SOO Green HVDC LINK

Health, Safety & Environmental Overview

On the SOO Green HVDC project, safety is our top priority both during construction and when the transmission line is operational. We are committed to being a good neighbor and enhancing the communities where the project will run.

The SOO Green project will utilize direct current (DC) technology, which provides the safest method of power transmission. Due to the underground installation and the use of shielded insulated cables, the SOO Green HVDC Link transmission project alleviates these concerns.

HVDC transmission lines produce static electric and magnetic fields. A static electric field does not penetrate human and animal bodies, while static magnetic fields can interact with tissues.

In contrast to electric fields for which the highest exposure is likely to be experienced close to overhead high-voltage power lines, the highest magnetic fields are more likely to be encountered in the vicinity of home appliances or types of equipment that carry large currents.

> ***Installed safely and securely underground, the SOO Green HVDC transmission line will not pose any harm to humans, animals or the environment.***

Safe for Humans, Livestock & the Environment

Human Health

- There are no known health risks that have been demonstrated to be caused by living near high-voltage power lines.
- Transmission lines have not caused any reporter serious health effects for pacemaker patients.
- Scientific reports show no consistent, significant link between cancer and power line fields.

Agriculture

- Multiple three-year studies by the US Department of Energy found no adverse effects on growth and reproduction of beef cattle or crops along the 500-kV DC line built and operated by the Bonneville Power Corporation on the west coast.

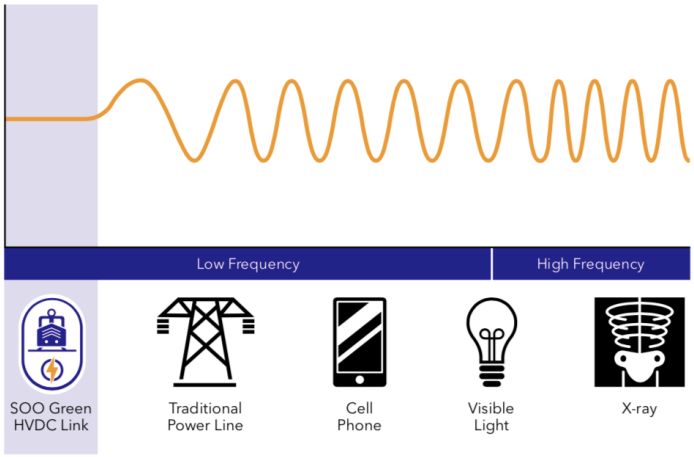
Environment

- The project utilizes safe materials: the electricity-conducting cable is well-insulated, protected from non-flammable materials and does not require any cooling liquids or gels.

Innovative Technology for Improved Safety

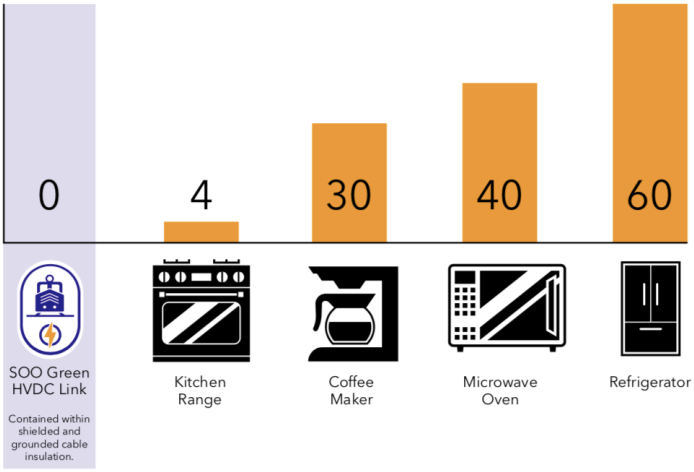
Electromagnetic Fields (EMF)

- We understand most concerns about impacts of transmission lines have generally centered around EMFs. Within power transmission DC is at the safest end of the frequency spectrum.
- Power lines and electrical appliances that emit non-ionizing EMFs are safety present everywhere in both homes and workplaces.



Electrical Fields

- In the SOO Green project, the HVDC lines are buried underground, eliminating the potential to generate and disperse air ions to people and objects.
- The cables used for the project are insulated and self-contained, enclosing the electrical field within the cable and preventing release to the outside environment.

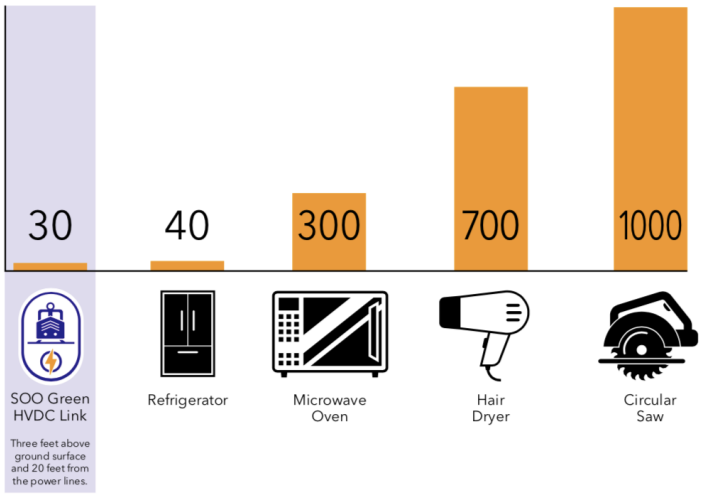


Magnetic Fields

- The SOO Green HVDC transmission line is bi-polar, with only two sets of wires one negative and one positive, like a battery. With fewer wires, the approach utilized on the project will enhance safety by reducing the number of magnetic fields compared to AC transmission.

Corona Discharge

- The SOO Green project will utilize a HVDC transmission line that is buried underground, which will dramatically reduce the impact of corona discharge (the breakdown of air at the surface of transmission line wires).



Induced Currents

- The SOO Green project utilizes DC technology that eliminates electromagnetic induction.

Sources

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