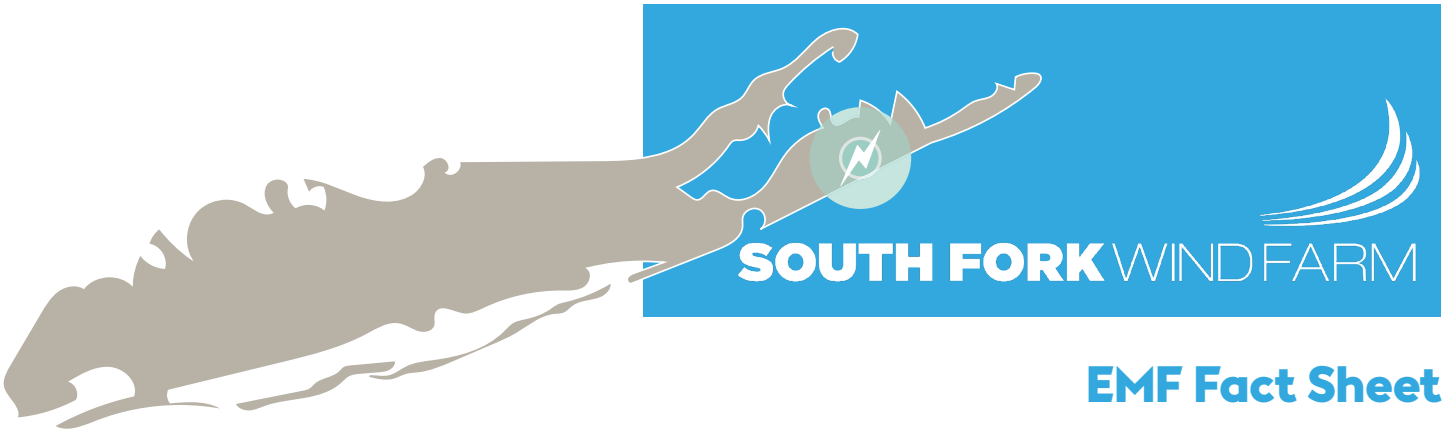

EMF Fact Sheet

What are Electric and Magnetic Fields?

Electric and magnetic fields (EMF) are produced by any source that generates, transmits, or uses electricity. All things connected to our electrical system—power lines; wiring in our homes, businesses, and schools; and all electric appliances and machines—are a source of EMF. In North America, the vast majority of electricity is transmitted as alternating current (AC) at a frequency of 60 cycles per second measured in Hertz (Hz), i.e., 60 Hz. The EMF from these AC sources are commonly referred to as power-frequency, or extremely low frequency (ELF) EMF.

What is the New York State Policy for EMF?

New York State has a policy limiting the EMF from new transmission lines to levels produced by existing transmission lines, i.e., to maintain the status quo (NYPSC, 1990). The South Fork Export Cable must comply with this policy.

What are other standards for EMF exposure?

Research on the possible health effects of EMF has been on-going since the late 1970s. Health guidance on exposure to EMF have been developed by two international organizations, the International Committee on Electromagnetic Safety (ICES) and the International Commission on Non-Ionizing Radiation Protection (ICNIRP). The magnetic field limit for the general public established by ICNIRP is 2,000 milligauss (mG) (ICNIRP, 2010) and the limit established by ICES is 9,040 mG (ICES, 2002/2005). In addition, the World Health Organization (WHO), whose mandate is to provide leadership on global health matters, released an extensive review of the available scientific literature after more than 10 years of intensive study and consideration (WHO, 2007). The WHO states that "based on a recent in-depth review of the scientific literature, the WHO concluded that current evidence does not confirm the existence of any health consequences from exposure to low level electromagnetic fields" (WHO, 2018). A similar conclusion was reached by a Committee of the European Commission's, DG Health and Food Safety in 2015 (SCENIHR, 2015).

The cable transmitting power from the South Fork Wind Farm to the East Hampton substation will be buried under the beach and roads or rights-of-way. How will the EMF levels from the buried transmission lines compare to New York State policy and to the limits of international organizations?

The electric field from the wind farm's power cable will be blocked by its sheathing and the ground. The magnetic field from the cable will be more than 5 times lower than the ICNIRP limit, even directly above the cable, and will meet New York State policy requirements at all points along the onshore route.

In addition, the existing overhead power lines on Beach Lane and portions of Wainscott Main Street will be buried if the cable comes ashore at Wainscott Beach. Burying the existing electric power lines will block the electric field associated with these overhead lines and the magnetic fields from underground installations will decrease more quickly with distance than from overhead lines of the same voltage.

Will EMF from the cable interfere with home electronics, phone signals, or any other devices?

No. The magnetic field, even directly above the cable, will be too weak as it will be similar to the levels found in close proximity to typical household appliances such as hair dryers, refrigerators or vacuum cleaners.

Will the EMF of the proposed cable be assessed as part of the permitting review?

Yes. The Article VII application to The New York State Public Service Commission (NYSPSC) will include calculations of the magnetic fields from the South Fork Wind Farm power cables and interconnection performed by an independent engineer. The assessment will be subject to review and approval by the NYSPSC.

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