

BEFORE THE  
NEW YORK STATE  
PUBLIC SERVICE COMMISSION

In the Matter of the 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 for the A and C Line Rebuild Project, Approximately 10.85 miles of 115 Kilovolt Transmission Lines in the Towns of Pleasant Valley, LaGrange, Wappinger, and East Fishkill, in Dutchess County

Case No.: 13-T-\_\_\_\_

CENTRAL HUDSON GAS & ELECTRIC CORPORATION  
A AND C LINE REBUILD PROJECT

EXHIBIT E-5  
EFFECT ON COMMUNICATIONS

## EXHIBIT E-5 – EFFECT ON COMMUNICATIONS

This exhibit addresses the requirements of 16 NYCRR §88.5.

Central Hudson Gas & Electric Corporation (CHG&E or the Applicant) is proposing to rebuild and reconductor the existing 115 kV A and C transmission lines (A and C Lines) located between Pleasant Valley and East Fishkill in Dutchess County, New York (the Project). The Project is located within an existing 150 foot wide right-of-way (ROW), and spans approximately 11 miles through four towns; Pleasant Valley, LaGrange, Wappinger and East Fishkill. The existing ROW easement has been held by CHG&E and used for transmission purposes since 1948. The existing transmission corridor includes the existing A and C Lines, which are currently carried on H-frame wood pole structures with an average height of 51 feet. The newly replaced transmission structures will remain entirely within the current ROW and no significant vegetation clearing will be required for the Project. In addition to the existing A and C Lines, several other utilities currently utilize or intersect portions of the ROW. These include a CHG&E gas transmission line, two additional CHG&E electric transmission lines (the M Line and the G Line), as well as portions of two Consolidated Edison (Con Ed) 345 kV electric transmission lines. The CHG&E A and C Lines are co-located with one or more transmission systems for approximately 7.11 miles. These co-locations are described in Exhibit 2.

CHG&E contracted Comsearch to identify and determine any potential effects the proposed Project could have on communication systems within the vicinity of the project. Comsearch conducted a Tower Study, Off-Air TV analysis, Land Mobile Report, Microwave Study, Mobile Phone Report, and AM and FM Radio Report, and determined the potential effect the Project will have on these communication systems. These analyses determined that the construction phase of the Project will have no effect on communication systems. Additionally, once the transmission lines are operational, Comsearch determined that the Project will have no effect on communication systems if the lines are properly maintained. Copies of Comsearch's reports are included within Appendix L.

A Tower Study was conducted to identify the communications towers and antennas located near the proposed Project. This information is useful in the planning stages of a project to identify any potential impact from the transmission line on the communication services provided by the tenants on the towers. Comsearch identified three communications towers and 22 communication antennas within a rectangular area of interest surrounding the proposed Project (illustrated on Figure 1 in the Tower Study Report in Appendix L). Wireless services that are most likely associated with towers are fixed point-to-point microwave, land mobile radio, and cellular phone communications. Specific studies addressing each of these services are described below.

A Microwave Study was conducted to determine if the proposed rebuild project would have effects on microwave networks that operate within the vicinity of the proposed Project. Comsearch identified six microwave paths that intersect the proposed Project. A vertical analysis determined that all six microwave paths operate at heights that will not be affected by construction or operation of the rebuilt A and C Lines.

Comsearch searched the FCC's Universal Licensing System to identify land mobile sites within the vicinity of the Project, in their preparation of the Land Mobile Report. A total of 20 land mobile sites were identified within a rectangular area of interest surrounding the proposed Project (illustrated on Figure 1 in the Land Mobile Report in Appendix L). Land mobile facilities are typically unaffected by the presence of transmission line towers and no effect on their service is anticipated. The effects of broad band noise from poorly maintained transmission lines can cause interference to services provided by land mobile sites. The proposed rebuild and long-term maintenance of the A and C Lines will prevent the occurrence of broad band noise and any potential impacts to land mobiles services.

Comsearch searched their database to identify mobile phone carriers within the vicinity of the project, in their preparation of the Mobile Phone Carrier Report. This search identified a total of 18 mobile phone services provided by six mobile phone carriers within a rectangular area of interest surrounding the proposed Project (illustrated on Figure 1 in the Mobile Phone Carrier Report in Appendix L). Telephone communications in the mobile phone carrier bands are typically unaffected by the presence of transmission line towers and no effect is anticipated on their services. The effects of broad band noise from poorly maintained transmission lines can cause interference to services provided by mobile phone carriers. The proposed rebuild and long-term maintenance of the A and C Lines will prevent the occurrence of broad band noise and any potential impacts to mobile phone services.

The Off-Air TV analysis identified 33 off-air TV stations within a 46.6 mile (75 kilometer) radius of the proposed Project. Of these 33 stations only 20 are currently operating. The only potential impact on TV reception for residences within 328 feet (100 meters) of the transmission line would possibly be broad band noise interference on these operating stations. Broad band noise is caused from corona and arcing at poorly maintained insulators and/or conductor connectors of high voltage transmission lines. The proposed rebuild and long-term maintenance of the A and C Lines will help prevent the occurrence of broad band noise and any potential impacts to TV reception.

The AM and FM Radio Report identified database records for 17 AM stations and 55 FM stations within an 18.6 mile (30 kilometer) radius of the proposed Project. Of these 55 FM stations, only 41 are currently licensed and

operating. Potential impacts on AM broadcasts typically only occur when directive antennas are within 2 miles (3.2 kilometers) and non-directive antennas are within 0.5 miles (0.8 kilometers) of transmission towers. The nearest station is more than 3.3 miles from the nearest transmission structure. FM broadcasts are generally not affected by transmission lines that are greater than 2.5 miles (4.0 kilometers) from the broadcast station. The nearest FM broadcast station is more than 3.3 miles (5.4 kilometers) from the nearest transmission structure. Electromagnetic interference could occur as a result of the induction field created by the proposed transmission lines. However, the transmission lines are far enough from the broadcast stations that radio services will not be affected by the Project.