

# Assessment of Electric and Magnetic Fields (EMF)/Radio Frequency (RF) Impacts on Local Wildlife



## Background and Objectives

There is a growing need to preserve ecological biodiversity in the wake of climate change, increasing urbanization, and dwindling wildlife habitat. Transmission line easements may be an unrecognized resource that provides wildlife with a contiguous land bridge, connecting distant habitat resources that may otherwise be separated due to urbanization. However, there are often concerns expressed by the public regarding how exposure to power frequency EMF and RF (e.g., 5G) may affect wildlife along ROWs. This issue is becoming more important as utilities are upgrading their infrastructure to accommodate renewable generation sources and changing load patterns.

## New Learning

Utilities will be provided with insights into how transmission line easements could be designed and maintained as an environmental resource for promoting ecological biodiversity. Incorporating this concept into their permits will illustrate their commitment to being good stewards of the environment and demonstrate transmission line ROWs as multi-use community assets. New learnings gained from the project will inform future P60 research on EMF effects on non-human biota.

## Benefits

- Addresses public concerns and identifies any potential localized ecological benefits.
- The information may be used by utilities to facilitate the permitting and land acquisition process needed for ROWs.

- Field study to evaluate impacts of EMF on local wildlife.
- Addresses public concerns about EMF and identifies any potential localized ecological benefits.
- The information may be used by utilities to facilitate the permitting and land acquisition process needed for Right-of-Ways (ROWs).

## Project Approach and Summary

Conduct field study to evaluate impacts of EMF on local wildlife.

- Identify location(s) and species to be studied with Utility Funder, for example:
  - “Exposed” location vs “Low or no exposure” location
  - “Before” and “After” implementation of new line
- Evaluate EMF – survey measurements, data collection, and EMF calculations using utility load and voltage data
- Observe wildlife abundance, movement, and behaviors with a combination of site visits and remote technologies

## Deliverables

Technical Report and Webcast. The non-proprietary results of this work will be incorporated into EPRI R&D Program P60, and made available to the public, for purchase or otherwise.

## Price of Project

To be determined based on scope. Qualifies for Self-Directed Funding (SDF).

## Project Status and Schedule

Schedule is based on scope.

## Who Should Join

EMF issue managers, environment managers, industrial hygienists, or engineers that are responsible for addressing EMF concerns.

## Contact Information

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

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