

**PUBLIC UTILITY COMMISSION OF OREGON
STAFF REPORT
PUBLIC MEETING DATE: June 2, 2020**

REGULAR X CONSENT _____ EFFECTIVE DATE _____ N/A _____

DATE: May 26, 2020

TO: Public Utility Commission

FROM: Jill Goatcher

THROUGH: Bryan Conway, Michael Dougherty, JP Batmale, and Sarah Hall **SIGNED**

SUBJECT: OREGON PUBLIC UTILITY COMMISSION STAFF:
(Docket No. UM 1930)
Staff Proposal for a Request for Proposal for Third-Party Interconnection
Review Services for the Community Solar Program.

STAFF RECOMMENDATION:

Approve the proposal for the Program Administrator contractor to hire a subcontractor through Request for Proposal (RFP) for the Third-Party Interconnection Review Services for Community Solar Program.

DISCUSSION:

Issue

Whether the Public Utility Commission of Oregon (Commission) should approve the proposal to have the Program Administrator hire an independent third party to provide interconnection review services to assist Project Managers seeking to interconnect with utilities.

Applicable Rule or Law

On March 1, 2019, the Commission Chair executed a contract for the services of Energy Solutions as Program Administrator for the Community Solar Program required under ORS 757.386. Under Section 7.1 of that contract, Energy Solutions shall not enter into any subcontracts for any services required under the Contract with the prior written consent of the Department of Administrative Services (DAS) or the Public Utility Commission of Oregon.

Analysis

In line with Commission Order No. 19-392, Commission Staff (Staff) issued a Request for Information (RFI) in January of 2020 for third-party expert interconnection study review services available to prospective Community Solar Program (CSP) generators. Based on the RFI results and continued learnings across DER-related efforts, Staff finds that (1) third-party review services are available from qualified vendors at a reasonable cost; and (2) Staff should work with the CSP Program Administrator (PA) to seek cost-competitive third-party interconnection review services in line with the scope proposed in this recommendation.¹

Background

On October 29, 2019, the Commission adopted six near-term solutions to help ensure CSP interconnections are fair and functional (Interconnection Solutions).² In developing the Interconnection Solutions, Staff provided the following findings related to third-party verification of utility interconnection studies:³

- Stakeholders in CSP and other proceedings are concerned about the ability to verify the conclusions of the interconnection studies performed by the utility. This includes verifying the upgrades identified as necessary, the utility's consideration of alternative solutions to the upgrades, and the costs quoted for those upgrades.
- The ability to verify the upgrades and cost estimates in utility interconnection studies is a more acute barrier for CSP project development, given the opportunity that the program creates for less sophisticated entities to participate in solar generation.⁴
- Parties raised several technical solutions to mitigate CSP interconnection upgrade costs in the development of the Interconnection Solutions, but parties did not have enough time and technical sophistication to reach a conclusion (with the exception of allowing low-side metering for small projects).

¹ For an example of continued learnings in other dockets See UM 2005, Spark Northwest's Presentation for Workshop 3, February 26, 2020, slides 7 and 8.

² See UM 1930 Community Solar Implementation, Commission Order No. 19-392, November 8, 2019, p. 5 and Appendix A, pp. 14-15.

³ Staff notes that there was no opposition to this recommendation. The utilities did not think that additional cost savings are likely to be found, but "understand that there is a perceived lack of confidence in utility interconnection studies generally and would not object to third-party review of studies if Staff determines that such review is necessary to help aid understanding and decrease confusion and suspicion." See UM 1930, Idaho Power Company, PacifiCorp, and PGE's Joint comments on Staff proposal, October 15, 2019, p. 11.

⁴ Staff notes that PGE disagreed that system upgrades are a more acute barrier for these projects. Staff agrees with PGE and clarifies that it is referring to the ability to verify upgrades (i.e., find third-party consultants and fit this service into their project budget).

- CSP provides a limited universe of projects through which the Commission can explore the value of third-party review services and generate data to support longer-term efforts to improve interconnection practices, such as Docket Nos. UM 2032 and UM 2005.

At the time of Staff’s Interconnection Solution recommendations, parties lacked insight into the cost, scope, and availability of third-party interconnection services. Therefore, the Commission directed Staff to issue an RFI to determine whether the benefits would outweigh the costs and how those costs should be allocated.⁵

The following table outlines the activities that Staff and Stakeholders have engaged in, and plan to continue to engage in, following the Commission’s adoption of the Interconnection Solutions related to third-party verification of utility interconnection studies. The RFP solicitation schedule is subject to Commission adoption and is subject to change, and will be finalized in the final RFP:

Activity	Date
RFI Solicitation Opened	January 13, 2020
RFI Solicitation Closed	February 11, 2020
Staff emailed Draft RFP proposal to UM 1930 Stakeholders for feedback	April 13, 2020
Stakeholders emailed to Draft RFP proposal feedback to Staff ⁶	April 22, 2020
Final Staff recommendation Public Meeting Memo	May 28, 2020
Final Staff recommendation at Public Meeting	June 2, 2020
Program Administrator (PA) Releases RFP	June 10, 2020
Q&A period closes	June 17, 2020
Close RFP	June 24, 2020
PA, in consultation with Staff, selects winning bid	July 7, 2020
PA finalizes subcontract and launch services (target date)	July 22, 2020

RFI Results

As noted above, the Commission issued the RFI for third-party interconnection review services on January 13, 2020, and closed the solicitation on February 11, 2020. Respondents were asked to provide indicative pricing, a description of the design and timeline for review services, and an overview their Company’s qualifications. Staff

⁵ See UM 1930 Community Solar Implementation, Commission Order No. 19-392, November 8, 2019, Appendix A, p. 15.

⁶ Stakeholder feedback can be found in Attachments B – F.

received six responses that indicate the following:

- **Cost:** Standard levels of review may range from roughly \$2,000 - \$5,000 per study. More intensive review may cost \$10,000 or more.
- **Scope:** Responses either recommended or fell into two tiers of review. The tiers could be self-selected by PMs or the third-party reviewer (consultant) could assign the tier based the intensity of the upgrade cost estimates (e.g., the ratio of total costs to project size in \$/kW).
 - Less intensive reviews take between one to two weeks, and include verification of the information provided in utility interconnection studies and on OASIS and PM support for meetings and communications with the utility.
 - More intensive reviews take about a month or longer and include reproduction of interconnection studies and support for meetings and communications with utility.
- **Availability:** At least three qualified firms already provide similar services. The remaining respondents focused on other PM resources that are available, such as hosting capacity platforms. Staff continues to consider the other PM resources, but finds that hosting capacity analysis does not replace the specific benefits of third-party interconnection study review.

Based on the RFI results and Stakeholder feedback, Staff believes that third-party interconnection review services can be provided at an affordable cost, and would provide valuable insights to both the CSP interconnection process and small generator interconnection generally. Staff has worked with the PA to develop a proposal for third-party verification of utility interconnection studies (RFP Proposal).

RFP Proposal

The following proposal summarizes the services and terms that Staff developed based on its goals and the information received from the RFI, and addresses Stakeholder feedback that Staff received on the RFP Proposal.

Goals

As noted in Staff's 2019 Interconnection Solution proposal that the Commission adopted, there are two categories of benefits that Staff seeks to capture with these services.

- Value to CSP PMs: Review services can be obtained for a few thousand dollars, but have the potential to save tens of thousands of dollars or more in upgrade costs. For example, during the development of the Interconnection Solutions, a prospective Project Manager (PM) proposed an alternative to metering upgrades required by PGE that would eliminate the need for \$130,000 of interconnection costs.⁷ When raised in this venue, the utilities agreed to adopt that alternative metering practice for projects under a certain size.⁸ In addition, Spark Northwest's presentation at Distribution System Planning Workshop 3 (UM 2005) cited \$59,000 of upgrades mitigated through the use of a third-party reviewer on a net metering project.
- Transparency and insights for all Oregon jurisdictional interconnections: Engaging a consultant will allow the Commission to aggregate objective, technical insights into the current implementation of interconnection rules and processes. These services will help the Commission identify and/or prioritize improvements that can be made to some or all state jurisdictional procedures. As noted by the utilities, the services will also help resolve ongoing confusion and apprehension about utility interconnection practices.⁹ These insights could also provide some benefits other dockets that touch upon interconnection, like UM 2005 or UM 2032.¹⁰

To capture these benefits, Staff proposes that the PA issue an RFP for third-party interconnection review services in line with the following goals:

- Provide a scope of services that PMs will find valuable and will utilize;
- Leverage economies of scale to drive down the cost of review services;
- Make these services easily accessible for less sophisticated PMs;
- Align services with the existing interconnection processes and timelines;

⁷ See UM 1930, Idaho Power Company, PacifiCorp, and PGE's Joint comments on Staff proposal, October 15, 2019, p. 11.

⁸ See UM 2005, Spark Northwest's Presentation for Workshop 3, February 26, 2020, slides 7 and 8.

⁹ See UM 1930, Idaho Power Company, PacifiCorp, and PGE's Joint comments on Staff proposal, October 15, 2019, p. 11.

¹⁰ See UM 1930 Community Solar Implementation, Commission Order No. 19-392, November 8, 2019, Appendix A, p. 15.

- Allow generators to work collaboratively with utilities to identify opportunities to mitigate or reduce interconnection costs without compromising the safety and reliability of the utility systems;
- Limit services to CSP projects until the benefits and costs can be further assessed; and
- Increase transparency into interconnection study practices, collect insights and data to inform longer-term interconnection reform efforts.

Sub-Contracting Details

- The PA will subcontract these services directly in line with their responsibility to provide PM support resources, per their existing contract. Working through the PA will streamline the procurement process and the disbursement of start-up funds to the consultant(s), as well as, keep the services directly tied to the implementation of the CSP and leverage the project management expertise of the PA.
- To control the scope and total costs of this pilot-like Interconnection Solution, the PA's sub-contract will be limited to 12 months, or the point at which \$50,000 in matching funds has been distributed, whichever occurs first, with the option to extend.
- Multiple consultants may be selected to ensure adequate resources are available upon request from PMs.

Cost Sharing

Projects must commit to covering some or all of the costs of the services. Staff believes that a project cost share is important for two reasons. First, in response to utility feedback about the use of ratepayer funds to cover a portion of the third-party engineer review service, Staff believes that some level of cost-sharing with ratepayers is appropriate to balance the principle of minimizing cost-shifting to non-participants. Second, Staff believes that cost sharing is necessary to ensure that the PM has buy-in for the review service. Staff and the PA Team have identified an initial \$50,000 budget within the existing budget for Project Manager Resources under the PA's not to exceed budget cap. Based on the RFI results, this will support 20 to 30 standard reviews. For enhanced review, PMs will pay the full cost of the enhanced study.

Scope of Services

Based on RFI insights, Staff proposes that the PA's subcontractor offer two tiers of system impact study review services. The details to Tier 1 and Tier 2 reviews are listed below.

Tier 1: Standard Review

Costs: The RFP will seek a fixed price per standard review. Standard services will be capped at 25 hours per review, which includes both the review services to the PM and the summary report to Staff. Per the RFI, Staff and the PA believe this price will range between \$5,000 to \$10,000

Tier 1 Review Tasks:

1. Review the utility system impact study and other publicly available data, such as system data posted to OASIS and other publicly available interconnection studies.
2. Produce a report within 10 business days of the request from the PM, endorsed by a licensed professional engineer, that identifies any:^{11,12}
 - Practices or assumptions that deviate from administrative rules, national code, or industry standards, such as minimum daytime load assumptions used in screening for CSP interconnection eligibility and identifying interconnection upgrades.
 - Alternative technologies or other solutions that could safely and reliably mitigate or reduce the cost of upgrades.
 - Cost estimates presented in the study that deviate more than 25 percent from industry standards (e.g., cost estimates for new equipment).¹³
3. Support the PM in interfacing with the utility:
 - Participate in discussions with the PM and utility engineers and other staff, as requested by the PM. The consultant must attend a minimum of two meetings if requested by the PM.

¹¹ This timeline is based on PacifiCorp's Large Generator Interconnection Agreement which states that, "Within ten (10) Business Days of providing an Interconnection System Impact Study report to Interconnection Customer, Transmission Provider and Interconnection Customer shall meet to discuss the results of the Interconnection System Impact Study." See PacifiCorp Open Access Transmission Tariff, p. 157.

¹² An eligible PM may request review of a different study or utility analysis within the 25 hour limit. This is to allow access to PMs in the traditional queue or CSP queue that have already progressed past the system impact study stage.

¹³ This threshold is intended to target the identification of irregular cost estimates. It is based on the net metering rules OAR 860-039-0040(4)(b) that require the utility to provide a non-binding, good faith estimate of the cost of the modifications, which must be accurate to within plus or minus 25 percent.

- Provide guidance to the PM to support email communications with the utility related to verifying the results of the system impact study.
 - The objective of this task is to reach agreement between the PM, utility, and third-party—either that the utility practices and assumptions are reasonable; or that the utility will modify the interconnection upgrades assigned to the project.
4. Report to the Commission:
- Provide a non-binding, information-only report to Staff within 30 days of conclusion of services. The report will summarize the results of review and utility coordination efforts and may provide additional observations to support longer-term efforts.^{14,15,16}
 - All review materials and documentation of coordination with the utility will be available to Staff, the PA, and the Commission.
- If the consultant does not receive at least 10 requests to review studies within the 12 month contract—including at least one study from PGE and PAC—the Commission may request that the consultant review a sample of publicly posted CSP studies and report to the Commission in an audit-like capacity. Staff believes that this review would inform improvements to the CSP Interconnection process going forward, and would also increase transparency into interconnection study practices, collect insights and data to inform longer-term interconnection reform efforts.
5. Coordination with PA Team:
- Provide twice-monthly status updates on open reviews to the PA Team.

¹⁴ In Stakeholder feedback on the RFP Proposal, several parties raised questions about the dispute resolution process in the event that the third-party vendor and the utility do not reach agreement about necessary upgrades. Staff highlights that there is an existing dispute resolution process in the Division 82 interconnection rules and a consumer compliant process that parties can engage if desired. Staff commits to monitoring the need for something else for CSP or broader interconnection disputes.

¹⁵ In Stakeholder feedback on the RFP Proposal, the utilities raised important questions about allocation of costs and liability if the third-party vendor makes recommendations about the use of technologies that the utility does not find appropriate, safe, or reliable. Staff clarifies that the purpose of this review service is not to diminish utilities' autonomy over the safe and reliable operation of their system i.e., force them to use one technology over another. The purpose is to increase transparency, collaboration, and consideration of alternatives; to generate insights into whether the costs of technologies that utilities deem necessary are reasonable for generators to bear; and to help identify beneficial changes to Oregon interconnection rules and practices for broader Commission interconnection efforts.

¹⁶ Staff agrees with OSEIA-CCSA feedback on the RFP Proposal to have a standardized template, and will include this in the deliverables and scope.

- Help identify gaps or improvements in PM resources.

Tier 2: Enhanced Review

Costs: The RFP will seek best pricing for an hourly rate for enhanced review. Staff does not suggest a cap on hours. The vendor and PM will work together to identify the appropriate budget for services, the full cost of which will be borne by the PM.

Tasks: If PM does not find that issues are resolved through standard review, the PM can request enhanced review that includes the following on top of the standard review services:

- Recreate utility analysis, using models provided by utility or the third-party's models.
- Coordinate with Staff and PA Team on the exchange of additional data with utility.
- Extended rounds of utility communication support, as requested by the PM.¹⁷

Project Manager Eligibility for the Use of Review Services

A measured approach to rolling out third-party review services will help ensure that benefits will outweigh the costs. In order to limit availability to CSP, entities must meet the following criteria to utilize the third-party review services until further evaluation of costs and benefits occurs:

- **PM Registration:** Request for review services must be made by a registered PM in good standing with the CSP.
- **Interconnection Status:** Requesters must have a position in CSP interconnection queue,¹⁸ or have secured CSP pre-certification.¹⁹

Conclusion

¹⁷ In its feedback on the RFP Proposal, OSEIA-CCSA suggests that it could be valuable for the reviewer to “help oversee and review the construction of the interconnection upgrades...provide accountability and objectivity through the entire interconnection study process, from study to commissioning.” Enhanced review is how Staff sees this happening.

¹⁸ This would not allow the PM to engage the consultant to verify CSP queue screening outcomes. The Interconnection Solutions, including the CSP queue screening criteria, are already being monitored so that they can be improved over time as necessary. Therefore, Staff assumes that this would not be helpful enough to justify the costs.

¹⁹ Staff notes that OSEIA-CCSA provided feedback that projects that are clearly CSP and have existing interconnection agreement in traditional queue may benefit from a third-party review (enhanced review) and report to the Commission.

As described above, Staff issued a Request for Information (RFI) for third-party expert interconnections study review services to determine what resources could be available to prospective CSP generators. Based on the RFI results and Stakeholder feedback, Staff finds that the third-party review services are available at a reasonable cost and would be beneficial to the CSP. Staff recommends that the Commission approve the proposal for the CSP Program Administration Team to hire a subcontractor to provide third-party interconnection study review services.

PROPOSED COMMISSION MOTION:

Approve the proposal for the Program Administrator contractor to hire a subcontractor through RFP for the Third-Party Interconnection Review Services for Community Solar Program.

Redlines to demonstrate Staff incorporation of stakeholder feedback on draft RFP proposal

~~Draft~~ Final Proposal: Interconnection Study Review Services

In line with Commission Order No. 19-392, OPUC Staff (Staff) issued a Request for Information (RFI) for third-party expert interconnection study review services available to prospective Community Solar Program (CSP) generators. Based on the RFI results and continued learnings across DER-related efforts, Staff finds that 1) third-party review services are available from qualified vendors at a reasonable cost; and 2) OPUC Staff should work with the CSP Program Administrator (PA) to seek cost-competitive third-party interconnection review services in line with the scope proposed in this draft proposal.¹

Background

On October 29, 2019, the Commission adopted six near-term solutions to help ensure CSP interconnections are fair and functional (IX Solutions).² In developing the IX Solutions, Staff provided the following findings related to third-party verification of utility interconnection studies:³

- Stakeholders in CSP and other proceedings are concerned about the ability to verify the conclusions of the interconnection studies performed by the utility. This includes verifying the upgrades identified as necessary, the utility's consideration of alternative solutions to the upgrades, and the costs quoted for those upgrades.
- The ability to verify the upgrades and cost estimates in utility interconnection studies is a more acute barrier for CSP project development, given the opportunity that the program creates for less sophisticated entities to participate in solar generation.
 - Staff note: PGE disagreed that system upgrades are a more acute barrier for these projects. Staff agrees with PGE and clarifies that it is referring to the ability to verify upgrades (i.e., find third-party consultants and fit this service into their project budget).
- Parties raised several technical solutions to mitigate CSP interconnection upgrade costs in the development of the IX Solutions, but parties did not have enough time and technical sophistication to reach a conclusion (with the exception of allowing low-side metering for small projects).
- CSP provides a limited universe of projects through which the Commission can explore the value of third-party review services and generate data to support longer-term efforts to improve interconnection practices, such as Docket Nos. UM 2032 and UM 2005.

At the time of Staff's IX Solution recommendations, parties lacked insight into the cost, scope, and availability of third-party interconnection services. Therefore, the Commission directed Staff to issue an

¹ For an example of continued learnings in other dockets See UM 2005, Spark Northwest's Presentation for Workshop 3, February 26, 2020, slides 7 and 8.

² See UM 1930 Community Solar Implementation, Commission Order No. 19-392, November 8, 2019, p. 5 and Appendix A, pp. 14-15.

³ Staff notes that there was no opposition to this recommendation. The utilities did not think that additional cost savings are likely to be found, but "understand that there is a perceived lack of confidence in utility interconnection studies generally and would not object to third-party review of studies if Staff determines that such review is necessary to help aid understanding and decrease confusion and suspicion." See UM 1930, Idaho Power Company, PacifiCorp, and PGE's Joint comments on Staff proposal, October 15, 2019, p. 11.

RFI to determine whether the benefits would outweigh the costs and how those costs should be allocated.⁴

RFI results

The OPUC issued the RFI for third-party interconnection review services on January 13, 2020 and closed the solicitation on February 11, 2020. Respondents were asked to provide indicative pricing, a description of the design and timeline for review services, and an overview their Company's qualifications. Staff received six responses that indicate the following:

- **Cost:** Standard levels of review may range from roughly \$2,000 - \$5,000 per study. More intensive review may cost \$10,000 or more.
- **Scope:** Responses either recommended or fell into two tiers of review. The tiers could be self-selected by PMs or the third-party reviewer (consultant) could assign the tier based the intensity of the upgrade cost estimates (e.g., the ratio of total costs to project size in \$/kW).
 - Less intensive reviews take ~1 - 2 weeks, verify the information provided in utility interconnection studies and on OASIS, include support for meetings and communications with utility.
 - More intensive reviews take about a month or longer, include reproduction of interconnection studies, include support for meetings and communications with utility.
- **Availability:** At least three qualified firms already provide similar services. The remaining respondents focused on other PM resources that are available, such as hosting capacity platforms. Staff continues to consider the other PM resources, but finds that hosting capacity analysis does not replace the specific benefits of third-party interconnection study review.

Draft Proposal for Services

This section summarizes the services and terms that Staff developed based on its goals and the information received from the RFI.

Goals

As noted in Staff's IX Solution proposal in 2019, there are two categories of benefits that Staff seeks to capture with these services.

- **Value to CSP PMs:** Review services can be obtained for a few thousand dollars, but have the potential to save tens of thousands of dollars or more in upgrade costs. For example, during the development of the IX Solutions, a prospective Project Manager (PM) proposed an alternative to metering upgrades required by PGE that would eliminate the need for \$130,000 of interconnection costs.⁵ When raised in this venue, the utilities agreed to adopt that alternative metering practice for projects under a certain size.⁶ In addition, Spark Northwest's presentation

⁴ See UM 1930 Community Solar Implementation, Commission Order No. 19-392, November 8, 2019, Appendix A, p. 15.

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at Distribution System Planning Workshop 3 (UM 2005) cited \$59,000 of upgrades mitigated through the use of a third-party reviewer on a net metering project.

- Transparency and insights for all Oregon jurisdictional interconnections: Engaging the consultant will allow the Commission to aggregate objective, technical insights into the current implementation of interconnection rules and processes. These services will help the Commission identify and/or prioritize improvements that can be made to some or all state jurisdictional procedures. As noted by the utilities, the services will also help resolve ongoing confusion and apprehension about utility interconnection practices.⁷
 - Staff note: In response to utility feedback about the use of ratepayer funds to cover a portion of this cost, these benefits are why Staff proposes some level of cost-sharing with ratepayers is appropriate.

To capture these benefits, Staff proposes that the PA issue an RFP for third-party interconnection review services in line with the following goals:

- Provide a scope of services that PMs will find valuable and will utilize;
- Leverage economies of scale to drive down the cost of review services;
- Make these services easily accessible for less sophisticated PMs;
- Align services with the existing interconnection processes and timelines;
- Allow generators to work collaboratively with utilities to identify opportunities to mitigate or reduce interconnection costs without compromising the safety and reliability of the utility systems;
- Limit services to CSP projects until the benefits and costs can be further assessed; and
- Increase transparency into interconnection study practices, collect insights and data to inform longer-term interconnection reform efforts.

Sub-Contracting details

- The PA will subcontract these services directly in line with their responsibility to provide PM resources. This will streamline the procurement process and the disbursement of start-up funds to the consultant(s), as well as, keep the services directly tied to the implementation of the CSP.
- To control the scope and total costs of this pilot-like IX Solution, the PA's sub-contract will be limited to 12 months, or the point at which \$50,000 in matching funds has been distributed, whichever occurs first, with the option to extend.
- Multiple consultants may be selected to ensure adequate resources are available upon request from PMs.

Scope of services

Based on RFI insights, Staff proposes to offer two tiers of review.

Tier 1: Standard review

⁷ See UM 1930, Idaho Power Company, PacifiCorp, and PGE's Joint comments on Staff proposal, October 15, 2019, p. 11.

- Costs: The RFP will seek a fixed price per standard review. Based on the RFI results, we anticipate bids that will result in roughly 25 hours of time per review.

Tasks:

1. Review utility system impact study and other publicly available data, such as system data posted to OASIS and other publicly available interconnection studies. Produce a report within 10 business days of the request from the PM, endorsed by a licensed professional engineer, that identifies any⁸:
 - Staff note: An eligible PM may request review of a different study or utility analysis within the 25 hour limit. This is to allow access to PMs in the traditional queue or CSP queue that have already progressed past the system impact study stage.
 - Practices or assumptions that deviate from administrative rules, national code, or industry standards, such as minimum daytime load assumptions used in screening for CSP interconnection eligibility and identifying interconnection upgrades.-
 - Alternative technologies or other solutions that could safely and reliably mitigate or reduce the cost of upgrades.
 - Cost estimates presented in the study that deviate more than 25 percent from industry standards (e.g., cost estimates for new equipment).⁹
 - Staff note: If the third-party reviewer finds that utilities are not providing enough cost detail, this finding can be reported to the Commission to support broader interconnection efforts.
- 4.2. Support the PM in interfacing with the utility:
 - Participate in discussions with the PM and utility engineers and other staff, as requested by the PM. The consultant must attend a minimum of two meetings if requested by the PM.
 - Provide guidance to the PM to support email communications with the utility related to verifying the results of the system impact study.
 - The objective of this task is to reach agreement between the PM, utility, and third-party—either that the utility practices and assumptions are reasonable; or that the utility will modify the interconnection upgrades assigned to the project.
- 2.3. Report to the Commission:
 - Provide a non-binding, information-only report to the Commission within 30 days of conclusion of services. The report will summarize the results of review and utility

⁸ This timeline is based on PacifiCorp's Large Generator Interconnection Agreement which states that "Within ten (10) Business Days of providing an Interconnection System Impact Study report to Interconnection Customer, Transmission Provider and Interconnection Customer shall meet to discuss the results of the Interconnection System Impact Study." See PacifiCorp Open Access Transmission Tariff, p. 157.

⁹ This threshold is intended to target the identification of irregular cost estimates. It is based on the net metering rules OAR 860-039-0040(4)(b) that require the utility to provide a non-binding, good faith estimate of the cost of the modifications, which must be accurate to within plus or minus 25 percent.

coordination efforts and may provide additional observations to support longer-term efforts.

- Staff notes:

- Several parties raised questions about the dispute resolution process in the event that the third-party vendor and the utility do not reach agreement about necessary upgrades. Staff highlights that there is an existing dispute resolution process in the Division 82 interconnection rules and a consumer compliant process that parties can engage if desired. Staff commits to monitoring the need for something else for CSP or broader interconnection disputes.
- The utilities raised important questions about allocation of costs and liability if the third-party vendor makes recommendations about the use of technologies that the utility does not find appropriate, safe, or reliable. Staff clarifies that the purpose of this review service is not to diminish utilities' autonomy over the safe and reliable operation of their system i.e., force them to use one technology over another. The purpose is to increase transparency, collaboration, and consideration of alternatives; to generate insights into whether the costs of technologies that utilities deem necessary are reasonable for generators to bear; and to help identify beneficial changes to Oregon interconnection rules and practices for broader OPUC interconnection efforts.
- Staff agrees with OSEIA-CCSA feedback to have a standardized template, and will include this in the deliverables and scope.

- All review materials and documentation of coordination with the utility will be available to OPUC, the Commission, and the PA.
- If the consultant does not receive at least 10 requests to review studies within the 12 month contract—including at least one study from PGE and PAC—the Commission may request that the consultant review a sample of publicly posted CSP studies and report to the Commission in an audit-like capacity.
 - Staff note: PAC suggests that, if no requests for review are received, it may indicate a lack of a need for reviews i.e., it is not worth the resources. The Company further suggests that the Commission only authorize third-party services if there is a dispute. Staff agrees that PAC's concerns are reasonable, but there are other reasons that PMs with concerns will not engage this vendor such as timing and access to matching funds. Staff still needs to have these services contracted and available when a dispute arises, but is comfortable with Commission direction that only authorizes the vendor to perform services if requested by a PM i.e., Staff prefers to retain the right to request additional auditing if there is a good reason, but can forgo it if the Commission provides that direction.

3.4. Coordination with PA Team:

- Provide twice-monthly status updates on open reviews to the PA Team.

- Help identify gaps or improvements in PM resources.
- Staff note: PAC suggests that the RFP bidders should be allowed to propose additional/replacement items that it believes will be needed for the review based on their experience. Staff will adopt this in the RFP.

Tier 2: Enhanced review

Costs: The RFP will seek best pricing for an hourly rate for enhanced review. Staff does not suggest a cap on hours. The vendor and PM will work together to identify the appropriate budget for services, the full cost of which will be borne by the PM.

Tasks: If PM does not find that issues are resolved through standard review, the PM can request enhanced review that includes the following on top of the standard review services:

- Recreate utility analysis, using models provided by utility or the third-party's models.
- Coordinate with Staff and PA Team on the exchange of additional data with utility.
- Extended rounds of utility communication support, as requested by the PM.
- Staff note: OSEIA-CCSA suggests that it could be valuable for the reviewer to "help oversee and review the construction of the interconnection upgrades...provide accountability and objectivity through the entire interconnection study process, from study to commissioning." Enhanced review is how Staff sees this happening.

Eligibility for the use of review services

A measured approach to rolling out third-party review services will help ensure that benefits will outweigh the costs. In order to limit availability to CSP, entities must meet the following criteria to utilize the third-party review services until further evaluation of costs and benefits occurs:

- PM Registration: Request for review services must be made by a registered PM in good standing with the CSP.
- Interconnection status: Requesters must have a position in CSP interconnection queue,¹⁰ or have secured CSP pre-certification.
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Cost Sharing

Projects must commit to covering some or all of the costs of the services. The standard review will require some amount of cost share between the PM and CSP start-up funds. Staff and the PA Team have identified an initial \$50,000 matching fund budget within the existing budget for Project Manager Resources under the PA's not to exceed budget cap. Based on the RFI results, this will support 20 to 30 standard reviews. While subject to adjustment after receiving bids, Staff proposes:

¹⁰ This would not allow the PM to engage the consultant to verify CSP queue screening outcomes. The IX Solutions, including the CSP queue screening criteria, are already being monitored so that they can be improved over time as necessary. Therefore, Staff assumes that this would not be helpful enough to justify the costs.

Commented [MC1]: OSEIA-CCSA feedback that projects that are clearly CSP and have existing interconnection agreement in traditional queue may benefit from a third-party review (enhanced review) and report to the Commission.

- For standard review:
 - CSP administrative funds will cover up to 50% of the cost for PMs that are non-profit or public entities (community-based projects).
 - CSP administrative funds will cover up to 25% of the cost for non-community-based projects.
 - CSP administrative funds will not cover more than \$2,500 per standard review.
 - The exact cost sharing amountse level will be informed by the bids received in the RFP and stakeholder input on this draft proposal.
- For enhanced review: PMs will pay the full cost of the enhanced study.

RFP Evaluation Criteria

Staff intends to provide a detailed scope of services such that the RFP evaluation criteria will focus on price and bidder qualifications.

Minimum qualifications: Bidders must meet minimum qualifications to be considered.

- The bidder must have at least 5 years of experience reviewing or performing utility generator interconnection studies for solar generators, including those in the size range over 1 MW and under 20 MW.
 - Staff note: OSEIA-CCSA suggested clarifying what "perform studies" means. Staff does not have further recommendations for this.
- The key personnel participating in the review services must include a licensed electrical engineer in the State of Oregon.-
- All licenses/memberships must be active and in good standing.
- The bidder must demonstrate that it does not currently, or has not in the past 5 years, performed engineering analysis for PGE, PAC, or IPC. Bidder must also agree not to perform engineering analysis for PGE, PAC, or IPC while under this contract.
 - Staff note: OSEIA-CCSA points out that Oregon's existing engineering rules direct engineers to avoid potential conflicts of interest.

Evaluation criteria: Eligible and completed bids will be scored with a focus on price, relevant experience (more years and more specific to the Oregon utilities), and an understanding of the insights Staff is seeking through the review.

Criteria	Points
Pricing	60 50 pts
Relevant experience	25 pts
Proposed standard review report contents	15 25 pts
Total Points Possible	100

Commented [MC2]: Staff appreciates all parties indicating the value of focusing on finding a highly qualified engineering firm in light of the safety and reliability implications of their findings.

Staff note: Staff agrees with recommendations to specifically include the following additional evaluation criteria under relevant experience:

- Knowledge of and access to equipment cost data:
- Working knowledge and familiarity with the following codes, rules and standards:
 - National Electric Code
 - National Electricity Safety Code
 - IEEE 1547-2003 (and as updated)
 - Oregon Interconnection Rules
- Expertise in power systems engineering that includes:
 - Interconnection of solar photovoltaic systems
 - Substation protection
 - Distribution system modelling
 - Transmission planning

Request for stakeholder feedback

To create a focused input process, Staff requests that parties provide feedback on this proposal by emailing responses to the following questions directly to Staff or to the UM 1930 service list by April 22, 2020:

- ~~Is the scope of services for the standard review valuable and likely to be utilized by CSP PMs? How could it be made more valuable?~~
- ~~Should the standard be modified to better align with interconnection processes and timelines? Staff's proposal is informed by PacifiCorp's Large Generator Interconnection Process—is there additional flexibility in the timelines for CSP generators (small generators) that should be considered?~~
- ~~In dollars, how much can a PM contribute to a standard review? Does that amount vary based on the type of PM, such as a community-based organization or private developer?~~
- ~~Should non-community-based organizations pay less than 100 percent of the cost of the standard review? If so, why?~~
- ~~Are the PM eligibility criteria reasonable? How can they be improved and why?~~
 - ~~Is there a way to allow projects in the standard interconnection queue to use these services that prevents non-CSP projects from diverting resources from CSP projects i.e., if standard queue projects were eligible, how could we keep non-CSP projects from gaming the eligibility criteria?~~
- ~~Are there any disadvantages to the PA Team subcontracting the third-party review services directly?~~
- ~~Are the bidder evaluation criteria sufficient?~~

Following stakeholder feedback, Staff will finalize a proposal for the Commission. Email feedback may be attached to the final proposal but not posted to the docket in advance. Staff proposes the following

Commented [MC3]: Staff is very grateful for the feedback received.

schedule to seek Commission approval. The timeline is subject to change and will be finalized in the RFP:

Date	Activity
Draft proposal emailed to UM 1930	April 13, 2020
Stakeholder feedback emailed to UM 1930 parties	April 22 0 , 2020
Final Staff recommendation memo	April 30 <u>May 28</u> , 2020
Final Staff recommendation at Public Meeting	May 5 <u>June 2</u> , 2020
Release RFP	May 11 <u>June 10</u> , 2020
Q&A period closes	May 18 <u>June 17</u> , 2020
Close RFP	June 4 <u>June 24</u> , 2020
Select winning bid	June 15 <u>July 7</u> , 2020
Finalize contract and launch services <u>(target date)</u>	July 1 <u>July 22</u> , 2020

Please direct questions to Jill Goatcher jill.goatcher@state.or.us, 971-209-0533 or Caroline Moore caroline.f.moore@state.or.us, 503-480-9427.



April 22, 2020

VIA EMAIL

Attn: Service List UM 1930

Re: Reply to Staff Proposal regarding Interconnection Study Review Services

PacifiCorp, d/b/a Pacific Power (PacifiCorp) provides these comments in response to the Public Utility Commission of Oregon (Commission) Staff's "Draft proposal: Interconnection Study Review Services" (herein referred to as the "Staff Proposal"). The Staff Proposal is based on the Request for Information (RFI) issued by Staff for third-party expert interconnection study review services (also referred to herein as "third-party review services") available to prospective Community Solar Program (CSP) generators. The Staff Proposal presents the RFI results; the services and terms that Staff developed based on its goals and the information received from the RFI; two proposed tiers of review services; eligibility for the review services; and RFP evaluation criteria. Staff seeks feedback to seven enumerated questions. PacifiCorp provides brief comments to some of the enumerated questions. Additionally, PacifiCorp respectfully seeks clarifications regarding the potential third-party review services. In general, while PacifiCorp questions the need for third-party review services, to adhere to the legislative task of minimizing cost-shifting to non-participants,¹ it is paramount that public utility customers not pay for the costs of third-party review services.

I. Non-participating public utility customers should not pay for costs of third-party review services.

ORS 757.386(2)(a) directs the Commission to establish a [Community Solar] program that provides electric customers with the opportunity to share the costs and benefits of solar generation. Section (2)(b) directs the Commission to adopt rules that, among other items, minimizes the shifting of costs from the program to ratepayers who do not own or subscribe to a community solar project.² As noted in the Staff Proposal, Order No. 19-392 authorized the Staff to issue a RFI for third-party review services. However, Order No. 19-392 also required ratepayer protection regarding third-party review services. In particular, Order No. 19-392 stated:

Ratepayer protection: Staff finds that more analysis and a better understanding of third-party costs is required to understand whether *the benefits of third-party review will exceed the costs*, and whether the costs can be borne by CSP Project Managers or ratepayers.³ (emphasis added)

¹ See e.g., Order No. 19-392 at 2.

² Order No. 19-392, Appendix A at 1.

³ *Id.*, Appendix A at 15.

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It is unclear if the Staff Proposal will lead to a weighing of benefits versus the costs of third-party review services. However, it is clear that the benefits of the third-party review services are solely for CSP developers, the CSP Program Administrator, and/or Program Managers (PM). Non-participant customers will not benefit from third-party reviews of CSP studies.

The Staff Proposal addresses the issue of payment for these costs. For example:

- In dollars, how much can a PM contribute to a standard review? Does that amount vary based on the type of PM, such as a community-based organization or private developer?⁴
- Should non-community-based organizations pay less than 100 percent of the cost of the standard review? If so, why?⁵
- Cost sharing: Projects must commit to covering some or all of the costs of the services.

The standard review will require some amount of cost share between the PM and CSP start-up funds. The cost share level will be informed by the bids received in the RFP and stakeholder input on this draft proposal.⁶

It appears from these statements that sharing of costs could occur between the CSP developer and/or the PM. However, it is unclear whether the Staff Proposal intends for the public utility customers to bear any of the costs. To that end, PacifiCorp: (1) strongly opposes non-participant customers paying for these costs, and (2) believes adhering to the legislative task of minimizing the shifting of costs necessitates customers not paying for third-party services.

II. Third party review services can take place within existing interconnection timeframes.

Staff requested comments on whether standard [review] services should be modified to better align with interconnection processes and timelines.⁷ Staff asked whether there is flexibility in the timelines for CSP generators.⁸ If the question is whether the existing time frames are sufficient to allow for third-party review services, the answer is “yes.”

The two studies at issue are the System Impact Study and the Facilities Study. Under the approved PacifiCorp CSP Interconnection Procedures, PacifiCorp must provide a CSP Interconnection Applicant (Applicant) with an executable facilities study agreement within five

⁴ Staff Proposal at 6.

⁵ *Id.* at 6.

⁶ *Id.* at 5.

⁷ *Id.* at 6.

⁸ *Id.* at 6. PacifiCorp interprets the question as referring to the standard review services that are explained beginning on page 3 of the Staff Proposal.

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Business Days of completing the System Impact Study.⁹ The Applicant then has 15 Business Days to execute the facilities study agreement.¹⁰ Similarly, PacifiCorp is required to provide an executable interconnection agreement within five business days after an approved Application.¹¹ The Applicant then has 15 Business Days to execute the interconnection agreement.¹² Based on PacifiCorp's experience, third-party review studies can readily take place during these 15-day periods. This is especially true given the studies are only at a distribution-level.

In addition, following the issuance of a System Impact Study, PacifiCorp sets up a meeting with the developer to review the results. This provides an opportunity for questions to be asked regarding the System Impact Study results. It is important to note that because there are rarely additional requirements identified in the Facilities Study above what was identified in the System Impact Study, there is a lower likelihood of disputes regarding the Facilities Study.

Based on the above, there is sufficient time within the existing timeframes to allow third-party review services to take place. However, in the event that a developer believes it needs additional time, then the CSP Interconnection Procedures also provides for dispute procedures.¹³

III. Other comments and questions regarding the Staff Proposal.

In addition to the costs of third-party review services, PacifiCorp offers the following comments for the Staff and Commission's consideration:

- The Staff Proposal states, "The RFP will seek a fixed price per standard review. Standard services will be capped at 25 hours."¹⁴

Is the 25 hours intended to be for each Tier 1 review or for Tier 1 reviews in total during the 12 month contract?

- For all three items under "Tasks" for the Tier 1 review.¹⁵

The bidder should be allowed to offer additional/replacement items that it believes will be needed for the review based on their experience.

- Under "3. Report to Commission" it states, "If the consultant does not receive at least 10 requests to review studies within the 12 month contract—including at least

⁹ CSP Interconnection Procedures at Section (I)(7).

¹⁰ *Id.* at Section (I)(7)(c).

¹¹ *Id.* at Section (D)(5)(e).

¹² *Id.*

¹³ CSP Interconnection Procedures at Section L.

¹⁴ Staff Proposal at 3.

¹⁵ *Id.* at 3 and 4.

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one study from PGE and PAC—the Commission may request that the consultant review a sample of publicly posted CSP studies and report to the Commission in an audit-like capacity.”¹⁶

To clarify, if no requests for review are received, does Staff nonetheless intend to expend money on review services? If there are no requests for reviews, it may indicate a lack of a need for reviews as there are no disputes regarding the studies.

- Under “Tier 2 Enhanced Review”.¹⁷

It is unclear whether there will be a cap on the hours associated with this type review.

IV. Questions regarding potential third-party review services.

PacifiCorp offers the following questions regarding the implementation of third-party review services.

- The Commission should consider whether to authorize third-party review services only if there is first a dispute raised regarding the CSP interconnection studies. Under this approach, the Commission would be assured there is a potential need for such services.
- If third-party review occurs and the reviewer recommends alternative technologies or other solutions, who has the final say in whether the alternative technologies have to be implemented? Will there be a process developed where such disputes can be brought before the Commission for a final determination?
- If public utilities are required to implement technologies recommended by a third-party reviewer, who is liable if damages result from the alternative technologies?
- If public utilities are required to implement technologies that are not currently being used by the public utility, who pays for the operation and maintenance costs of the new equipment or facilities?

PacifiCorp respectfully recommends that questions such as the ones listed above be fully considered prior to the Commission authorizing third-party review services for CSP projects. PacifiCorp appreciates the opportunity to provide these comments.

¹⁶ *Id.* at 4.

¹⁷ *Id.* at 5.

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Respectfully submitted this 22nd day of April, 2020.



Mike Wilding

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Phone: (503) 813-6583



Portland General Electric
121 SW Salmon Street · Portland, Ore. 97204

April 22, 2020

Public Utility Commission of Oregon

Via Electronic Mail

RE: UM 1930 –Comments on Staff’s Draft Proposal to Release an RFP for Third-Party Interconnection Review Services

Portland General Electric Company (PGE) submits these comments in reply to Staff’s April 15, 2020 Draft Proposal to Release an RFP for third-party interconnection review services (Draft RFP Proposal). After review of Staff’s Draft RFP Proposal PGE has comments on multiple topics addressed in Staff’s Draft RFP Proposal.

The issue of system upgrade costs needed to accommodate the interconnection of large developers has been raised by developers and advocates in the CSP docket and other dockets. PGE disagrees with the Staff characterization that the PM’s ability to verify the upgrades and cost estimates in utility interconnection studies is a more acute barrier for CSP project development for less sophisticated entities. System upgrades should not be an acute barrier for less sophisticated entities as less sophisticated developers are likely to pursue smaller projects with fewer impacts. Additionally, CSP Projects have been provided an expedited interconnection review process in the CSP program. While PGE disagrees that upgrade costs and cost estimates are a barrier, PGE supports this inquiry. Should an RFP be issued and a firm selected, PGE looks forward to learning how such reviews might improve PGE and Commission practices.

Staff’s Draft RFP Proposal considers a cost sharing mechanism between PGE’s customers (through the contribution of PA start-up costs) and project managers, where projects must commit to covering some or all the costs of the additional review services outlined. PGE’s interconnection studies follow prudent utility practices to ensure the safety and reliability of the system and to identify impacts to the system that are required to safely and reliably interconnect third-party generators to PGE’s system. The costs of additional third-party reviews completed on behalf of the PM should not be borne by PGE’s customers for either the standard or enhanced study. Developers are already compensated for interconnection costs by virtue of the fact that interconnecting is embedded in the avoided cost prices. These developers are compensated at a price higher than avoided cost and should not be allowed to pass even more costs on to customers. PGE remains intent on preserving the indifference principle for existing retail customers. The indifference principle means PGE customers must remain financially indifferent to PGE’s purchase of QF power. Purchase of power from a CSP already considers the costs of interconnection in avoided costs.

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an RFP for Third-Party Interconnection Review Services
Page 2

Staff's proposed bidder evaluation criteria can be improved. PGE appreciates Staff's language on minimum qualifications to be an effort to define a bidder with knowledge of the needs of a utility system. The current minimum qualification language is too broad and there is potential for the bidder to fail to understand or have experience with the safety and reliability needs of the system. To ensure the needs of the system are correctly analyzed by a third party, PGE requests that the RFP evaluation criteria include an opportunity for PGE to vet the bidder who will be performing studies on PGE's system ensuring prudent utility practices are being followed. PGE also recommends the minimum qualifications for independent reviewers should include:

- Oregon Professional Engineer (P.E.) license in good standing and possess direct experience performing operations and planning studies for electric utility systems.
- Working knowledge and familiarity with the following codes, rules and standards such that the requirements within are met in a safe, objective, consistent, fair, and cost-effective manner that protects reliability of the system.
 - National Electric Code
 - National Electricity Safety Code
 - IEEE 1547-2003 (and as updated)
 - Oregon Interconnection Rules
 - Power systems engineering that includes direct experience in a position of responsibility for the interconnection of solar photovoltaic systems with at least 1,000 kW in capacity
 - Expertise in all aspects of interconnection design, including substation protection, distribution system modelling, and transmission planning
 - At a minimum, a B.S. degree in electrical engineering from an accredited college or school in engineering

Defining the independent review process clearly (eligibility, scope, timing) and understanding its downstream effects on projects in queue is as important as the qualifications of the independent reviewer. Any independent engineer review needs to pertain only to factual disputes over calculations, methods, and cost estimates

Lastly, due to the time requirements and linkages to other applications not under review, the independent engineer review will have an impact on the CSP process and will likely result in delays. The risk of delays driven by independent engineer review requested by a PM should be borne by the PM and not PGE or PGE's customers.

A successful RFP will achieve Staff's goals of providing value to CSP PMs and providing transparency and insights for all Oregon jurisdictional interconnection without compromising the indifference principle, without adding costs to PGE retail customers, and preserving the safety and reliability of the utility system.

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PGE looks forward to continuing the conversation on the Draft RFP Proposal.

Please direct questions or comments regarding these comments to Santiago Beltran Laborde at (503) 464-7902. Please direct all formal correspondence and requests to the following email address pge.opuc.filings@pgn.com

Sincerely,

\s\ Robert Macfarlane

Robert Macfarlane
Manager, Pricing and Tariffs

Draft proposal: Interconnection Study Review Services

In line with Commission Order No. 19-392, OPUC Staff (Staff) issued a Request for Information (RFI) for third-party expert interconnection study review services available to prospective Community Solar Program (CSP) generators. Based on the RFI results and continued learnings across DER-related efforts, Staff finds that 1) third-party review services are available from qualified vendors at a reasonable cost; and 2) OPUC Staff should work with the CSP Program Administrator (PA) to seek cost-competitive third-party interconnection review services in line with the scope proposed in this draft proposal.¹

Background

On October 29, 2019, the Commission adopted six near-term solutions to help ensure CSP interconnections are fair and functional (IX Solutions).² In developing the IX Solutions, Staff provided the following findings related to third-party verification of utility interconnection studies:³

- Stakeholders in CSP and other proceedings are concerned about the ability to verify the conclusions of the interconnection studies performed by the utility. This includes verifying the upgrades identified as necessary, the utility's consideration of alternative solutions to the upgrades, and the costs quoted for those upgrades.
- The ability to verify the upgrades and cost estimates in utility interconnection studies is a more acute barrier for CSP project development, given the opportunity that the program creates for less sophisticated entities to participate in solar generation.
- Parties raised several technical solutions to mitigate CSP interconnection upgrade costs in the development of the IX Solutions, but parties did not have enough time and technical sophistication to reach a conclusion (with the exception of allowing low-side metering for small projects).
- CSP provides a limited universe of projects through which the Commission can explore the value of third-party review services and generate data to support longer-term efforts to improve interconnection practices, such as Docket Nos. UM 2032 and UM 2005.

At the time of Staff's IX Solution recommendations, parties lacked insight into the cost, scope, and availability of third-party interconnection services. Therefore, the Commission directed Staff to issue an RFI to determine whether the benefits would outweigh the costs and how those costs should be allocated.⁴

¹ For an example of continued learnings in other dockets See UM 2005, Spark Northwest's Presentation for Workshop 3, February 26, 2020, slides 7 and 8.

² See UM 1930 Community Solar Implementation, Commission Order No. 19-392, November 8, 2019, p. 5 and Appendix A, pp. 14-15.

³ Staff notes that there was no opposition to this recommendation. The utilities did not think that additional cost savings are likely to be found, but "understand that there is a perceived lack of confidence in utility interconnection studies generally and would not object to third-party review of studies if Staff determines that such review is necessary to help aid understanding and decrease confusion and suspicion." See UM 1930, Idaho Power Company, PacifiCorp, and PGE's Joint comments on Staff proposal, October 15, 2019, p. 11.

⁴ See UM 1930 Community Solar Implementation, Commission Order No. 19-392, November 8, 2019, Appendix A, p. 15.

RFI results

The OPUC issued the RFI for third-party interconnection review services on January 13, 2020 and closed the solicitation on February 11, 2020. Respondents were asked to provide indicative pricing, a description of the design and timeline for review services, and an overview their Company's qualifications. Staff received six responses that indicate the following:

- **Cost:** Standard levels of review may range from roughly \$2,000 - \$5,000 per study. More intensive review may cost \$10,000 or more.
- **Scope:** Responses either recommended or fell into two tiers of review. The tiers could be self-selected by PMs or the third-party reviewer (consultant) could assign the tier based the intensity of the upgrade cost estimates (e.g., the ratio of total costs to project size in \$/kW).
 - Less intensive reviews take ~1 - 2 weeks, verify the information provided in utility interconnection studies and on OASIS, include support for meetings and communications with utility.
 - More intensive reviews take about a month or longer, include reproduction of interconnection studies, include support for meetings and communications with utility.
- **Availability:** At least three qualified firms already provide similar services. The remaining respondents focused on other PM resources that are available, such as hosting capacity platforms. Staff continues to consider the other PM resources, but finds that hosting capacity analysis does not replace the specific benefits of third-party interconnection study review.

Draft Proposal for Services

This section summarizes the services and terms that Staff developed based on its goals and the information received from the RFI.

Goals

As noted in Staff's IX Solution proposal in 2019, there are two categories of benefits that Staff seeks to capture with these services.

- Value to CSP PMs: Review services can be obtained for a few thousand dollars, but have the potential to save tens of thousands of dollars or more in upgrade costs. For example, during the development of the IX Solutions, a prospective Project Manager (PM) proposed an alternative to metering upgrades required by PGE that would eliminate the need for \$130,000 of interconnection costs.⁵ When raised in this venue, the utilities agreed to adopt that alternative metering practice for projects under a certain size.⁶ In addition, Spark Northwest's presentation at Distribution System Planning Workshop 3 (UM 2005) cited \$59,000 of upgrades mitigated through the use of a third-party reviewer on a net metering project.
- Transparency and insights for all Oregon jurisdictional interconnections: Engaging the consultant will allow the Commission to aggregate objective, technical insights into the current implementation of interconnection rules and processes. These services will help the

⁵ See UM 1930, Idaho Power Company, PacifiCorp, and PGE's Joint comments on Staff proposal, October 15, 2019, p. 11.

⁶ See UM 2005, Spark Northwest's Presentation for Workshop 3, February 26, 2020, slides 7 and 8.

Commission identify and/or prioritize improvements that can be made to some or all state jurisdictional procedures. As noted by the utilities, the services will also help resolve ongoing confusion and apprehension about utility interconnection practices.⁷

To capture these benefits, Staff proposes that the PA issue an RFP for third-party interconnection review services in line with the following goals:

- Provide a scope of services that PMs will find valuable and will utilize;
- Leverage economies of scale to drive down the cost of review services;
- Make these services easily accessible for less sophisticated PMs;
- Align services with the existing interconnection processes and timelines;
- Allow generators to work collaboratively with utilities to identify opportunities to mitigate or reduce interconnection costs without compromising the safety and reliability of the utility systems;
- Limit services to CSP projects until the benefits and costs can be further assessed; and
- Increase transparency into interconnection study practices, collect insights and data to inform longer-term interconnection reform efforts.

Sub-Contracting details

- The PA will subcontract these services directly in line with their responsibility to provide PM resources. This will streamline the procurement process and the disbursement of start-up funds to the consultant(s), as well as, keep the services directly tied to the implementation of the CSP.
- To control the scope and total costs of this pilot-like IX Solution, the PA's sub-contract will be limited to 12 months with the option to extend.
- Multiple consultants may be selected to ensure adequate resources are available upon request from PMs.

Scope of services

Based on RFI insights, Staff proposes to offer two tiers of review.

Tier 1: Standard review

Costs: The RFP will seek a fixed price per standard review. Standard services will be capped at 25 hours.

Tasks:

1. Review utility system impact study and other publicly available data, such as system data posted to OASIS and other publicly available interconnection studies. Produce a report within 10 business days of the request from the PM that identifies any⁸:

⁷ See UM 1930, Idaho Power Company, PacifiCorp, and PGE's Joint comments on Staff proposal, October 15, 2019, p. 11.

⁸ This timeline is based on PacifiCorp's Large Generator Interconnection Agreement which states that "Within ten (10) Business Days of providing an Interconnection System Impact Study report to Interconnection Customer,

- Practices or assumptions that deviate from administrative rules, national code, or industry standards.
 - Alternative technologies or other solutions that could safely and reliably mitigate or reduce the cost of upgrades.
 - Cost estimates presented in the study that deviate more than 25 percent from industry standards (e.g., cost estimates for new equipment).⁹
2. Support the PM in interfacing with the utility:
 - Participate in discussions with the PM and utility engineers and other staff, as requested by the PM. The consultant must attend a minimum of two meetings if requested by the PM.
 - Provide guidance to the PM to support email communications with the utility related to verifying the results of the system impact study.
 - The objective of this task is to reach agreement between the PM, utility, and third-party—either that the utility practices and assumptions are reasonable; or that the utility will modify the interconnection upgrades assigned to the project.
 3. Report to the Commission:
 - Provide a non-binding, information-only report to the Commission within 30 days of conclusion of services. The report will summarize the results of review and utility coordination efforts and may provide additional observations to support longer-term efforts.
 - All review materials and documentation of coordination with the utility will be available to OPUC, the Commission, and the PA.
 - If the consultant does not receive at least 10 requests to review studies within the 12 month contract—including at least one study from PGE and PAC—the Commission may request that the consultant review a sample of publicly posted CSP studies and report to the Commission in an audit-like capacity.
 4. Coordination with PA Team:
 - Provide twice-monthly status updates on open reviews to the PA Team.
 - Help identify gaps or improvements in PM resources.

Tier 2: Enhanced review

Costs: The RFP will seek best pricing for an hourly rate for enhanced review.

Tasks: If PM does not find that issues are resolved through standard review, the PM can request enhanced review that includes the following on top of the standard review services:

Transmission Provider and Interconnection Customer shall meet to discuss the results of the Interconnection System Impact Study.” See PacifiCorp Open Access Transmission Tariff, p. 157.

⁹ This threshold is intended to target the identification of irregular cost estimates. It is based on the net metering rules OAR 860-039-0040(4)(b) that require the utility to provide a non-binding, good faith estimate of the cost of the modifications, which must be accurate to within plus or minus 25 percent.

- Recreate utility analysis, using models provided by utility or the third-party's models.
- Coordinate with Staff and PA Team on the exchange of additional data with utility.
- Extended rounds of utility communication support, as requested by the PM.

Eligibility for the use of review services

A measured approach to rolling out third-party review services will help ensure that benefits will outweigh the costs. In order to limit availability to CSP, entities must meet the following criteria to utilize the third-party review services until further evaluation of costs and benefits occurs:

- **PM Registration**: Request for review services must be made by a registered PM in good standing with the CSP.
- **Interconnection status**: Requesters must have a position in CSP interconnection queue.¹⁰
- **Cost sharing**: Projects must commit to covering some or all of the costs of the services.
 - The standard review will require some amount of cost share between the PM and CSP start-up funds. The cost share level will be informed by the bids received in the RFP and stakeholder input on this draft proposal.
 - PMs will pay the full cost of the enhanced study.

RFP Evaluation Criteria

Staff intends to provide a detailed scope of services such that the RFP evaluation criteria will focus on price and bidder qualifications.

Minimum qualifications: Bidders must meet minimum qualifications to be considered.

- The bidder must have at least 5 years of experience reviewing or performing utility generator interconnection studies.
- The key personnel participating in the review services must include a licensed electrical engineer.
- All licenses/memberships must be active and in good standing.

Evaluation criteria: Eligible and completed bids will be scored with a focus on price, relevant experience (more years and more specific to the Oregon utilities), and an understanding of the insights Staff is seeking through the review.

Criteria	Points
Pricing	60 pts
Relevant experience	25 pts
Proposed standard review report contents	15 pts
Total Points Possible	100

¹⁰ This would not allow the PM to engage the consultant to verify CSP queue screening outcomes. The IX Solutions, including the CSP queue screening criteria, are already being monitored so that they can be improved over time as necessary. Therefore, Staff assumes that this would not helpful be enough to justify the costs.

Request for stakeholder feedback

To create a focused input process, Staff requests that parties provide feedback on this proposal by emailing responses to the following questions directly to Staff or to the UM 1930 service list by April 22, 2020:

- Is the scope of services for the standard review valuable and likely to be utilized by CSP PMs? How could it be made more valuable?

It will depend on the experience and sophistication of the PM and complexity of the project. In general, the PM may not have a strong background in power systems and the review of the system by an entity with that experience will be beneficial.

- Should the standard services be modified to better align with interconnection processes and timelines? Staff's proposal is informed by PacifiCorp's Large Generator Interconnection Process—is there additional flexibility in the timelines for CSP generators (small generators) that should be considered?

Idaho Power believes this can occur within the existing processes and timelines.

- In dollars, how much can a PM contribute to a standard review? Does that amount vary based on the type of PM, such as a community-based organization or private developer?

Idaho Power is somewhat unclear on what this question is asking, the Company believes that the CSP developer or the PM regardless of type should pay 100 percent for the review services.

- Should non-community-based organizations pay less than 100 percent of the cost of the standard review? If so, why?

No, each project should pay for their own services required.

- Are the PM eligibility criteria reasonable? How can they be improved and why?

- Is there a way to allow projects in the standard interconnection queue to use these services that prevents non-CSP projects from diverting resources from CSP projects i.e., if standard queue projects were eligible, how could we keep non-CSP projects from gaming the eligibility criteria?

Any project developer has the right to hire third party reviews of the interconnection projects. If all projects retain their queue position, the longer review for CSP projects should not be impacted negatively.

- Are there any disadvantages to the PA Team subcontracting the third-party review services directly?

The PA Team might select a third-party review for an entity that is not qualified or who provides mis-leading direction to the PA Team and the Commission.

- Are the bidder evaluation criteria sufficient?

The licensed electrical engineer should be specifically licensed in the State of Oregon.

The experience should be specifically for reviewing or performing utility interconnection studies for small generator projects (<20MW)

Following stakeholder feedback, Staff will finalize a proposal for the Commission. Email feedback may be attached to the final proposal but not posted to the docket in advance. Staff proposes the following schedule to seek Commission approval:

Date	Activity
Draft proposal emailed to UM 1930	April 13, 2020
Stakeholder feedback emailed to UM 1930 parties	April 20, 2020
Final Staff recommendation memo	April 30, 2020
Final Staff recommendation at Public Meeting	May 5, 2020
Release RFP	May 11, 2020
Q&A period closes	May 18, 2020
Close RFP	June 1, 2020
Select winning bid	June 15, 2020
Finalize contract and launch services	July 1, 2020

Please direct questions to Jill Goatcher jill.goatcher@state.or.us, 971-209-0533 or Caroline Moore caroline.f.moore@state.or.us, 503-480-9427.



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**Solar Parties Comments on Draft Proposal for Interconnection Study Review Services
4-23-2020**

The Oregon Solar Energy Industries Association and Coalition for Community Solar Access (“Solar Parties”) submit these comments in response to the Oregon Public Utility Commission (Commission) Staff’s Draft Proposal for interconnection study review services in the community solar program (CSP).

The Solar Parties applaud and fully support Staff’s interest in creating this opportunity for CSP Project Managers (PMs). Further, the Solar Parties appreciate Staff’s recognition of the concerns raised by solar industry members and other stakeholders regarding utility interconnection practices and the associated need for greater transparency and objectivity. As Staff’s analysis suggests, the community solar program provides an ideal space to encourage and enable cost reductions for community solar projects, while also informing opportunities for interconnection policy improvements across renewable energy technology and market segments.

The following comments include the Solar Parties responses to the individual questions presented by Staff at the end of the Draft Proposal, in addition to more general and overarching recommendations for consideration. Please do not hesitate to contact us for additional feedback or clarifications.

For reference on terminology, in these comments we refer to the selected engineer as the “Reviewer” or “PA-selected Reviewer.”

General Comments – Recommendations for Consideration

In addition to providing specific responses to each of the questions outlined in Staff’s Draft Proposal further below, the Solar Parties offer two distinct recommendations for consideration in this program design. The first would provide for an opportunity to allow PM’s to bring in an outside engineer’s study/analysis for consideration by the PA-Selected Reviewer. The second suggests the potential expansion of the Reviewer’s services to carry beyond the interconnection study process, upon the PM’s request. These are discussed more below.

The ability for a PM to bring its own third-party engineer review. The Solar Parties are not interested in undermining Staff’s RFP or the intent of this proposed program. The PA-selected Reviewer(s) would undoubtedly still serve as the primary option utilized by PMs seeking assistance. However, allowing a PM to “shop” the market for a separate suitable technical review could be a preferred option by some

PMs. Further, the PA-selected Reviewer could still act as a mediator and/or screener of any third-party technical review analysis submitted via a PM's direct contract. For example, A PM could have the option of having its own licensed professional engineer (LPE) provide endorsed technical opinions regarding technical assumptions and appropriateness of interconnection upgrades. If a PM provided its own opinion from an LPE, then the PA's Reviewer could help mediate and validate different perspectives between the PM and utility. The PA-selected Reviewer could review any alternative findings or opinions, rather than conducting its own deeper analysis.

Under this option, the PM could still pay for any support or facilitation provided by the PA-selected Reviewer, but the PM would be wholly responsible for the costs associated with their own contracted third-party engineer and therefore waive the opportunity for leveraging cost sharing.

Allowing for Reviewer services to continue beyond the study process. The PA-Selected Reviewer(s) could potentially play an ongoing role, at the request of the PM, during the subsequent steps following the study process. For example, the Reviewer could help oversee and review the construction of the interconnection upgrades. This would help provide accountability and objectivity through the entire interconnection study process, from study to commissioning. The Solar Parties recognize this may have limitations based on the duration of the Reviewer's contract with the PA and alignment of project development schedules.

Responses to Requests for Stakeholder Feedback

The remainder of this document is focused on providing direct responses to each of the questions raised by Staff.

Is the scope of services for the standard review valuable and likely to be utilized by CSP PMs? How could it be made more valuable?

While the Solar Parties do support the proposed scope of services, there are a number of ways it could be improved and/or made more valuable, including the following:

- Standardized reports. In the "Report to the Commission", a template with very specific questions/fields to be completed should be prepared so that the Commission can compare apples-to-apples.
- Additional information access. The Reviewer should have authority to request as standard of practice, itemized bill of materials (BOMs) from the utilities to evaluate and determine what's behind utilities estimates.
- Utility cost information should be itemized and substantiated with official reference. For example, utility cost items should be noted if they are explicitly required by Oregon Administrative Rules (OAR), the utility's posted Interconnection Policy, required by the Federal Energy Regulatory Commission (FERC), and/or following recommendations of IEEE 1547-2018. The emphasis here would be on justifying all upgrades requested by the utility.

- Additional analyses. The RFP could include a request for the Reviewer to complete more global baseline analyses for PacifiCorp and PGE aimed at identifying core assumptions and establishing historical context. These could be standalone reports or built into the project-by-project reports.
 - The Reviewer should analyze the Minimum Daytime Load (MDL) calculations used by each utility. Given the important role MDL plays in the eligibility criteria for CSP queued projects, the methodology behind this data warrants close scrutiny. As it stands, the Solar Parties are aware of instances in both Pacific Power and PGE territories where calculations were produced through inconsistent manners or changed in ways that negatively impacted projects.
 - The Reviewer should reconcile the technologies and associated costs identified by utilities in previous studies for CSP-sized projects over the past 5-10 years. The Solar Parties believe this historical context could be informative to the Reviewer and Commission regarding cost and technology trends in Oregon that have diverged from national standards and averages. For example, historically, studies for small generators didn't require relay trip requirements, control buildings, and SCADA. Further, the cost of these and other key components have outpaced industry inflation.

Should the standard services be modified to better align with interconnection processes and timelines? Staff's proposal is informed by PacifiCorp's Large Generator Interconnection Process—is there additional flexibility in the timelines for CSP generators (small generators) that should be considered?

- Current proposed timing seems reasonable.

In dollars, how much can a PM contribute to a standard review? Does that amount vary based on the type of PM, such as a community-based organization or private developer?

This could vary due to a number of factors, including the type of PM. A larger private developer could likely withstand a higher price relative to a smaller private developer or community-based organization. However, the willingness to pay is also influenced by the level of confidence in the Reviewer's analysis and the resulting impact it may have on the overall project cost. The perceived benefit and potential for getting that benefit will weigh into the PM's decision for making this supplemental interconnection investment.

That said, the price points noted in Staff's Draft Proposal seem reasonable assuming the Reviewer is effective. A relatively consistent approach could be to base the cost on a \$/kW value, for example \$1-2/kWac depending on whether it is a standard review or enhanced review. Additional percentage discounts could be provided for smaller developers and community-based organizations. Alternatively, maybe the larger private PMs need to cover 75% of the total cost, whereas smaller private PMs and community-based organizations pay 50%.

In the case where a PM elects to utilize its own third-party engineer reviewer (as proposed in the General Comments section), the PM could cover the cost of its own engineer, and potentially also pay for the mediation support and screening services provided by the PA-selected Reviewer.

Should non-community-based organizations pay less than 100 percent of the cost of the standard review? If so, why?

Cost-sharing for non-community-based organizations is reasonable because the majority of projects will be led by non-community based organizations, and providing some incentive/support for their participation in the program will ensure economies of scale can be achieved with the Reviewer and a wealth of data obtained by the Program Administrator to inform policies going forward. Notably, these reviews will provide valuable information to all parties involved and can potentially bring down future costs of projects as we learn more about current interconnection study processes that utilities undertake.

Further, this is a potential doubling down on the initial interconnection costs for a PM, without knowing (i.e., lack of precedent) what if any benefits might be achieved. While benefits will never be guaranteed, at least initially the lack of experience with the process represents a higher unknown and therefore riskier investment. Enabling some level of cost sharing reduces the risk on “first movers” and helps incentivize interest.

Are the PM eligibility criteria reasonable? How can they be improved and why?

The PM eligibility criteria are reasonable, with the exception of recommendations made in the next section in support of the eligibility of standard interconnection queue projects pursuing, or already having achieved, pre-certification in the community solar program.

Is there a way to allow projects in the standard interconnection queue to use these services that prevents non-CSP projects from diverting resources from CSP projects i.e., if standard queue projects were eligible, how could we keep non-CSP projects from gaming the eligibility criteria?

The Solar Parties support an option for projects in the standard interconnection queue that are clearly pursuing pre-certification in the community solar program and/or are already pre-certified to be eligible for obtaining the Reviewer services. Currently, there are only a handful of projects that have been pre-certified that do not already have an interconnection agreement, and that vast majority of future program applications will be leveraging projects from the CSP interconnection queue. Therefore, the cost and resource impact of the traditional queued projects would be extremely limited, while at the same time potentially providing useful insights for the program and enabling improved project economics.

Are there any disadvantages to the PA Team subcontracting the third-party review services directly?

The only potential disadvantage could be if the efficiency of the Reviewer’s work is adversely affected by the depth of knowledge and expertise of the PA team members involved in the process. That said, the Solar Parties have confidence in the PA team’s ability to manage this aspect of the program and work effectively with the Reviewer.

Are the bidder evaluation criteria sufficient?

The Solar Parties offer the following additional (or edited) recommendations for the bidder evaluation criteria:

- Successful bidders should have cost data of equipment, clout and history to successfully oppose analyze utilities cost assumptions and scrutinize if necessary. Similarly, the bidders should expand on how they have costing data for the utility interconnection equipment to leverage in evaluations. Ideally, they should have market specific historical cost knowledge (as referenced in our “Additional analyses” response to the first question above).
- Successful bidders should not have conflicts of interests. For example, they are especially not working with these utilities, and potentially other utilities. If the bidder does or has done work with utilities, there should be explicit assurance of there being no potential conflict of interest under the CSP program arrangement. Additionally, it’s worth noting that Oregon’s existing engineering rules direct engineers to avoid potential conflicts of interest as further noted below¹. The Solar Parties recommend that the PUC consider Oregon’s existing engineering rules in developing the requirements for the PA-Selected Reviewer.
- All third-party technical reviews done for a PM should include an endorsement by the presiding Licensed Professional Engineer (LPE).
 - The State’s existing engineering rules prescribe this and it will provide the PM’s/Projects the necessary assurance that work done by the third-party is impartial and aligns with the technical and professional standards required by Oregon’s existing engineering laws and rules in ORS 672 and OAR 820.
 - ORS 672.020(2) and OAR 820-025-0015 state that all final review documents “bear the seal and signature of the registrant under whose supervision and control they were prepared”. This requirement helps implement the standards, forces individuals to accept responsibility for their work, and ensure individuals are acting in a manner consistent with the rules of professional conduct given in OAR 820-020 and the Code of Ethics of the National Society of Professional Engineers. NSPE Code of Ethics for Engineers, Preamble to Code of Ethics, available at <https://www.nspe.org/resources/ethics/code-ethics>
 - The Rules of Professional Conduct given in OAR 820-020 include provisions for engineers to conform to all accepted industry standards, perform services only in their area of competence, issue statements in an objective and truthful manner, act as faithful agents and trustees of their employer/client, avoid conflicts of interest, and avoiding unprofessional behavior among others.
 - Per ORS 672.020(2), final documents includes: drawings, specifications, designs, reports, narratives, maps, and plans. Per OAR 820-025-0015, final documents also include any documents submitted to a client, customer, public entity, or any other person.
- The Solar Parties recommend editing the point scheme in the “Evaluation Criteria” section to target more emphasis on the “proposed standard review and report contents” as that will be the primary product produced by the Reviewer and have the greatest implications for the project and program. For example, the points could be edited as follows:

¹ <https://secure.sos.state.or.us/oard/viewSingleRule.action?ruleVrsnRsn=201287>

- 50 points for price,
- 25 points for experience, and
- 25 points for the proposed standard review and report contents
- In the “Minimum qualifications” section, it could be clarified what “to perform” a study means. Different parties may have different understandings.

The Solar Parties look forward to further discussion on this topic.

Respectfully submitted,

/s/ Charlie Coggeshall
Policy Advisor for OSEIA and CCSA
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Caroline Moore caroline.f.moore@state.or.us,
Oregon Public Utility Commission
RE: UM 1930 Stakeholder Review of CSP,RFP

Ms. Moore,

Thank you for providing us with the opportunity to review and provide comment on the Draft proposed request for proposal for Interconnection Study Review Services. Following up on our previously submitted comments on this docket, we view the draft RFP as a meaningful step toward improving market efficiency in Oregon while ensuring that existing policies are implemented in a reasonable, transparent manner that is protective of public safety through the community solar implementation process.

The Professional Engineers of Oregon (PEO) is Oregon's professional association providing leadership in all engineering disciplines. We promote the professional engineer as a recognized voice in society through legislative advocacy, public education and adherence to engineering principles and standards.

On behalf of the Professional Engineers of Oregon, I am submitting this to document our support for your continued understanding that Oregon's rules for the practice of engineering given in ORS Chapter 672 and OAR Chapter 820 are relevant and applicable to all activities associated with the interconnection, operation and transmission of qualifying facilities.

Further, we believe that the interests of timeliness and cost effectiveness while retaining protection of the public welfare are represented in the draft as presented for the Community Solar program to provide their own interconnection studies as developed by an appropriately licensed engineer.

We appreciate your responsiveness to our request for this action and look forward to working with you on other matters of mutual relevance.

Sincerely,

David Etchart, PE

President, PEO State
Board