EMFast v1.5.1 and Software Training

- Easy-to-use EMF modeling software for one or more high voltage transmission and/or distribution lines.
- Perform calculations for permits or compliance purposes.
- Assess EMF mitigation options.
- Learn about advance use cases and capabilities

Background, Objectives, and New Learnings

EMFast is a Windows-based software program designed for rapid problem setup and calculation of power frequency electric and magnetic fields near one or more high voltage transmission and/or distribution lines. Other software versions are often cumbersome to use, with limitations to certain applications such as balanced conditions, not accessible to everyone and frequently not updated to run on modern 64-bit Windows-based platforms. EMFast will provide EPRI members with an easy-to-use EMF modeling software, that provides quick and reliable results for a variety of important EMF applications. These calculations are vital to providing required information for regulatory applications for new power lines, evaluation of electric field compliance with the National Electrical Safety Code rules on induced current in large vehicles and objects under or near transmission lines, evaluating engineering design options for EMF management, and responding to customer questions.

This easy-to-use software, designed to run under Windows 8 or 10, will perform simple calculations of electric and magnetic fields near one or more high voltage transmission and/or distribution lines. The software allows simple input of the coordinates and line specifications for each conductor to be modeled. Primary outputs of the program are electric and magnetic fields along a horizontal (lateral) profile, presented both graphically and in tabular form.

The objective of this project is to provide access to the final version of EMFast 1.5.1 (3002022505) and to provide training and support on the use of the software.

New Learning

By conducting this project, EPRI will be able to obtain feedback on the use of the software and additional feature requests that can be considered for future versions of the software. These learnings are expected to help inform future P60 (Electric and Magnetic Field and Radiofrequency Health Assessment and Safety) research content and new learnings can be shared with other EPRI members in the US and elsewhere.

Benefits

- Easy-to-use EMF modeling software to evaluate engineering design options and address questions from the public.
- Perform calculations required for permits or compliance purposes.
- Assess potential EMF mitigation options.
- Learn about advance use cases and additional capabilities.

Project Approach and Summary

Provide Training and Support for Implementing EMFast v1.5.1.

- EPRI intends to provide training for EMFast v1.5.1 through a webinar and will answer questions and provide general support of the software as it is initially installed and used.

Purchase of EMFast v1.5.1

- EMFast 1.5.1 (3002022505) was published in July 2021. Funder is purchasing the software through the execution of this funding agreement.

Deliverables

The non-proprietary results of this work will be incorporated into EPRI R&D Program 60: EMF/RF Health Assessment and Safety and made available to the public, for purchase or otherwise.

- Training Webinar
- Purchase of EMFast v1.5.1 (3002022505)

Price of Project

$25,000 – Purchase price of software using co-funding

$30,000 – Training can be paid by using co-funding or self-directed funds.

Project Status and Schedule

Training Webinar Date will be determined with Funder.

Who Should Join

Any funders with electrical equipment and infrastructure. Ideal end-users are EMF issue managers, industrial hygienists, engineers, and land acquisition staff interested in effectively addressing EMF issues.

Contact Information

For more information, contact the EPRI Customer Assistance Center at 800.313.3774 (askepri@epri.com).

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