

December 14, 2018

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VIA ELECTRONIC FILING

Public Utility Commission of Oregon
201 High Street SE, Suite 100
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ATTN: Filing Center

RE: Vitesse's Application to Exceed the New Large Load Direct Access Program Participation Cap

In accordance with Order No. 18-341 and OAR 860-038-0700 through 860-038-0760, Vitesse, LLC (Vitesse) files the enclosed Application to Exceed the New Large Load Direct Access Program Participation Cap.

Vitesse respectfully requests that all communications related to this filing be addressed to:

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Informal inquiries may be directed to either Bryce Dalley or Troy Greenfield.

Respectfully,

SCHWABE, WILLIAMSON & WYATT, P.C.



Troy Greenfield

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BEFORE THE PUBLIC UTILITY COMMISSION
OF OREGON

In the Matter of

THE APPLICATION OF VITESSE, LLC TO
EXCEED THE NEW LARGE LOAD
DIRECT ACCESS PROGRAM
PARTICIPATION CAP

I. RELIEF REQUESTED

In accordance with the dictates set forth in Order No. 18-341, entered in Docket No. AR 614 on September 14, 2018, Vitesse, LLC (Vitesse) respectfully requests an order allowing that portion of its new large load that exceeds the six percent cap to be served under the New Large Load Direct Access Program. PacifiCorp d/b/a Pacific Power & Light Company (Pacific Power) supports this request for a waiver.

II. BACKGROUND

A. Relevant provisions of the New Large Load Direct Access Program

In Order No. 18-341, the Commission adopted rules comprising the New Large Load Direct Access Program (OAR 860-038-0700 through 860-038-0760). Additionally, the Commission ordered that the utilities make six percent of their weather normalized annual load in calendar year 2017 available to the New Large Load Direct Access Program. During the September 13, 2018 Special Public Meeting, the Commissioners unanimously supported the flexibility of a “soft cap” and associated process by which a customer such as Vitesse can demonstrate good cause to exceed the cap. Order No. 18-341 incorporates a non-inclusive list of factors the Commission may consider in determining whether a customer’s application to exceed the cap poses no significant risk or costs to cost-of-service customers and presents significant

benefits to the system. As addressed in detail below, good cause exists to allow the portion of Vitesse's new large load that exceeds the cap to be served in accordance with the provisions of the New Large Load Direct Access Program.

B. Facebook's data centers drive substantial economic growth in Oregon and across the country.

Facebook, Inc. (Facebook), through wholly-owned subsidiaries such as Vitesse, currently owns and operates large data centers in Prineville, Oregon; Forest City, North Carolina; Altoona, Iowa; Fort Worth, Texas; Clonee, Ireland; and Lulea, Sweden. Additional Facebook data centers that are already under construction or have been announced include Los Lunas, New Mexico; Papillion, Nebraska; New Albany, Ohio; Henrico County, Virginia; Huntsville, Alabama; Newton County, Georgia; Eagle Mountain, Utah; Odense, Denmark; and Tanjong Kling, Singapore.

The United States Chamber of Commerce Technology Engagement Center produced a report addressing the many positive effects that development and operation of data centers have upon the economy.¹ While being built, a typical data center employs 1,688 local workers, provides \$77.7 million in wages for those workers, produces \$243.5 million in output along the local economy's supply chain, and generates \$9.9 million in revenue for state and local governments. Each year thereafter, the same data center supports 157 local jobs, paying \$7.8 million in wages, injecting \$32.5 million into the local economy, and generating \$1.1 million in revenue to state and local governments. As discussed below, Vitesse's Central Oregon operations, soon to be comprised of several massive data center buildings on two campuses, are not what the U.S. Chamber of Commerce refers to as a "typical data center."

In 2017, RTI International (RTI) prepared a report addressing the impact of the construction and operation of Facebook data centers across the country.² According to their report, between 2010 and 2016, Facebook data centers contributed a cumulated \$5.8 billion in gross domestic product to the U.S. economy. RTI also noted that an average Facebook data center has a work force of 196 people after five years of operation, that for every Facebook data center worker,

¹ TIM DAY & NAM D. PHAM, U.S. CHAMBER OF COMMERCE TECHNOLOGY ENGAGEMENT CENTER, DATA CENTERS: JOBS AND OPPORTUNITIES IN COMMUNITIES NATIONWIDE (2017).

² ZACHARY OLIVER, ET AL., RTI INTERNATIONAL, THE IMPACT OF FACEBOOK'S U.S. DATA CENTER FLEET (March 2018).

there are five jobs supported elsewhere in the economy by operating expenditures, and that for every \$1 million in Facebook spending on data center operations, there are 13 jobs supported elsewhere in the economy. According to RTI's analysis, between 2010 and 2016, Facebook data centers contributed a total of approximately 60,100 jobs across the economy, or 8,600 per year.

In early 2014, Facebook commissioned ECONorthwest, to measure the economic impacts of the Prineville data center.³ According to their report, the economic impact resulting from just the initial five-year construction phase included 651 jobs in Central Oregon and a total of 3,592 jobs across the state, the personal income tax generated during that period was roughly \$6.5 million, and the capital expenditures during the initial construction phase totaled \$573 million. As of early 2014, the post-construction operations in Prineville accounted for 266 jobs throughout the State of Oregon including 207 jobs in Central Oregon.

Since 2011, Facebook has donated nearly \$1.5 million to Crook County schools and qualified non-profit organizations through the company's Community Action Grants program and local donations, including the support of STEM (Science, Technology Engineering, and Mathematics) education.

C. Expansive growth of Vitesse data center campuses in Central Oregon

As indicated, the ECONorthwest economic impact study was prepared in early 2014. Since then, Vitesse has significantly expanded its Central Oregon data center operations. In early 2014, Vitesse was in the midst of constructing and bringing four data center buildings online. Those buildings comprised the initial phase of the Prineville Campus. Subsequently, Vitesse announced and has begun construction of two additional large data center buildings on the Prineville Campus.⁴ In September, Vitesse announced its plans to construct yet two more data center buildings, which will comprise the adjacent Crook County Campus.⁵ Once the Prineville Campus expansion and the new Crook County campus are complete, Vitesse's Central Oregon footprint will exceed 3.2

³ MICHAEL WILKERSON, TESSA KREBS, & ALLISON TIVNON, ECONORTHWEST, THE ECONOMIC AND FISCAL IMPACTS OF FACEBOOK'S PRINEVILLE, OREGON DATA CENTER (2014).

⁴ <https://www.facebook.com/notes/prineville-data-center/facebook-announces-two-new-buildings/10155148220448133/>

⁵ <https://www.facebook.com/notes/prineville-data-center/growing-our-presence-in-prineville/10155786565698133/>

million square feet, roughly 66 football fields. The two Central Oregon campuses will support more than 450 jobs. Facebook anticipates that at the peak of construction of these two campuses there will be 1,500 workers on site.

Facebook is continually assessing how to efficiently expand capacity, which often involves constructing new facilities relatively near existing facilities. Facebook has found that grouping and interconnecting multiple data center buildings is often an optimal configuration. With just two data center buildings currently announced for the Crook County Campus, there is the potential for additional growth in Central Oregon. The opportunity to participate in the New Large Load Direct Access Program is certainly a factor in Facebook's consideration of where to grow its data center operations.

D. Facebook's environmental efforts closely align with Oregon State policy, ultimately benefitting not only other Pacific Power customers but all Oregon residents.

1. Efficient design

Facebook's energy-efficient designs reduce data center energy consumption by an estimated 38% and water use by 80% relative to the average data center. Facebook co-founded the Open Compute Project (OCP) in 2011, to publicly share its designs for high-efficiency data centers. Through OCP, Facebook collaborates with other industry leaders to apply the benefits of open source to hardware and rapidly increase the pace of innovation in, near and around data centers worldwide.

2. Facebook's CaRE commitment

In 2011, Facebook was one of the first tech companies to commit to the goal of powering all of its facilities and infrastructure with 100% clean and renewable energy (CaRE). Every new data center constructed by Facebook since 2013 uses 100% clean and renewable energy. In 2015, Facebook set a goal of powering 50% of its facilities with clean and renewable energy by 2018 and achieved that goal a year early, with 51% clean and renewable energy in its electricity mix for all of 2017. In August 2018, Facebook honed its commitment to renewable energy, pledging that by 2020 it will be supported by 100% renewable energy.⁶

Facebook's renewable energy goals drive third-party investment in solar and wind farms to provide clean energy to data centers in the United States and abroad. Facebook is on track to

⁶ <https://newsroom.fb.com/news/2018/08/renewable-energy/>

be one of the largest corporate purchasers of renewable energy. Since its first purchase of wind power in 2013, Facebook has signed contracts for over three gigawatts of new solar and wind energy. RTI estimates that, between 2011 and 2016, Facebook avoided over 2.5 million MWh of carbon-intensive electricity consumption through energy efficiency and renewable energy investments. This resulted in CO₂ emissions reductions of over 1.2 metric tons.

As part of Facebook's commitment to a cleaner energy future, it is a founding member of the Renewable Energy Buyers Alliance (REBA), a collaboration of more than 100 companies working together to scale corporate procurement of clean energy. The collective expertise within REBA is helping to transform energy markets. REBA members represent an enormous demand for renewable power. One of REBA's principal goals is to help corporations purchase 60 GW of additional renewable energy in the United States by 2025. The 2018 REBA Summit was a gathering of over 400 energy buyers, service providers, developers, financiers, nonprofit organizations and utilities that came together to identify opportunities to accelerate procurement of renewable energy. REBA exists to make the transition to renewables easier by helping companies understand the benefits of moving to renewables, connecting large buyer demand to renewable energy supply, and helping utilities better understand and serve the needs of all energy buyers.

E. Powering Vitesse's Oregon data center campuses – providing infrastructure upgrades and furthering its CaRE commitment

1. Prineville Campus

Vitesse executed multiple Master Electric Service and Facilities Improvements Agreements (MESAs) with Pacific Power, for the provision of electric service to power the six data center buildings comprising the Prineville Campus and for the construction of significant infrastructure upgrades that will ultimately benefit other Pacific Power customers. For example, rather than utilizing a 115 kV transmission line loop and associated substations to interconnect buildings 5 and 6 of the Prineville Campus and the Crook County Campus, Vitesse provisioned for a new 230 kV transmission line loop. Vitesse's willingness to oversize and fund the infrastructure upgrades provides for additional interconnection opportunities downstream from the Bonneville Power Administration (BPA) Ponderosa substation, including additional opportunities to export new solar and wind generated energy out of the Prineville area. Vitesse understands that

the new 230 kV transmission line will have capacity to transmit approximately 120 MW in excess of the capacity which will be necessary to serve the Vitesse contracted capacity. That additional capacity should facilitate further economic growth in and around Prineville.

Vitesse has not elected direct access to serve any portion of the Prineville Campus load. Rather, Vitesse is a cost-of-service customer. To meet Facebook's CaRE commitment of being supported by 100% clean and renewable energy, its representatives worked with Pacific Power to execute a Schedule 272 purchase agreement, by which Vitesse will pay the cost to acquire Renewable Energy Certificates (RECs) representing 437 MW of new solar generation resources from specified facilities in PacifiCorp's service territory. All of the data center buildings comprising the Prineville Campus will be supported by these Schedule 272 solar resources.⁷

2. Crook County Campus

On September 20, 2018, Vitesse announced the development of the Crook County Campus that will initially be home to two new data center buildings. Vitesse has initiated the process of securing the energy to support the Crook County Campus, including entering a MESA with Pacific Power, which provides for the construction of additional system improvements necessary to interconnect up to 220 MW of capacity. At least 40 MW of this capacity will be served by Pacific Power. The remaining 180 MW of the new load is the subject of this Application (Subject New Large Load). While Pacific Power may ultimately propose another Schedule 272 agreement by which the Crook County Campus can be supported by 100% clean and renewable generation resources, Vitesse actively participated in Docket No. AR 614 with the goal of helping to develop a new large load direct access program that is free of undue cost shifting and readily available for its use and the use of other Oregon customers. Vitesse understands that six percent of Pacific Power's weather normalized annual load in calendar 2017 is approximately 89 MW. Accordingly, a portion of the Subject New Large Load exceeds the six percent cap.

III. POINTS AND AUTHORITIES

Good cause exists to allow the entire Subject New Large Load to be served under the New Large Load Direct Access Program. The following is a discussion of some of the primary factors supporting a finding of good cause.

⁷ <https://www.pacificpower.net/about/nr/nr2018/facebook-data-center-prineville-solar-power.html>

A. Facebook is a global leader in the transition to clean and renewable generation resources and leads the transition in Oregon.

Focusing on the local impact of Facebook's unwavering commitment to transitioning to clean and renewable generation resources, it is important to note that Pacific Power has a varied mix of generation resources. Facebook seeks to facilitate the development and utilization of additional clean and renewable resources through partnership with utilities and by participating in direct access programs.

1. The Prineville Campus is supported by solar resources with no resulting cost-shifting.

The six buildings comprising the Prineville Campus are all served by Pacific Power, on a cost-of-service basis. In a clear example of Facebook's commitment to renewable energy, Vitesse entered the Schedule 272 individually-negotiated purchase agreement with Pacific Power, whereby it will acquire RECs representing 437 MW of new solar generation resources. All of the data center buildings on the Prineville Campus will be supported by this purchase agreement. Vitesse's purchase of these RECs will contribute to the development of new solar resources on PacifiCorp's system. Through the Schedule 272 structure, Vitesse will pay the full cost of the RECs ensuring no cost shifting to other customers. Vitesse made a significant financial commitment to ensure not only that all of the subject RECs are from renewable energy facilities within PacifiCorp's service territory but also that 100 MW of solar projects are located in Prineville, Oregon. Those Prineville, Oregon solar projects will increase the amount of solar power generated in Oregon by more than 20%.

2. In the event Vitesse elects to participate in the New Large Load Direct Access Program to serve the Crook County Campus it will promote the continued growth of the competitive retail electricity market and development of additional clean and renewable generation resources with no resulting cost-shifting.

Consistent with Facebook's mandate, the Crook County Campus data center buildings will also be supported by 100% clean and renewable energy. In the event Vitesse elects to have the Subject New Large Load served under the New Large Load Direct Access Program, the Electric Service Supplier (ESS) ultimately selected will necessarily supply energy from clean and renewable generation resources.

Pursuant to OAR 860-038-0740 (3), Pacific Power may charge a Service Transition Rate that recovers both twenty percent of fixed generation costs for five years and all reasonable costs of administering the New Large Load Direct Access Program. The Service Transition Rate is intended to avoid cost-shifting to cost-of-service customers and is static regardless of the size of the participating load. The Commission has appropriately addressed any potential for cost-shifting, and granting Vitesse's application to allow that portion of the Subject New Large Load that exceeds the six percent cap to be served under the New Large Load Direct Access Program would in no way affect that equation.

3. Facebook assists other Oregon energy customers.

Facebook leads by example in its own data center operations and, through its committed private action, supports the efforts of other Oregon energy customers to access clean and renewable generation resources and greatly improve operational efficiency. As a founding member of REBA, Facebook mentors and actively supports other companies, including many with significant Oregon operations, in their efforts to transition to clean and renewable energy.

Facebook is a pioneer in designing data centers that are both energy efficient and use far less water than the average data center. As a founding member of the OCP, Facebook readily shares its designs for high-efficiency data centers, including with companies that operate in Oregon.

B. Infrastructure upgrades in Prineville provide interconnection opportunities and related economic growth.

As previously mentioned, Vitesse elected to provide and fund a new 230 kV transmission line loop downstream from BPA's Ponderosa substation to interconnect buildings five and six of the Prineville Campus and the Crook County Campus. By oversizing the infrastructure upgrades as it did, Vitesse provided for additional interconnection opportunities, including for the transmission of solar and wind-generated energy. The 230 kV transmission line will accommodate transmission of the energy to power the Vitesse data center campuses as well as provide approximately 120MW of capacity for the region. This infrastructure upgrade and resulting excess transmission capacity certainly benefits other existing customers as well as potential new customers on the Pacific Power system.

As addressed above, the combined footprint of the two Vitesse Central Oregon campuses will provide significant economic benefit to Prineville and to the region. In addition, Vitesse has paved the way for additional growth in the region through the excess transmission capacity created downstream from the BPA Ponderosa substation. The Vitesse data center campuses translate to approximately 450 jobs, significant financial output along the local economy's supply chain, and millions of dollars in revenue for the local and state governments.⁸ It is truly exciting to think about what is on the horizon for the Prineville area and the state of Oregon, and Vitesse is proud to play a role in facilitating that economic growth.

IV. CONCLUSION

The standard articulated in Order No. 18-341 is good cause, specifically that a customer's application to exceed the New Large Load Direct Access Program cap poses no significant risk or cost to cost-of-service customers and presents significant benefits to the system. As demonstrated herein, there is no risk of cost-shifting as a result of granting Vitesse's application to allow that portion of the Subject New Large Load that exceeds the six percent cap to be served under the New Large Load Direct Access Program. Vitesse delivers significant benefits to the Pacific Power system, in the form of infrastructure upgrades and increasing the amount of clean and renewable energy in the electricity mix. Vitesse certainly appreciates Pacific Power's support of this application for a waiver of the six percent cap. The New Large Load Direct Access Program affords Vitesse further opportunity to lead industry efforts to reduce greenhouse gases. Vitesse thanks the Commission for developing and adopting the rules comprising the Program as well as for its consideration of this application.

Respectfully submitted,

Dated December 14, 2018.

SCHWABE, WILLIAMSON & WYATT, P.C.

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⁸ <https://pamplinmedia.com/ceo/162-news/405574-302480-franchise-fees-giving-city-big-financial-boost>