DIRECT TESTIMONY OF CORMACK C. GORDON
DIRECTOR, TRANSPORTATION ELECTRIFICATION
DUKE ENERGY BUSINESS SERVICES, LLC
ON BEHALF OF DUKE ENERGY INDIANA, LLC
CAUSE NO. 45816
BEFORE THE INDIANA UTILITY REGULATORY COMMISSION

I. INTRODUCTION

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. My name is Cormack C. Gordon, and my business address is 1000 East Main Street, Plainfield, Indiana.

Q. BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?

A. I am employed as Director, Transportation Electrification by Duke Energy Business Services, LLC, a service company subsidiary of Duke Energy Corporation, and a non-utility affiliate of Duke Energy Indiana, LLC ("Duke Energy Indiana," or "Company").

Q. PLEASE BRIEFLY DESCRIBE YOUR EDUCATIONAL AND PROFESSIONAL BACKGROUND.

A. I hold a Bachelor of Science from the University of Tennessee and a Master of Management Science and Engineering from Stanford University. I have been employed by Duke Energy since September of 2010, and worked previously as an engineering consultant, in energy efficiency as an engineer, project manager and researcher, and as a general contractor. During my time at Duke Energy, I have worked in non-residential energy efficiency, including as a Products & Services Manager responsible for the launch of the Custom Incentives program in 2012. In 2014, I assumed responsibility for the Custom Incentives suite of programs &

personnel across all of Duke Energy's territories. In 2020, after participating in several special projects related to electric transportation, I was asked to take on the role of Director, Products & Services to lead commercialization of electric vehicle infrastructure businesses. In May 2021, I assumed the role of Director, Transportation Electrification.

Q. PLEASE DESCRIBE YOUR DUTIES AND RESPONSIBILITIES AS DIRECTOR, TRANSPORTATION ELECTRIFICATION.

A. My primary responsibility as Director, Transportation Electrification is to lead the team that is accountable for executing electric transportation efforts in our various jurisdictions and for leveraging lessons learned and market trends to develop and implement new products, services and policies that enable customer adoption of electric transportation by identifying and solving for gaps in the electrification space. Members of my team are located throughout Duke Energy's service territories, including Indiana.

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A. The purpose of my testimony is to address certain issues identified by the Commission for this proceeding. Specifically, my testimony addresses electric vehicle ("EV") fleet electrification and jurisdictional demarcation. My testimony is offered on behalf of Duke Energy Indiana and the "Utility Group," which consists of AES Indiana, CenterPoint, Duke Energy Indiana, Indiana Michigan Power Company, and Northern Indiana Public Service Company.

Q. ARE YOU SPONSORING ANY ATTACHMENTS TO YOUR DIRECT TESTIMONY?

A. No.

II. FLEET ELECTRIFICATION

Q. WHAT CHALLENGES EXIST FOR FLEET ELECTRIFICATION?

A. Today, fleet operating companies face political and customer – and therefore economic – pressure to decarbonize. As electrification of fleets grows, so does the need for substation and feeder capacity. This gives way to a growing risk for customers and utility operators alike. Most fleets operate medium and heavy-duty vehicles which consume significantly more energy than light duty vehicles while requiring near perfect reliability to avoid operational disruptions and profit loss. Moreover, fleets are generally located near to one another in warehousing districts and around access to air transport, interstates, ports, or rail, leading to an inherent localized load clustering effect.

Consider a hypothetical, but very realistic, site operating up to one hundred class 6 trucks and just six class 8 trucks. Before electrification, a site like this demands an electric load of approximately 500 kW. With electrification, the demand of this one location could rise to over 4 MW. A related challenge is timing. With a mature electrification supply chain, new load could materialize in six months while the work to bring upgraded service to the site may take years. Assuming that this load could be well-served, it is likely that another fleet location on the same circuit will electrify in quick succession. Many businesses

are exploring the electrification opportunity at the same time, and it is probable that many fleets will electrify in the next 5 years. This may lead to circuits requiring upgrades to satisfy dozens of megawatts. In addition, as multiple fleets on a single feeder electrify in quick succession, it could lead to costly rework because requests for upgrades move through a standard process and are usually satisfied only as the customer commits to the load. An initial system upgrade could be partially completed as requests for further, incremental upgrades are received. Efficiency, both in terms of time and cost, is lost as the partially completed upgrade must be redone. Meanwhile, system upgrade timelines are already measured in years while customers can obtain electric vehicles in timeframes increasingly measured in months. Considering this, current, (primarily reactive) approaches to serving load may also delay the economic gains available to fleet operators through electrification.

Q. CAN ALL CUSTOMERS BENEFIT FROM FLEET ELECTRIFICATION?

A. Yes. Studies have shown that managed charging from light duty, consumer EVs has potential to create downward pressure on rates. There is no reason that the same cannot be expected, to some degree, from light-, medium-, and heavy-duty EVs. Moreover, commercial fleets will have natural incentives to manage their charging load to avoid system peaks and to maintain a high load factor. As a result, system fixed costs can be spread over a larger base of kilowatt-hours, creating downward pressure on rates.

Q. WHAT OPTIONS EXIST TO BETTER SERVE ELECTRIC FLEET LOADS?

A. To reiterate, the concerns with serving the load from fleet electrification using traditional, primarily reactive methods, are

- System upgrades are completed in ways that are cost inefficient.
- Customer economic benefit is delayed.
- Ratepayer benefit is delayed.

It is also helpful to recognize why this reactive or responsive approach has become the norm. Load is served in a responsive fashion for reasons of prudency. That is, in the absence of customer commitments and/or reasonable certainty of growth, system investments fail to become "used and useful" and therefore may be denied recovery.

However, proactive approaches that shift from this traditional paradigm are not foreign to Indiana. The Targeted Economic Development structure leveraged by the TDSIC statute is an example of how utilities may pursue investment in anticipation of growth. As is the case with economic development, a methodology that combines strategic planning, funding and early execution while predicting and enabling electric fleet growth may be critical for success. That success, after all, would have similar positive benefits for electric sales as is observed with economic development. To that end, with existing ratemaking structures that deliberately and efficiently support growth, Indiana may be poised to emerge as a leader in fleet electrification.

Q. SHOULD UTILITIES PUBLISH PUBLIC CAPACITY MAPS?

A. Publishing load capacity maps could have unintended consequences. For example, certain customers would be poised to move quickly and "gobble up" spare capacity. This is particularly troubling in the absence of solutions to the challenge described above because winners and losers in fleet electrification would emerge. Additionally, local capacity is not static. A customer that checks a capacity map and proceeds with commitments to a project without engaging the utility throughout the process cannot be guaranteed that the capacity is not taken by someone else in the interim. Finally, a map that shows excess capacity would inherently also show areas of grid constraint, which may expose critical energy infrastructure to previously unrealized risk.

III. JURISDICTIONAL DEMARCATION

Q. WHAT IS YOUR UNDERSTANDING OF THE LINE OF JURISDICTIONAL DEMARCATION?

A. Generally, the Commission's jurisdiction does not consider the interface between the EVSE-owning customer & the EV driver/public. This is in accordance with state law that has clarified that entities reselling electricity for the purpose of EV charging are not considered utilities. By contrast, the Commission does continue its role of regulating the interface of the regulated utility and the EVSE-owning customer as well as, where such an interface exists, between the regulated utility and EV driver.

Q. IS THE CURRENT LINE OF JURISDICTION DEMARCATION APPROPRIATE?

A. Yes. The current jurisdictional demarcation fits within the boundary of state law. Additionally, it enables proliferation of EV charging by the market without burdening players with undue regulation.

Q. ARE THERE OTHER CONSIDERATIONS?

A. Yes. The EV charger itself is often the "tip of the iceberg" in terms of total EV charging infrastructure and the costs thereof. Make-ready infrastructure that brings power to the charger can represent significant expense. This includes costs of behind the meter make-ready infrastructure as well as utility-owned infrastructure. To that end, to achieve the objectives of "promoting affordable…charging infrastructure" and to "accelerate third party investment in electric vehicle charging…" as called for by the legislation underpinning this proceeding, programs that enable utility investment in beneficial make ready infrastructure, even if beyond the meter, should remain within the jurisdiction of the Commission.

IV. CONCLUSION

Q. DO YOU HAVE ANY OTHER COMMENTS?

A. Yes. This Commission has been a regulatory leader in the EV space. The Commission will be able to continue that leadership by implementing rules that allow for efficient and flexible infrastructure investment, speedy cost recovery mechanisms, and appropriate "make ready" definitions.

Q. DOES THIS CONCLUDE YOUR PREFILED DIRECT TESTIMONY?

A. Yes, it does.

VERIFICATION

I hereby verify under the penalties of perjury that the foregoing representations are true to the best of my knowledge, information and belief.

Signed: _____ Dated: June 12, 2023

Cormack C. Gordon