

Tariff, Part IX, Subpart G
Necessary ~~Studies~~ Study Agreement

Service Agreement No. []

(Project Identifier # [])

NECESSARY STUDIES AGREEMENT

By And Among

PJM INTERCONNECTION, L.L.C.

And

[]

Necessary Studies Agreement
By and Among
PJM Interconnection, L.L.C.
and

(Project Identifier #)

RECITALS

1. This Necessary Studies Agreement (“Agreement”) entered into by and between (Customer) (“Project Developer”) and PJM Interconnection, L.L.C. (“PJM” or “Transmission Provider”) (individually, a “Party” and together, the “Parties”) is effective as of the date this Agreement is fully executed by the Parties (“Effective Date”). Capitalized terms used in this Agreement, unless otherwise indicated, shall have the meanings ascribed to them in the PJM Open Access Transmission Tariff (“Tariff”), or Amended and Restated Operating Agreement of PJM Interconnection, L.L.C. (“Operating Agreement”). For purposes of the Agreement, the terms “Generation Interconnection Procedures” or “GIP” will refer to the interconnection procedures set forth in {Instructions: use Tariff, Part VII if this is a transition period agreement, use Part VIII if this is a new rules period agreement}.
2. Consistent with Tariff, Attachment O Part IX, Appendix 2, section 3 Subpart B, and pursuant to that certain {Generation Interconnection Service Agreement} Wholesale Market Participation Agreement related to PJM Queue Position # {Project Identifier #} , designated as [Original, First Revised, etc.] Service Agreement No. , with an effective date of [Date] [and filed with the Federal Energy Regulatory Commission (“FERC”) in Docket No.] [which was a conforming agreement reported to the Federal Energy Regulatory Commission (“FERC”) in PJM’s Electric Quarterly Reports] (the “Service Agreement”), Customer-Project Developer has notified Transmission Provider that it plans to undertake modifications to its generating facility Generating Facility or Merchant Transmission Facility located at that, upon completion, reasonably may have a material impact on the Transmission System (“Planned Modifications”).

{or}
3. Subject to sections 5 through 15 of this Agreement, Customer-Project Developer shall provide sufficient information regarding the Planned Modifications, including but not limited to the information enumerated in Tariff, Attachment O, Appendix 2, section 3 relevant data, drawings, models, plans, and specifications, to enable Transmission Provider to evaluate the impact of the Planned Modifications, if any, on the Transmission System of the Planned Modifications. The Planned Modifications consist of

[REDACTED] Attachment 1 to this Agreement contains a detailed description of the Planned Modifications.

4. ~~Customer-Project Developer~~ represents and warrants that the information provided in section 3 of this Agreement is accurate and complete as of the Effective Date.
5. The obligation(s) of Transmission Provider are conditioned on receipt from ~~Customer-Project Developer~~ of all required information regarding the Planned Modifications within 30 days of the Effective Date. ~~Customer-Project Developer~~ is obligated to update the data following any requests from PJM. If ~~Customer-Project Developer~~ does not provide all required information regarding the Planned Modifications within 30 days of the Effective Date, this Agreement shall be null and void and any and all obligations on the part of Transmission Provider shall cease.

PURPOSE OF THE NECESSARY STUDIES UNDER THIS AGREEMENT

6. Consistent with ~~Tariff, Attachment O Part IX, Subpart B~~, Appendix 2, section 3-, and the Service Agreement, Transmission Provider agrees to conduct the necessary studies to determine whether the Planned Modifications will have a permanent material impact on the Transmission System and to identify the additions, modifications, or replacements to the Transmission System, if any, that are necessary, in accordance with Good Utility Practice and/or to maintain compliance with Applicable Laws and Regulations or Applicable Standards, to accommodate the Planned Modifications (“Necessary Studies”). The Necessary Studies are expected to include, but are not limited to, [REDACTED] a [REDACTED]. Upon completion of the Necessary Studies, Transmission Provider shall provide ~~Customer-Project Developer~~ with preliminary determinations of: (i) the type and scope of the permanent material impact, if any, the Planned Modifications will have on the Transmission System; (ii) the additions, modifications, or replacements to the Transmission System required to accommodate the Planned Modifications; and (iii) a good faith estimate of the cost of the additions, modifications, or replacements to the Transmission System required to accommodate the Planned Modifications. In the event that Transmission Provider is unable to complete the Necessary Studies within two hundred and seventy (270 days of PJM’s-) days of the date the Transmission Provider approves the dynamic model and data submitted by the Project Developer and Transmission Provider’s receipt of the information required under section 3 of this Agreement, Transmission Provider shall notify ~~Customer-Project Developer~~ and explain the reasons for the delay.

CONFIDENTIALITY

7. Subject to section 8 below, information provided pursuant to this Agreement that is Confidential Information as defined by the Tariff, and to the extent consistent with PJM's confidentiality obligations in Operating Agreement, section 18.17, shall be and remain confidential. To the extent Transmission Provider contracts with consultants or with one or more Transmission Owner(s) for services or expertise in the preparation of the

Necessary Studies, the consultants and/or Transmission Owner(s) shall keep all information provided by ~~Customer-Project Developer~~ confidential and shall use such information solely for the purpose of the study for which it was provided and for no other purpose.

8. ~~Customer-Project Developer~~ acknowledges that, consistent with ~~Tariff~~GIP, Part ~~V~~~~section [to be provided]~~, Transmission Provider may contract with consultants, including Transmission Owner(s), to provide services or expertise in the study process and that Transmission Provider may disseminate information to Transmission Owner(s).
9. During the longer of the terms of this Agreement or the Service Agreement, and for a period of three (3) years after the expiration or termination thereof, and except as otherwise provided herein, each Party shall hold in confidence, and shall not disclose to any person, Confidential Information provided to it by the other Party.
10. Confidential Information shall not include information that the receiving Party can demonstrate: (i) is generally available to the public other than as a result of a disclosure by the receiving Party; (ii) was in the lawful possession of the receiving Party on a non-confidential basis before receiving it from the disclosing Party; (iii) was supplied to the receiving Party without restriction by a third party, who, to the knowledge of the receiving Party, after due inquiry, was under no obligation to the disclosing Party to keep such information confidential; (iv) was independently developed by the receiving Party without reference to Confidential Information of the disclosing Party; (v) is, or becomes, publicly known, through no wrongful act or omission of the receiving Party or breach of the requirements of this Agreement, the Tariff, or the Operating Agreement; or (vi) is required, in accordance with this Agreement, to be disclosed to any Governmental Authority or is otherwise required to be disclosed by law or subpoena, or is necessary in any legal proceeding establishing rights and obligations under this Agreement. Information designated as Confidential Information shall no longer be deemed confidential if the Party that designated the information as confidential notifies the other Party that it no longer is confidential.
11. Each Party retains all rights, title, and interest in the Confidential Information that it discloses to the other Party. A Party's disclosure to the other Party of Confidential Information ~~to the other Party~~ shall not be deemed a waiver by the disclosing Party or any other person or entity of the right to protect the Confidential Information from public disclosure.
12. By providing Confidential Information, no Party makes any warranties or representations as to its accuracy or completeness. In addition, by supplying Confidential Information, no Party obligates itself to provide any particular information or Confidential Information to the other Party nor to enter into any further agreements or proceed with any other relationship or joint venture.
13. Each Party shall use at least the same standard of care to protect Confidential Information it receives as the Party uses to protect its own Confidential Information from

unauthorized disclosure, publication, or dissemination. Each Party may use Confidential Information solely to fulfill its obligations to the other Party under this Agreement or the Tariff.

14. If a Governmental Authority with the right, power, and apparent authority to do so requests or requires a Party, by subpoena, oral deposition, interrogatories, requests for production of documents, administrative order, or otherwise, to disclose Confidential Information, that Party shall provide the Party that provided the information with prompt prior notice of such request(s) or requirement(s) so that the providing Party may seek an appropriate protective order or waive compliance with the terms of ~~Tariff, Part VI the [GIP]~~ or any applicable agreement entered into pursuant to ~~Tariff, Part VI the [GIP]~~. Notwithstanding the absence of a protective order or agreement, or waiver, the Party that is subjected to the request or order may disclose such Confidential Information that, in the opinion of its counsel, the Party is legally compelled to disclose. Each Party shall use reasonable efforts to obtain reliable assurance that confidential treatment will be accorded any Confidential Information so furnished.
15. Notwithstanding anything in this Agreement to the contrary, and pursuant to 18 C.F.R. § 1b.20, if ~~the~~ FERC or its staff, during the course of an investigation or otherwise, requests information from a Party that is otherwise required to be maintained in confidence pursuant to this Agreement or the Service Agreement, the Party receiving such request shall provide the requested information to FERC or its staff, within the time provided for in the request for information.

In providing the information to FERC or its staff, the Party must, consistent with 18 C.F.R. § 388.112, request that the information be treated as confidential and non-public by FERC and its staff and that the information be withheld from public disclosure. The providing Party is prohibited from notifying the other Party prior to the release of the Confidential Information to ~~FERC the Commission~~ or its staff. The providing Party shall notify the other Party when it is notified by FERC or its staff that a request to release Confidential Information has been received by FERC, at which time either of the Parties may respond before such information would be made public, pursuant to 18 C.F.R. § 388.112.

COST RESPONSIBILITY

16. ~~Consistent with Tariff, Attachment O, Appendix 2, section 3, Customer~~ Project Developer shall provide to Transmission Provider, as of the Effective Date, an initial deposit of \$25,000 for the performance of the Necessary Studies. Transmission Provider's good faith estimate for the time of completion of the Necessary Studies is within two-hundred and seventy (270 days of PJM's) days of the date the Transmission Provider approves the dynamic model and data submitted by the Project Developer, and Transmission Provider's receipt of the information required under section 3 of this ~~Agreement~~ agreement.

- a. If Customer-Project Developer fails to submit an initial deposit of \$25,000 for the performance of the Necessary Studies, this Agreement shall be deemed to be terminated and withdrawn effective as of the end of the next Business Day after the date by which the initial deposit was due to be paid to Transmission Provider.
- b. If any additional study costs beyond the initial deposit of \$25,000 are ~~expected~~anticipated, then, prior to conducting any of the Necessary Studies, Transmission Provider shall provide an estimate of the additional study costs. The estimated additional study costs are non-binding, and additional actual study costs may exceed the estimated additional study cost increases provided by Transmission Provider. Regardless of whether Transmission Provider provides Customer-Project Developer with estimated additional ~~study costs~~studies, Customer-Project Developer is responsible for and must pay all actual study costs.
 - i. If Transmission Provider sends notification to Customer-Project Developer of estimated additional study costs, then Customer-Project Developer must either:
 - (a) Withdraw the request for the Necessary Studies; or
 - ~~(b)~~ (b) Pay all estimated additional study costs within ten (10) days of such estimate being sent to Customer-Project Developer by Transmission Provider.
 - ii. If Customer-Project Developer fails to complete either 16(b)(i)(a) or 16(b)(i)(b), above, this Agreement shall be deemed to be terminated and withdrawn effective as of the end of the next Business Day after the date by which the additional study costs were due to be paid to Transmission Provider.
- c. Within one hundred and twenty (120) days after Transmission Provider completes and delivers the Necessary Studies, Transmission Provider shall provide a final invoice that will include an accounting of the actual costs incurred in performing the Necessary Studies (“Final Invoice”). Within twenty (20) days of receiving the Final Invoice, Customer-Project Developer shall make any payment due to Transmission Provider. If Customer-Project Developer withdraws its Necessary Studies request and terminates this Agreement prior to the completion of the Necessary Studies or analysis work, Customer-Project Developer agrees to pay Transmission Provider actual costs of the modeling, studies, or analysis performed up until the time of such request to withdraw and terminate.

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DISCLAIMER OF WARRANTY, LIMITATION OF LIABILITY

- 17. In analyzing and preparing the Necessary Studies, Transmission Provider, Transmission Owner(s), and any other subcontractors employed by Transmission Provider shall have to rely on information provided by Customer-Project Developer and possibly by third parties and may not have control over the accuracy of such information. Accordingly,

NEITHER TRANSMISSION PROVIDER, TRANSMISSION OWNER(S), NOR ANY OTHER SUBCONTRACTORS EMPLOYED BY TRANSMISSION PROVIDER MAKES ANY WARRANTIES, EXPRESS OR IMPLIED, WHETHER ARISING BY OPERATION OF LAW, COURSE OF PERFORMANCE OR DEALING, CUSTOM, USAGE IN THE TRADE OR PROFESSION, OR OTHERWISE, INCLUDING WITHOUT LIMITATION IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, WITH REGARD TO THE ACCURACY, CONTENT, OR CONCLUSIONS OF THE NECESSARY STUDIES. Customer-Project Developer acknowledges that it has not relied on any representations or warranties not specifically set forth herein and that no such representations or warranties have formed the basis of its bargain hereunder. Neither this Agreement nor the Necessary Studies performed hereunder are intended, nor shall either be interpreted, to constitute agreement by Transmission Provider or Transmission Owner(s) to provide any transmission or interconnection service to or on behalf of Customer-Project Developer either at this point in time or in the future.

18. In no event will Transmission Provider, Transmission Owner(s), or other subcontractors employed by Transmission Provider be liable for indirect, special, incidental, punitive, or consequential damages of any kind including loss of profits, whether under this Agreement or otherwise, even if Transmission Provider, Transmission Owner(s), or other subcontractors employed by Transmission Provider have been advised of the possibility of such a loss. Nor shall Transmission Provider, Transmission Owner(s), or other subcontractors employed by Transmission Provider be liable for any delay in delivery of, or of the non-performance or delay in performance of, Transmission Provider's obligations under this Agreement. Without limitation of the foregoing, Customer-Project Developer further agrees that Transmission Owner(s) and other subcontractors employed by Transmission Provider to prepare or assist in the preparation of any Necessary Studies shall be deemed third party beneficiaries of this provision entitled "Disclaimer of Warranty/Limitation of Liability."

MISCELLANEOUS

19. Any notice, demand, or request required or permitted to be given by any Party to another and any instrument required or permitted to be tendered or delivered by any Party in writing to another may be so given, tendered, or delivered electronically, or by recognized national courier or by depositing the same with the United States Postal Service, with postage prepaid for delivery by certified or registered mail addressed to the Party, or by personal delivery to the Party, at the address specified below. ~~Such notices, if agreed to by the Parties, may be made via electronic means, with e-mail confirmation of delivery.~~

Transmission Provider

PJM Interconnection, L.L.C.
2750 Monroe Blvd.
Audubon, PA 19403-2497

Customer

[Redacted]

interconnectionagreementnotices@pjm.com

Project Developer

[Redacted]

Attn:

Phone

Email

20. No waiver by either Party of one or more defaults by the other in performance of any of the provisions of this Agreement shall operate or be construed as a waiver of any other or further default or defaults, whether of a like or different character.
21. This Agreement, or any part thereof, may not be amended, modified, or waived other than by a writing signed by all Parties. In the event a Party seeks to amend, modify or supplement this Agreement. In the event an amendment is desired, Transmission Provider, consistent with Tariff, Part IX, section 1, shall tender a revised agreement to Project Developer. No later than fifteen (15) Business Days after Transmission Provider's tender for execution of such agreement, Project Developer shall either: (i) execute the agreement or (ii) request in writing dispute resolution as allowed under Tariff, Part I, section 12 or, if concerning the Regional Transmission Expansion Plan, consistent with Operating Agreement, Schedule 5, or request that a consent to assignment agreement be filed unexecuted with the Commission. Such agreement shall be deemed be terminated and withdrawn if Project Developer fails to comply with these requirements. Following execution by Project Developer, Transmission Provider shall either: (i) execute the agreement; or (ii) request in writing dispute resolution as allowed under Tariff, Part I, section 12 or, if concerning the Regional Transmission Expansion Plan, consistent with Operating Agreement, Schedule 5. Transmission Provider may also file the agreement with FERC in unexecuted form if Project Developer does not comply with the requirements above.

Parties acknowledge that, subsequent to execution of this agreement, errors may be corrected by replacing the page of the agreement containing the error with a corrected page, as agreed to and signed by the parties without modifying or altering the original date of execution or obligations contained therein.

22 Breach, Cure And Default

- ~~22. This Agreement shall be binding upon the Parties, their heirs, executors, administrators, successors, and assigns.~~

- ~~23. Neither this Agreement nor the Necessary Studies performed hereunder shall be construed as an application for any service under Tariff, Parts II, III, IV, or VI.~~
- ~~24. All portions of the Tariff and Operating Agreement pertinent to the subject matter of this Agreement and not otherwise made a part hereof are hereby incorporated herein and made a part hereof.~~
- ~~25. Unless otherwise defined in this Agreement, all capitalized terms herein shall have the meanings as set forth in the definitions of such terms as stated in the PJM Tariff.~~

26.22.1 Breach:

- ~~a. A breach-Breach of this Agreement shall include:~~
- ~~i. _____ (a) The failure to pay any amount when due;~~
- ~~ii. _____ (b) The failure to comply with any material term or condition of this Agreement ~~or the Tariff~~, including but not limited to any material breach of a representation, warranty, ~~or covenant made in this Agreement~~;~~
- ~~iii. _____ (c) Assignment of ~~this the~~ Agreement in a manner inconsistent with ~~the its~~ terms ~~of this Agreement~~; or~~
- ~~iv. _____ (d) Failure of ~~Customer a Party~~ to provide information or data required to be ~~provided pursuant to this Agreement in order for Transmission Provider to perform the modeling, studies, or analysis associated with determined under to another Party for such other Party to satisfy its obligations under~~ this Agreement.~~

22.2 Notice of Breach:

- ~~b. A non-breaching A Party not in Breach shall give written notice of an event of breach Breach to the breaching Party Breaching Party, to Transmission Provider and to other persons that the Breaching Party identifies in writing to the other Party in advance. Such notice shall set forth, in reasonable detail, the nature of the breach Breach, and where known and applicable, the steps necessary to cure such breach-Breach. In the event of a Breach by Project Developer, Transmission Provider agrees to provide notice of such Breach and in the same manner as its notice to Project Developer, to any Project Finance Entity provided that the Project Developer has provided the notifying Party with notice of an assignment to such Project Finance Entity(ies) and identifies such Project Finance Entity(ies).~~

22.3 Cure and Default:

A Party that commits a Breach and does not take steps to cure the Breach pursuant to this section 22.3 is automatically in Default of this Agreement, and its project and this Agreement shall be deemed terminated and withdrawn. Transmission Provider shall take all necessary steps to effectuate this termination, including submitted the necessary filings with FERC.

22.4.1 Cure of Breach:

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22.41.1 Except for the event of Breach set forth in section 22.1(a) above, the Breaching Party (a) may cure the Breach within thirty (30) days of the time the Non-Breaching Party sends such notice; or (b) if the Breach cannot be cured within thirty (30) days, may commence in good faith all steps that are reasonable and appropriate to cure the Breach within such thirty (30) day time period and thereafter diligently pursue such action to completion pursuant to a plan to cure, which shall be developed and agreed to in writing by the Parties. Such agreement shall not be unreasonably withheld.

22.4.1.2 In an event of Breach set forth in section 22.1(a), the Breaching Party shall cure the Breach within five (5) days from the receipt of notice of the Breach. If the Breaching Party is the Project Developer, and the Project Developer fails to pay an amount due within five (5) days from the receipt of notice of the Breach, Transmission Provider may use Security to cure such Breach. If Transmission Provider uses Security to cure such Breach, Project Developer shall be in automatic Default and its project and this Agreement shall be deemed terminated and withdrawn.

22.5 Right to Compel Performance:

Notwithstanding the foregoing, upon the occurrence of a Default, a non-Defaulting Party shall be entitled to exercise such other rights and remedies as it may have in equity or at law. No remedy conferred by any provision of this Agreement is intended to be exclusive of any other remedy and each and every remedy shall be cumulative and shall be in addition to every other remedy given hereunder or now or hereafter existing at law or in equity or by statute or otherwise. The election of any one or more remedies shall not constitute a waiver of the right to pursue other available remedies

23. This Agreement shall be binding upon the Parties, their heirs, executors, administrators, successors, and assigns.

24. Neither this Agreement nor the Necessary Studies performed hereunder shall be construed as an application for any service under the Tariff.

25. All portions of the Tariff and Operating Agreement pertinent to the subject matter of this Agreement and not otherwise made a part hereof are hereby incorporated herein and made a part hereof.

25. Unless otherwise defined in this Agreement, all capitalized terms herein shall have the meanings as set forth in the definitions of such terms as stated in the PJM Tariff.

i.

~~e. Cure of breach or termination pursuant to breach:~~

~~i. The breaching Party may cure the breach within thirty (30) days from the receipt of such notice of breach.~~

- ii. ~~If the breach cannot be cured within thirty (30) days from receipt of such notice of breach, then within thirty (30) days from receipt of such notice of breach, the breaching Party and the non-breaching Party may agree in writing to a detailed plan that it is reasonable and appropriate for the breaching Party to execute in order to cure the breach. If the breaching Party and the non-breaching Party do agree in writing to a detailed plan that it is reasonable and appropriate for the breaching Party to pursue in order to cure the breach, the breaching Party shall diligently pursue such detailed plan to completion. If the breaching Party does not diligently pursue such detailed plan to completion, the non-breaching Party may terminate this Agreement.~~
- iii. ~~A non-breaching Party may terminate this Agreement if a Party that commits a breach does not cure such breach within thirty (30) days from the receipt of a breach notice or take steps to cure such breach as set forth in section 25(c)(ii) above.~~

2726. In addition to Section 26 section 22 above, this Agreement may be terminated by the following means:

- a. By Mutual Consent: This Agreement may be terminated as of the date on which the Parties mutually agree to terminate this Agreement.
- b. By ~~CustomerProject Developer~~: Customer-Project Developer may unilaterally terminate this Agreement in accordance with the terms set forth in section 16(b)(i)(a) of this Agreement or pursuant to Applicable Laws and Regulations upon providing Transmission Provider thirty (30) days prior written notice thereof, provided that Customer-Project Developer is not in breach under this Agreement.
- c. By Transmission Provider: Transmission Provider may unilaterally terminate this Agreement in accordance with Applicable Laws and Regulations upon providing Customer-Project Developer thirty (30) days prior written notice thereof.

28278. No waiver by either Party of one or more breaches by the other in performance of any of the provisions of this Agreement shall operate or be construed as a waiver of any other or further breach, whether of a like or different character.

2928. This Agreement or any part thereof may not be amended, modified, or waived other than by a writing signed by all Parties hereto.

3029. This Agreement shall be binding upon the Parties hereto, their heirs, executors, administrators, successors, and assigns.

3430. The provisions of ~~Tariff, Part IV the GIP~~ are incorporated herein and made a part hereof.

3231. Governing Law, Regulatory Authority, and Rules: ~~The validity~~This Agreement shall be deemed a contract made under, and the interpretation, and enforcement performance of this Agreement and each of its provisions shall be governed by the and construed in accordance with, the applicable Federal and/or laws of the State of Delaware without

regard to ~~conflict of law principles~~conflicts of laws provisions that would apply the laws of another jurisdiction. This Agreement is subject to all Applicable Laws and Regulations. Each Party expressly reserves the right to seek changes in, appeal, or otherwise contest any laws, orders, or regulations of a Governmental Authority.

IN WITNESS WHEREOF, the Parties have caused this Agreement to be executed by their respective authorized officials. By each individual signing below each represents to the other that they are duly authorized to sign on behalf of that company and have actual and/or apparent authority to bind the respective company to this Agreement.

Transmission Provider:

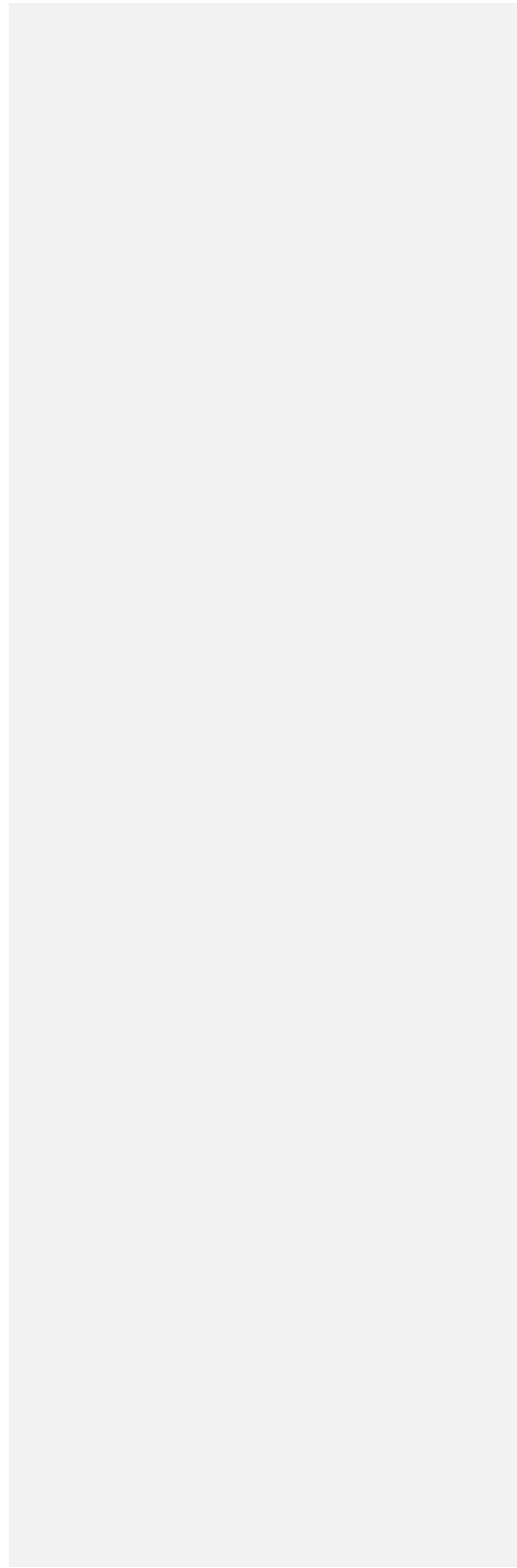
By: _____
Name Title Date

Printed name of signer: _____

CustomerProject Developer:

By: _____
Name Title Date

Printed name of signer: _____



ATTACHMENT #1

| Describe **Planned Modifications** work to be done.

