November 3, 2025

California Earthquake Authority
Attn: Wildfire Fund Study Team
801 K Street, Suite 1000
Sacramento, CA 95814

Subject: Abstract Submission titled **"Early Fault Detection – Find and Remedy Incipient Powerline Faults Before They Start Fires"** in Response to CEA's Call for Contributions

Dear Members of the California Earthquake Authority,

On behalf of **IND Technology (INDT)**, I am pleased to submit this Abstract titled **"Early Fault Detection – Find and Remedy Incipient Powerline Faults Before They Start Fires"** in response to the CEA's request for contributions supporting its study of potential new models and approaches to complement or replace California's Wildfire Fund.

Early Fault Detection (EFDTM) is an advanced powerline monitoring technology that has demonstrated significant wildfire-risk-reduction benefits in multiple jurisdictions. Invented, developed, and commercialized in Melbourne, Australia, EFDTM is now exported globally by IND Technology and currently deployed by utilities in twelve U.S. states, with additional installations under negotiation in five more. In California, four utilities have adopted the technology, several progressing from trials to broader rollouts. However, limited available funding within utilities has constrained EFDTM's deployment to a scale insufficient to achieve statewide fire-safety benefits.

EFDTM operates by detecting and locating radio-frequency signals emitted by defective or stressed powerline components, pinpointing the defect source with an accuracy of approximately 30 feet. The system has identified numerous latent defects that, if unremedied, would have likely caused ignition events—including broken conductor strands, detached conductors, vegetation contact, and failures in lightning arrestors, insulators, switches, and terminations. By enabling the early identification and repair of incipient faults, EFDTM provides a direct and measurable means to prevent wildfires at their source.

Our submission elaborates on the technology's operation and performance, the types of defects detected to date, integration and operational considerations for utilities, accounting treatments for capitalization consistent with FERC guidelines, and a framework for high-level cost estimation. The paper also addresses how EFDTM deployment could be incorporated into a broader state strategy for wildfire risk mitigation and insurance cost containment—objectives that align closely with the CEA's study mandate.

Californians stand to benefit substantially from the wider adoption of EFDTM systems by utilities, as early fault detection can directly reduce ignition events, mitigate financial exposure under the Wildfire Fund, and enhance the overall resilience of California's electric infrastructure.

We appreciate the CEA's leadership in examining innovative solutions to improve wildfire risk management and would welcome the opportunity to discuss these findings further with the Authority's staff or consultants.

Thank you for your consideration.

Sincerely,
Dr. Tony Marxsen
Chairman
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