BEFORE THE PUBLIC UTILITY COMMISSION

OF OREGON

UM 1967

SANDY RIVER SOLAR, LLC Complainant, vs. PORTLAND GENERAL ELECTRIC COMPANY Defendant.

OPENING TESTIMONY OF

TROY SNYDER

ON BEHALF OF

SANDY RIVER SOLAR, LLC

February 7, 2019

I. INTRODUCTION

Q. Mr. Snyder, please state your name and business address.

A. My name is Troy Snyder. I am the President of TLS Capital, Inc. ("TLS Capital"), which is the sole member of Sandy River Solar, LLC ("Sandy River"). My business address is 7455 SW Bridgeport Road, Ste 220, Tigard, WA 97244.

Q. Please describe your background and experience.

A. I have been developing small-scale utility solar projects for last six years, with a particular focus on Qualified Facilities ("QFs") located in Oregon. Prior to this, I worked for a national solar EPC firm, where I managed their business development and project finance functions. I received a Bachelors degree from George Fox University in 2005, with a double major in Accounting and Business Finance.

Q. On whose behalf are you appearing in this proceeding?

A. Sandy River.

Q. How is your testimony organized?

A. My testimony first reviews my general experiences with Portland General Electric Company's ("PGE's") interconnection process and my history of working with PGE on interconnections. I then describe the specifics of Sandy River's interconnection and the issues I have been facing with this project. Next, I discuss why it is reasonable for PGE to allow Sandy River to hire third-party consultants to complete the interconnection work. Finally, I discuss both the business and economic impacts that PGE's actions have had and/or are likely to have on Sandy River.

Q. Can you please provide an overall summary of the case?

A. This case is before the Commission because PGE's interconnection department cannot be relied upon to provide timely or accurate interconnection studies or work. Interconnection customers like Sandy River cannot make informed business decisions based on the inaccurate information provided, and poor work quality performed, by PGE. Nor can interconnection customers rely on the work to be performed in a timely manner. Interconnection customers are subject to considerable business risk when any business, especially a regulated monopoly, is unable to meets its most basic legal and contractual obligations.

PGE provided Sandy River with late, incomplete, and inaccurate information during the interconnection study process and the information coming out of PGE's interconnection department, including time estimates, cannot be relied upon. Sandy River seeks to hire its own third-party consultant to complete the interconnection work and PGE unreasonably refuses to allow Sandy River to do so. Sandy River's testimony explains why it is reasonable for Sandy River to hire a third-party consultant to complete the interconnection facilities and system upgrades, subject to public utility oversight and approval.

The problems faced by Sandy River reflect a larger problem with PGE's interconnection department. PGE's time estimates, cost estimates, and statements regarding what interconnection facilities are required have been unreliable for many projects. PGE frequently misses its interconnection deadlines (both those required by the OARs and its own estimates regarding how long it will take to complete its tasks), and PGE has consistently revised its estimated

interconnection construction timelines. PGE's cost estimates vary significantly between studies and, when questioned on some costs, PGE has decided that certain costs were a mistake, a miscalculation, or otherwise a result of some interconnection facility that is no longer needed. Further, PGE's required interconnection facilities have varied between studies, and when questioned, PGE has needed to issue revised studies to correct mistakes.

Q. Are there any other witnesses testifying on behalf of Sandy River?

A. Yes, Jeremy Goertz. He is Managing Director of SunGrid Solutions, Inc. Mr. Goertz is a trained professional engineer with a Masters in Business Administration and a Project Management Professional designation. He has 11 years of experience working with power projects with a number of different utilities and in a variety of capacities including on interconnections.

Q. What will Mr. Goertz be testifying about?

A. Mr. Goertz will testify about his experience working with other utilities as compared to Sandy River's experience with PGE. Mainly he will review the level of detail PGE has provided in its interconnection studies and whether the Sandy River interconnection requirements are generally of the type that a third-party consultant would be permitted to construct.

II. PGE'S INTERCONNECTION PROCESS

Q. Please describe your experience with PGE's interconnection process.

A. I have worked in whole or in part on over 20 qualifying facility interconnections with PGE's interconnection department. This entails preparing the initial application, participating in the scoping meeting, shepherding the projects through

the tier 4 study process including a Feasibility Study, a System Impact Study, and a Facilities Study, and finally entering into an interconnection agreement.

Q. Have you ever experienced any issues with PGE's interconnection process?

A. Yes.

Q. Please describe those issues.

A. PGE has missed numerous deadlines in the interconnection process, including the deadlines by which it is required to provide me with study agreements, and the deadlines by which it has agreed to provide me the actual study results. PGE has even failed to notify me whether my application is considered complete by the required deadline or to hold a scoping call by the required deadline. Aside from the delays, PGE has also provided inaccurate or inconsistent information in their studies. In some instances, they are not even able to get basic information correct such as the date an application was received, the amount of generation existing on a distribution line, or the rating of a substation transformer. The substantive information is often impacted as well including the actual interconnection requirements, the costs of those facilities and upgrades, and the timeline to construct them. PGE issues "revised" studies that still contain inconsistencies and inaccurate information. When questioned on some of the inaccuracies, inconsistencies, or the basis for certain requirements, PGE often delays the process further by not responding in a timely manner. Finally, PGE has not provided me with sufficient information on its system to check their work (or hire an expert to) and flatly denies any request to hire a third-party consultant to perform any of the studies or interconnection work. PGE is aware of these issues

but has failed on numerous occasions to give proper attention to resolving these issues.

Q. Leaving Sandy River aside for the moment, can you please provide specific examples where PGE has delayed the interconnection process, missed deadlines, or provided inaccurate or inconsistent information?

A. Sure.

A number of issues occurred in connection with the Mt. Hope Solar project. PGE provided Mt. Hope Solar with a study that double counted some of the costs for the facilities or upgrades. I asked PGE a clarifying question on one of the studies, and followed up on my questions numerous times, but yet it took PGE 57 days to respond. PGE provided Mt. Hope Solar with a facility study that requires the installation of fiber optic line for transfer trip, and indicated that a higher queued project SPQ0069 does not have a requirement to install transfer trip or fiber; however, PGE's study for SPQ0069 required transfer trip. It turned out that PGE required that developer to pay for transfer trip that wasn't required. The facility study for Mt. Hope also affirmed the results of the system impact study, yet required Mt. Hope Solar to replace poles despite PGE providing a system impact study that did not require pole replacement and despite the fact that PGE has stated that they do not even look at the poles and whether they need to be replaced until after an Interconnection Agreement is executed.

There are a few other projects where PGE's requirement to remedy "backfeeding" is inconsistent. PGE indicated that backfeeding occurs where generation interconnected to a substation exceeds the daytime minimum load. However, on the Mountain Meadow Solar project, PGE determined in the

feasibility study that the project would cause backfeeding, despite there being a load on the line that far exceeded the generation. Also, PGE has not required the same the protection requirements for higher-queued projects that create a backfeed condition as it has for Waconda Solar.

In several cases, PGE's cost estimates have varied radically between studies. On Eola Solar and River Valley Solar, PGE's cost estimate for interconnection facilities and upgrades nearly doubled from the system impact study phase to the facility study phase despite there being no change to the requirements. A similar issue occurred with Brush College Solar, but the cost estimate increased by about 61% from the system impact to facility study phase despite there being no change to the requirements.

PGE has also removed some requirements once I started asking questions about them, or added requirements in later studies that should have been identified earlier (or failed to tell me about those requirements earlier in the process). For example, on Brush College Solar, PGE provided a facility study, but when I questioned them on certain aspects of it, PGE determined that a voltage regulator was not actually needed. For Red Prairie Solar, following the facility study and draft interconnection agreement, PGE determined that Red Prairie was not required to replace a recloser, but it should have been the responsibility of a project built last year. I questioned PGE about this requirement after the system impact study and first draft of the facility study, but PGE waited until much later in the process to inform me it was not required. Additionally, it took PGE over two years to complete the interconnection studies for Drift Creek and Brush

Creek, and PGE did not inform me of a substation replacement until over a year into the process. When I do have questions about the results of a study, PGE will send me the next study agreement and give me 15 business days to execute it (per the OARs) or else my application will be deemed withdrawn. Meanwhile PGE will not answer my questions, forcing me to continue with the process without adequate information.

Finally, there have been countless delays. PGE fails to meet the deadlines in the interconnection rules, fails to meet its own predicted study completion dates, and fails to respond in a timely manner. For example, in October 2016, I wrote a letter to PGE (Exhibit Sandy River/101) expressing my concern about their delays and how they had not met either the timelines outlined within the OARs or their own estimated timelines. This letter came as a result of me trying to contact PGE nearly every day by phone or email for over a month in order to discuss my concerns with them, but with no response. Following the receipt of this letter, an in-person meeting was held with PGE in December 2016, where I was assured that things would be changing. However, significant study delays continued. The study timelines and missed deadlines that PGE subjected Sandy River to is just one example of how these delays continued, despite the fact that Sandy River submitted its interconnection application in May 2017 or approximately 6 months following this meeting. Even when PGE has met the timelines outlined within the OARs as well as their estimated study timelines, the interconnection process has taken an unreasonably long time. For example, with my Fruitland Creek Solar project, I submitted an interconnection application in

February 2018. As of the date of this testimony, I have not received an Interconnection Agreement, even though the system impact study showed no adverse effects to the distribution or transmission network, resulting in the only requirement to interconnect being a new primary service and metering package, which is the absolute minimum required in order to interconnection a project. Further, even though the system impact study showed that no system upgrades were required to be made in order to accommodate the Fruitland Creek Solar project, PGE still required a facility study to be performed to further study the upgrades that weren't required and PGE needed 60 business days, or approximately 3 months, to conduct this additional study.

Q. How have these issues impacted your working relationship with PGE?

A. Over time, I have grown increasingly frustrated with PGE's interconnection department and have lost faith in their work product, their communication, and their ability to do anything timely. I can't rely on the information relayed to me in the studies or from PGE's staff, and I can't even get a response out of them when I ask questions. I need to have all of their work checked by an outside engineer who can verify whether or not PGE's information is accurate and complete, a necessary prerequisite to enable me to make informed business decisions.

Q. Have you ever discussed with PGE, whether a QF could hire third-party consultants to complete the interconnection work.

A. Yes. On or about May of 2016, I attended an in person meeting with PGE staff to discuss the interconnections for a number of projects. Among the issues

discussed, was third-party consultants. PGE staff told me that that third-party consultants could be used to perform some of the interconnection construction, so long as they were approved by PGE. I relied upon that representation when I informed PGE that I was interested in hiring a third-party consultant to perform the work.

III. SANDY RIVER SOLAR PROJECT INTERCONNECTION

Q. Please describe the Sandy River Solar project.

A. The Sandy River Solar project is a 1.85 MW nameplate capacity solar qualifying facility that will be located in Clackamas County, Oregon. It is in PGE's service territory and it is planned to be directly interconnected with PGE's distribution system.

Q. Does Sandy River have an executed Power Purchase Agreement?

A. Yes. It is attached to PGE's Answer at Exhibit D.

Q. Please give an overview of the interconnection timeline for the Sandy River Solar project.

A. I submitted the complete Sandy River Solar interconnection application to PGE on May 23, 2017. PGE notified me that the application was complete on July 10, 2017, 48 calendar days after I submitted it. PGE did not perform a Feasibility Study. I executed and sent PGE the System Impact Study Agreement on July 27, 2017, which provided that the study would be completed and results transmitted within 30 calendar days after the agreement is signed by the parties. PGE provided the System Impact Study to me on January 7, 2018, 164 calendar days

after I submitted it.[1] On January 25, 2018, I executed a Facilities Study Agreement and sent it to PGE, which provided that the study shall be completed and results transmitted within 60 business days after receipt of the agreement. PGE provided the Facility Study on April 25, 2018.[2] After some back and forth with PGE regarding the study results, interconnection timeline, contradictory statements in the study, and third-party consultants, PGE issued a revised Facilities Study on July 27, 2018.[3] The revised Facilities Study still did not resolve my concerns.

Q. What are your general concerns with the interconnection?

A. The studies generally have a lot of incorrect and inconsistent statements. They are pretty vague and don't include a lot of detail regarding the results of the study, the timeline for interconnection construction, or the cost estimates. I am unable to have an independent engineer reproduce or confirm the results based on the little amount of information that is provided.

Q. What was incorrect or inconsistent for the Sandy River Solar project?

A. The System Impact Study required installation of a set of electronic reclosers, but then in the Facility Study, PGE removed the requirement for an electronic recloser because as PGE stated, "it would have created a coordination issue." In addition, in the System Impact Study, PGE indicated that the work would take 16 months, but then revised that up to 18 months in the Facility Study despite there

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1 Complaint at Attachment A.
2 Complaint at Attachment B.
3 Complaint at Attachment C.

being fewer requirements. Additionally, when PGE provided me with a revised Facility Study for Sandy River on July 27, 2018, within the study, they listed an in-service date of December 2, 2019, but stated that the "construction completion date of this Sandy River Solar project is contingent on the construction and completion of a higher queued project."[4] However, on July 6, 2018, three weeks prior to when PGE provided Sandy River with a revised Facility Study, PGE provided that higher queued project (SPQ0070) with a draft Interconnection Agreement showing an In-Service date of February 17, 2020.[5] PGE knowingly provided an in-service date to Sandy River that they did not intend to meet. I only became aware of this when I read PGE's answer filed on August 29, 2018 to Dunn Rd Solar's complaint in UM 1963.

Q. Did you ask PGE to resolve these issues?

A. Yes. I made numerous attempts to get a clarity out of PGE. On May 4, 2018, I emailed PGE requesting additional information on the study results so that I could better understand the interconnection requirements.[6] I sent PGE emails on May 13,[7] May 15, and May 21, 2018[8] to follow up on my questions and to ask additional questions that had come up. PGE responded on May 22, 2018 that it could provide additional details on the payment structure.[9] I responded on that

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4 *Id.*
5 *Dunn Rd. Solar, LLC v. PGE,* Docket No. UM 1963, PGE's Answer at 2 & Exhibit Y at 18 (Aug. 29, 2018).
6 PGE's Answer at Exhibit C.
7 PGE's Answer at Exhibit E.
8 PGE's Answer at Exhibit F.
9 PGE's Answer at Exhibit F.

same day, asking that PGE provide the details of the payments and timeline and also asked to discuss hiring a third-party consultant to complete the engineering and construction.[10] I sent PGE follow up emails on May 30 and June 5, 2018 trying to get a response from PGE.[11] On June 6, 2018 PGE responded that "the actual work will likely take around three weeks and potentially longer if [PGE] need[s] to replace poles."[12] PGE's June 6 email did not sufficiently answer my questions on the schedule and did not address other questions I asked, so I sent a follow up email on June 11, 2018.[13] I followed up on June 15, 2018, and PGE finally responded on June 21, 2018 indicating that Sandy River is subject to the project ahead of it in the queue and that PGE "has not allowed the applicant to hire a third party for design and construction."[14] Because this did not really answer my requests, I sent another follow up email on June 26, 2018.[15] I never got a response to that email. At that point the discussion was turned over to our attorneys.[16]

Q. Do you have any other concerns regarding PGE's interconnection work?

A. Yes. PGE doesn't provide adequate detail. For example, the System Impact Study Agreement states that it will be performed consistent with OAR 860-082-0060(7), but I don't see a short circuit analysis, a stability analysis, a power flow

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10 PGE's Answer at Exhibit G.
11 PGE's Answer at Exhibit H.
12 *Id.*
13 PGE's Answer at Exhibit I.
14 PGE's Answer at Exhibit J.
15 PGE's Answer at Exhibit K.
16 PGE's Answer at Exhibits L, M, N & O.

analysis, voltage drop and flicker studies, protection and set point coordination studies, grounding reviews, all the underlying assumptions of the study, the results and analysis or the impacts to PGE's system. The System Impact Study also states on page 3 that it "normally consists of the following" and then lists a number of things. Not everything is included and there is no explanation as to why not everything is included. There are similar issues with the Facility Study. The Facilities Study Agreement states that it will be performed consistent with OAR 860-082-0060(8), but the study did not include any design of any required interconnection facilities or system upgrades, the equipment required, and the detailed costs for equipment, engineering, procurement, and construction.

Q. Why do you think PGE is having so many issues with its interconnection work?

A. One reason is that PGE's interconnection department is understaffed and overworked. PGE even told me that "[w]ith the current volume of both interconnection and PGE's existing construction work has placed a strain on resources."[17] In fact, I previously worked on two other projects (Brush Creek and Drift Creek) that had nearly identical interconnection upgrades to Sandy River and the higher queue project (SPQ0070) which Sandy River's timeline is subjected to.[18] On those projects, PGE only proposed a 10-month schedule from execution of the interconnection agreement to the in-service date with only 2

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[17] PGE's Answer at Exhibit H

[18] *See Dunn Rd. Solar, LLC v. PGE,* Docket No. UM 1963, PGE's Answer at Exhibit Y at 18 (Aug. 29, 2018).

months of construction, whereas for Sandy River, PGE is estimating 18 months to the in-service date with 10 months of construction. If PGE's interconnection resources are strained, then it should take reasonable steps to remedy the issue.

Q. Could there be other reasons why PGE is having so many issues with its interconnection process?

A. Yes. PGE may also be using the interconnection process to make sure that QFs which have entered into power purchase agreements are unable to be constructed. I am aware that the Renewable Energy Coalition is intending to submit testimony in this case, and their witness John Lowe will discuss this in greater detail in his testimony.

IV. PGE SHOULD AGREE TO ALLOW SANDY RIVER TO HIRE THIRD-PARTY CONSULTANTS

Q. What steps do you think PGE should take so that it can remedy its interconnection issues?

A. PGE should immediately agree to allow interconnection customers to hire third-party consultants to complete the interconnection facilities and system upgrades.

Q. Why do you think this is the appropriate remedy?

A. Because it will lessen the strain on PGE's resources by allowing the customer to take on some of the work of finding an appropriate consultant and having the work completed by that consultant. It resolves numerous problems and takes the pressure and possible risk off PGE for its failure to perform adequately and timely.

Q. Won't there be an issue with the safety and reliability of the PGE's electric system if PGE allows Sandy River to hire a third party consultant?

A. No. I have already agreed that any third-party consultant and the work performed would be subject to PGE's oversight and approval, and I have asked PGE to provide a list of third parties it approves to work on its system. PGE already hires third-party consultants to do its own interconnection work or to do interconnection work that PGE performs for other interconnection customers. In most cases, the same approved contractors would be doing the work. PGE stated that "[c]urrently all substation engineering design for interconnecting projects is being done by a PGE vendor," and that "[f]or transfer trip the design is also currently being completed by a vendor."[19] If PGE is already working with "vendors" or other third-party consultants, then it is entirely reasonable to simply provide me with the list of approved vendors and let me pick one.

Q. What are some of PGE's claims regarding why it can unreasonably refuse to agree to allow an interconnection customer to hire a third party consultant.

A. PGE says it is concerned about: 1) a potential conflict of interest, 2) loss of control over safety and/or reliability of its system, and 3) the cost and complexity that may result from allowing Sandy River to hire a third-party consultant.

Q. Has PGE given you any justification for why PGE believes there will be a conflict of interest?

A. PGE is concerned that the third-party consultants "contractual and fiduciary duties will extend to the interconnection customer not to PGE and the public PGE serves" and that Sandy River and its third-party consultant "have no such duty to serve the public or to maintain a safe, reliable, and cost effective electric utility

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[19] PGE's Answer at Exhibit H.

system."[20] PGE believes this will make it considerably more expensive, time consuming, and risky for PGE. PGE also expressed concern that maintenance of PGE's system could suffer because it doesn't think a third-party consultant will establish a "safe, reliable, durable and easily maintained electric system."[21]

Q. What is your response?

A. This is ridiculous. Any third-party consultants are subject to PGE's oversight and approval. I am open to a contractual arrangement where the third party will have an obligation to conduct its work in a safe, reliable, timely, and cost-effective manner, and in a way that will allow PGE to easily maintain its system. Approved contractors are already approved to perform this kind of work for PGE. In fact, I would prefer that the third-party accomplish its work in such a manner because its work will impact the operations of my project going forward. Further, PGE admits that it already allows third-parties to use the PGE owned utility poles between Sandy River's point of interconnection and the substation.[22] The bulk of Sandy River's interconnection work is simply stringing fiber-optic cable on the existing poles, which unaffiliated third parties already do.

Q. Has PGE given you any justification for why PGE believes there will be a loss of control over safety and/or reliability?

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[20] PGE's Response to Sandy River's Data Request No. 002 (attached hereto as Exhibit Sandy River/102).

[21] *Id.*

[22] PGE's Response to Sandy River's Data Request No. 035 (attached hereto as Exhibit Sandy River/103) ("PGE admits that it allows authorized third-parties to make use of PGE owned utility poles subject to application qualifications and meeting applicable standards and requirements.").

A. PGE says that it "believes that it would prove to be more difficult, costly, and time consuming and less effective for PGE to try to oversee the practices and product of a consultant working for another party than it would be for PGE to conduct the work itself or hire its own consultants to conduct the work."[23] PGE also states that it would need to "insist on a series of rights an obligation in it[s] contractual relationship with the interconnection customer that would allow PGE to effectively control and monitor the interconnection customer's third-party consultant and ensure that the third party consultant meets PGE's requirements around licensing, insurance and safety."[24]

Q. What is your response?

A. It is my understanding that any approved third-party consultant would still be subject to the same licensing, insurance, and safety standards as anyone who works on utility electric systems. Additionally, as just mentioned, PGE would exercise oversight and approval over any work performed by third parties and unaffiliated third parties are already using and working on the subject poles. I am open to hearing from PGE what process I need to go through to hire a third party, and I have asked PGE for this information including a list of approved third-party consultants. PGE only after requested in discovery connected with this litigation provided a list of third-party consultants it would permit for customer pathway work, which PGE defines as digging a trench and installing conduit and vaults

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[23] PGE's Response to Sandy River's Data Request No. 002 (attached hereto as Exhibit Sandy River/102).

[24] *Id.*

needed to establish the path for a service extension. PGE has not provided me a list of third-party consultants or the process for getting one approved, for any other facilities or system upgrades required for this interconnection.

Q. Has PGE given you any justification for why PGE believes there will be additional cost and complexity?

A. PGE believes that it would be required to exercise "close" supervision and oversight over an interconnection customer's third-party consultant and that supervision and oversight would "likely be more complex, expensive, time consuming, and ultimately less effective" than if PGE hired the consultant itself.[25] PGE also notes that it prefers to work "with crews that have been trained to work within PGE's approved work practices and procedures."[26]

Q. What is your response?

A. Well, I don't see how there is much of a difference between PGE hiring its own consultants and Sandy River hiring one. The third party would still need to coordinate with PGE, which would require the same effort on PGE's part and most likely less effort than what is required under the existing joint pole agreement. Again, I have asked PGE to provide me with a list of third-party consultants it approves, and if PGE wants to only use ones that have been trained to work within PGE's approved work practices and procedures, then PGE should provide that list.

Q. Do you have any other general responses to PGE's justifications for not allowing you to hire third-party consultants?

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[25] *Id.*
[26] *Id.*

A. Yes. PGE already allows the interconnection customer to hire a third-party consultant, even without PGE's consent, in its Large Generator Interconnection Agreement ("LGIA") through the "Option to Build" provisions in that agreement. If the larger generators can have a unilateral right to elect an option to build under some circumstances, then there must be some way around all of PGE's concerns. Additionally, the fact that there is a small generator interconnection rule which allows PGE and its small interconnection customers to agree to let the customer hire a third-party consultant tells me that at some point it was decided that there were no concerns about doing this so long as any third-party work would be subject to PGE's oversight and approval.

Q. Should PGE already have policies in place to allow an interconnection customer to hire a third-party consultant?

A. Yes. In addition to PGE's own LGIA just discussed, it is my understanding that the Federal Energy Regulatory Commission ("FERC") also already requires PGE to have policies in place governing third-party consultants hired by the interconnection customer. Under FERC's LGIA, an interconnection customer has a unilateral "option to build" if the transmission provider cannot meet the dates selected by the interconnection customer. Under this option to build, the interconnection customer has the option to "assume responsibility for the design, procurement and construction of Transmission Provider's Interconnection Facilities and Stand Alone Network Upgrades."[27] The conditions applicable to

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[27] FERC, Large Generator Interconnection Agreement at §5.1.3 (Updated Sept. 26, 2016).

the option to build include following good utility practice, using standards and specifications provided in advance by the transmission provider, and compliance with all requirements of law to which the transmission provider would be subject.[28] Further, the transmission provider has a right to review and approve the work, request information, conduct inspections, and require the interconnection customer to remedy any deficiencies.[29] In adopting those provisions of the LIGA, FERC addressed many of the same concerns that PGE has in this case. FERC stated that article 5.2 provided "several safeguards" to safety and reliability such as "use [of] Good Utility Practice and the standards and specifications provided in advance by the Transmission Provider," and "the right to approve the engineering design, the equipment acceptance tests, and the construction."[30] Further, this option to build was intended to address the situation where the interconnection customer set dates that the transmission provider did not think it could meet, therefore, providing the customer with an option to expedite the construction.[31] Additionally, in FERC's Small Generator Interconnection Agreement ("SGIA") there are provisions that allow the transmission provider and interconnection customer to agree that the interconnection customer may construct distribution upgrades or network upgrades under certain circumstances.[32] FERC made those

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28 *Id.* at §5.2.
29 *Id.*
30 FERC Order No. 2003, FERC Stats. & Regs. ¶ 31,146 at P. 356 (2003).
31 *Id.* at P. 355.
32 FERC, Small Generator Interconnection Agreement at §§ 4.2, 5.2 (Issued Jul. 21, 2016).

options explicit at the request of PacifiCorp who asserted that it "could facilitate a faster interconnection" so long as the transmission provided had the right to "inspect, operate, and maintain."[33]

Q. Is it your understanding that PGE must follow FERC's LGIA in Oregon?

A. I am not testifying about whether FERC's policies and agreements are directly applicable to the Sandy River project. The main reason I am discussing these FERC provisions is that it is my understanding that these options require PGE to at least have a process in place to manage interconnection work on its system that is done by an interconnection customer (or their hired third-party consultant). This is especially true for the FERC LGIA (and PGE's Oregon State LGIA), where the interconnection customer has a unilateral option to elect to construct the facilities under certain circumstances.

What this means is that nearly all of PGE's objections to allowing Sandy River or another Oregon jurisdictional interconnection customer are baseless because PGE must already do this to comply with its own FERC generator agreements. For example, as mentioned above, PGE claims that it should not allow Sandy River to hire its own third-party consultant because their contractual and fiduciary duties will extend to the Sandy River not to PGE. The contractual and fiduciary duties would also extend to interconnection customer using FERC's procedures. PGE does not explain why it is acceptable for one type of customer to retain a third-party and not other customers.

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[33] FERC Order No. 2006, FERC Stats. & Regs. ¶ 31,180, at PP. 457 & 459 (2005).

Q. Are you aware of whether PGE has any process in place governing the hiring of third-party consultants by the interconnection applicant?

A. I am not aware of any. I asked PGE numerous times about the third-party consultant issue and PGE stated that "[t]o date, PGE has not allowed the applicant to hire a third party for design and construction."[34] I also asked PGE prior to filing the Sandy River complaint for a list of approved third-party consultants or the process by which one would be approved, and PGE did not provide one. I also asked PGE to indicate whether it allowed any interconnection customer the option to build or to hire a third-party consultant under the FERC LGIA and SGIA and what process and procedures are in place. PGE simply stated that it "has not had a non-affiliate interconnection under the FERC Large Generator Interconnection Process," and that it "has not had a non-affiliate interconnection under the FERC Small Generator Interconnection Process."[35] PGE did not provide any processes or procedures. During discovery, PGE then indicated that it allows customers to hire third-party consultants to do what it called "customer pathway work," which I understand to be the same as what is already indicated in the Facility Study as something that the interconnection customer is responsible for (i.e., to "trench and install 4" conduit from the Point of Interconnection to the riser pole").[36] All in all, it sounds to me like PGE has never put procedures in place to review and approve third-party consultants hired by the interconnection

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[34] PGE's Answer at Exhibit J.

[35] PGE's Response to Sandy River's Data Request No. 003 & 004 (attached hereto as Exhibit Sandy River/104).

[36] *See* Complaint at Attachment C at 5.

customer, and is simply refusing outright to avoid doing so and/or to delay so that it has time to come up with a process.

Q. What do you conclude based on your understanding of the FERC procedures and the absence of any procedure at PGE?

A. I find it unreasonable that PGE justifies not allowing me to hire a third party by stating that it would create a potential conflict of interest, a loss of control over safety and/or reliability of its system, and increased the cost and complexity when those issues were addressed by FERC in coming up with its policies, and that PGE should have those types of policies already in place. It is not appropriate for PGE to refuse my request simply because PGE has not adopted those appropriate protections.

Q. Do other utilities allow interconnection customers to hire third-party consultants?

A. Yes. This is explained in greater detail in the testimony of Mr. Goertz.

Q. Are there any other reasons why you think it would be reasonable to allow you to hire a third-party consultant?

A. Well, basically all of the information I discussed above. I have worked with PGE for more than 4 years and PGE previously agreed that it was reasonable to hire third parties. Over this time, PGE's interconnection department has become increasing more difficult to work with and their inconsistencies, inaccuracies, and delays make it apparent that they are overworked and understaffed. It also appears that the Sandy River interconnection may be fairly simple as it only requires 3 weeks of actual construction and is very similar to older projects that PGE needed only 10 months from the execution of the interconnection agreement to meet the in-service date. And as just mentioned, the third-party consultant

would be approved and subject to PGE's oversight just like any other third-party consultant hired by PGE. In light of all this, I think that any reasonable business partner would agree to allow me to hire a third-party consultant.

V. BUSINESS IMPACTS

Q. You mentioned that PGE's interconnection practices impact your ability to make more informed business decisions. Can you please elaborate on that?

A. Sure. During the project development stage, I am required to continually make decisions about whether I should proceed further, modify the project in any way, or halt the development process altogether. Delayed, incomplete, or incorrect information can result in making uninformed decisions about how and when to invest in further development of a project. This can result in additional project risk or a potential lost investment. Because the interconnection process significantly impacts a project from both a cost and time perspective, having a lack of quality or timely information can severely increase the risk of the project actually being built.

VI. ECONOMIC IMPACTS

Q. What are the consequences if PGE proceeds with its current interconnection timeline?

A. There are several. First, the interconnection timeline can have an impact on the power purchase agreement with PGE, which I will explain further below. Second, the current interconnection in-service for Sandy River is in February 2020. In order for us to align our construction schedule with PGE finalizing their work, we will need to construct the project in the middle of winter. This adds additional construction delays and costs due to the wet weather the Willamette

Valley receives, and the mitigation required in order to construct when the soils are saturated. Third, if the timelines slip further, or if we deem it is too wet to construct during the winter, we will have to make a decision if we will construct the project sooner and absorb the increased costs to do so due to an inoperable asset waiting for PGE to finish their work, or delay construction until after the winter months, exposing ourselves to further damages within the PPA as well as the Investment Tax Credit ("ITC") stepping down. Beginning January 1, 2020, the ITC steps down from 30% to 26%, which is a significant economic amount.

Q. Have you calculated the economic impact associated with this complaint?

A. No, and that is not the purpose of my testimony. I am simply referring to these economic impacts for the Commission to better understand the real world impacts of PGE's actions and how projects like Sandy River can be harmed or fail to be constructed because of interconnection issues. Sandy River and other interconnection customers do not obtain their capital funding from ratepayers like PGE, but developers like myself put our own capital at risk. As long as the third-party consultant is qualified and can perform the work in a safe and reliable manner, then I should be able to hire a consultant to ensure that the interconnection facilities are constructed in a timely and cost effective manner.

Q. Does this case impact your power purchase agreement with PGE?

A. Yes.

Q. How So?

A. When I requested the Sandy River power purchase agreement, I had a reasonable expectation that the interconnection in-service date would be prior to December 1,

2019, which is the commercial operation date within the PPA. This expectation was based upon receiving the System Impact Study on January 7, 2018 stating that PGE estimates it will require approximately 16 months to design, procure and construct the facilities. Upon receiving the Facility Study, showing an in-service date of December 2, 2019 (which has subsequently be pushed back further), I was unable to modify the Sandy River PPA to align the commercial operation date with the interconnection in-service date without starting the PPA process completely over. PGE was asking the commission to lower its standard offer PPA rates on May 1, 2018 and starting the process over again would have subjected Sandy River to the new avoided costs. Within the PPA, Sandy River must pay PGE damages equal to the Lost Energy Value if Sandy River does not reach its commercial operation date of December 1, 2019. Sandy River is currently exposed to the Lost Energy Value damages within the PPA because I made what I thought was an informed business decision. Unfortunately, I have found that I can no longer on much of the information that I receive from PGE.

Q. Does this conclude your testimony?

A. Yes

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EXHIBIT SANDY RIVER/101

TLS CAPITAL LETTER TO PGE

February 7, 2019

TLS Capital

October 24, 2016

Portland General Electric
Small Power Production Coordinator
121 SW Salmon St., 3WTC-0407
Portland, OR 97204

Re: Interconnection Process & Timelines

Dear Small Power Production Coordinator:

As you are aware, TLS Capital, Inc. (TLS), through its various subsidiaries, has submitted numerous interconnection applications for solar projects which TLS is developing. All of these applications qualified for the Tier 4 Interconnection Process per OAR 860-082-0060.

According to OAR 860-082-0025 & OAR 860-082-0060, the interconnecting utility must follow the following timelines when responding to and processing an interconnection application -

- **860-082-0025(7)(a)** Within 10 business days of receipt of an application to interconnect a small generator facility, the interconnecting public utility must provide written notice to the applicant stating whether the application is complete.

- **860-082-0060(5)** A public utility must schedule a scoping meeting within 10 business days after notifying an applicant that its application is complete.

- **860-082-0060(6)** If a public utility reasonably concludes that an adequate evaluation of an application requires a feasibility study, then the public utility must provide the applicant with an executable feasibility study agreement within five business days of the date of the scoping meeting.

- **860-082-0060(6)(a)** The feasibility study agreement must include a detailed scope for the feasibility study, a reasonable schedule for completion of the study, and a good-faith, non-binding estimate of the costs to perform the study.

- **860-082-0060(8)** If a public utility is required to perform a facilities study under subsection (6)(i) or 7(j), or if an applicant and a public utility agree in the scoping meeting to waive the system impact study and proceed directly to the facilities study, then the public utility must provide the applicant with an executable facilities study agreement within five business days of completing the system impact study or within five business days from the date of the scoping meeting, whichever is applicable.

- **860-082-0060(8)(a)** The facilities study agreement must include a detailed scope for the facilities study, a reasonable schedule for completion of the study, and a good-faith, non-binding estimate of the costs to perform the study.

- **860-082-0060(8)(h)** If the applicant agrees to pay for the interconnection facilities and system upgrades identified in the facilities study, then the public utility must approve the application within 15 business days of the applicant's agreement.

Included with this letter, is a table detailing the dates at which certain events have occurred for each of the projects TLS has submitted an interconnection application. As you will see, many of the timelines outlined in OAR 860-082-0025 and 860-082-0025 were not met. Additionally, TLS has requested a Pre-Application Study per OAR 860-082-0020 and has not even received an acknowledgment of this request.

TLS has attempted to contact Portland General Electric nearly every day for the last month, both by email and by phone, and has yet to receive a response. TLS is requesting that Portland General Electric respond to this letter without delay and process TLS's applications per the timelines set forth in OAR 860-082-0025 and 860-082-0025.

If you have any questions or would like to discuss, please don't hesitate to contact me.

Regards,

Troy Snyder
TLS Capital, Inc.

Enclosed: Interconnection Applications - Table of Dates

Cc: Damien Hall, Ball Janik LLP

TLS Capital

Interconnection Applications – Table of Dates

Subsidiary/Application	Application Submitted	Deemed Completed	Scoping Call	Feasibility Study Agreement	Feasibility Study Results	Facility Study Agreement	Facility Study Results
Sheep Solar, LLC	8/31/2015			9/21/2015	1/13/2016	3/29/2016	
Drift Creek Solar, LLC	2/13/2016	3/16/2016	4/12/2016	4/26/2016	7/27/2016		
Boring Solar, LLC	4/19/2016	5/4/2016	5/17/2016	8/8/2016			
Ballston Solar, LLC	4/19/2016	5/4/2016	5/17/2016	8/8/2016			
O'Neil Creek Solar, LLC	4/26/2016	5/31/2016	6/20/2016	8/8/2016			
St Louis Solar, LLC	4/26/2016	5/31/2016	6/20/2016	8/8/2016			
Palmer Creek Solar, LLC	5/11/2016	5/31/2016	6/20/2016	8/8/2016			
Rafael Solar, LLC	5/11/2016	5/31/2016	6/20/2016	8/8/2016			
Case Creek Solar, LLC	6/16/2016	7/1/2016	8/15/2016	8/29/2016			
Willamina Mill Solar, LLC	6/16/2016	7/1/2016	8/15/2016	8/29/2016			
Labish Solar, LLC	6/16/2016	7/1/2016	8/15/2016	8/29/2016			
Day Hill Solar, LLC	8/8/2016	8/31/2016	9/8/2016				
Kale Patch Solar, LLC	8/8/2016	8/31/2016	9/8/2016				
Tickle Creek Solar, LLC	8/29/2016						
Little (Pre Application Request)	9/8/2016						

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SANDY RIVER SOLAR, LLC Complainant, vs. PORTLAND GENERAL ELECTRIC COMPANY Defendant.

EXHIBIT SANDY RIVER/102

PGE'S RESPONSE TO SANDY RIVER'S DATA REQUEST NO. 002

February 7, 2019

Sandy River Solar Data Request No. 002:

Please refer to paragraph 186 of PGE's Answer:

a. What are PGE's concerns regarding a potential conflict of interest if PGE's agrees to allow Sandy River Solar to hire its own third-party consultant to construction the interconnection facilities?

b. What are PGE's concerns regarding its loss of control over safety and/or reliability of its system if PGE's agrees to allow Sandy River Solar to hire its own third-party consultant to construction the interconnection facilities?

c. What are PGE's concerns regarding cost and complexity if PGE's agrees to allow Sandy River Solar to hire its own third-party consultant to construction the interconnection facilities?

Response to Sandy River Solar Data Request No. 002:

In addition to the general objections stated above, PGE objects to Sandy River Solar's Data Request No. 002 and each of its sub-parts on the grounds that they are vague, ambiguous, unintelligible, overbroad, unduly burdensome, seek irrelevant information, and/or seek information whose probative value is substantially outweighed by a danger of unfair prejudice, confusing the issues, subjecting PGE to undue burden, or needlessly presenting cumulative evidence. PGE further objects that Data Request No. 002 and its sub-parts seek PGE's legal arguments or legal conclusions, which are not appropriate subjects for a data request. PGE further objects to Data Request No. 002 to the extent it seeks to compel PGE to develop information for Sandy River Solar or seeks privileged information. PGE further objects to the extent that Data Request No. 002 seeks to limit PGE's ability to present argument as to why PGE is concerned with authorizing an interconnection customer to hire a third-party consultant to construct the interconnection facilities. PGE's responses to Data Request No. 002 are not necessarily exhaustive and PGE reserves its right to supplement its response or to raise any arguments at anytime during this proceeding. Notwithstanding and without waiving PGE's general objections or these specific objections, PGE responds to each sub-part of Complainant's Data Request No. 001 as follows:

a. *What are PGE's concerns regarding a potential conflict of interest if PGE's agrees to allow Sandy River Solar to hire its own third-party consultant to construction the interconnection facilities?*

PGE has a number of concerns regarding a potential divergence or conflict of interest including, but not limited to, the following. PGE has a duty to serve its customers and to ensure the safe, reliable and cost-effective operation of it electric system. A qualifying facility interconnection customer and its third-party consultant have no such duty to serve the public or to maintain a safe, reliable, and cost-effective electric utility system. If the interconnection customer hires a third-party consultant to construct required interconnection facilities or system upgrades on PGE's system, then that third-

party consultant's contractual and fiduciary duties will extend to the interconnection customer not to PGE and not to the public that PGE serves. PGE believes this divergence or conflict of interests would make it considerably more expensive, time-consuming, and risky for PGE to allow interconnection customers to hire third-party consultants to do interconnection work as compared to PGE doing the work itself or hiring its own consultants with whom PGE will have privity of contract and over which PGE will enjoy a greater level of control.

In addition, maintenance of PGE's system could suffer from design and/or construction by a third party whose efforts are predicated on making a profit from the work rather than on establishing a safe, reliable, durable, and easily maintained electric system.

b. *What are PGE's concerns regarding its loss of control over safety and/or reliability of its system if PGE's agrees to allow Sandy River Solar to hire its own third-party consultant to construction the interconnection facilities?*

PGE has a number of concerns regarding potential loss of control over the safety and/or reliability of its system, including without limitation the concerns discussed in sub-part (a) above and the following additional concerns. PGE has a duty to serve the public generally and an obligation to ensure the safety and reliability of its system. By conducting necessary interconnection work itself, or by hiring its own third-party consultants to conduct necessary interconnection work, PGE can exercise direct control over all aspects of the work and best ensure that the work is conducted in a safe manner, that the work minimizes impacts on the safety and reliability of the larger system, that the final product of the work is safe and reliable, and that PGE has complete control over, and information regarding, its system. Additionally, PGE believes that it would prove to be more difficult, costly, and time consuming and less effective for PGE to try to oversee the practices and product of a consultant working for another party than it would be for PGE to conduct the work itself or hire its own consultants to conduct the work.

In order to adequately ensure that the interconnection customer's third-party consultant is conducting its work in a safe manner and that the results of the work are safe and reliable, PGE would have to insist on a series of rights and obligations in it contractual relationship with the interconnection customer that would allow PGE to effectively control and monitor the interconnection customer's third-party consultant and ensure that the third party consultant meets PGE's requirements around licensing, insurance and safety. Such an arrangement is ultimately more burdensome, time consuming, and expensive than PGE simply hiring a third-party consultant itself.

Allowing third-party consultants to construct interconnection facilities could jeopardize the safety of the consultants as well as PGE's employees, could jeopardize the security of PGE's transmission and distribution system, and could jeopardize reliability of service to existing customers. PGE could not easily or adequately ensure that the interconnection customer's third-party consultant or its employees were qualified to perform the required work, had necessary safety training, or would be coordinated with other work being performed on PGE's system.

c. *What are PGE's concerns regarding cost and complexity if PGE's agrees to allow Sandy River Solar to hire its own third-party consultant to construction the interconnection facilities?*

PGE has a number of concerns regarding the cost and complexity of allowing an interconnection customer to hire a third-party consultant to construct needed interconnection facilities and system upgrades, including without limitation the concerns discussed in sub-parts (a) and (b) above and the following additional concerns. In order to ensure that any new interconnection facilities or system upgrades are safe and reliable PGE would be required to exercise close supervision and oversight of the interconnection customer's third-party contractor and that supervision and oversight would likely be more complex, expensive, time consuming, and ultimately less effective when it is conducted second hand with PGE trying to supervise a consultant who is working for someone else. The process of oversight and management is simpler, more efficient, and ultimately more cost effective if a third-party consultant works directly for PGE and PGE therefore enjoys privity of contract with the third-party consultant.

In addition, PGE has a large number of capital, maintenance, and customer-driven construction projects on its system at all times. Completing these construction activities requires a high level of coordination on scheduling, mobilization, procurement, construction, testing and energization. PGE's work management processes and procedures allow PGE to complete this work safely and reliably, with crews that have been trained to work within PGE's approved work practices and procedures.

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EXHIBIT SANDY RIVER/103

PGE'S RESPONSE TO SANDY RIVER'S DATA REQUEST NO. 035

February 7, 2019

Sandy River Solar Data Request No. 035:

Admit or deny that PGE leases, licenses, or otherwise allows third-party companies to use PGE owned utility poles within its service territory.

Response to Sandy River Solar Data Request No. 035:

PGE admits that it allows authorized third-parties to make use of PGE owned utility poles subject to application qualifications and meeting applicable standards and requirements. Joint use of PGE poles are generally subject to the requirements of OAR Chapter 860, Division 028 governing pole and conduit attachments. Joint use typically involves joint use of PGE's poles by the municipality in which the poles are located or by a provider of utility services (e.g., a telecommunication utility using PGE's poles to string telecommunications wire or cable).

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EXHIBIT SANDY RIVER/104

PGE'S RESPONSE TO SANDY RIVER'S DATA REQUEST NO. 003 & 004

February 7, 2019

Sandy River Solar Data Request No. 003:

Under PGE's FERC-jurisdictional Large Generator Interconnection Procedures and Large Generator Interconnection Application, has PGE allowed an interconnection customer the option to build or hire a third-party consultant to build all of part of the required interconnection facilities and stand-along system upgrades? If not, please explain why not. If so, please provide:

a. The size of the generator,

b. The interconnection requirements,

c. The cost of the interconnection, and

d. The processes and procedures in place to ensure there were not conflicts of interest and no unacceptable loss of control over safety and/or reliability.

Response to Sandy River Solar Data Request No. 003:

PGE has not had a non-affiliate interconnection under the FERC Large Generator Interconnection Process.

Sandy River Solar Data Request No. 004:

Under PGE's FERC-jurisdictional Small Generator Interconnection Procedures and Small Generator Interconnection Application, has PGE allowed an interconnection customer the option to build or hire a third-party consultant to build all or part of the interconnection facilities and stand-along system upgrades? If not, please explain why not. If so, please provide:

a. The size of the generator,

b. The interconnection requirements,

c. The cost of the interconnection, and

d. The processes and procedures in place to ensure there were not conflicts of interest and no unacceptable loss of control over safety and/or reliability.

Response to Sandy River Solar Data Request No. 004:

PGE has not had a non-affiliate interconnection under the FERC Small Generator Interconnection Process.