construction of the Project on traffic circulation. Traffic control personnel and safety signage shall be employed to ensure safe and adequate traffic flow when on roadways affected by construction.

**86.** The Certificate Holder shall consult periodically with municipal highway transportation agencies about traffic conditions that intersect near the Project site and applicable accesses and shall notify each such transportation agency of the approximate date work will begin in its jurisdiction.

**87.** The EM&CP shall reflect consultations the Certificate Holder has had with each transportation department or agency normally having jurisdiction over any roads in the Project vicinity that will be crossed by the certified Project ROW, or used for direct access to the ROW.

**88.** NYSDOT and New York State Thruway Authority (NYSTA) shall have authority to place inspectors on site to monitor and observe the Certificate Holder's activities on state highways or over the New York State Thruway, as the case may be, or to request the presence of state or local police to ensure the safety of freeway travelers, at such times and for such periods as NYSDOT and the NYSTA deems appropriate. All costs thereof shall be borne by the Certificate Holder.

**89.** The Certificate Holder shall coordinate with DPS Staff, NYSDOT and NYSTA for all work to be performed in the State highway rights-of-way. Prior to submitting its construction plan for any State highway right-of-way segment, the Certificate Holder shall provide to DPS Staff and NYSDOT or the NYSTA, as appropriate, a preliminary design marked to avoid conflict with potential transportation projects that NYSDOT and NYSTA may seek to undertake in the future and shall offer to consult with NYSDOT and NYSTA concerning any comments it may offer and shall use reasonable efforts to accommodate any NYSDOT and NYSTA concerns. The Certificate Holder shall obtain the necessary permits from NYSDOT and/or NYSTA, including, as appropriate, a Highway Work Permit and Use and Occupancy Permit pursuant to 17 NYCRR Part 131, including, if necessary, the filing by NYSDOT of a request with the Federal Highway Administration for an exception to the

Accommodation Plan for Longitudinal Use of Freeway Right-of-Way by Utilities, for the construction, operation and maintenance of the Project in the right-of-way of State highways.

## J. Cultural Resources

**90.** The Certificate Holder shall not undertake construction in previously undisturbed areas where archeological surveys have not been completed until such time as the appropriate authorities, including New York State Office of Parks Recreation & Historic Preservation ("OPRHP") and DPS Staff, have reviewed the results of any historic properties and archeological surveys that are required.

**91.** Should archeological materials be encountered during construction, the Certificate Holder shall stabilize the area and cease all construction activities in the immediate vicinity of the find, and protect the find from further damage. Within twenty-four (24) hours of such discovery, the Certificate Holder shall notify and seek to consult with DPS Staff and the OPRHP Field Services Bureau to determine the best course of action. No construction activities shall be permitted in the immediate vicinity of the archeological materials until such time as the significance of the resource has been evaluated and the need for and scope of impact mitigation has been determined.

**92.** Should human remains or evidence of human burial(s) be encountered during the conduct of archeological data recovery fieldwork or during construction, all work in the vicinity of the find shall be halted immediately and the remains shall be protected from further disturbance. Within twenty-four (24) hours of any such discovery, the Certificate Holder shall notify and consult with DPS Staff and the OPRHP Field Services Bureau. Treatment and disposition of any human remains that may be discovered shall be managed in a manner consistent with the OPRHP's Human Remains Discovery Protocol. All archaeological or remains-related encounters and their handling shall be reported in the status reports summarizing construction activities and reviewed in the site-compliance audit inspections.

**93.** The Certificate Holder shall avoid creating adverse impacts on historic structures in the vicinity of the Project by implementing specific Project location, design, vegetation management, resource protection, and construction scheduling measures described in the EM&CP.

**94.** The Certificate Holder shall have a continuing obligation during the duration of Project construction to respond promptly to complaints of negative archeological impacts and, if necessary, to mitigate any actual impacts through on-site design modifications and off-site mitigation techniques developed in consultation with the OPRHP Field Services Bureau.

## K. Terrestrial and Wildlife Resources

**95.** The Certificate Holder shall refer to 6 NYCRR Part 182 and for lists of threatened or endangered ("T&E") animal species and with 6 NYCRR Part 193 for T&E plant species. Prior to the commencement of construction, the Certificate Holder shall provide all workers with pertinent information on protected species in the Project area.

**96.** Except as otherwise specified in these conditions regarding Bald Eagle nests, if any T&E species, as defined in 6 NYCRR Part 182, or plant species identified under 6 NYCRR Part 193.3, are encountered on the Project ROW, access roads, marshalling yards, and any other areas where Project activities authorized in this Certificate are conducted:

a. The Certificate Holder shall notify DPS Staff and NYSDEC within 24 hours;
b. If necessary to protect such T&E species or its occupied habitat from immediate harm, the Certificate Holder shall secure the immediate area where rights exist and safely cease construction in that area until DPS Staff, in consultation with NYSDEC, authorizes recommencement of activities. Prior to the recommencement of construction in the secured area, the Certificate Holder shall provide all workers with pertinent information on the species encountered and indicate measures to minimize risks to the T&E species during construction.
c. To protect rare plant species encountered on the Project ROW, access roads, marshalling yards, and any other areas where Project activities are occurring, the Certificate Holder shall secure the immediate area where rights exist in consultation and with agreement of the landowner.

**97.** During construction in any area of the Project ROW, access roads, marshalling yards, and any other areas where Project activities are occurring between one-quarter mile and 5 miles of a hibernation site, or within 1.5 miles of a summer occurrence for the Northern Long-Eared Bat, it is recommended that snag and cavity trees be left standing. If it is not possible to leave snag and cavity trees left standing, those snag and cavity trees shall only be cut between November 1 and March 31 unless their removal is necessary for protection of human life and property (which includes the potential loss of electric service).

**98.** The Certificate Holder shall not work from April 15 to August 15 within Wetlands C-21 and C22, and their 100-foot adjacent areas. For the adjacent area of C-22, the time of year restriction does not apply for purposes of access on the existing quarry access roads.

**99.** (a) At least two weeks prior to construction activities, the Certificate Holder shall conduct a visual inspection of the Project ROW, access roads, marshalling

yards, or any other area where Project activities are to be conducted to determine if any bald eagle nests are present.

(b) If during construction of the Project and associated facilities, any bald eagle nest is discovered within 0.25 mile (environmentally sensitive area) of Project activities, the Certificate Holder shall notify the NYSDEC and DPS Staff within 24 hours of the discovery and the nest shall not be disturbed unless authorized by DPS Staff, after consultation with NYSDEC. The 0.25 mile environmentally sensitive area shall be marked, where the Certificate Holder has property rights to allow such marking, and this area shall be avoided until DPS Staff, after consultation with NYSDEC, authorizes activities in the environmentally sensitive area. In the presence of a visual barrier (i.e. tree line, topography) that obstructs the view from the nest and shields it from work activities, the environmentally sensitive area may be reduced to 660 feet.

## L. Water Resources

**100.** The Certificate Holder shall perform all construction, operation or maintenance activities in a manner that avoids then minimizes adverse impacts to streams, waterbodies, wetlands, and the 100-foot adjacent areas associated with the State-regulated wetlands (adjacent area):

a) Marshaling yards and staging areas shall not be sited within wetlands, wetland adjacent areas, or within fifty feet of streams.

b) Construction and access through wetlands and streams shall be on matting or with the protective measures depicted in the EM&CP. Matting shall be removed as soon as possible once site work is complete, and vegetation and hydrology restored to existing conditions.

c) Equipment shall not be washed in any stream, waterbody, wetland, or the 100-foot adjacent area associated with State-regulated wetlands. No runoff resulting from washing operations shall directly enter into these areas.

d) Any excess excavated material resulting from structure installation that is to be removed from any wetland shall not be stored inside wetlands unless it is on a construction mat and properly contained. Excavated excess material shall be disposed of in approved upland locations.

e) In wetlands, slash that is cut may be left in place (drop and lop). Any slash that is not left in place shall be removed from the wetland. No slash shall be collected and permanently piled in the wetland.

f) The flow immediately downstream of the worksite shall equal flow immediately upstream of the worksite.

g) There shall be no increase in turbidity downstream of the construction activity that will cause a substantial visual contrast to natural conditions.

h) Work in streams, when necessary, shall be prohibited between October 1 and May 31 for cold water fisheries habitat and trout designated streams, and between March 1 and July 15 for warm water fisheries habitat. Any exceptions to these periods require prior approval by DPS Staff, in consultation with NYSDEC.

i) Dewatering operations shall discharge into an approved dewatering device (i.e., temporary straw bale/silt fence barrier or filter bag). The dewatering device shall not be placed on or near the top of bank of streams and, unless demonstrated not practical, shall not be placed within or adjacent to wetlands. When dewatering within or next to a wetland or stream, the return water shall not cause a substantial visual contrast to natural conditions.

j) Construction entrances from public roadways directly onto wetlands shall utilize construction mats.

**101.** A construction and restoration plan for the Great Vly shall be included in the EM&CP. The plan shall include, at a minimum, provisions for documenting existing conditions as well as measures to restore original grades, vegetation and hydrology.

**102.** The Certificate Holder shall inform USACE of any changes in the design of the Project that have the potential to impact any water resources under USACE jurisdiction and shall provide a copy of such correspondence to the Secretary.

**103.** NYSDEC staff field representatives shall be permitted on the Project site. The NYSDEC Staff field representatives will notify the DPS Staff representative and the Certificate Holder's appropriate representative of any activities that violate or may violate either the terms of the Certificate or the Environmental Conservation Law.

## M. Agricultural Resources

**104.** The Certificate Holder shall retain a qualified Agricultural and Soil Conservation Specialist/Inspector ("Agricultural Inspector"), subject to approval of NYSDAM, for each phase of Project development, including construction, initial restoration, post-construction monitoring and follow-up restoration. If qualified, the environmental inspector may satisfy this requirement. The Agricultural Inspector shall be available to provide site-specific agricultural information as necessary and to have direct contact with affected farm operators, County Soil and Water Conservation Districts, NYSDAM and others. The Agricultural Inspector shall maintain regular contact with the Environmental Inspector (if a separate person) or the Construction Inspector throughout the construction phase. The Agricultural Inspector shall remain on site during all Project activities on agricultural lands. The Agricultural Inspector also shall maintain regular contact with the affected farmers and County Soil and Water

Conservation Districts concerning farm resources and management matters pertinent to the agricultural operations and the site-specific implementation of the EM&CP for the Project. Whenever the Certificate Holder submits a request for a change to the approved EM&CP for the Project that might affect agriculture, it shall consult with NYSDAM.

**105.** The Certificate Holder shall identify Black Cherry trees located on the Project (including off-ROW access roads and marshaling yards) near active livestock use areas. During the clearing phase, such vegetation shall be disposed of in a manner which prevents access by livestock.

**106.** In agricultural areas, logs, stumps, brush, or chips shall not be piled or buried in agricultural fields or improved pasture.

**107.** The Certificate Holder shall design the Project to the maximum extent practicable to avoid or limit the placement of structures on crop fields or on other active agricultural land where the structures do not already exist in such a way that such placement will significantly interfere with normal agricultural operations or activities. Where the location of a replacement structure on such agricultural land is unavoidable, the Certificate Holder shall attempt to site the structure in a location that minimizes impact to normal farming operations.

**108.** In the event that drainage lines are encountered in agricultural areas, a detailed drainage line repair procedure shall be developed, in consultation with the local Soil and Water Conservation District, for the repair of crushed/severed clay tile and plastic drain lines. Drawings showing the generic technique to be implemented for drain line repairs shall be provided by the Certificate Holder. All new plastic drain tubing shall meet or exceed the AASHTO M252 specifications. The plan for the replacement of functional stone drainage systems severed during construction shall be prepared during the restoration phase, in consultation with NYSDAM and the local Soil and Water Conservation District.

**109.** Construction entrances from public roadways directly onto agricultural fields shall utilize construction mats or topsoil stripping.

**110.** Segments of farm roads utilized for access shall be improved if required following consultation with the farm operator, DPS Staff and NYSDAM prior to use.

**111.** Unless otherwise agreed to by NYSDAM and the landowner and in consultation with DPS Staff, the Certificate Holder shall rebuild to as-good or better condition, at or prior to completion of construction, any of the following that is damaged by construction: (i) fences and gates on the Certificate Holder's ROW that are not incompatible with the Project; (ii) fences and gates off of the Certificate Holder's ROW; and (iii) any farm drainage features. The base of all new posts shall be secured to a reasonable depth below the surface to prevent frost heave.

**112.** Where access is necessary across agricultural fields, mats shall be utilized as an alternative to topsoil stripping. The mats shall be layered where necessary to provide a level access surface. Once access is no longer required across agricultural areas, the mats shall be removed and the Agricultural Inspector shall use a soil penetrometer to determine if soil compaction has occurred as a result of construction activities. All compacted areas shall be remediated as specified below.

**113.** If topsoil stripping is utilized to access as necessary across agricultural lands, topsoil shall be removed, including all of the "A" horizon down to the beginning of the subsoil "B" horizon, generally not to exceed a maximum of 12 inches. Topsoil removal up to a depth of 16 inches may be required in specially-designated soils encountered along the route. All topsoil shall be stockpiled directly adjacent to the travel way and separated from other excavated materials. The Agricultural Inspector shall determine depth of topsoil stripping on each affected farm by means of the County Soil Survey and on-site soil augering, if necessary. All topsoil material shall be stripped, stockpiled, and uniformly returned to restore the original soil profile. During the clearing/construction phase, site-specific depths of topsoil stripping shall be monitored by the Agricultural Inspector.

**114.** In agricultural areas of till over bedrock where blasting is required, the Certificate Holder shall use matting or controlled blasting to limit the dispersion of blast rock fragments. All blasted rock not used as backfill shall be removed from croplands, hay lands and improved pastures. The till and topsoil shall be returned in natural sequence to restore the soil profile. Farm owners/operators shall be given timely notice prior to blasting on farm property.

**115.** In all agricultural sections of the Project disturbed during construction, the Certificate Holder shall break up the subsoil compaction to a depth of 18 inches (unless bedrock is encountered at a depth less than 18 inches) with deep tillage by such devices as a deep-ripper (subsoiler). Final soil compaction results shall not be more than 250 pounds per square inch (PSI) as measured with a soil penetrometer. Following the deep ripping, all stone and rock material 4 inches and larger in size which has been lifted to the surface shall be collected and taken off site for disposal. The topsoil that has been temporarily removed for the period of construction shall then be replaced. Finally, deep subsoil shattering shall be performed with a subsoiler tool having angled legs. Stone removal shall be completed, as necessary, to eliminate any additional rocks and stones brought to the surface as a result of the final subsoil shattering process. Should subsequent construction and/or restoration activities result in compaction, then restoration activities shall include additional deep tillage.

**116.** All structures and guy anchors removed from agricultural areas as part of the construction activities shall be removed to a minimum depth of 48 inches below the soil surface. All holes or cavities created by the removal of the old facilities shall be filled to the same level as the adjacent area, plus 6 to 12 inches of additional soil to allow for settling. All material used for fill shall be similar to native soil.

**117.** Wherever existing structures are removed from agricultural fields, the area shall be restored to allow agricultural activities. Such restoration shall include the removal of all vegetation from the structure area and grading of the ground surface to match the adjacent field. All foreign debris and rocks greater than 4 inches shall be removed from the surface.

**118.** Excavated subsoil material and stockpiled topsoil shall be used to restore the original soil profile at new structure locations. All holes or cavities created by structure installation shall be filled to the same level as the adjacent area, plus 6 to 12 inches of additional soil to allow for settling. Excess material not used for backfill shall be removed from agricultural areas, with the exception of excess topsoil pursuant to Certificate Condition 124.

**119.** The Certificate Holder shall provide a monitoring and remediation period of two (2) growing seasons following completion of Project ROW restoration in active agricultural areas. The Certificate Holder shall retain the services of an Agricultural Inspector on at least a part-time basis through this period. The monitoring and remediation phase shall be used to identify any remaining agricultural impacts associated with Project construction that are in need of mitigation and to implement the follow-up restoration. During this phase, the Agricultural Inspector shall maintain a list of invasive species observed on the Project ROW in agricultural areas. In locations where invasive species are documented along the ROW, the Certificate Holder will determine whether such species were pre-existing or whether such species were introduced by the Project. If it is determined that the Project was directly responsible for the introduction of invasive species to agricultural areas, the Certificate Holder shall consult with the farm operator, DPS Staff and NYSDAM to determine the appropriate control measures to implement.

**120.** During the monitoring and remediation period, on-site monitoring shall be conducted in active agricultural areas at least three (3) times during each growing season and shall include a comparison of growth and yield for crops on and off the Project ROW. When the subsequent crop productivity within the affected ROW is less than that of the adjacent unaffected agricultural land, the Agricultural Inspector, in conjunction with the Certificate Holder and other appropriate organizations, shall help to determine the appropriate rehabilitation measures for the Certificate Holder to implement (soil de-compaction, topsoil replacement, etc.). During the various stages of the Project, all affected farm operators shall be periodically apprised of the duration of remediation by the Certificate Holder or its Agricultural Inspector. Because conditions which require remediation may not be noticeable at or shortly after the completion of construction, the signing of a release form prior to the end of the remediation period shall not obviate the Certificate Holder’s responsibility to fully redress all Project impacts. After completion of the specific remediation period, the Certificate Holder shall continue to respond to the reasonable requests of the farmland owner/operators to correct Project-related effects on the impacted agricultural resources.

**121.** The Certificate Holder shall provide all farm owners/operators with a toll-free or local telephone number to facilitate direct contact with the Certificate Holder and the Agricultural Inspector through all of the stages of the Project. Once construction is complete and after the monitoring and remediation period, the Certificate Holder shall provide farm owner/operators with a toll-free or local telephone number to facilitate direct contact with the Certificate Holder.

**122.** The Agricultural Inspector shall work with the farm operators during the scheduling of construction to develop a plan to delay the pasturing of the Project ROW, following construction until pasture areas are adequately revegetated. The Certificate Holder shall be responsible for maintaining the temporary fencing on the Project ROW until the Agricultural Inspector determines that the vegetation on the ROW is established and able to accommodate grazing. At such time, the Certificate Holder shall be responsible for removal of the fences.

**123.** On affected farmland, restoration practices shall be postponed until favorable (workable, relatively dry) topsoil/subsoil conditions exist. Restoration shall not be conducted while soils are in a wet or plastic state. Stockpiled topsoil shall not be regraded until plasticity, as determined by the Atterberg field test, is significantly reduced. No restoration activities shall occur in agricultural fields between the months of October through May unless favorable soil moisture conditions exist. The Certificate Holder shall monitor and advise NYSDAM and DPS Staff regarding tentative restoration planning. Potential schedules shall be determined by conducting the Atterberg field test at appropriate depths beneath matted locations and topsoil stockpiles, if any.

**124.** Following restoration of all disturbed areas, excess topsoil shall be distributed in agricultural areas of the site, provided this is practicable and can be accomplished without having any adverse impact on site drainage. All such activity shall be as directed by the Agricultural Inspector, based on guidance provided by the landowner.

**125.** After the moisture of the soil profile on the affected portion of the Project ROW has returned to equilibrium with the adjacent off-ROW land, subsoil compaction shall be tested using an appropriate soil penetrometer or other soil-compaction measuring device.

**126.** Topsoil stockpiles on agricultural areas left in place prior to October 31 shall be seeded with Aroostook Winter Rye or equivalent at an application rate of 3 bushels (168 #) per acre and mulched with straw mulch (or another material acceptable to the Agricultural Inspector) at a rate of 2 to 3 bales per 1000 Sq. Ft. Topsoil stockpiles left in place between October 31 and May 31 shall be mulched with straw mulch (or another material acceptable to the Agricultural Inspector) at a rate of 2 to 3 bales per 1000 Sq. Ft. Straw mulch (or another material acceptable to the Agricultural Inspector) shall be used to prevent soil loss on stockpiled topsoil from October through May.

**127.** After topsoil replacement, seedbed preparation (final tillage, fertilizing, liming) and seeding shall follow either NYSDAM recommendations as contained in *Fertilizing, Lime and Seeding Recommendations for Restoration of Construction Projects on Farmlands in New York State* (revised 9-25-2012) or landowner specifications.

## N. Petroleum and Hazardous Substances

**128.** The EM&CP shall include Fuel and Chemical Handling Plan and Procedures including: (i) a plan for storage of all petroleum and hazardous substances which may be used during, or in connection with, the construction, operation, or maintenance of the Project; and (ii) a spill response and route emergency plan, including the NYSDEC spill reporting contact number. This Plan shall provide proposed methods of handling spills of petroleum products and any hazardous or controlled substance which may be stored or utilized during construction, operation, or maintenance of this Project.

**129.** The Certificate Holder will retain a qualified spill response company for the duration of the Project and provide that company with maps showing access roads, marshalling yards, applicable certificate conditions and other information that will facilitate response to a spill location.

**130.** The Certificate Holder shall keep local fire department and emergency management teams apprised of on-site hazardous chemicals and waste. All such chemicals and waste shall be secured in a locked and controlled area.

**131.** Stationery Fuel tanks and hazardous chemical storage shall be 300 feet from streams, waterbodies and wetlands unless provided with justification in the EM&CP or unless adequate (containing at least 110% of the volume stored) secondary containment is otherwise provided in which case storage can occur within 100 feet of such resources.

**132.** Refueling of mobile equipment within 100 feet of a stream or 100 feet from a wetland is prohibited, except that refueling of hand equipment, or refueling of construction equipment that is stationary or in a fixed position (e.g., drill rigs or compressors) to complete a construction operation within 100 feet of a stream or 100 feet from a wetland may be refueled when the environmental inspector is at that location and the procedures described in the EM&CP are followed.

## O. Contractors and Contractor Supplies/Materials

**133.** At least two (2) weeks prior to construction, the Certificate Holder shall submit a report to the Secretary confirming that all required construction materials are available. For purposes of this paragraph, an item of construction material is available if: (i) it is located at a marshaling yard; (ii) it is in the Certificate Holder's warehouse or

other routine Certificate Holder inventory stocking location; (iii) it is on order from a vendor with a scheduled delivery date prior to the time scheduled for its use in the Project; or (iv) it can be ordered from a local supplier and can be delivered within 48 hours of the need for such materials.

**134.** All equipment shall be located within approved marshaling yard(s) or within designated areas of the Project, provided, however, that if a local contractor is used for the work, the local contractor's facility shall be considered a marshaling yard.

**135.** If an OSHA Recordable accident occurs in connection with work on the Project, the Certificate Holder shall report any such accident to DPS Staff as soon as possible. A copy of the accident report shall be provided to DPS Staff after it has been finalized.

**136.** The Certificate Holder shall provide DPS Staff with a copy of any police report and any insurance claim filed in connection with any theft of Project-related materials, as well as a list of the stolen items.

**137.** A field review shall be conducted by the Certificate Holder to determine compliance with its design on a monthly basis and prepare a written report of the Company's findings on whether the Project is being constructed in accordance with the EM&CP design for the Project. The Certificate Holder shall provide a copy of each such report to DPS Staff within three (3) business days after the Certificate Holder receives the report. The Certificate Holder shall notify DPS Staff of when the field reviews will occur.

**138.** If the Contractor installs materials, structures, or components that do not conform to the specifications for same described in the EM&CP, the Certificate Holder shall, after becoming aware of such incident, prepare and deliver to the Director of Facility Certification & Compliance of the Office of Electric, Gas and Water or their designee a summary report detailing the incident, the steps to be taken to rectify the mistake, the material and labor costs associated with rectifying the incident, and the manner in which such costs will impact the construction schedule.

**139.** The Certificate Holder shall develop a quality control plan ("Quality Control Plan") for inclusion in the EM&CP for the Project describing how it will ensure that the major transmission line components it purchases for the Project conform to the specification for such components described in such EM&CP. At a minimum, the Quality Control Plan shall include: (i) the qualifications of the individual(s) who will conduct inspections under the Qualify Control Plan ("Quality Control Inspections"); and (ii) the manner and frequency with which the Quality Control Inspections will be performed.

**140.** Within 7 days following completion of a Quality Control inspection which identifies non-conformance of any Project component with the design, the Certificate Holder shall provide to DPS Staff a report of such inspection that includes: (i) a description of the specific non-conformance, identifying the structures or other

components the Certificate Holder purchased for installation in the Project that did not conform to the specification for structures or components described in the approved EM&CP; and, (ii) any notes pertinent to the subject matter of such inspection which were made at inspection meetings by the Certificate Holder's personnel and contractors who performed the inspection.

**141.** Manufacturer recommendations for materials storage shall be followed and materials shall be stored in an orderly fashion, secured and protected from damage and theft in accordance with the Certificate Holder's Security Plan included in its EM&CP.

**142.** Within six (6) months following Project completion, the Certificate Holder shall provide to the DPS Staff Representative a full accounting of all Project cost, including an explanation of variances, if any, between projected and actual costs. The accounting shall separately detail all costs incurred by the Certificate Holder as a result of its purchase of a structure or component for installation in the Project that did not conform to the specification for structures and components described in the EM&CP. The analysis contained within this accounting shall be divided into the following sections:

a) Cost Estimate Provided with Application Exhibit 9;
b) Summary of Project Cost Accounts.
c) Expenditures Breakdown per Cost Account
d) Comparison of Estimated Versus Actual Expenditures
e) Conclusion and Explanation of Significant variances
f) Accounting of Non-Conforming Structures or Components.

## P. Invasive Species

**143.** The Certificate Holder shall prepare an Invasive Species Management Plan in consultation with DPS Staff, NYSDAM and NYSDEC which shall ensure compliance with 6 NYCRR Part 575. The Certificate Holder shall seek NYSDAM and NYSDEC's acceptance of such plan as part of NYSDAM and NYSDEC's comments on the EM&CP pursuant to Condition 30(g). The Certificate Holder shall implement said Invasive Species Management Plan as part of the approved EM&CP.

## Q. Water Quality Certification

**144.** Concurrent with Commission approval of the EM&CP for this Project, the Director of Facility Certification & Compliance of the Office of Electric, Gas and Water or their designee, pursuant to §401 of the Federal Water Pollution Control Act, as amended, 33 U.S.C. §1341, and PSL Article VII, will execute an appropriate certification that the Project will comply with the applicable requirements of §§301, 302, 303, 306, and 307 of the Federal Water Pollution Control Act, as amended, and will assure

compliance with applicable New York State water quality standards, limitations, criteria and other requirements set forth in 6 NYCRR §608.9(a), Parts 701 through 704, and Part 750.

# APPENDIX E

## SPECIFICATIONS FOR THE DEVELOPMENT OF ENVIRONMENTAL MANAGEMENT AND CONSTRUCTION PLAN

**Section A** of the Specifications for the Development of Environmental Management and Construction Plan (Specifications) addresses the development of the plan and profile drawings, and maps portion of the Environmental Management and Construction Plan (EM&CP).

**Section B** addresses the description and statement of objectives, techniques, procedures, and requirements, i.e. the textual portion of the EM&CP. A table of contents will be included for the EM&CP and each section, appendix or exhibit containing ten or more pages.

If any particular requirement of the Specifications is not applicable, so indicate and briefly explain.

### A. EM&CP Plan and Profile Drawings and Maps

The EM&CP maps, charts, photostrip maps, and illustrations shall include, but need not be limited to, the following information:

#### 1. Plan and Profile Details

A Line

[1] Profile (at an appropriate scale) and plan drawings (scale minimum 1 inch = 200 feet)[2] showing:

a. The boundaries of any new, existing, and/or expanded right-of-way (ROW)[3] or road boundaries, and where cables are to be constructed overhead or

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[1] The lowest conductor of an overhead design shall be shown in relation to ground at the maximum permissible conductor temperature for which the line is designed to operate, i.e., normally the short-time emergency loading temperature. If a lesser conductor temperature is used for the line profile, the maximum sag increase between the conductor temperature and the maximum conductor temperature shall be indicated for each ruling span. For underground project design, show relation of project to final surface grade, indicating design depth-of-cover.

[2] Contour lines (preferably at 5-foot intervals) are desirable on the photostrip map if they can be added without obscuring the required information.

[3] The term “right-of-way” in these *Specifications* includes property, whether owned in fee or easement, to be used for substations, disposal sites, underground terminals, storage yards, and other associated facilities. Where such properties cannot reasonably be shown on the same plan or photo-strip, maps, or

underground; plus, areas contiguous to the ROW or street within which the Certificate Holders will obtain additional rights.

b. The location of each Facility structure (showing its height, material, finish and color, and type), structural foundation type (*e.g.*, concrete, direct bury), fence, gate, down-guy anchor, and any counterpoise required for the Facility (typical counterpoise drawings will suffice recognizing that before field testing of installed structures the Certificate Holder may be unable to determine the specific location of all required counterpoise), conductors, insulators, mid-span splices, and static wires and other components attached to Facility structures.
c. Existing utility or non-utility structures on the ROW, and indicate those to be removed or relocated (include circuit arrangements where new structures will accommodate existing circuits, indicate methods of removal of existing facilities, and show the new locations, types and configurations of relocated facilities).
d. Any underground utility or non-utility structure.
e. The relationship of the Facility to nearby fence lines; roads; trails; railways; airfields; property lines; hedgerows; surface waters; wetlands; other water bodies; significant habitats; associated facilities; flowing water springs; nearby buildings or structures; major antennas; oil or gas wells, and blowdown valves.
f. The location of any proposed new or expanded switching station, substation, or other terminal or associated utility or non-utility structure (attach plan[4] - plot, grading, drainage, and electrical - and elevation views with architectural details at appropriate scales). Indicate the type of outdoor lighting, including design features to avoid off-site illumination and minimize glare; the color and finish of all structures; the locations of temporary or permanent access roads, parking areas, construction contract limit lines, property lines, designated floodways and flood-hazard area limits, buildings, sheds, relocated structures, and any plans for water service and sewage and waste disposal.
g. The location and boundaries of any areas whether located on- or off- ROW proposed to be used for fabrication, designated equipment parking, staging, access, lay-down, and conductor pulling. Indicate any planned fencing, surface improvements, and screening of storage and staging areas.
h. The locations for ready-mix concrete chute washout and any other cleaning activities (e.g., control of invasive species).

plan drawings used for the transmission line, additional maps or drawings at convenient scales should be used.

[4] Preferably 1" = 50' scale with 2-foot contour lines.

**2. Stormwater Pollution Prevention**

a. Include on the plan and profile drawings the acknowledged Storm Water Pollution Prevention Plan (SWPPP) details. Include the locations of soil erosion and sediment control measures developed in accordance with the latest version of the New York Standards and Specifications for Erosion and Sediment Control (e.g., stabilized construction entrances, silt fences, check dams, and sediment traps).

b. Include on the plan and profile drawings the approved SWPPP locations of all permanent stormwater management controls that are required based on site-specific conditions or conditions of the Certificate.

**3. Vegetation Clearing and Disposal Methods**

Identify on the plan and profile drawings:

a. the locations of sites requiring trimming or clearing of vegetation and the geographic limits of such trimming or clearing;

b. the specific methods for the type and manner of cutting and disposition or disposal method for cut vegetation (e.g., chip; cut and pile; salvage merchantable timber, etc.);

c. the methods for management of vegetation to be cut or removed at each site;

d. any geographical area bounded by distinctly different cover types requiring different cut-vegetation management methods;

e. any geographical area bounded at each end by areas requiring distinctly different cut-vegetation methods due to site conditions such as land use differences, population density, habitat or site protection, soil or terrain conditions, fire hazards, or other factors;

f. different property-owners requesting specific vegetation treatment or disposal methods;

h. areas requiring (off-ROW) danger tree removal; and,

i. the location of any areas where specific vegetation protection measures will be employed and the details of those measures to avoid damage to specimen tree stands of desirable species, important screening trees, or hedgerows.

**4. Building and Structure Removal**

Indicate the locations of any buildings or structures to be acquired, demolished, moved, or removed.

**5. Waterbodies**

a. Indicate the name, water quality classification and location of all rivers and streams, (whether perennial and intermittent) and drainages crossed by, the proposed ROW or any off-ROW access road constructed, improved, or maintained for the Facility. On the plan and profile drawings, indicate:
   i. stream crossing method and delineate any designated streamside "protective or buffer zone" in which construction activities will be restricted to the extent necessary to minimize impacts on rivers and streams;
   ii. the activities to be restricted in such zones; and,
   iii. identify any designated floodways or flood hazard areas to be traversed by the Facility or access roads, or otherwise used for Facility construction or the site of associated facilities.

b. Show the location of all potable water sources, including springs and wells on the ROW or within 100 feet of the ROW or access roads, indicating, on a site-by-site basis, precautionary measures to be taken to protect each water source.

**6. Wetlands**

a. All wetlands and wetland 100-foot adjacent areas (adjacent areas) located within the ROW or crossed by the ROW or any off-ROW access road constructed, improved, or maintained for the Facility shall be depicted on EM&CP drawings. The plan and profile drawings shall delineate the wetland "protective or buffer zone" in which construction activities will be restricted to the extent necessary to minimize impacts on wetlands.

b. Indicate the location and type (i.e., identification code for regulated town, state, or federal wetlands) of any wetland (e.g., marsh, meadow, bog, or scrub-shrub or forested swamp) within or adjoining the ROW or any access road, as determined by site investigation and delineation.

c. Indicate type and location of precautionary measures (e.g., mats) to be taken to protect all wetlands, associated drainage patterns, and wetland functions.

**7. Land Uses**

a. Agricultural Areas
   i. Indicate the locations of sites under cultivation or in active agricultural use including rotational pasture, pasture, hayland, and cropland.
   ii. Indicate the location of any unique agricultural lands including maple sugarbushes, organic muckland and permanent irrigation

systems, as well as areas used to produce specialty crops such as vegetables, berries, apples, and grapes.

iii. Indicate the location of vulnerable soils in agricultural areas that are more sensitive than other agricultural soils to construction disturbance due to slope, soil wetness, and shallow depth to bedrock.

iv. Indicate the location of all land and water management features including subsurface drainage, surface drainage, diversion terraces, buried water lines, and water supplies.

v. Designate the site-specific techniques to be implemented to minimize or avoid construction-related impacts to agricultural resources.

b. Sensitive Land Uses and Resources
Indicate the location and identification of sensitive land uses and resources that may be affected by construction of the Facility or by construction-related traffic (e.g., hospitals, emergency services, sanctuaries, schools, and residential areas).

c. Geologic, Historic, and Scenic or Park Resources
Indicate the locations of geologic, historic, and existing or planned scenic or park resources and specify measures to minimize impacts to these resources (e.g., fencing, signs).

d. Recreational
Indicate the locations where existing or planned recreational use areas, would affect or be affected by the Facility location, construction or other ROW preparation.

**8. Access Roads, Lay-down Areas and Workpads**

Indicate the locations of temporary and permanent on- and off-ROW access roads, lay-down areas and workpads. Provide construction type, material, and dimensions. Indicate provisions for upgrading any existing access roads.

**9. Noise Sensitive Sites**

Show the locations of noise-sensitive areas along the proposed ROW.

**10. Ecologically and Environmentally Sensitive Areas**

Indicate the general locations of any known ecologically and environmentally sensitive sites (e.g., archaeological sites; fish and wildlife habitat; rare, threatened, and endangered species or habitats; forest and vegetation; open space; areas of important aesthetic or scenic quality; deer winter yards, etc.), within or nearby the proposed or existing ROW or along the general alignment of

any access roads to be constructed, improved or maintained for the Facility. Specify the measures that will be taken to protect these resources (e.g., fencing, flagging, signs “Sensitive Environmental Areas, No Access”).

**11. Invasive Species of Special Concern**

Identify the location(s) of invasive species of special concern and the prescribed method to control the spread and/or eradicate the identified species.

**12. Herbicide**

On the plan and profile drawing notes, indicate areas where herbicides will not be used.

## B. Description and statement of objectives, techniques, procedures and requirements

The textual portion of the EM&CP for the Facility shall include, but need not be limited to, all of the following information:

**1. Facility Location and Description**

Describe the location and limits of the site or ROW and explain the need for any additional rights. For each structure type, indicate the GSA-595A Federal standard color designation or manufacturer’s color specification to be used for painted structures. State any objections raised by Federal, State, or local transportation (highways, waterways, or aviation) officials to the final location or manner of installation of, or access to, the certified Facility. Provide a rationale for the inclusion of any mid-span splice locations proposed.

**2. Stormwater Pollution Prevention**

a. The information included in the acknowledged SWPPP.

b. In areas of coastal erosion hazard, include plans to demonstrate compliance with the standards for coastal erosion hazard protection as required by 6 NYCRR Part 505 -Coastal Erosion Management.

**3. Vegetation Clearing and Disposal Methods**

a. Describe the specific methods and rationale for the type and manner of cutting and disposition or disposal methods for cut vegetation.

b. Detail specific measures employed to avoid damage to specimen tree stands of desirable vegetation, rare, threatened and endangered species, important screening trees, and hedgerows.

c. Identify the factors such as the attributes of the site, outcome of landowner negotiations, and attributes of the logs, upon which Certificate Holder's removal of the merchantable logs resulting from clearing the ROW for the Facility will be based.
d. Describe methods of compliance with 6 NYCRR Part 192 – Forest Insect and Disease Control, applicable New York State Department of Environmental Conservation (NYSDEC) quarantine orders, and New York State Department of Agriculture and Markets (NYSDAM) regulations.

**4. Building and Structure Removal**

Indicate the locations of any buildings or structures to be acquired, demolished, moved, or removed. Provide the rationale for the acquisition and removal of buildings or structures.

**5. Waterbodies**

a. Describe the measures to be taken to protect stream bank stability, stream habitat, and water quality including, but not limited to: crossing technique; crossing structure type; timing restrictions for in-stream work; stream bed and bank restoration measures; vegetation restoration measures; and other site-specific measures to minimize impacts, protect resources, and manage Facility construction.
b. Indicate the procedures that were followed to inventory such resources and provide copies of any resulting data sheets and summary reports.
c. Develop a table of waterbodies crossed by the Facility and include: Town (location), Existing Structure Span (mileposts), Stream Name, Field/Map Identification Name, Perennial or Intermittent, New York Stream Classification, Water Index Number, Crossing Method and Length, Fishery Type, GPS coordinates.

**6. Wetlands**

a. For each State-regulated wetland, indicate the following: town (location); existing Structure Span (milepost); wetland field designation; NYSDEC classification code; wetland type; proposed structure located within wetland; total area of temporary disturbance/impact; dead end structures in NYSDEC wetlands; tangent structures in NYSDEC wetlands; total area of permanent disturbance in NYSDEC wetlands (sq. ft.); area crossed by Facility (sq. ft.); conversion of State-regulated forested wetlands (sq. ft.).
b. Describe all activities that will occur within State-regulated wetlands or adjacent areas (e.g., construction, filling, grading, vegetation clearing, and excavation) and assure that the activity is consistent with the weighing

standards set forth in 6 NYCRR 663.5(e) and (f). Describe how impacts to wetlands, adjacent areas, associated drainage patterns, and wetland functions will be avoided, and how impacts will be minimized.

c. Describe the precautions or measures to be taken to protect all other wetlands (e.g., town, federal wetlands) associated drainage patterns, and wetland functions.

**7. Land Uses**

a. Agricultural Areas

i. Describe programs, policies, and procedures to mitigate agricultural impacts such as soil compaction. Explain how construction plans either avoid or minimize crop production losses and impacts to vulnerable soils.

ii. Indicate specific techniques and references to appropriate agricultural protection measures recommended by NYSDAM.

b. Sensitive Land Uses

Describe the sensitive land uses (e.g., hospitals, emergency services, sanctuaries, schools, residential areas) that may be affected by construction of the Facility or by construction-related traffic and specify measures to minimize the impacts on these land uses.

c. Geologic, Historic and Scenic or Park Resources

Describe the geologic, historic, and scenic or park resources that may be affected by construction of the Facility or by construction-related traffic and specify measures to minimize impacts on these resources. Indicate the procedures that were followed to identify such resources and specify the measures that will be taken to protect or preserve these resources. Reports prepared to identify and analyze such sites shall be made available to Department of Public Service (DPS) Staff upon request.

d. Recreation Areas

Explain how proposed or existing recreation areas will be avoided or accommodated during construction, operation, and maintenance of the Facility.

**8. Access Roads, Lay-down Areas and Workpads**

a. Discuss the necessity for access to the ROW, including the areas where temporary or permanent access is required; and the nature of access improvements based on natural features, equipment constraints, and vehicles to be used for construction and maintenance, and the duration of access needs through restoration and the maintenance of the Facility.

b. Discuss the types of access which will be used and the rationale for employing that type of access including consideration of:
    i. temporary installations (e.g., corduroy, mat, fill, earthen road, geotextile underlayment, gravel surface, etc.);
    ii. permanent installations (e.g., cut and fill earthen road, geotextile under-layment, gravel surface, paved surface, etc.);
    iii. use of roads, driveways, farm lanes, rail beds, etc.; and,
    iv. other access, e.g. helicopter or barge placement. For each temporary and permanent access type, provide a figure or diagram showing a typical installation (include top view, cross section, and side view with appropriate distances and dimension). Where existing access ways will be used, indicate provisions for upgrading to meet appropriate standards.
c. Indicate the associated drainage and erosion control features to be used for access road construction and maintenance. Provide diagrams and specifications (include plan and side views with appropriate typical dimensions) for each erosion control feature to be used, such as:
    i. staked straw bale or check dam (for ditches or stabilization of topsoil);
    ii. broad-based dip or berm (for water diversion across the access road);
    iii. roadside ditch with turnout and sediment trap;
    iv. French drain;
    v. diversion ditch (water bar);
    vi. culvert (including headwalls, aprons, etc.);
    vii. sediment retention basin (for diverting out-fall of culvert or side ditch); and,
    viii. silt fencing.
d. Indicate the type(s) of stream crossing method to be used in conjunction with temporary and permanent access road construction. Provide diagrams and specifications (include plan and side view with appropriate dimensions) for each crossing device and rationale for their use. Stream crossing devices may include but not be limited to:
    i. timber mat;
    ii. culverts including headwalls;
    iii. bridges (either temporary or permanent); and,
    iv. fords.
e. All diagrams and specifications should include material type and size to be placed in streams and on-stream approaches.

f. If access and workpad areas cannot be limited to upland areas, provide justification for any access and workpad areas which are proposed to be located in a wetland or stream or waterbody.

**9. Noise Sensitive Sites**

Specify procedures to be followed to minimize noise impacts related to ROW clearing, and construction and operation of the Facility. Indicate the types of major equipment to be used in construction or Facility operation; sound levels at which that equipment operates; days of the week and hours of the day during which that equipment will normally be operated; any exceptions to these schedules; and any measures to be taken to reduce audible noise levels caused by either construction equipment or Facility operation.

**10. Ecological and Environmentally Sensitive Sites**

Indicate the procedures that were followed to identify ecological and environmental resources (e.g., archaeological sites; fish and wildlife habitat; rare, threatened, and endangered species or habitats; forest and vegetation; open space; areas of important aesthetic or scenic quality; deer winter yards) and specify the measures that will be taken to protect or preserve these resources. Reports prepared to identify and analyze such sites shall be identified and made available upon request.

**11. Invasive Species of Special Concern**

a. Provide an invasive species prevention and management plan for invasive species of special concern, prepared in consultation with DPS Staff, NYSDEC, and NYSDAM, based on the pre-construction invasive species survey of invasive species within the ROW.
b. The plan shall include measures that will be implemented to minimize the introduction of invasive species of special concern and the spread of existing invasive species of special concern during construction (e.g., soil disturbance, vegetation clearing, transportation of materials and equipment, and landscaping/revegetation).

**12. Herbicides**

a. Specify the locations where herbicides are to be applied. Provide a general discussion of the site conditions (e.g., land use, target and non-target vegetation species composition, height, and density) and the choice of herbicide, formulation, application method, and timing.

b. Describe the procedures that will be followed during application to protect non-target vegetation, streams, wetlands, potable waters and other water bodies, and residential areas and recreational users on or near the ROW.

**13. <u>Fugitive Dust Control</u>**

Specify appropriate measures that will be used to minimize fugitive dust and airborne debris from construction activity.

**14. <u>Petroleum and Chemical Handling Procedures</u>**

a. Include a plan for the storage, handling, transportation, and disposal of petroleum, fuels, oil, chemicals, hazardous substances, and other potentially harmful substances which may be used during, or in connection with, the construction, operation, or maintenance of the Facility. Address how to avoid spills and improper storage or application in the vicinity of any wetland, river, creek, stream, lake, reservoir, spring, well, or other ecologically sensitive site, or existing recreational area along the ROW and access roads.
b. Include a plan for responding to and remediating the effects of any spill of petroleum, fuels, oil, chemicals, hazardous substances, and other potentially harmful substances in accordance with applicable State and Federal laws, regulations, and guidance, and include proposed methods of handling spills of petroleum, fuels, oil, chemicals, hazardous substances, and other potentially harmful substances which may be stored or utilized during the construction and site restoration, operation, and maintenance of the Facility.

**15. <u>Environmental Supervision</u>**

a. Describe protocols for supervising demolition, vegetation clearing, use of herbicides, construction, and site restoration activities to ensure minimization of environmental impact and compliance with the environmental protection provisions specified by the Certificate.
b. Specify the titles and qualifications of personnel proposed to be responsible for ensuring minimization of environmental impact throughout the demolition, clearing, construction, and restoration phases, and for enforcing compliance with environmental protection provisions of the Certificate and the EM&CP. Indicate the amount of time each supervisor is expected to devote to the project.
c. Specify responsibilities for personnel monitoring all construction activities, such as clearing, sensitive resource protection, site compliance, EM&CP change notices, etc.

d. Explain how all environmental protection provisions will be incorporated into contractual specifications and communicated to those employees or contractors engaged in demolition, clearing, construction, and restoration.
e. Describe the procedures to "stop work" in the event of a Certificate violation.
f. Identify the company's designated contact including 24/7 emergency phone number, for assuring overall compliance with Certificate conditions.

**16. Clean-up and Restoration**

Describe the Certificate Holder's program for ROW clean-up and restoration, including:

a. the removal of any temporary roads; restoration of lay-down or staging areas; the finish grading of any scarified or rutted areas; the removal of waste (e.g. excess concrete), scrap metals, surplus or extraneous materials or equipment used;
b. plans, standards and a schedule for the restoration of vegetative cover; including, but not limited to, specifications to address:
    i. design standards for ground cover:
        1. species mixes and application rates by site;
        2. site preparation requirements (soil amendments, stone removal, subsoil treatment, or drainage measures);
        3. acceptable final cover % by cover type;
    ii. planting installation specifications and follow-up responsibilities;
    iii. a schedule or projected dates of any seeding and/or planting; and,
    iv. plans to prevent unauthorized access to and along the ROW.

**17. Visual Impact Mitigation**

Provide details of screening or landscape plans prescribed at road crossings and for adjacent property owners. Discuss existing or proposed landscape planting, earthwork, or installed features to screen or landscape substations and other Facility components.

**18. ROW Encroachment Plan**

Provide detailed plans for identifying and resolving potential encroachments to the existing and proposed ROW.

**19. Wetland Mitigation Plan**

Provide a proposal to address wetlands mitigation, for all permanent impacts to State-regulated wetlands and Federally- regulated wetlands, if prescribed by the Army Corps of Engineers, including, but not limited to, the permanent conversion of forested wetland to scrub-shrub wetland. If such proposal is to prepare a

detailed mitigation plan for State regulated wetlands, it shall separately address impacts to each of the wetlands benefits described in ECL § 24-0105(7). Plans shall provide for wetland mitigation in the same watershed to the maximum extent possible.

# Appendix F

## ADDITIONAL SPECIFICATIONS FOR THE EM&CP FOR CONSTRUCTION IN STATE-REGULATED WETLANDS AND WATERBODIES

The specifications set forth below are for construction within State-regulated Wetlands and Waterbodies and are in addition to, or refinements of, the elements required in the Specifications for the Development of Environmental Management and Construction Plan ("EM&CP Specifications") contained in Appendix E of the Joint Proposal. Only one EM&CP will be produced, and it will address specifications herein and in Appendix E.

### Wetland and Waterbody Construction

1 Show the extent of clearing and ground disturbance in each state-regulated wetland, 100-foot adjacent area, and waterbody on the EM&CP drawings.

2 The wetland and waterbodies summary tables required under section (B)(5)(c) of the EM&CP Specifications must include the following information for each wetland and waterbody located within the Project ROW and along access roads: proposed structure/disturbance type; NYSDEC classification code; wetland cover type; total area of temporary disturbance; total area of permanent impact (sq. ft.); conversion of forested and scrub-shrub wetlands (sq. ft.); and stream flow designation (i.e., perennial, intermittent or ephemeral).

3 Provide a narrative description of construction activities within state-regulated wetlands, adjacent areas and waterbodies in the EM&CP text outlining the following requirements:

   a. Where new permanent access roads are to be constructed through

wetlands, geotextile fabric or equivalent underlayment shall be used;

b. In the event that construction results in an alteration to state-regulated wetland hydrology, the breach must be immediately sealed, and no further activity may take place until DPS and NYSDEC staff are notified and a remediation plan to restore the wetland and prevent future dewatering of the wetland has been accepted by DPS Staff in consultation with NYSDEC;

c. Measures to minimize soil compaction in wetlands and waterbodies, including the use of temporary matting, low weight to surface area equipment or constructing when soils are frozen;

d. Measures and details demonstrating how work areas will be isolated from flowing state-regulated streams and standing water in wetlands, including the use of water handling methods such as sandbags, cofferdam, piping or pumping. The details shall also include a discussion of:

    i. the waters accumulated in the isolated work area to ensure settling and filtering of solids and sediments before water is returned to a state-regulated wetland or waterbody.

    ii. restoration measures for the isolated work area for streams including the complete removal of the temporary measures, reestablishing of pre-construction contours, and stabilization and seeding immediately following the completion of work

    iii. the manner by which the low flow conditions will be maintained and water depths and velocities similar to undisturbed upstream and

downstream reaches will be preserved so that the movement of native aquatic organisms is sustained;

e. Measures to minimize impacts to fish and wildlife during construction in state-regulated wetland and waterbodies including, where practicable, including actions to prevent entrapment of fish and wildlife in the work areas and, if entrapment occurs, actions to timely and safely move the animals to appropriate undisturbed locations outside of the work area; and

f. Procedures to completely remove excess materials to upland areas at least 50 feet from waterbodies and outside of the state-regulated 100-foot adjacent area.

**Wetland and Waterbody Restoration**

Include the following measures and details:

1 Restoration of pre-construction conditions and stabilization of disturbed wetlands and waterbodies within 48 hours or as soon as practicable after final construction;

2 Restoration of disturbed state-protected streams as follows:

a. Stream banks above ordinary high-water elevation will be stabilized consistent with the Blue Book and seeded with an appropriate perennial native conservation seed mix, and mulched with straw in accordance with the SWPPP;

b. Streams must be equal in width, depth, gradient, length and character as the pre-existing conditions and tie in smoothly to profile of the stream channel upstream and downstream of the project area; and

c. In areas where vegetation has been uprooted or grubbed on stream banks, the vegetation shall be replaced with ROW compatible seed mixtures as site conditions and facility design allow, and as appropriate for consistency with existing land uses, excluding access roads and areas needed for operation and maintenance of the facility.

3 Revegetation of disturbed state-regulated wetland and 100-foot adjacent areas with native plants. Appropriate native wetland species mixes (e.g. Ernst Wetland Mix (OBL-FACW Perennial Wetland Mix, OBL Wetland Mix, Specialized Wetland Mix for Shaded OBL-FACW) or equivalent); and/or crop seed mixes consistent with existing, continued agricultural use will be specified as appropriate, but will not interfere with the operation of the Facility;

4 Monitoring of restoration areas until an 80% cover of native plant species with the appropriate wetland indicator status has been reestablished over all portions of the restored area; and

5 In the event the criteria for restoration (80% native species cover) is not met at the end of the second year of monitoring the development of a Wetland Planting Remedial Plan (WPRP) will occur. The WPRP must include an evaluation of the likely reasons for the results, including an analysis of poor survival; a description of corrective actions to ensure a successful restoration; and a schedule for conducting remedial work. Once accepted by DPS Staff and NYSDEC, the WPRP must be implemented according to the approved schedule.

**Stream Crossings**

1 For each new permanent state-regulated stream crossing (C(T) or higher and/or navigable by 6 NYCRR Part 608), the following must be provided:

   a. Detailed plan, profile and cross-sectional view plans;

   b. Drainage area and flow calculations; and

   c. Location, quantity and type of fill.

2 Bridges that span the bed and banks of the state-regulated streams should be utilized where practicable. If a bridge is not practicable, an alternative analysis must be provided, including written justification for why a bridge is not practicable. If a culvert is the only practicable option, it shall be designed as follows:

   a. To safely pass the 1% annual (100-year return) chance storm event;

   b. To contain native streambed substrate or equivalent using an appropriately sized culvert with at least 20% of the culvert height embedded beneath the existing grade of the stream channel at the downstream invert;

   c. Be a minimum width of 1.25 times the bankful width of stream channel;

   d. The slope shall remain consistent with the slope of the adjacent stream channel. For slopes greater than 3%, an open bottom culvert, where practicable; and

   e. Facilitate downstream and upstream passage of aquatic organisms.

# APPENDIX G

## GLOSSARY OF TERMS AND ABBREVIATIONS

| Term/Phrase | Definition |
|---|---|
| Adjacent Area | The one hundred (100) foot adjacent area associated with any New York State regulated wetland. Adjacent area means those areas of land or water that are outside a wetland and within 100 feet, measured horizontally, of the boundary of the wetland. |
| Agricultural Areas | Portions of the Project where the lands are to be protected for agricultural use. |
| Blue Book or NYSSESC | New York State Standards and Specifications for Erosion and Sediment Control |
| Certificate | Certificate of Environmental Compatibility and Public Need |
| Certificate Conditions (Conditions) | A specific list of requirements included in the Certificate that must be followed by the Certificate Holder and its contractors. |
| Certificate Holder | Currently, Central Hudson Gas & Electric Corporation but applies to whomever owns the facility. |
| Certified Applicator | A commercial pesticide applicator who is certified by NYSDEC to use, supervise the use of, or train another individual in the use of any pesticide in any category of use covered by the individual's certification as described in 6 NYCRR 325.16(1). |
| CHG&E (sometimes also abbreviated as CH) | Central Hudson Gas & Electric Corporation. |
| Commencement of Construction | The initial disturbance of soils associated with clearing, grading or excavation activities; or other construction related activities that disturb or expose soils such as demolition, stockpiling of fill material, and the initial installation of erosion and sediment control practices required in the SWPPP. Routine vegetation management work and normal power line inspection and maintenance work is excluded from this definition. Surveying, soils testing, and such other related activities as are necessary for the preparation of the final design plans are also not considered construction. |

| Term/Phrase | Definition |
|---|---|
| Completion of Construction | All construction activity identified in the SWPPP has been completed (and Notice of Termination accepted by the appropriate agencies); areas of disturbance have achieved final stabilization; temporary, structural erosion and sediment control measures have been removed; and post-construction stormwater management practices have been constructed in conformance with the SWPPP and are operational. |
| Contractors | Companies hired under contract to physically construct the Project. Examples of such construction activities include: sitework/restoration; matting; drilling; concrete foundation; electric power line work; and tree removal. |
| NYSDEC or DEC | New York State Department of Environmental Conservation |
| NYSDPS or DPS | New York State Department of Public Service |
| Drop and Lop | Slash (vegetation debris) that is cut and left in place |
| Easement | A right held by an entity other than the property owner to make use of the land for a limited purpose |
| EM&CP | Environmental Management and Construction Plan (narrative, appendices and drawings) |
| Encroachment | In the context of the Project's Right-of-Way, a non-authorized use of the ROW. |
| Environmentally Sensitive Area (ESA) | An environmentally sensitive area is a designation for an area which needs special protection because of its landscape, wildlife or historical value. ESAs include, but are not limited to, wetlands, 100-foot adjacent areas associated with State-regulated wetlands, biological resources, habitats, national parks, archaeological/historic sites, natural heritage areas, tribal lands, drinking water intakes, marinas/boat ramps, wildlife areas, etc. |
| FAA | Federal Aviation Administration |
| Invasive Species | Non-native species that can cause harm to the environment, the economy or to human health as defined by 6 NYCRR Part 575. |
| Laydown and Staging Areas | Specified locations where materials and equipment are staged for short term use prior to being installed or utilized. If space is available, some other permitted uses would be for parking, storage trailers, sanitary facilities, maintenance activities, and dumpsters. |
| TROWVMP | CHG&E's most recent Transmission Right of Way Vegetation Management Plan approved by the New York State Public Service Commission. |

| Term/Phrase | Definition |
|---|---|
| Marshalling Yards | A specified location where materials and equipment are stored in a secure manner, and may also be used for parking, office and storage trailers, sanitary facilities, maintenance activities, dumpsters, etc. |
| MPT | Maintenance and Protection of Traffic. A plan that identifies procedures to be used to maintain traffic and provide a safe construction zone for those activities within the roadway right-of-way. |
| MS4 | Municipal Separate Storm Sewer System |
| NESC | National Electrical Safety Code |
| NYSDAM or DAM | New York State Department of Agriculture and Markets |
| NYSDOT | New York State Department of Transportation |
| NYSTA | New York State Thruway Authority |
| Off-ROW | Land outside (off) of the utility's electrical transmission right-of-way |
| OPGW | Optical ground wire. A type of static wire cable that is used in overhead power lines. Such cable combines the functions of grounding and communications. |
| OPRHP | New York State Office of Parks, Recreation & Historic Preservation |
| PPE | Personal protective equipment such as hardhat, high visibility reflective vest, eye protection, steel or ceramic-toes boots, gloves, or other such equipment used for a specific hazardous task. |
| PSC | New York State Public Service Commission |
| PSL | New York State Public Service Law |
| Pull Section | The portion of the transmission line ROW that is in between conductor pulling sites. |
| Pull Site | A defined work area that is used to setup conductor and static wire (OPGW) pulling operations. These work pad areas are sized to accommodate the additional equipment, and their need to be placed away from the nearest structure. |
| Rail Trail | The Ulster County Rail Trail project that is being planned and constructed as a public recreational trail from Kingston to the Ashokan Reservoir for public pedestrian and bicycle use |
| State-Regulated Wetlands | Under the Freshwater Wetlands Act, New York DEC regulates activities in freshwater wetlands (mapped, or of 12.4 acres or larger in size, except in the Adirondack Park area). Smaller wetlands may be protected when the commissioner determines they have unusual local importance. |

| **Term/Phrase** | **Definition** |
|---|---|
| ROW | Right-of-Way. This term defines the geographic land path of the power lines and/or other utilities that may be lawfully used. The legal use and rights of the ROW are either granted through easements or through ownership of the land. In the context of roads or highways, ROW refers to the legal boundaries and rights of that road or highway. |
| T&E | Threatened and Endangered species identified by USFWS and or NYSDEC |
| Secretary | Secretary to the Public Service Commission |
| SPDES | State Pollutant Discharge Elimination System |
| SPDES General Permit | General Permit for Stormwater Discharge from Construction Activity |
| Study Area | The geographical area in which environmental studies were performed for the project. |
| SWPPP | Storm Water Pollution Prevention Plan |
| USACE | United States Army Corps of Engineers |
| USFWS | United States Fish and Wildlife Service |
| Wetlands | Wetlands generally are areas determined by the NYSDEC, USACE, or municipalities to be a wetland and include swamps, marshes, bogs, and similar areas. |
| Work Pad<br>(Work Area, Work Space) | Defined areas of the project where construction (or removal) work will occur, most commonly around transmission structures. This also includes areas of earth grading away from structures required for equipment travel. |

# APPENDIX H

## PROPOSED 401 WATER QUALITY CERTIFICATION

## NEW YORK STATE PUBLIC SERVICE COMMISSION
## WATER QUALITY CERTIFICATION

**Pursuant to:** Section 401 of the Federal Water Pollution Control Act, 33 U.S.C. § 1341, and Article VII of the New York Public Service Law

**Certification Issued to:** Central Hudson Gas & Electric Corporation
284 South Avenue
Poughkeepsie NY 12601

### Location of Facility

Central Hudson Gas & Electric Corporation ("CHG&E" or "Central Hudson") is proposing to rebuild its existing 69 kilovolt (kV) H and SB transmission lines ("H and SB Line") located between the City of Kingston in Ulster County and the Town of Catskill in Greene County (the "Project"). The Project will generally occur within an existing approximately 150-foot-wide right-of-way (ROW) and spans approximately 23.6 miles through the Town of Ulster, the City of Kingston; the Town of Saugerties, the Village of Catskill and the Town of Catskill. At the south end of the Project in the Town of Ulster, the existing SB Line leaves the Hurley Avenue Substation, runs 0.6 miles east before turning north and continuing for 9.8 miles through the Town of Ulster, the City of Kingston, and the Town of Saugerties. Within the Town of Saugerties, the SB Line crosses Interstate 87 and then continues north for another 1.0 miles before terminating at the Saugerties Substation. From the Saugerties Substation, the H Line continues north approximately 3.5 miles before entering the Great Vly wetland (Great Vly) in the Towns of Saugerties and Catskill. The H Line continues along the edge of the Great Vly for approximately 0.7 miles, before exiting the Great Vly and continuing east. The H Line continues east to a Line Tap in the Lehigh quarry, and then proceeds generally north approximately 7 miles, terminating at the North Catskill Substation in the Town of Catskill.

### Project Description

As proposed, the Project includes the rebuild of 23.6 miles of existing transmission line along existing ROW with approximately 1.2 miles of the H Line route relocated to avoid a sensitive environmental resource area designated by the New York State Department of Environmental Conservation as the Great Vly.

Both the H and SB Lines currently operate at 69 kV and the rebuild design voltage will increase to 115 kV. The length of the new line is nearly equal to the length of the existing line. The total distance of the H and SB Line is approximately 23.6 miles.

The proposed plan is to remove and replace all structures, insulators, electrical conductors associated with the existing H and SB Lines with the exception of 18 structures that will be retained. These 18 structures include those which were replaced on an emergency basis or were determined to be structurally sound and will not need to be replaced as part of this Project.

Generally, the proposed new 115 kV lines will be primarily Corten (self-weathering) steel single-pole structures. The structures will be an average height of approximately 78 feet above the ground and directly embedded in the ground, although for certain locations engineered structures will be required (concrete foundations).

The Project crosses 112 wetlands (of which 4 are state-regulated Class II and III wetlands) and 106 surface water features (of which 7 are state-regulated streams; five are B and two are B(t) Classified streams). The most significant water bodies crossed by the Project include Esopus Creek, Plattekill Creek, Saw Kill, Catskill Creek, the Great Vly, Kingston Water Supply. These resources will be protected during the construction of the Project by following the Environmental Management & Construction Plan ("EM&CP").

CHG&E's Article VII application has fulfilled the requirements necessary to determine whether the Project will qualify for issuance of a Water Quality Certification pursuant to §401 of the Federal Water Pollution Control Act (33 U.S.C. §§ 1251 through 1387).

## Certification

The New York State Public Service Commission hereby certifies pursuant to Section 401 of the Federal Water Pollution Control Act, 33 U.S.C. Section 1341(a)(1) and Article VII of the New York Public Service Law that the Project, as conditioned herein, complies with applicable requirements of Sections 301, 302, 303, 306 and 307 of the Federal Water Pollution Control Act, as amended, and applicable New York State water quality standards, limitations, criteria and other requirements set forth in 6 NYCRR §608.9(a) and Parts 701 through 704, provided that all of the conditions listed herein are met. This Water Quality Certification is issued in conjunction with the Article VII Certificate ("Certificate") sought by CHG&E in, and based on the record of, Case 17-T-0816.

## Conditions

1. No in-water work shall commence until all pre-construction conditions relating to such work contained in the Certificate have been met to the satisfaction of the New York State Department of Public Service.

2. Construction and operation of the Project shall at all times be in conformance with (a) the application and Joint Proposal in Case 17-T-0816, to the degree not

superseded by the Certificate, (b) all conditions of approval contained in the Certificate, (c) the Environmental Management and Construction Plan ("EM&CP"), and (d) all conditions incorporated in any order approving the EM&CP, to the extent the documents referenced in (c) and (d) above pertain to Central Hudson's compliance with New York State Water Quality Standards necessary and appropriate for issuance of, and compliance with, this Water Quality Certification.

3. CHG&E shall provide a copy of this Water Quality Certification to the U.S. Army Corps of Engineers along with a copy of the Application, Joint Proposal, Certificate, EM&CP, and the order(s) approving the EM&CP in Case 17-T-0816 so that the U.S. Army Corps of Engineers will have a complete record of the conditions that apply hereto.

4. CHG&E shall provide to all construction contractors complete copies of the Article VII Certificate, order(s) approving the EM&CP, the approved EM&CP, and this Water Quality Certification.

Certified by:

_____ _____

Date

Houtan Moaveni
Director of Facility Certification & Compliance
Office of Electric, Gas and Water
New York State Department of Public Service
Three Empire State Plaza
Albany, New York 12223