ENVIRONMENTAL MANAGEMENT AND CONSTRUCTION PLAN FOR THE RECONSTRUCTION OF THE EXISTING P & MK TRANSMISSION LINES AND ASSOCIATED SUBSTATION AND TRANSMISSION FACILITIES ULSTER COUNTY, NEW YORK

ADDENDUM

FOR

STURGEON POOL SUBSTATION AND CONNECTING TRANSMISSION FACILITIES

July 2014

State of New York Public Service Commission
Case No. 14-T-____

Central Hudson Gas & Electric Corporation
284 South Avenue
Poughkeepsie, New York 12601

TABLE OF CONTENTS

New Sturgeon Pool Substation and Related Transmission Improvements

I. Introduction

In 1995, the Public Service Commission ("PSC" or the "Commission") granted Central Hudson Gas & Electric Corporation ("Central Hudson" or the "Company") a Certificate of Environmental Compatibility and Public Need ("Certificate") authorizing the reconstruction of its existing P & MK transmission lines and the upgrade, rebuild or removal of associated substations.[1] As a condition of the Certificate, the Commission required Central Hudson to submit an Environmental Management and Construction Plan ("EM&CP") in accordance with ordering clauses 4, 5 and 6 of Opinion No. 95-6.

In 1996, the Commission approved Central Hudson's EM&CP,[2] which provided detailed design and construction plans for the transmission facility, as well as the footprint and general electrical layout for six new or expanded substations. Since construction on most of the substations was not scheduled to commence until the following decade, ordering clause 1.B of the EM&CP order required the Company to file its final design plans for each new or expanded substation at least sixty days before the start of construction at each new or modified substation. To date, four of the six substations have been or are in the process of being constructed.

This Addendum to the approved EM&CP is submitted in connection with the Sturgeon Pool substation and associated transmission improvements that will connect to the Sturgeon Pool substation. The information required under the EM&CP Order is presented below for Commission approval.

II. Project Description - Overview

A. Substation

Central Hudson is proposing to upgrade electrical power service to its customers based on the community need. As part of this project a new and expanded electrical power substation will be constructed adjacent to the existing Sturgeon Pool Substation, which is located on the east side of Coutant Road approximately 1.3 miles north of Grist Mill Road in the Town of Rosendale in Ulster County, New York. See General Site Location Map, **Attachment 1**.

In the original Article VII filing that led to the P&MK Order, the new 115 kV Sturgeon Pool Substation was proposed adjacent to the existing substation. Since the original filing, several alternative locations have been evaluated to assess the best location. The result of this

[1] Case 91-E-0529, Central Hudson Gas & Electric Corporation, Opinion 95-6, Opinion and Order Granting Certificate of Environmental Compatibility and Public Need (issued May 23, 1995)(the "P&MK Order").

[2] Case 91-E-0529, supra, Order Approving Environmental Management and Construction Plan (issued July 11, 1996)("EM&CP Order").

analysis, discussed further below in Section III, is that the new substation is proposed in the same location as indicated in the original filing.

The purpose of the new Sturgeon Pool Substation is to provide a 115 kV line terminal for the "P" Line, which is currently operating at 69kV. The new 115 kV Sturgeon Pool Substation will split the "OR" Line between the Hurley Avenue Substation and Ohioville Substation. At the time when the P&MK Lines will begin operating at 115 kV, these lines will increase the area load serving capability in the Ellenville area.

In the original P&MK Article VII application, four 115 kV circuit breakers were proposed to be installed, along with associated relay protection, control equipment for the transmission lines, associated line terminal equipment, and one 115-13.8 kV step down transformer along with 13.8 kV switchgear.

In addition to the equipment originally proposed for the new substation, Central Hudson proposes to install a replacement for the Ohioville Substation 115/69 kV autotransformer at the new Sturgeon Pool Substation location. This transformer is planned to be replaced due to its age and poor condition. The replacement transformer is required due to the continued need to provide an input to the local 69kV system over the long term.

Installing the replacement for the Ohioville transformer at the Sturgeon Pool Substation location provides better post-contingency voltages and lower electric losses. This also will allow the retirement of approximately 6.2 pole-miles of 69 kV "O" & "OB" double circuit transmission line that runs from the Dashville Substation to the Ohioville Substation, upon completion of the new 115 kV Sturgeon Pool Substation and when the "P" Line is operating at 115 kV. The remainder of the existing 69 kV "O" & "OB" Lines will be reconfigured to a combined 69 kV Sturgeon Pool to Dashville to Boulevard line.

Pursuant to the EM&CP Order, Central Hudson is required to (i) file the final Sturgeon Pool design, along with plans for drainage and landscape, for Commission approval at least 2 months prior to construction; (ii) submit a copy of the plan to the affected municipality and place it at a location where it is available for public inspection; and (iii) serve notice of the filing requesting comments on the affected municipality and those who submitted comments on the 1996 EM&CP pertaining to the Sturgeon Pool Substation.

B. Transmission Improvements

As noted above, included as a part of this Project is the connection of the Sturgeon Pool Substation to the OR transmission corridor. This requires the installation of new transmission structures and the necessary clearing of a new transmission line corridor that extends from the new substation to existing transmission lines northeast of the site. All proposed improvements will be constructed and installed on lands owned in fee by Central Hudson.

The installation of the proposed new Sturgeon Pool Substation will require the re-routing of the existing "OR", "N", "OB" and "P" Lines. The re-route of the 115 kV "OR" Line is the most substantial transmission work, and will involve creation of a new 2200 feet long by 200

feet wide transmission corridor on Central Hudson fee-owned property. The re-routed "OR" Line will provide two 115 kV feeds into and out of the new Sturgeon Pool substation. See Transmission Corridor Overview Drawing, **Attachment 2**.

Work on the "OR" Line will involve the creation of a new 200 feet wide by 2200 feet long transmission corridor through Central Hudson's existing Rifton property (in the Town of Esopus) and will cross the Wallkill River approximately 700 feet downstream of the Sturgeon Pool dam to connect to the new Sturgeon Pool substation (in the Town of Rosendale). The need for the re-route of the "OR" Line is driven by the requirement to have (2) 115kV "feeds" into and out of the new Substation. The route on the north side of the Wallkill River was chosen from among five (5) routing options considered, and after discussions in the field with DPS Staff. Once the area on the north side of the Wallkill River was chosen for the proposed transmission corridor, Central Hudson examined three (3) specific routings, at various elevations, alignments, existing ROW intersections and lengths. The final route minimizes visual and environmental impact, and is preferable from a constructability point of view. The proposed routing minimizes the environmental and visual impacts of the new lines and allows the project to be constructed entirely within existing Central Hudson-owned property.

The Central Hudson property to the north of the Sturgeon Pool dam consists of a lightly wooded area adjacent to an existing Central Hudson line workers training facility and an existing transmission corridor containing the 69kV "N" and "OB" Lines, the 115kV "OR" Line, and the 345kV "303" Line. The proposed corridor for the "OR" Line re-route will intersect the existing Transmission ROW approximately 1100 feet north of where it crosses the dam. It will then run 460 feet to the west before making a corner and running 1100 feet south to a crossing over the Wallkill River and into the proposed new substation. The proposed corridor to the north of the Wallkill River will be cleared to a width of 200 feet and will contain two (2) new separate 115kV "OR" pole lines. These lines will run into and out of the new Sturgeon Pool Substation and connect to the Hurley Avenue and Ohioville Substations. The lines are proposed to be routed separately, as opposed to being on the same line structures in order to enhance reliability by preventing both lines from being damaged by a falling tree or other storm related event.

There will be a total of twelve (12) new transmission structures within the proposed new corridor ranging in heights from 65 feet to 95 feet above existing grade. Given the terrain, proximity to other facilities and design loading, four (4) of the proposed structures will require engineered, caisson foundations and custom built tubular steel structures in the vicinity of the Wallkill River crossing. These four (4) structures, which will be located on either side of the Wallkill River (two (2) on each side), will provide support for the two (2) re-routed "OR" lines as they cross the river. The remainder of the structures will be 12-sided, direct embedded, tubular steel pole structures. All of the structures will be constructed of Cor-ten weathering steel and use gray ceramic insulator strings for deadend structures or gray polymer suspension insulators. The structure types being proposed will be single pole davit arm structures in a delta configuration or single pole dead end angle structures.

In support of the "OR" Line re-route to the proposed substation, modifications will also need to be made to the 69kV "P", "OB" and "N" Lines. At the intersection point of the proposed and existing transmission ROW north of the dam, Central Hudson is proposing to replace four

(4) existing, and install two (2) additional "OR" Line Structures to make the connection to the re-routed corridor. The "N" and "OB" Lines in this area would then require the replacement of two (2) existing structures, and addition of one (1) new structure in order to provide sufficient clearance for the new "OR" Line alignments to pass overtop and down to the proposed corridor.

The 69 kV "P" Line will require a 2-phased modification to re-route the line around the proposed construction site for the new substation. Phase I would occur prior to the start of any substation construction and involve the relocation and replacement of two (2) existing structures and the installation of one (1) new temporary structure. This configuration will provide sufficient clearance for the substation construction to begin and for the existing substation to continue to operate at 69 kV for the duration of the construction project. Phase II will occur after the new substation is completed, and at the time when the "P" Line is ready to be operated at 115 kV. At that time, the temporary structure will be removed and a new permanent structure will be installed to connect the line into the new 115 kV "P" Line substation dead end structure. A table showing the existing pole structures (if applicable) and proposed new or replacement structures is included as **Attachment 3**. Plan and Profile Drawings for all transmission improvements are included as **Attachment 4**.

III. New Sturgeon Pool Substation

A. Electrical Layout

The existing Sturgeon Pool Substation contains 4 transformers- three (3) rated at 6 MVA 69 kV-6.6 kV and the other rated 10.0 MVA 69 kV-3.8 kV with a load tap changer. The three 6 MVA units were installed in 2013. The 10 MVA unit will be taken out of service when the new substation goes on-line. The substation also contains three 69 kV (SF6) circuit breakers that were installed in 2013.

The proposed new Sturgeon Pool 115 kV Substation is to be constructed adjacent to, and on the southwest side of the existing Sturgeon Pool Substation, on property owned by Central Hudson. The new 115 kV substation will improve reliability to the customers served from the existing Sturgeon Pool Substation while providing for future load growth in the area. As noted above, the primary purpose of the new Sturgeon Pool Substation is to provide a 115 kV line terminal for the "P" Line, which is currently operating at 69 kV. The new substation will be constructed with 115 kV low-profile steel structures. The equipment will include four 115 kV circuit breakers, one 13.4 MVA 115-13.8kV transformer with load tap changers, one 56 MVA 115/69kV autotransformer with load tap changer (replacement for the Ohioville transformer), two 115 kV 1200A Circuit Switchers, and a Power Control Center ("PCC"). A drawing showing the proposed Electrical Layout is included as **Attachment 5**.

The four 115 kV circuit breakers to be installed at the new substation will provide transmission line protection. The two 115 kV 1200A circuit switchers will be installed (one each) on the high side of each transformer to provide transformer protection. The 115-13.8kV transformer will be equipped with a Load Tap Changer ("LTC"), which will regulate the voltage for Central Hudson's customers. The LTC feature eliminates the need for a bank of voltage regulators on each of the distribution circuits.

One distribution circuit (341) currently exits the existing substation at 13.8 kV. After the new substation is in service, the 341 circuit will remain in service. The circuit will originate from the single metal clad switchgear lineup inside the PCC. The 115-13.8kV transformer will supply the switchgear lineup of six cubicle units through underground cable connections. The transformer's three phase power output will be brought underground by a cable tower located adjacent to the transformer. The switchgear will consist of six adjacent units. Unit #1 will be used for the auxiliary equipment. Unit #2 will be for the main feed from the transformer. Unit #3 will supply the 13.8 kV distribution circuit that will exit the substation. Units #4 & 5 will be equipped to supply future distribution circuits. Unit #6 will be used to store the ground and test device. A breaker test station will be mounted on the wall opposite to Units 1-6.

The PCC will be equipped with six relay protection and control panels. Programmable logic controllers will be used in conjunction with human-machine interfaces for the substation's controls. Protective relaying schemes will be used in the PCC for the transformer, breakers, circuit switchers, bus and transmission and distribution lines.

Air break disconnect switches, rated 115kV, will be installed at different locations within the substation yard, which will enable isolation of equipment for maintenance and repair without interrupting service to the customers served from the substation. "Vee" type Double End Break switches with standard arc horns will be used for this function. Twelve coupling capacitor voltage transformers will also be installed in the substation yard. These units will be used in the protective relay scheme for the protection of the transmission lines to the High Falls, Hurley Ave and Ohioville substations.

The new transformers will each be equipped with oil level gauges for all oil-filled compartments and a Sudden Pressure Relief device ("SPR"); the oil level gauges and the SPR will have alarm contacts that will notify Central Hudson personnel of a possible leak. Each transformer will rest on its own concrete pad and the interior of the substation will contain a 4" layer of crushed stone. Under the stone will be an oil containment system (discussed in the MOSES Study section below).

The existing entrance to the substation site will be upgraded to access the new substation. The new substation will have one distribution transformer. The PCC will be used instead of a switchgear and separate control house. As a result, the new substation footprint will fit in about one acre of the property already owned by Central Hudson. The new substation site will be used as a lay-down area as well during construction.

The proposed substation is located in a remote location (on the end of a dead end road). This is also the site of an existing hydro-electric generation station and substation. The location itself should satisfactorily reduce the visual impact of the proposed substation for the neighbors to the West and to the South.

The final elevation of the new substation will be several feet above the elevation of the existing substation. Fill will be imported to raise the site to its final grade.

Underground work will also need to be done for the circuit exits. One duct bank will be installed from the switchgear to a manhole system. One manhole will need to be installed directly outside the proposed substation fence line for the circuit exits. Each manhole is 10-feet long by 6-feet wide by 7-feet deep. Each circuit will exit the substation underground through the manhole system to riser poles for overhead distribution along Coutant Rd.

The equipment heights have been kept as low as possible to allow the view of the substation to be screened by the natural buffer of the dam, hill, large trees and other vegetation that exists. The dead-end structures will consist of three 45' steel poles with 10' lightning masts on top of each pole for the three structures; the height of the steel poles are the same height, above grade, of the existing transmission poles. Two lightning masts with 35-foot poles and 10-foot lightning rods will also be installed approximately eight-feet away each transformer for overall lightning protection. See the elevation drawings contained in **Attachment 5**.

LED area lights will be mounted at a height of 30-feet above grade on each lightning mast structure for the general lighting of the substation. These area lights are necessary if Central Hudson workers need to work inside the substation during emergencies; however, the lights will normally be turned off.

An eight-foot high fence, with one foot of barb wire on top of the fence, will surround the new substation. A 20-feet wide entrance gate will be installed in the fence to allow access to the substation. The proposed 160-feet by 170-feet (approximate) dimensions of the substation will allow for all of the proposed substation development, while meeting all of Central Hudson's standards.

In terms of the old substation site, it will remain. Currently, there are two separate steel structures existing for the old substation. The structure closest to the Sturgeon Pool hydro-electric generating plant contains the three generator step-up transformers and terminates the “O” and the “N” 69kV transmission lines and will remain. Central Hudson presently expects to remove the structure closest to the new substation (which presently terminates the “P” Line) when the “P” Line is operating at 115kV. The breaker position that feeds the “P” Line as a low side breaker for the new 115/69kV autotransformer will be reused. At that time, however, a less obtrusive low profile bus will be installed from the low side of the 115/69kV autotransformer to the termination structure for the breaker.

B. Substation Alternatives Considered

In Central Hudson’s original Article VII filing, the new Sturgeon Pool Substation was proposed adjacent to the existing substation.

In connection with this EM&CP amendment filing, Central Hudson performed an evaluation of alternate substation site locations. At the time the alternatives analysis was being performed, Central Hudson had also concluded that the new Sturgeon Pool Substation was a preferred location for replacement of the aging Ohioville 115/69kV autotransformer. This location for the transformer provides better post-contingency voltages, lower electric losses, and

allows the retirement of approximately 6.2 pole-miles of the "O" and "OB" 69kV transmission lines.

Therefore, the evaluation of the new substation site also included an assessment of the ability to accommodate this additional transformer.

The three site locations (see **Attachment 6** – Substation Alternatives Drawing) that were considered were:

- Site A- adjacent to the existing substation
- Site B- across the road from the existing substation
- Site E- on the Rifton property (north side of the Wallkill River and Sturgeon Pool)

Site B is located across the road from the existing substation on another landowner's property. There are also two wetlands and a stream which cover a substantial portion of this site. In addition, there are some environmental concerns (regarding past disposal practices) regarding this land parcel. As noted, this land would have to be purchased from a private landowner. For these reasons, this site was not considered further.

Site E was located across the Wallkill River from the existing substation, and was on the Central Hudson owned Rifton property. At this location, there were concerns with the steepness and narrowness of access roads for site construction activities and for transport of large substation equipment. Due to the fact that there is not a convenient, timely access route between the two locations, there were concerns related to operations / maintenance and coordination issues. For these reasons, Site E was not considered further.

Site A was initially determined to be located in a floodplain in accordance with FEMA maps. However, during the evaluation, Central Hudson had an updated survey performed by Brooks & Brooks, P.C. The result of this survey demonstrated that the portion of Site A which contains the fenced equipment area of the new substation is actually outside of the floodplain.

Site A was further evaluated to confirm that the new substation, with the proposed revised configuration to include the additional 115/69 kV autotransformer (replacement for Ohioville Substation transformer) could be accommodated on the property.

As a result of the above evaluation, the proposed location for the new Sturgeon Pool Substation is Site A, which is adjacent to the existing substation. Site A was determined to be the preferred site for the following reasons:

- Site A is the original location indicated in the original Article VII filing
- The site is adjacent to the existing substation and generating plant making it ideal for coordination of operations and maintenance activities.
- The location can accommodate the proposed substation arrangement and equipment

- The site provides an optimal location, and contains the additional required space for the relocation of the replacement Ohioville Substation 115/69 kV auto-transformer.
- Site A is on Central Hudson property and does not encroach on private landowners
- Development at this site will result in less impact to the environment since this site is not forested and, while it contains wetlands, the size of those wetlands are much less significant when compared to other sites, and can be avoided during construction
- Construction is more feasible as compared to the other sites due to its being relatively level, unforested and accessible for construction equipment and large equipment deliveries.

C. Wetlands and Water Resources

A wetland and stream delineation of the substation site was performed in connection with evaluating Sites A, B and E (discussed above) and again in connection with the preferred transmission corridor route by Kleinfelder. Kleinfelder is in the process of completing its consolidated report and this should be finalized and filed shortly. The Kleinfelder site evaluations will show that the site chosen for the new substation contains only a small non-state regulated wetland which, as the site plan below shows, will not be impacted by the new substation.

D. Flood Plain Evaluations

Currently, FEMA's Flood Insurance Rate Map (FIRM), No. 36111C0610E, shows the location of the proposed Substation and parking area as occurring within FEMA's mapped 100-year floodplain. The FIRM shows the Base Flood Elevation (BFE) (100-year water surface elevation) at this location at an elevation of 36.4 feet and covering most of the proposed construction area for the new substation. Based on a recent topographic survey performed at the proposed construction site, most of the area is actually higher than an elevation of 36.4 feet and is therefore above the BFE and out of the floodplain. See Base Floodplain Elevation Map with Site Plan Overlay included as **Attachment 7**. A Letter of Map Revision (LOMR) submittal was sent to the Town of Rosendale by Central Hudson in November 2013 for their review and approval and FEMA received the LOMR application from the Town on December 3, 2013. The LOMR was intended to correct FEMA's 100-year floodplain boundary and demonstrate that the proposed substation was not in the 100-year floodplain.

When informed that there would actually be construction (e.g., the parking area) in the floodplain even after it had been updated with the new topographic data, Cheryl Hannah from Dewberry (FEMA's contractor to review permit applications) sent an email stating that Central Hudson would only need to submit a LOMR after construction had been completed with an as-built survey to define the new floodplain. This was the last communication with this particular FEMA contractor as Central Hudson's consultant working on the matter (Kleinfelder) was informed that Dewberry would no longer be continuing as FEMA's contractor to review LOMR applications. However, Kleinfelder was told that submitting a LOMR after construction was

completed would be acceptable because the Wallkill River's 100-year floodplain elevation was established based on the water surface elevation of Rondout Creek at the Wallkill River's confluence with Rondout Creek. FEMA's contractor assumed that there is no flow in the Wallkill River and the Wallkill River is in a "backwater" of Rondout Creek. It was explained that any type of construction could be performed or any amount of fill placed in the Wallkill River floodplain and it would not affect the 100-year water surface elevation.

Based on the above, Central Hudson met with the Town of Rosendale and its Floodplain Administrator on May 2, 2014 (described further below under Public Outreach). The Town agreed with the approach set forth above. Therefore, even though this substation EM&CP Addendum is in connection with the issuance of an Article VII Certificate (and consequently local permits are not ordinarily sought or required), Central Hudson will obtain the Town's approval for conducting some activities in a 100-year floodplain by having it sign off on an LOMR request after construction is complete.

E. Grading, Subsurface Preparation, and Site Layout

(i) Grading and Subsurface Preparation

The majority of excavation at the site (see **Attachment 8** – Sturgeon Pool Substation Existing Conditions [EX-1] and Grading and Utility Plan [SP-2]) will be conducted within a previously developed area. This work will include improving and widening the existing access driveway[3] to provide for better access and maneuverability for large vehicles and tractor trailers for equipment delivery; constructing the substation pad area and necessary retaining walls; constructing the storm drainage collection and conveyance system and the stormwater management facilities; installing the manhole and underground conduit duct banks; relocating utility poles and constructing the proposed transmission corridor, which will include land clearing and new transmission poles and lines installation.

The final elevation of the substation pad will be 46 feet above mean sea level, which will effectively elevate the Site approximately 10 feet above the existing 100-year floodplain elevation. All proposed improvements will be installed at elevations above the 100-year floodplain elevation to maintain the Site's access and operability during periods of local flooding and to comply with the Town of Rosendale's floodplain development law.

Substation Site soil disturbance will include clearing and grubbing, grading, trenching, and preparation for final restoration as necessary. Activities within the new transmission corridor will be limited to removing necessary vegetation to allow vehicular access and to remove and prevent any tree growth which may be hazardous to the transmission lines and structures.

[3] Prior to any work on the new substation, an existing culvert which conveys a New York State Department of Environmental Conservation ("NYSDEC") protected stream beneath the site will be replaced under Central Hudson's DEC general permit.

Throughout the entire process, erosion and sediment controls will be governed by the Commission approved EM&CP, this Addendum, and Central Hudson's Storm Water Pollution Prevention Plan ("SWPPP") which is detailed below.

(ii) Site Preparation and Grading

A Geotechnical Investigation has been performed at the substation site which included taking seven (7) soil borings at predetermined locations at the Site, specifically within the substation pad. A boring location site plan is included as part of the Geotechnical Report included with this filing as **Attachment 9**. All borings were advanced to a depth of at least 12 feet or refusal. In Boring B-8, bedrock was encountered at a 4.5 foot depth, and a rock core was taken resulting in a finding that the subsurface bedrock to be of high quality.

The Geotechnical Report includes the results of the field investigation and recommendations for the design of substation equipment foundations and earthwork construction. The geotechnical investigation predominately encountered previously placed low quality, uncontrolled fill soils within the future substation pad area in the upper 8 to 10 feet of the subsurface. These low quality soils must be adequately addressed during construction by removal and replacement with suitable materials, or by the use of footings designed to extend to suitable subgrade foundation materials. Additionally, the investigation notes that groundwater may be encountered during excavation and that standard dewatering methods may be required during the construction activities. In general, the Geotechnical Report recommendations include standard methods to be implemented during all site work operations. These recommendations are being reviewed by Central Hudson engineering design staff to determine the best design for major substation equipment foundations.

Major pole structures in the new OR transmission corridor segment are anticipated to be constructed with caission foundations, while minor pole structures will be installed by direct burial of the pole base. A separate geotechnical investigation of the new corridor area soils is being conducted in July 2014 to facilitate the pole foundation design. The results of this additional geotechnical investigation and foundation design recommendations will be incorporated into the final design and such recommendations will be implemented in connection with installation of the transmission improvements on the north side of the Wallkill River.

(iii) Site Plan Layout

The new Sturgeon Pool Substation will provide better reliability to Central Hudson's customers and will be located on the same 7.1 acre parcel of land located on Coutant Road as the existing Sturgeon Pool Hydropower Generation Station and existing Sturgeon Pool Substation. The new Substation will be located adjacent to and on the southwestern side of the existing substation. See **Attachment 10** (Sturgeon Pool Substation Site Plan [SP-1], Sequencing Plan [SP-3], and Site Details [SD-1 and SD-2]). Construction activities for the new Substation and associated improvements will disturb approximately 2.0 acres of previously developed land. The fenced substation pad / power equipment area improvement will occupy .6 (160' x 170') acre, with the remaining area to be disturbed consisting of access roadway, parking and stormwater management facilities area. A Construction Sequencing Plan has been developed (**Attachment**

10, Sheet SP-3) that details the construction process to be followed so that continuing operation of the existing substation and Hydropower Generation Station will not be compromised. This drawing also shows where staging areas for equipment and materials will be located.

Due to the project's remote location in an area of low elevation below the existing Sturgeon Pool dam and that the existing developed power house and substation area are generally shielded with dense vegetation, visual impacts of the proposed substation to adjacent and surrounding development during and after construction are considered negligible[4]. To ensure operation and accessibility during flooding events, the new substation pad and access driveway will be raised above the 100-year floodplain elevation. There are existing trees and brush, which satisfactorily reduce the visual impact of the proposed substation for the few neighbors to the east and to the south. The final pad elevation (EL 46.0') of the new substation will be approximately six feet above the elevation of the existing substation and will be approximately 10 feet above the existing floodplain elevation of 36.4 feet.

The new distribution circuits exit the Substation PCC switchgear via a duct bank and electrical manholes. Conduit will be installed from the manhole to riser poles for overhead distribution through the existing distribution corridor. The site preparation work will also include the clearing and development necessary for the relocation of a portion of the OR transmission corridor as further described below.

As noted above, the arrangement of the proposed Sturgeon Pool substation has been designed so the majority of improvements are constructed within the developed portion of the site. The site has also been designed to avoid any impacts to sensitive environmental areas in the project's vicinity, including federally regulated wetlands and a NYSDEC protected stream.

(iv) Stormwater Pollution Prevention Plan

A SWPPP has been prepared in connection with Central Hudson's compliance with NYSDEC's General Permit for Storm Water Discharges Associated with Construction Activity ("General Permit") for both the Substation Site and the transmission corridor.[5] The SWPPP complies with all requirements detailed within the NYSDEC's Stormwater Management Design Manual ("SWMDM"), latest edition with regards to stormwater quality and quantity control management. Elements of the SWPPP, including any required management structures and temporary and permanent erosion and sediment control measures, have been designed in accordance with the New York Standards and Specifications for Erosion and Sediment Controls, latest edition and are shown on the site plans. See also **Attachment 11** (Sturgeon Pool Substation Erosion and Sediment Control Details [EC-1] and Plan [EC-2]).

Development of the substation site will result in the creation of impervious surfaces, the removal of vegetation and the disturbance of overburden. These factors have the potential to cause sedimentation to reach downstream wetlands and water bodies if not managed properly.

[4] A visual impact assessment, however, was performed for the new transmission corridor, given the new clearing that will occur.

[5] A Vegetation Disposal Plan, discussed below, has also been prepared regarding clearing required for the new transmission corridor.

The SWMDM approved methodology was utilized to determine the volume of runoff which must be captured, treated and infiltrated to effectively prevent any downstream pollution (i.e., satisfy Water Quality Volume ("WQV") requirements and to replicate pre-development hydrologic conditions at the site and address Runoff Reduction Volume "RRV" requirements).

A bioretention facility was selected as the optimal treatment method for this site due to its ability to treat the Water Quality Volume (capture pollutants) and to replicate pre-development hydrology, by infiltration into the onsite, well-draining soils, thus satisfying RRV requirements. Site runoff from all impervious surfaces will be collected and conveyed to this treatment facility via catch basins, culverts and swales. Runoff quantity controls are not required for onsite improvements because the Site discharges to a fifth order stream (the Wallkill River).

In addition, a quantitative analysis was performed to adequately size the replacement culvert which will continue to convey the NYSDEC classified stream through the Site, and prevent future flooding at the Site caused by the existing undersized culvert. This existing stream bypasses the Site without influence from the proposed construction and therefore water quality or quantity treatment are not required and are not provided.

Regular site inspections of the Proposed Project site (including both the Substation Site and new Transmission Corridor) will be conducted by qualified personnel, as defined in the General Permit, to ensure the adequacy of the Site's erosion and sediment control measures during construction operations. Details with regard to required inspections are included with the Site plan drawings and are included in the SWPPP. The SWPPP is included as **Attachment 12**.

F. MOSES Study

Central Hudson has performed an evaluation of the proposed expansion of the Sturgeon Pool Substation location to determine the potential of dielectric fluid reaching potential sensitive environmental receptors adjacent to the site. The evaluation was conducted using Electric Power Research Institute's (EPRI) Mineral Oil Spill Evaluation System (MOSES) software. Information was provided and input into the model regarding the two pieces of additional electrical transformers (in addition to the three that exist at current substation) that will contain an estimated total capacity of 14,500 gallons of oil. Given the total amount of oil contained on site as well as in close proximity to the Rondout Creek, Central Hudson will incorporate a form of secondary containment under these large oil containing pieces of equipment. Per Spill Prevention Countermeasure and Control regulations, the secondary containment will be required to handle 110% of the total oil capacities in each piece of equipment. The proposed substation will be built with a slight slope directed towards the bio-retention facility located on the western side of the Site. Based on the design criteria and incorporating a secondary containment system under each additional transformer, the results of the model indicate that there is a probability of 0% that a spill from the Substation would migrate off-site into the adjacent creek. A copy of the results of the MOSES model is included as **Attachment 13**.

IV. Transmission Improvements

A. Need for Transmission Improvements

The installation of the proposed new Sturgeon Pool Substation will require the re-routing of the existing "OR", "N", "OB" and "P" Lines. The re-route of the "OR" Line is the most substantial transmission work, and will involve creation of a new 2200 feet long by 200 feet wide transmission corridor on Central Hudson fee-owned property. The re-routed "OR" Line will provide two 115 kV feeds into and out of the new Sturgeon Pool substation.

B. Preferred Transmission Layout Corridor and Routing Plan

The project includes the construction of a new transmission corridor segment extending from the proposed new Sturgeon Pool Substation across the Wallkill River, and connecting to existing transmission lines located approximately 2200 feet northeast of the Substation site. The portion of the transmission corridor on the north side of the Wallkill River will be located on separate, Central Hudson owned parcels, to the northeast of the substation parcel. Access to this corridor segment area is along existing access drives that access Route 213 along the northern end of Sturgeon Pool and then run parallel with the existing transmission lines that cross the Sturgeon Pool dam. Temporary access improvements will be made to provide for the installation of the new transmission line poles. Both the new corridor area as well as the access to this area are located on lands owned by Central Hudson.

The corridor will consist of six sets of adjacent transmission structures ranging in height from 65 feet to 95 feet. The two structures within each pair are spaced approximately 50 feet apart, perpendicular to the direction of the transmission lines. Each separate set of pairs are spaced apart at various distances ranging from approximately 250 feet to 600 feet along the route of the transmission lines. (See **Attachment 4**). All vegetation which could potentially impact the transmission lines or structures will be cleared to a distance of 75 feet on both sides of the lines resulting in an approximate clearing width of 200 feet, which comprises the dedicated width of the transmission corridor.

There are existing trees and brush and steeply varying topography, both of which reduce the visual impact of the proposed transmission structures and lines on the surrounding neighbors and from nearby public areas. Central Hudson prepared a 'Visual Impact Analysis' (Section IV. E below) to determine optimal corridor routing to mitigate to the extent practicable potential visual impacts the transmission corridor will have on neighbors.

The routing of the "OR" Line to and from the proposed new substation and connections within the existing transmission corridor will require re-routes and reconfiguration of multiple pole structures for the "N" and "OB" Lines due to interferences and compliance with NESC standards. The proposed reconfigurations and re-routings of these lines are shown in **Attachment 4**. In addition, the "P" Line will be required to be re-routed around the area of the proposed new substation in order to provide clearance for site construction and development. The proposed re-route of the "P" Line in the area of the new substation is also shown in the drawings included with **Attachment 4**.

C. Temporary Roads, Access and Laydown

Construction of access roads will be confined to the proposed new ROW where possible. Any off ROW access will remain on Central Hudson's property where either wetlands or topographic features dictate. Central Hudson will evaluate the temporary upgrade of existing or previously used roads for use during construction activities.

D. Transmission Corridor Alternatives Considered

Once the proposed new substation site was selected, several options for the required transmission line routings were considered. The criteria used to evaluate the various routing options included the following:

- existing transmission corridor space constraints near the Sturgeon Pool Dam;
- area topography and terrain;
- interface with existing transmission lines and structures;
- compliance with electric transmission line standards;
- feasibility;
- construction complexity;
- landowner considerations;
- environmental impacts;
- visual impacts; and
- cost of construction.

The alternatives considered included:

Option #1: Overhead routing bisecting the "OR" Line on the Rifton property (north of the existing substation). This routing brings two parallel lines from the existing transmission corridor, south through the Central Hudson Rifton property, and across the Wallkill River to connect the "OR" Line to the new substation.

Option #2: Overhead routing bisecting the "OR" Line approximately ½ mile south of the existing substation due to the steep slope near the substation.

Option #3: Placing the portion of the 69 kV "O"/"N" Lines underground, from the top of the ridge to the existing substation, to create sufficient space for the "OR" Line to be brought from the top of the ridge in and out of the new substation.

Option #4: Placing the portion of the "OR" Line underground from the top of the ridge to the new substation.

Option #5: Placing the portion of the O"/"N" and "OR" Lines underground from the top of the ridge to the existing substation and new substation, respectively.

For the reasons stated below, Central Hudson concluded that the preferred proposed transmission line routing for the "OR" Line is Option # 1- Overhead Routing. While presenting installation difficulties due to terrain, this option is the most feasible, and results in the least visual and environmental impacts.

Given the terrain, the intersection of the "OR" Line in the existing ROW north of the dam will provide for additional visual screening from residents along the banks of Sturgeon Pool. The existing topography at the lower elevations of the route (down to the proposed new substation) will also provide for additional screening from viewers to the northwest. The amount of clearing required for the selected option is significantly less than that proposed for Option #2. The amount of excavation and grading disturbance is also less than any of the underground options proposed and would have no impact to the dam structure. All of the proposed options would require the modification of several transmission structures in the existing corridor. Any of the underground options would require the modification of all of these lines in the area of Sturgeon Pool on the South side of the dam including the 345 kV "303" Line. Option #1 will allow for the modification of a select number of the lines in an area that is less visible from residents on Sturgeon Pool and will not involve modifications to the 345 kV Line. Further, the entire route of the proposed "OR" Line between the proposed substation and existing transmission corridor is located wholly on property currently owned by Central Hudson.

Option #2 was also seriously considered (along the south bank of the Sturgeon Pool and over the hill to the new substation, in parallel with the existing 69 kV "O" and "N" Lines). However, all routings examined south of the Sturgeon Pool would involve an increase in either the visual impact to residents located on Sturgeon Pool, or significant increase in cost due to undergrounding and complexity of construction. In addition, the routing would require acquisition of additional ROW from 3 property owners and would cross through the backyards of about 6 private land owners. Due to the number of affected property owners, and difficulties in obtaining leases and easements, as well as the other issues noted, Option #2 was removed from consideration.

Options # 3, 4, & 5 include undergrounding portions of the lines. Due to topography, expected rock excavation (possibly including blasting), and proximity to the dam, concerns regarding damage to the dam structure due to work in close proximity, make these options undesirable.

A more detailed Evaluation of all of the options, including advantages and disadvantages, is contained in **Attachment 14**.

E. Wetland and Water Resource Evaluation

As noted above, site evaluations were conducted in connection with identifying wetlands and water resources by Kleinfelder. The Kleinfelder report will show that the preferred transmission corridor does not impact any state-regulated wetland and otherwise minimizes or avoids impacts to potentially jurisdictional federal wetlands. The final report will be filed shortly.

F. Visual Impact Evaluation

The proposed transmission corridor will extend from the proposed substation in a northerly direction across the Wallkill River just upstream of its confluence with the Rondout Creek. The total new transmission corridor length is approximately 2,200 feet to its connection with the existing transmission lines that are oriented in a north-south direction. The corridor will consist of six pairs of transmission structures varying in height from 65 feet to 95 feet. Each pair of transmission structures are oriented perpendicular to the corridor's route and spaced approximately 50 feet apart. Spacing between the structures along the length of the corridor varies from 250 feet to 600 feet. (See **Attachment 15**, Transmission Corridor Viewshed Plan and Profile Drawings, Sheets 1 and 2.) All vegetation which could potentially impact the transmission lines or structures will be cleared to a distance of 75 feet on either side of the transmission lines resulting in an approximate clearing width of 200 feet.

(i) Viewshed Analysis Scope and Methodology

An evaluation was conducted of the visual impact that the new OR transmission corridor extension and new substation might impose on the residents of nearby properties, major roadways and public recreational use areas. Three of the potential transmission corridor locations were considered for visual impact evaluations. The corridor location (Option #1 above) shown on the Transmission Corridor Viewshed Plan and Profile was selected following an analysis of the visual impact of the three locations as well as operational, access and other considerations described in **Attachment 14**.

The methodology used for the visual impact evaluation included identifying numerous viewshed alignments from various sites in the vicinity of the proposed transmission corridor and developing profiles along these selected viewshed alignments to determine the extent to which the selected properties and use areas might be impacted by the proposed corridor clearing and transmission structures visibility. These profiles were created using topographic elevation data available from USGS mapping imposed on GIS aerial imagery, which provided information on tree lines, roads, streams and other site features which are included on the viewshed profiles. In general, the height for several of the existing common trees in this study area (i.e., Oak, White Ash, Sugar Maple, American Beech and Pine) is approximately 60 to 70 feet. The trees shown on the profiles are depicted at a conservative height of 50 feet for the viewshed analysis purposes. The locations and elevations of the proposed transmission structures are also shown and labeled on the profiles. An assumed elevation of 35 feet was used for each residence analyzed to represent a typical 2-story home.

With regard to the potential visual impact on nearby residences, sight lines are shown as projected from the assumed first and second floors of the residences to the top and bottom of the proposed new transmission structure(s). These created sight lines create a 'viewshed' area of what could potentially be visible from the location analyzed. The profiles also indicate areas of natural tree screening that would obstruct the view, particularly during leaf on times of the year. The analysis at public recreational use areas (Joppenbergh Mountain and the Shaupeneak Ridge Use Area) and roadways (i.e., the NYS Thruway and local roadways) involved projecting sight lines from an elevation of 5 feet above natural grade (assumed eye level) to the top and bottom of

the potentially visible transmission structure(s) to create a 'viewshed' area. All viewshed areas that are obstructed by existing vegetation have been identified on the profiles (i.e., shown shaded along the profiles) in order to determine how much, if any, of the proposed transmission line structures will be visible from the selected locations. Numerous viewshed alignment profiles were created from many locations in the surrounding vicinity (primarily within one half mile or more of the new substation and transmission corridor), and only those locations that appeared to be potentially visually impacted sites are included on the Transmission Corridor Viewshed Plan and Profile drawings.

Thirteen different viewshed alignment profiles are included on the Transmission Corridor Viewshed Plan and Profile drawings. These sites include several residences in the vicinity of the proposed transmission corridor, specific locations along the NYS Thruway, the Shaupeneak Ridge Use Area and the Joppenbergh Mountain recreation area (which are both over 2 miles away from the proposed transmission corridor).

(ii) Viewshed Analysis Results

a. Substation Viewshed Impact

The visual impact presented by the construction of the new substation was found to be of negligible effect due to the its relatively low elevation compared to the surrounding landscape, its relatively isolated location at the end of Coutant Road and the surrounding densely forested areas. The substation site cannot be seen by those properties that border Sturgeon Pool in the Rifton area and along Route 213 due to the substation site being below and relatively near the toe of the hydroelectric dam. Existing forested areas screen the substation site from properties downstream and to the west.

b. Transmission Corridor Viewshed Impact

As shown by the visual impact analysis described above and graphically summarized on the Transmission Corridor Viewshed Plan and Profile Drawings (**Attachment 15**), the proposed transmission corridor will not be seen by all residences analyzed from a first floor viewpoint. The only residence that was identified as potentially being able to see new transmission structures from a second floor viewpoint was the residence at the end of the driveway from the end of Coutant Road near the existing substation entrance. In this case, it appears that this view would be obstructed by existing trees and vegetation with the possible exception of the top 20 feet of two transmission structures, which are located over 1,750 feet (approximately 1/3 mile) distant from the identified residence location. As shown, all other residences' views of the transmission corridor are screened by existing trees and vegetation along the viewshed profile.

The analysis of two locations along the Thruway indicated that the users will not be able to see the new transmission corridor due to similarly abundant screening by existing trees and vegetation. The analysis of the views of the new corridor from the public use areas indicated that the new corridor and transmission structures can be seen (i.e., approximately the top 20 feet of the lower elevation transmission structures and the full 74.5 feet height of the uppermost transmission structures that are near the existing transmission line corridor that is located near

the top of the Sturgeon Pool dam). Views from the Shaupeneak Ridge Use Area to the new transmission corridor are screened by existing trees and vegetation. Both of these public use areas are over 2 miles distant from the new substation and transmission corridor which will also limit their visibility when considering the panoramic views from these locations.

(iii) Evaluation of the Potential Visual Impact

Based on the above described viewshed analysis results, existing natural screening and terrain features will adequately mitigate the potential for adverse visual impacts on the surrounding residences or areas used by the public.

G. Construction Methods and Environmental Mitigation

The work proposed within the transmission corridor is considered a 'linear utility project' and therefore requires inclusion within the SWPPP and the implementation of erosion and sediment controls to protect areas adjacent to the clearing area. No water quality or quantity controls are required for this portion of work in accordance with the provisions of the General Permit.

In terms of the vegetation to be removed as part of this work, Central Hudson has prepared a Vegetation Disposal Plan. See **Attachment 16**. In terms of clearing, no mechanized land clearing within the forested federally regulated wetland areas will be allowed. Other methods to be utilized during clearing, particularly in wetland areas, are detailed in the Plan.

V. New York State Office of Parks, Recreation and Historic Preservation Investigation of Historic and Cultural Resources

Representatives of Central Hudson corresponded with the NYS Office of Parks, Recreation and Historic Preservation ("OPRHP") State Historic Preservation Office ("SHPO") to request a determination of potential impacts to Historic/Cultural resources within the vicinity of the proposed Sturgeon Pool substation and necessary relocation of a portion of the OR transmission corridor. In response correspondence from SHPO, dated January 30, 2014, (which referred to potential impacts associated with the Substation Site) and in a subsequent response from SHPO dated March 10, 2014 (which referred supplemental information provided with information on an area of necessary OR transmission corridor relocation), the OPRHP indicated that the proposed project will have *No Impact* upon cultural resources in or eligible for inclusion in the State and National Register of Historic Places. The relevant OPRHP SHPO request and response correspondence is included with this filing as **Attachment 17**.

VI. Natural Heritage Program Threatened and Endangered Species Listings Request

Representatives of Central Hudson corresponded with the New York State Department of Environmental Conservation's Natural Heritage Program ("NHP") to request a review of their database for the presence of threatened or endangered species that may be present within the vicinity of the proposed Sturgeon Pool substation and transmission corridor relocation area. In a response letter dated January 14, 2014 (as confirmed in an e-mail dated February 10, 2014),

Natural Heritage Program's representative indicated that area records listed three endangered or threatened, state listed animals and plants in the immediate vicinity of the proposed site. These species include the Bald Eagle (listed as NYS threatened), the Indiana Bat (listed as NYS and Federal endangered) and the Cut-leaved Evening-primrose (listed as NYS endangered). The relevant correspondence is included in this filing as **Attachment 18**. In addition, Central Hudson asked its environmental consultant (Kleinfelder) to perform an in-field habitat assessment of the site. The report with the conclusions of this field review is in the process of being finalized, but will show that there is nothing inherent in the work to be performed that is inconsistent with any species identified. All required mitigation measures recommended by the Department of Environmental Conservation to prevent potential impacts to these listed species will be incorporated in the project's development.

VII. Local Law Evaluation

(i) Rosendale

The site plan for the new Substation complies with all but one of the density control (Chapter 75, Attachment 2) requirements that apply to those uses in the Town of Rosendale's 'A' (Residential) Zoning District. The Town's "building" height restriction of 35 feet within this Zoning District cannot be met because of the necessary height of the lightning masts within the substation (see **Attachment 5**), which design cannot be altered to meet this local zoning criteria. Therefore, Central Hudson requests that the Commission waive this requirement.

The Town's Zoning Code (Chapter 75) specifies that utility uses (those in the 49 SIC series, which would include a substation) such as electric substation/distribution requires a special permit from the Town Planning Board in all districts, however, as explained to the Town Supervisor, local approvals are not required under Section 130 of the Public Service Law. Additionally, an existing substation is currently located on this Site and a community need exists to provide more reliable, upgraded electrical distribution service.

As noted above, in order to ultimately (post-construction) submit an LOMR to FEMA, Central Hudson will first seek approval from the Town's Floodplain Administrator to construct within the floodplain. As discussed with the Town in May 2014, the mechanism to obtain such approval will be by obtaining a Floodplain Development Permit after construction is complete.

(ii) Esopus

The only "structures" are the transmission towers being installed in Esopus. While the bulk regulations (Chapter 123; Section 123-20) apply to the structures for the Town of Esopus' 'A' (Residential) Zoning District, the only relevant regulation is the height restriction. The Town's "building" height restriction of 35 feet within this Zoning District cannot be met because of the necessary height of the transmission towers as dictated by the National Electric Safety Code, which design cannot be altered to meet this local zoning criteria. Therefore, Central Hudson requests that the Commission waive this requirement.

The Town's Zoning Code (Chapter 123) specifies that utility uses (those in the 49 SIC series, which would include electric transmission lines) such as electric substation/distribution requires a special permit from the Town Planning Board in all districts, however, as explained to the Town Supervisor, local approvals are not required under Section 130 of the Public Service Law, since this work is required as part of a previously approved Article VII project. Additionally, existing transmission lines are currently located in and around the new corridor and a community need exists to provide more reliable, upgraded electrical distribution service.

In terms of any clearing, the clearing of land for rights-of-way for utilities is not subject to the logging provisions of the Zoning Code. See Section 123-11(F)(2)(c).

VIII. Public Outreach

Central Hudson has met with DPS Staff (at the Sturgeon Pool Substation Site), the Town of Rosendale (twice), and the Town of Esopus.

On April 4, 2014, Central Hudson met with DPS Staff at the Sturgeon Pool site, including portions of the OR line transmission corridor. The overall purpose of the meeting was to provide DPS Staff with: (i) an on-site orientation of the proposed new substation; (ii) a view of the alternative routings considered for the OR line; and (iii) an opportunity to provide comment to Central Hudson based on these observations. In terms of the preferred routing for the OR line, Central Hudson and Staff viewed the proposed routing of the OR line on the north side of the Wallkill River and walked the entire length from the river up to the existing transmission corridor. DPS agreed that Central Hudson's selection of routing seemed the best option.

On December 2, 2012 and again on May 2, 2014, Central Hudson met with the Town of Rosendale. In each meeting the Town Supervisor, Planning Board Chair, and Building Inspector/Floodplain Administrator was present. At the December meeting, the Town's planning consultant was also present.

At the December 2012 meeting, Central Hudson provided the Town with a background of the Project and noted that it was in the planning stages and looking at potential sites. Nevertheless, Central Hudson focused on Site A, which is adjacent to the existing substation and was ultimately selected as the preferred location.

Central Hudson explained to the Town that the hurdle with Site A had to do with floodplain delineation. It was explained that the applicable FEMA map shows the location in the flood plain, but Central Hudson's topographical survey of the site shows the elevation to actually be higher than the flood plain elevation noted on the FEMA map. To overcome this, Central Hudson's plan would be to submit calculations, survey and related documentation to FEMA so that their map can be revised on the floodplain and this would become a non-issue.

Central Hudson asked the Town if this plan sounded reasonable in dealing with the floodplain. The Town agreed with the approach, and in fact noted that it had quite a bit of similar experience within the town related to residents submitting similar "exceptions" to FEMA based upon actual surveys (all for insurance purposes).

It was also explained to the Town that the overall project, inclusive of previously-completed transmission work, had already been approved by the PSC under an Article VII certificate. However, Central Hudson noted it would still need to submit further substation-specific plans to the Town for public review and comment.

The Town members present gave no indication of resistance, and in fact seemed very supportive of the project site. They felt the location made sense, located next to the existing substation and somewhat hidden due to the natural surrounding landscape.

At the May 2014 meeting, Central Hudson also provided preliminary drawings of the substation and the selected routing for the transmission lines. The Town was shown the View Shed Analysis and presented with an overview of the results and the opinion that the substation site would be mostly screened from view. The Town representatives agreed, and stated that there were few affected neighbors.

At this meeting, Central Hudson also discussed the issue of the need to do construction work and site development in the floodplain. Central Hudson explained the process it had gone through since 2013 in submitting a Letter of Map Revision ("LOMR") to FEMA and the comments received in January. See Section III.D above. Most recently, it was explained that FEMA's current contractor suggested that Central Hudson make submittals through the Town Floodplain Administrator for any development work in the floodplain. Central Hudson would then file an as-built map and a LOMR, with detailed updated topographic info, after the project is completed, to provide the information to FEMA regarding the final state of the site and any floodplain map changes for a LOMR.

On May 9, 2014, Central Hudson met with the Town of Esopus. In attendance from the Town was the Town Supervisor, John Coutant. The purpose of the meeting was to advise the Town of Central Hudson's plan to move forward with a proposed New Sturgeon Pool Substation, and provide preliminary project information.

Central Hudson representatives provided an overview of the project, including: (i) the construction of a new Sturgeon Pool Substation, which will be built on Central Hudson property on Coutant Road, in the Town of Rosendale; and (ii) the portion of the project that will be within the Town of Esopus for the new re-route of the "OR" Lines to connect the new substation to the existing "OR" Lines running in the transmission corridor along Sturgeon Pool. Central Hudson noted that the "OR" Line re-route would be constructed entirely on Central Hudson's Rifton property. In addition, Central Hudson explained, there will be re-routes and reconfiguration of the "N" & "OB" Lines in the existing transmission corridor.

Supervisor Coutant was shown the Plan and Profile drawing showing a composite of the re-route of the "OR" Line from the new substation, running north across the Wallkill River, and up the north side of the Rifton property to a point of intersection with the transmission corridor.

Supervisor Coutant was also shown a View Shed plan and profile drawing depicting the points and view sheds used to perform a visual assessment of the visibility of proposed transmission lines from various points on either side of Sturgeon Pool and the Wallkill River. It

was explained that the route was in part chosen to take advantage of the existing forest cover and hilly terrain to shield the new lines and pole structures as much as possible.

Central Hudson representatives explained that the new substation is a part of the Article VII filing for the P&MK Lines, which was filed and approved in 1996. It was explained that the Town of Esopus would be provided with an opportunity to comment on this project as part of the PSC process.

Supervisor Coutant was asked if he wanted Central Hudson to return to give an informational presentation to the Town Board, Planning Board, Building Inspector and other officials. He said that would not be necessary, and that he would inform Town officials.

Supervisor Coutant was very supportive and welcoming of the project. He is familiar with the location of the project and did not think that is would be affecting many people directly.

IX. Schedule

Construction is planned to begin about end of 2014 or 1st quarter of 2015 pending Commission approval. Site work is expected to be completed by summer of 2015 after which equipment installation will commence. The planned in-service date for the Sturgeon Pool substation is December of 2016.

X. List of Attachments

Attachment 1:	Site Location Map
Attachment 2:	Transmission Corridor Overview Map
Attachment 3:	Table of Existing vs. Proposed New Structures
Attachment 4:	Plan and Profile Drawings – New Transmission Corridor for "OR" Segment and Transmission Line Modifications for "P", "OB" and "N" Lines
Attachment 5:	Sturgeon Pool Substation Electrical Layout and Elevations - Sheets 1, 2 & 3
Attachment 6:	Substation Alternative Locations
Attachment 7:	Base Floodplain Elevation Map with Site Plan Overlay and Effective and Revised 1% Annual Chance Floodplain Exhibit
Attachment 8:	Sturgeon Pool Substation Construction Plan – Sheets EX-1 (Existing Plan) and SP-2 (Grading & Utility Plan)
Attachment 9:	Geotechnical Report for CHGE Sturgeon Pool Substation

Attachment 10:	Sturgeon Pool Substation Construction Plan - Sheets SP-1 (Site Plan) and SP-3 (Sequencing Plan), SD-1 and SD-2 (Site Details),
Attachment 11:	Sturgeon Pool Substation Construction Plan – Sheets EC-1 (Erosion and Sediment Control Details) and EC-2 (Erosion Control Plan)
Attachment 12:	Stormwater Pollution Prevention Plan
Attachment 13:	MOSES Study Report
Attachment 14:	Detailed Transmission Corridor Alternatives Analysis
Attachment 15:	Transmission Corridor Visual Plan and Profile Drawings
Attachment 16:	Vegetation Disposal Plan
Attachment 17:	Correspondence to and from State Historic Preservation Office of the NYS Office of Parks, Recreation and Historic Preservation
Attachment 18:	Correspondence to and from DEC Natural Heritage Program and US Fish & Wildlife Service