



Portland General Electric
121 SW Salmon Street · Portland, Ore. 97204

November 6, 2020

Via Electronic Filing

Public Utility Commission of Oregon
201 High St., SE. Suite 100
P. O. Box 1088
Salem, Oregon 97308-1088

RE: PGE UE-319 R&D Prospective Research & Development Prospective Projects

Dear Filing Center:

Enclosed pursuant to OPUC Commission Order 17-511 (UE-319), is Portland General Electric Company's list of prospective Research and Development Projects for 2021.

If you have any questions or require further information, please call me at (503) 464-7805. Please direct all formal correspondence and request to the following email address: pge.opuc.filings@pgn.com.

Sincerely,

/s/ Jay Tinker

Jay Tinker
Director., Rates and Regulatory Affairs

JT: np
Enclosure

cc: Sommer Moser, ODOJ
John Crider, OPUC
George Waidelich, Albertsons
Tyler Pepple, AWEC
Gregory Adams, Calpine
Bob Jenks, CUB
Kurt Boehm, Kroger
Vicki Baldwin, Walmart

PGE's 2021 Prospective R&D Projects
Analysis of EV Charging impact to Power Quality and Loss-of-Life of Service Transformers
ArcFlash Testing of 480-V Bypass Meter Sockets and CT
Cascadia Lifelines Project
CEATI Substation and Hydo Operations Research Interest Groups
Construction Safety Research Alliance (CSRA)
Customer Flexible Load Resource at Scale
Energy Storage as a Hosting Capacity Resource Pilot
EPRI Educating a Digital Power Workforce to be GREAT with Data
EPRI 193B Wind Generation Annual Research Program
EPRI Alternative Technologies for Recloser Backup Power
EPRI DER-VET User Group Supplemental
EPRI Energy Sustainability Interest Group
EPRI Fire Prevention and Mitigation for Battery Systems
EPRI Identification of influential factors/incentives influencing EV Adoption Decisions for mass market consumers
EPRI Low Carbon Resource Initiative
EPRI Next Generation Smart Meter Vision and Criteria-paid in 2020 for 2 years
EPRI P1 Power Quality
EPRI P161 Information and Communication Technology
EPRI P173- Bulk System Renewables and Dist. Energy Resources Integration
EPRI P174 Integration of Distributed Energy Resources
EPRI P18 Electric Transportation
EPRI P180 Distribution Systems
EPRI P183 Cyber Security
EPRI P198 Strategic Sustainability Science
EPRI P200 Distribution Operations and Planning
EPRI P34- Transmission Asset Management Analytics
EPRI P37-Substations
EPRI P40- Transmission Planning
EPRI P51- Transmission and Distr.: Environmental Issues
EPRI P60 EMF and RF Health Assessment and Safety
EPRI P62 Occupational Safety and Health
EPRI 226 Boiler and Steam Turbine Cycle
EPRI 216– Combined Cycle Turbomachinery
EPRI 217– Combined Cycle Turbomachinery
EPRI P88/218 HSRG and BOP
EPRI P94 Energy Storage and Distributed Generation
EPRI Pandemic Response
EPRI Research and Testing of Alternatives to SF6-prepaid 2019
EPRI University - Transmission/Substation Technical Programs
EPRI Ergonomically Enhanced Tools for Manhole and Vault Cover Removal
HD Charging Infrastructure O&M Strategy and Training
Heat Recovery from Carty Plant through Thermochemical Energy Storage (OSU)
Integrated Health and Energy Levers to Promote Climate Benefits, Community Resilience, and Public Health (I-HELP Community)
Investigating Ductile Iron Poles for T&D Structures (OSU)

PGE's 2021 Prospective R&D Projects

Investigation on Transient and Steady State Behavior of Microgrids Before, During and After Islanding in Terms of Frequency and Voltage **(OIT)**

Kenworth Truck Wireless Charging Demonstration

Large-signal PV Inverter Enhanced Grid Model for Rural Area Voltage Stability Analysis and Control **(OSU)**

Modeling Grid-Enabled Residential Loads in Distribution Systems **(PSU)**

Modeling High-power Electric Vehicle Distribution Impacts **(PSU)**

NEEA End Use Load Research

MGrid Synchrophasor **(OSU)**

EPRI P18 - G133_ Foundational Elements for XFC DCaaS

EPRI PQ Knowledge Development and Transfer

Primary Frequency Response Detection and Archiving System **(PSU)**

Pulsed Power DC Microgrid for Remote Area Highway Fast Charging Stations **(OSU)**

EPRI Reliability Benchmarking Access

Solar Radiation Lab **(UO)**

EPRI Utilizing DER for Advanced Distribution Resiliency

Vehicle-to-grid product demonstration

Power Engineering Energy Innovation Center Data Access **(WSU)**