



September 17, 2018

Joel H. Peck, Clerk
State Corporation Commission
c/o Document Control Center
P.O. Box 2118
Richmond, VA 23219

RE: Data Center Community Comments on Case No. PUR-2018-00065

Dear State Corporation Commissioners:

We are a group of data center providers, colocation service providers, and customers of data center facilities with operations throughout Virginia. We are writing to encourage the Virginia State Corporation Commission and Dominion Energy (“Dominion”) to consider the data center community’s commitments and innovations in renewable and clean energy technologies when evaluating Dominion’s proposed 2018 Integrated Resource Plan (IRP).

The data center and cloud services industries are responsible for more than \$10.2 billion in annual economic output in the Commonwealth, supporting more than 40,000 jobs, and the sector is growing quickly thanks to Virginia’s investment in infrastructure, land availability, and supply of affordable, reliable energy.¹ Virginia is the world’s largest market for data centers and serves as much as 70 percent of global internet traffic.² Given the growth of our energy-intensive industry across Virginia, it is not surprising that data centers constitute the largest share of Dominion’s load growth—increasing by approximately 500 megawatts over the past six years.³ Over this same period, peak loads for Dominion’s non-data center customers actually declined, a trend that is expected to continue.⁴

We therefore encourage the Commission and Dominion to take data center companies’ and customers’ renewable energy preferences and energy efficiency investments into account when deciding on future energy infrastructure projects to meet our energy load growth. In addition to maintaining affordable, reliable, and safe energy, our interests fall into two buckets:

First, we are increasingly looking to power our data centers with renewable energy. Data center companies and their customers recognize the value of renewable energy in helping to control energy costs and achieve price predictability as well as driving toward our ambitious sustainability and greenhouse gas reduction targets. Renewable energy is the most cost-effective resource—a fact reflected in Dominion’s own IRP⁵—and we recognize that it is therefore in our best interest to power our operations with renewable resources like wind and solar. It is also an increasing

¹ Data center facilities are present throughout Virginia, including Henrico County, the Shenandoah Valley, Southwest Virginia, Norfolk, and Northern Virginia.

² Northern Virginia Technology Council. “The Economic and Fiscal Contribution that Data Centers Make to Virginia: Executive Summary.” February 2018. http://www.nvtc.org/documents/resources/NVTC_DataCenters_2018_Executive_Summary_lowres.pdf

³ Historical data shows an approximately 500 MW increase in data center load over the period 2011 to 2017, according to Direct Testimony of James F. Wilson, an energy economist who filed testimony in Dominion Energy’s 2018 IRP, on August 10, 2018. (See historical data curve, Figure JFW-J)

⁴ *Id.* (Figure JFW-E).

⁵ Dominion’s own IRP shows that—other than energy efficiency—solar is the lowest-cost generation resource. Solar costs \$56.38/MWh while a 2x1 combined-cycle natural gas plant costs \$67.72/MWh, and costs for a natural gas combustion turbine plant are at \$107.05. Source: Dominion 2018 IRP, Fig. 5.5.4.3

expectation of our investors and customers that we run our energy-intensive data centers responsibly. Many of our companies have made public commitments to reduce our greenhouse gas footprint and invest in clean energy—in some instances, to procure 100 percent renewable energy for all of our operations. We intend to successfully fulfill our commitments to renewable energy, and access to cost-competitive renewable energy is a significant factor in deciding whether to locate or expand new data centers within the Commonwealth.

Although an improvement over previous years, Dominion’s 2018 IRP still under-deploys renewable energy resources, which is inconsistent with the needs and preferences of the sector that constitutes the largest source of load growth for the utility.

Second, the data center industry is at the forefront of innovative energy technologies to improve efficiency and manage our impact on the grid. These advancements will result in lower future load requirements for data centers. We embrace innovation and are rapidly finding advancements in energy-efficient technologies that reduce our energy needs—with each new generation of servers more efficient than the last. We are also exploring new models and finding innovative ways to shift peak generation and incorporate energy storage. These technologies are rapidly decreasing in cost, with battery storage prices falling as much as 32% in 2015.⁶

Technological advancements are helping to reduce the load burden of our operations—a trend that we expect to grow over time. As such, the current energy demand of an average data center facility will likely decline over time, requiring utilities to adapt to flat or declining load growth. We therefore advise regulators and utilities to consider these advancements before building out expensive fossil-generated peaker plants that could become obsolete and therefore a burden on ratepayers.

For these reasons, we encourage Dominion and the Commission to give far more consideration to data center energy priorities and interests to ensure that utility investments are in the best long-term interest of both our companies and other customers. Utilities and regulators should be careful to avoid an overreliance on non-renewable energy infrastructure that could create a scenario of future stranded assets.

A clean, flexible, and dynamic grid is the grid of the future. Our companies are proud to do business in Virginia and to call Virginia home, and we welcome the chance to work collaboratively with lawmakers, utilities, and regulators to assist in accelerating the transition to a clean electricity grid while addressing reliability and delivering benefits for all ratepayers. We appreciate the progress made to date to increase clean energy investment in Virginia and the efforts of utilities to meet the needs of stakeholders that are actively pursuing clean energy opportunities.

We look forward to working with you to continue on the path toward an affordable, reliable, and clean electricity system to serve all residents and businesses in the Commonwealth.

Sincerely,

Adobe Systems Incorporated
Akamai Technologies, Inc.
eBay Inc.

Equinix, Inc.
Salesforce.com, Inc.

For more information or to contact any of the signatories above, please contact esteves@ceres.org.

⁶ Greentech Media report: “U.S. Front-of-the-Meter Energy Storage System Prices 2018-2022.”
<https://www.greentechmedia.com/research/report/us-front-of-the-meter-energy-storage-system-prices-2018-2022#gs.MOspqes>