

A. EMF

The operation of the DA antenna will generate radiofrequency (“RF”) radiation. The RF radiation is a form of non-ionizing radiation similar to visible light.

The RF antenna radiation from the proposed DA antenna results in exposure levels that are well below the limits adopted by the Federal Communications Commission (“FCC”).

Antennas operate at one or more wavelengths at a specific Effective Radiated Power (“ERP”). The FCC guidelines require that an electromagnetic field (“EMF”) study be undertaken for facilities that operate at a 70 centimeter (“cm”) wavelength if they have 70 watts or greater ERP; and at a 33 cm wavelength if they have a 150 watts or greater ERP. The DA antenna will operate at 70 cm and 33 cm wavelengths, both with an ERP of approximately 50 watts, much lower than the guideline criterion. Therefore, an EMF study is not required. No significant adverse impact on human health will result from operation of the DA antenna.

In the case of added antennas, the cumulative EMF, considering the other antennas on the structure, also is lower than the guideline criterion.

B. NOISE

Construction activities may result in occasional temporary, minor increases in local noise levels during the approximate three months of work similar to other construction work of comparable scale. Installation of the foundations for the monopole and ground-based equipment will likely generate the highest noise levels. That work will be completed in a few weeks.

The only Project equipment that may create operational noise is the emergency/backup generator and the HVAC units for the communications shelter. The emergency generator and the HVAC unit will be placed in the northeast corner of the substation which abuts vacant land. The HVAC unit will be located on the western portion of the communications shelter. The emergency generator will be located to the east of the communications shelter. The nearest residence is located approximately 60 feet from these units. The existing ambient noise level at the residential properties includes noise from the substation, nearby commercial and industrial properties and local roadway noise.

The emergency generator will operate only under the infrequent temporary conditions when the power grid may lose power. Based on manufacturer specifications, the generator will produce a noise level of 59 - 61 decibels (“dBA”) in exercise mode and a 73 dBA noise level in operating mode during emergency conditions at 23 ft. Levels between 50 and 60 dBA define the range of noise levels generated by normal daytime activity in a typical suburban community. Quiet suburban nighttime levels range from 40 – 50 dBA. Town noise regulations allow higher noise levels than the above outlined levels. At a distance of over 60 ft., sound levels from the Project equipment will naturally attenuate by about 9 dBA, excluding all other considerations such as topography, vegetation, other buildings, etc. Noise attenuates about six (6) dBA for every doubling of distance. At those levels, the temporary, infrequent noise from an emergency generator will be comparable to typical daytime or nighttime suburban noise levels. Given the temporary nature of the generator in operation and the vegetation south and east of the compound, the increase in noise will not create a significant adverse operational noise impact.

The integrated HVAC unit will be installed on the exterior of the communications shelter to provide heating and cooling for that structure. HVAC units of similar type, size and power typically have noise levels

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ranging from approximately 50 – 60 dBA at one (1) meter (3.3 ft.). As noted above, town noise regulations allow higher noise levels than the HVAC unit ratings. Quiet suburban nighttime levels range from 40 – 50 dBA. Given the source noise level and the distance to the nearest residence (approximately 60 ft.), the HVAC equipment noise will naturally attenuate by about 26 dBA, excluding all other considerations such as topography, vegetation, other buildings, etc. At those levels, the sound will be comparable to those typical daytime or nighttime ambient conditions.

If and when the emergency generator and HVAC equipment run concurrently, the maximum sound levels will be an increment of several decibels above the generator's sound level, within the range of typical suburban communities. Moreover, during emergency conditions when power is lost to the grid, other noise-generating equipment will likely be in operation, increasing ambient noise levels.

Thus, the Project equipment adjacent to the Baldwin Substation is not expected to cause a significant adverse construction or operational noise impact.