COMMONWEALTH OF VIRGINIA

STATE CORPORATION COMMISSION

AT RICHMOND, MARCH 24, 2020

SOG-GLERM'S OFFICE COUNTRY CONTROL CENTER

2020 MAR 24 P 3: 00

COMMONWEALTH OF VIRGINIA, ex rel.

STATE CORPORATION COMMISSION

CASE NO. PUR-2020-00051

Ex Parte: Electrification of Motor Vehicles

ORDER ESTABLISHING PROCEEDING REGARDING ELECTRIC VEHICLES

The State Corporation Commission ("Commission") recognizes that the increased deployment of motor vehicles (automobiles, trucks and buses) powered by electricity ("electric vehicles" or "EVs") presents several issues that potentially could affect the affordability and reliability of electricity service delivered to consumers by regulated utilities.

NOW THE COMMISSION, upon consideration of this matter, is of the opinion and finds that it is timely to explore these issues in a comprehensive manner to inform future proceedings in which these issues are relevant. Accordingly, the Commission invites interested persons and entities to comment on one or more of the following issues, without limitation:

Existing Development and Projected Growth

- 1. How many electric vehicles are currently deployed in Virginia and what is the expected growth over the next five, ten and twenty years? What is the current level of demand being put on the electric grid by electric vehicle charging and how is that expected to grow over those time periods?
- 2. What is the current level of public charging infrastructure in Virginia and how is that expected to grow?

Rate Design

- 3. Whether and how rate designs should be structured to incentivize the use of electric vehicles?
- 4. Whether and how rate designs should be structured to incentivize charging of electric vehicles during off-peak times?

5. Can and should rate regulation prevent cost shifting to consumers who do not own or operate electric vehicles?

Storage-Specific Issues

- 6. How can electric vehicles provide battery storage for the electric grid and on what scale? What level of battery storage for use by the electric grid is projected to be available from EVs over the next five, ten and twenty years?
- 7. What, if any, technological impediments exist to the use of electric vehicles as battery storage for the electric grid at scale? For example, are any technological grid modifications necessary to facilitate the use of EVs as battery storage for the grid? How does cycling (charging and discharging) of an electric vehicle's battery (associated with discharging the battery into the grid) affect the life of the battery? Do manufacturers of electric vehicles have concerns regarding the use of EV batteries for grid storage?
- 8. What technical studies, if any, should be undertaken to ensure the safe interconnection of electric vehicles to utility distribution systems for purposes of providing grid storage? What potential impacts of such interconnection should be studied?
- 9. What, if any, legal impediments exist to the use of electric vehicles as battery storage for the electric grid at scale? For example, does discharging an electric vehicle's battery into the grid potentially void its warranty? Are there homeowner association or homeowner insurance limitations that restrict deployment?
- 10. What rate designs should be employed to compensate EV owners for power delivered to the grid?
- 11. What utility equipment damage liability considerations, if any, should be taken into account in the development of policy for EV storage?
- 12. What utility-sponsored programs (such as peak shaving programs) could be implemented to permit a utility to reliably call on electric vehicles to provide power to the grid?
- 13. What aspects of storage and discharge to the electric grid are subject to regulation at the state level? What aspects are subject to regulation at the federal level? Are there some areas subject to overlapping jurisdiction?

Public Charging Stations

14. Is the market for providing public charging stations competitive or should it be considered a natural monopoly with service provided exclusively by regulated utilities? If the market is competitive, to what extent is utility ownership of charging

- stations appropriate and are there specific geographic areas where utility ownership of charging stations may be appropriate?
- 15. What is the proper role, if any, of utility investment in the deployment of public charging stations?
- 16. Under what utility tariffs do public charging stations take service from the electric utility and what adjustments to rate design or additional tariffs might be needed to support additional deployment of public charging stations?

We will direct that the Clerk of the Commission provide copies of this Order Establishing Proceeding Regarding Electric Vehicles ("Scheduling Order") to: Virginia Electric and Power Company d/b/a Dominion Energy Virginia, Appalachian Power Company, and Kentucky Utilities Company d/b/a Old Dominion Power Company (collectively, "Electric Companies"); and the Office of the Attorney General, Division of Consumer Counsel ("Consumer Counsel").

We also will direct the Staff of the Commission's Division of Public Utility Regulation ("Staff") to identify other persons or entities that potentially may have an interest in this matter, including electric cooperatives and participants in past Commission cases involving electric vehicles, and to provide these persons or entities with copies of this Scheduling Order by electronic transmission. Further, we will direct the Director of the Commission's Division of Information Resources to post a copy of this Scheduling Order on the Commission's website.

Finally, the Commission will hold a public session to receive comments from interested persons and entities regarding the issues under consideration in this matter.

Accordingly, IT IS ORDERED THAT:

- (1) This matter is docketed and assigned Case No. PUR-2020-00051 for purposes of receiving input from interested persons and entities.
- (2) The Clerk of the Commission hereby is directed to provide a copy of this Scheduling Order to the Electric Companies and Consumer Counsel.

- (3) Within five (5) business days of the filing of this Scheduling Order with the Clerk of the Commission, the Staff shall transmit electronically copies of this Scheduling Order to those persons and entities identified by the Staff as potentially having an interest in this matter. The Staff shall promptly file with the Clerk of the Commission a certificate of transmission and include a list of names and addresses of the persons and entities to whom the Scheduling Order was transmitted.
- (4) The Director of the Commission's Division of Information Resources promptly shall post a copy of this Scheduling Order on the Commission's website.
- (5) On or before June 23, 2020, interested persons or entities may file comments addressing one or more of the issues listed above. Comments shall refer to Case No. PUR-2020-00051. Until May 15, 2020, and as may be further extended by order of the Commission, all comments and other pleadings should be submitted electronically to the extent authorized by Rule 5 VAC 5-20-150, *Copies and Format* of the Commission's Rules of Practice of Procedure, as modified herein. Interested persons and entities may submit comments electronically by following the instructions available at the Commission's website:

 http://www.scc.virginia.gov/case. Any person seeking to hand deliver and physically file or submit any pleading or other document required to be filed in a case pending before the Commission shall contact the Clerk's Office Document Control Center at (804) 371-9838 to arrange the delivery. Submissions by mail or commercial mail equivalents (FedEx, etc.) will be accepted but, due to the COVID-19 emergency, may not be processed for an indefinite period of time.

¹ See Commonwealth of Virginia, ex rel. State Corporation Commission, Ex Parte: Revised Operating Procedures During COVID-19 Emergency, Order Regarding the State Corporation Commission's Revised Operating Procedures During COVID-19 Emergency (Mar. 19, 2020).

- (6) A public session shall be convened on July 8, 2020, at 10 a.m. in the Commission's second floor courtroom, Tyler Building, 1300 East Main Street, Richmond, Virginia 23219, to receive comments regarding the issues under consideration in this matter.
- (7) Pursuant to Rule 5 VAC 5-20-10, *Applicability*, of the Commission's Rules of Practice and Procedure and until further Order of the Commission, Rule 5 VAC 5-20-150, *Copies and Format*, is hereby modified to authorize that electronic filings made in the Clerk's Office may exceed the 100-page limit otherwise prescribed therein. Such authorization is subject to such size, technical, and process limitations as may be prescribed by the Clerk's Office and set forth on the Commission's website at: http://wvvw.scc.virginia.gov/clk/efiling/.
 - (8) This matter is continued.

AN ATTESTED COPY hereof shall be sent by the Clerk of the Commission to:

Vishwa B. Link, Esquire, McGuireWoods LLP, Gateway Plaza, 800 East Canal Street,
Richmond, Virginia 23219; Paul E. Pfeffer, Esquire, Dominion Resources Services, Inc.,
120 Tredegar Street, Riverside 2, Richmond, Virginia 23219; Noelle J. Coates, Esquire,
American Electric Power Service Corporation, 3 James Center, 1051 East Cary Street, Suite
1100, Richmond, Virginia 23219; James R. Bacha, Esquire, American Electric Power Service
Corporation, 1 Riverside Plaza, Columbus, Ohio 43215; Robert M. Conroy, Vice President, State
Regulation and Rates, LG&E and KU Energy LLC, 220 West Main Street, Louisville, Kentucky
40202; Allyson K. Sturgeon, Managing Senior Counsel – Regulatory and Transactions, LG&E
and KU Energy LLC, 220 West Main Street, Louisville, Kentucky 40202; and C. Meade
Browder, Jr., Senior Assistant Attorney General, Division of Consumer Counsel, Office of the
Attorney General, 202 North 9th Street, 8th Floor, Richmond, Virginia 23219. A copy also shall

be delivered to the Commission's Office of General Counsel and the Divisions of Public Utility Regulation and Utility Accounting and Finance.