



**SOO
Green**
HVDC LINK

Health & Safety Overview

On the SOO Green HVDC Link project, safety is our top priority both during construction and when the transmission line is operational. The SOO Green project will utilize direct current (DC) technology, which enables the safest method of power transmission today.

Installing bipolar high voltage direct current (HVDC) transmission cables underground, in a secure, monitored, operating railroad right-of-way limits access and significantly reduces the risk of accidental contact. Modern bipolar HVDC technology is self-contained, efficient, and safe for humans, animals, and the environment.

We are committed to being a good neighbor, protecting and enhancing the health, safety, and prosperity of the communities that will host our state-of-the-art power transmission project.

Electrical & Magnetic Fields (EMF)

- Electrical fields are produced whenever voltage exists. SOO Green's cables are insulated and grounded on the outside layer of the cable, so no electric field exists outside the cable.
- Magnetic fields are produced when electric current flows in a wire. Magnetic fields drop off quickly with distance from their source. The currents on each of the SOO Green cables flow in opposite directions and the magnetic fields they produce cancel each other out. The above ground residual magnetic field will be weaker than typical household appliances.

Stray Voltage & Induced Currents

- Stray Voltage sometimes occur in AC power systems when significant electrical currents flow through the ground or when household electrical systems are not properly grounded. In contrast, all of SOO Green's current will flow in its cables and HVDC power line will not cause stray voltage.
- AC power systems also induce currents in individuals and objects located within their electric fields. Since the SOO Green line utilizes DC technology, it eliminates induced currents caused by fluctuating voltages.

Sources: SOO Green HVDC Link Project (2020) and [Electrical and Biological Effects of Transmission Lines: A Review](#), US Department of Energy (1996).

Magnetic Fields

milli Gauss (mG)

