Appendix B

Appendix B:
Technical Proposal Requirements

PROGRAM DESIGN AND PLAN FOR IMPLEMENTATION

Program functions can be grouped into four categories. Only bids which provide complete responses to each of these program functions as described in these technical requirements will be evaluated for cost effectiveness and potential contracting.

1. Program Design and Overall Management
2. Program Administration
3. Equipment Installation and O&M
4. Connectivity, Control, and Integration

For each of the program function categories, the following sections specify what the Company is seeking in DR program responses to show how the proposed program will meet these expectations. Only responses that satisfactorily address how each expectation will be met will move forward as a Conforming Bid in the bid evaluation and scoring process.

1. Program Design and Overall Management

Company expectations:

The Program Design and Overall Management function is where the overall vision and accountability for program performance lies. The Company is looking for a response that defines pragmatic, achievable results for the customer type, service territory, and given technology, grounded in vendor experience in design and successful delivery of similar programs.

The Company is looking for responses that demonstrate

- Program design that balances the customer's perspective and needs with Company need for reliable firm resources
- Efficient customer targeting and marketing strategy
- Vision in maintaining relevance and adaptability from customer and Company standpoint
- Attention to details as evidenced by QA and QC plans, staffing and subcontracting plans to efficiently integrate all aspects of program implementation.

Business Function	PAC	Vendor
Definition and Delivery of Program Parameters	Review and coordinate / fine tune to system needs	Overall design and ensures delivery to that design
Initiation of Load Control Events	Full control over event initiation	
Provision of Technology Products and Services		Delivers and is accountable
Plan for Identification and targeting of participants	Review and coordinate, providing information where needed	Delivers and is accountable
Marketing and Outreach Plan Development	Review and coordinate	Deliver and is accountable

Business Function	PAC	Vendor
EM&V	Contracts with independent third party for evaluation of program	Supports as necessary
Coordination with Energy Efficiency Programs	Accountable and coordinates	Integrates into design and implementation

Response Requirements:

Bidders should provide a high-level overview of each proposed program. This should be a concise summary of the proposed program, highlighting unique elements of the program including the strategy to scale the program to a minimum of 2 MW within 3 years and continued growth plan through year 10. In addition, Primary bidder should provide evidence of 5 years of experience in designing and delivering programs similar to what is being proposed including evaluation results or other recommendations.

Bidders should describe the capability of the proposed program, including:

A. Identification and Targeting of Participants – Strategy to Achieve Demand Reduction
   i. Location of program within PacifiCorp's service territory
   ii. Bidder should describe their participant assessment plan, including how a customer can provide demand reductions and any assumptions regarding customer requirements for participation (e.g. onsite wi-fi).
   iii. Customer sector and customer type that is targeted
      a. Residential (single family, manufactured home)
      b. Multifamily
      c. Small Business
      d. Commercial
      e. Industrial/Manufacturing
      f. Irrigation
   iv. Customer end use and equipment to be controlled
   v. Non-energy impacts of proposed program to participants, society, and the utility system
   vi. Description of design elements for equitable customer access to programs and / or community benefits, examples include:
      a. Customer outreach and incentive design includes emphasis on equitable access (examples include multi- lingual capability and tailored incentives)
      b. Community benefits in design such as critical facility focus and community resilience values
      c. Local economic development – Program design incorporates partnering with local businesses

B. Marketing and Outreach Plan
   i. Development and creation of targeted marketing materials
   ii. Customer recruitment and intake strategy
   iii. Recruitment plan for customers and Trade Allies, if applicable

C. Financial Incentives
   i. Describe if and how customers will receive any financial incentives. Describe one-time incentives and reoccurring incentives.
   ii. Provide supporting methodology for incentive plan described.

D. Program Performance Forecast (kW)
   i. Description of customer baseline and any underlying assumptions employed to develop the proposed program performance forecast.
   ii. By State(s)
   iii. By Customer type
   iv. Complete Appendix B, Pricing and Performance Characteristics, Tabs 1 and 2 separately for each program proposed and state, if applicable
   v. Describe resource connectivity assumptions and service/maintenance costs to improve that availability if less than 95% (i.e. average program kW connectivity percentage)

E. Load Curtailment – Overall Process
   Describe the approaches, processes, and equipment to be used to execute load curtailment at customer facilities. Discuss the anticipated actions required of customers (may vary by customer), and any automated load response that may be employed.

F. Energy Efficiency
   Describe if and how the proposed program can help customers realize energy savings (kWh) as well as an estimate of that energy savings. For programs in Oregon, describe how the program will efficiently coordinate with Energy Trust offerings and trade ally network, if applicable.

G. Technology
   If the proposed program includes a web portal or smart phone app, describe and provide graphics (screen captures or other appropriate) illustrating what a customer would see, and what they would do to respond to events, set up their device preferences, and monitor energy usage.

H. Quality Assurance and Quality Control (QA/QC)
   Describe the QA/QC activities that will be part of program delivery.

I. Staffing Plan
   i. Describe how these tasks will be resourced including number of FTE, experience and location of staff and subcontractor plans to achieve program success
   ii. Describe diversity in staffing and subcontracting plan

J. Additional Items
   i. Coordination with the Company's independent Evaluation, Measurement and Verification (EM&V) vendor.
   ii. Ability to assist Company with regulatory commission data requests and explanations related to the program.

K. Additional Services
   The Company values additional products/services that can be bundled with the program and monetized to bring additional value. To that extent, specify the types of products/services which could be bundled with the proposed program.

L. **OPTIONAL – Response to Non Price Scoring Elements (Appendix B, Tab 3)**

Category 1: Diversity in staffing and supplier workforce (10 points)

- Provision of antidiscrimination policy **plus** provision of EEO-1, or if not a large enough business for EEO-1, actual quantities of diversity of staff by general categories, and
- Demonstrate how >15% of total proposed contract is for certified Minority and Women owned business, as subcontractor or primary

Category 2: Describe how the proposal meets one or more of the following three areas of equitable customer and community benefits with past examples of experiences in achieving these design aspects (up to 10 points for one or more of the following)

- Customer outreach and incentive design includes emphasis on equitable access (examples include multi- lingual capability and tailored incentives) for >20% forecasted participants
- Community benefits in design such as critical facility focus and community resilience values, >20% program impacts (kW) design
- Local economic development – Program design incorporates partnering with local businesses for >50 % of delivery or equipment costs

2. Program Administration

Company expectations:

High customer satisfaction is the Company's expectation for any program we offer. The way in which the program is administered plays a central role in this desired outcome. The Company is looking for a response that prioritizes customer service and strives to minimize customer transaction cost through efficient enrollment and incentive processing with targeted delivery of marketing materials that focus on the customer business case.

The Company is looking for responses that demonstrate

- Vendor ownership of customer recruiting and enrollment with Company review and support
- Efficient customer targeting and marketing strategy
- Vision in maintaining relevance and adaptability from customer and Company standpoint
- Attention to details as evidenced by QA and QC plans, staffing and subcontracting plans to efficiently integrate all aspects of program implementation.

Key Business Function	PAC	Vendor
Customer intake, care and delivery	Review of design and support with customer data	Designs and implements
Development of Marketing Materials	Review and sign off	Develop, create and distribute
Customer Services & Satisfaction	Review and support	Provides these services

Key Business Function	PAC	Vendor
Data Support and Performance Analyses	Review and support	Full reporting, tracking, estimating of savings, provision of sufficient sample size results
Billing and Settlement	Review and support	Incentive processing, Conduct measurement and verification for estimation of load impacts (method to be agreed upon mutually with PacifiCorp).

Response Requirements:
The administrative activities below are expected by the Company at a minimum. Bidders should include a description of how they will achieve these activities.

A. Customer intake, care and program delivery

i. Customer verification and eligibility, at intake and ongoing
   a. The Company will be responsible for providing customer data including at least monthly updates via a secure file transfer or other means from its billing system for eligible customers and responding to any requests to confirm customer eligibility.

ii. Implementation of customer Outreach and Marketing plan
   a. Creation and posting of marketing materials
   b. Coordination with energy efficiency marketing

iii. Customer service components such as:
   a. Toll-free number
   b. Customer correspondences and complaints procedure
   c. Customer experience reporting

iv. Trade Ally recruitment and management (if applicable)

v. Discuss coordination plan with Company staff, including key account managers.

vi. Incentive processing

vii. Quality Assurance/Quality Control (QA/QC) review

B. Data, Reporting, and Communications

i. Describe methods and process for measurement of demand reduction savings (kW) of individual customers and aggregated events

ii. Creation, tracking and maintenance of customer's data, project Data, and financial data

iii. Coordination with Company staff on database design, data fields, reports, cost-effectiveness screening, process and impact evaluations, and savings verification.

iv. Delivery of regularly reporting and communications to the Company including program progress, successes and challenges financial metrics, and energy metrics

v. Submittal of monthly invoices in the format required by the Company and ensure proper cost accounting is used on all invoices submitted for payment.

vi. Responsiveness to Company requests for assistance with data requests and regulatory compliance needs
vii. Assurance of secure data storage and transfer, customer information exchange agreement with the Company

C. Savings Measurement and Quantification
Describe the methodology and any calculations used to qualify, measure and verify the demand reduction savings (kW) for the Company.

D. Quality Assurance and Quality Control (QA/QC)
Describe the QA/QC activities that will be part of program delivery.

E. Staffing Plan
Describe how these tasks will be resourced including number of FTE, experience and location of staff and subcontractor plans to achieve program success

3. Equipment installation/O&M

Company expectations:

This function is the connection to customer load and is established and maintained with high quality, efficient results in a professional manner.

The Company is looking for responses that demonstrate

- Expertise in customer equipment specification and installation
- Importance of staff training and professionalism

Business Function	PAC	Vendor
End-Use Control Devices and Systems Definitions	Review design plan	Define technical specifications of equipment and installation practices
Equipment installation		If applicable, installations completed in profession, efficient, safe manner
Ongoing equipment reliability		Accountable for program reliability and availability

Response Requirements:

The administrative activities below are expected by the Company at a minimum. Bidders should include a description of how they will meet these activities, if applicable.

A. End-Use Control Devices and Systems
Provide technical descriptions of any end-use devices and systems being proposed on customer premises (e.g., gateway devices, load control relays, building energy management control system (EMCS).), as well as the end-uses they might control.

B. Software and Equipment Installation Process and Practices
   i. Include a discussion of the equipment needed to complete installation, amount of time needed to install in a facility, and any requirements from the customer.
   ii. Bidders should describe any current network of equipment installers and/or proposed subcontractor/subcontracting approach for conducting a site assessment and equipment installation. Discussion should address the following:
      1. Existing or planned coverage in/near the Company's service territory.
      2. Qualification requirements for using subcontractors and the process for identifying, training, and utilizing local contractors, if applicable.
      3. Complementary energy efficiency use - installers, equipment, leveraged delivery
   iii. Describe the process for evaluating performance, ensuring professional conduct, and maintaining adequate capacity to meet program goals.
   iv. Describe practices for verification and testing to ensure end-to-end communication and full functionality. Include discussion of periodic testing and pre-curtailment season testing (for winter and summer).
   v. Plan to undertake preventive maintenance on program equipment and software to ensure reliable, safe operation

4. Connectivity, control, and integration

Bidder should describe and diagram proposed program solutions for connectivity, control and integration of individual devices including; Head end application and control system elements, key interfaces with end use devices and PAC, communications, monitoring, and metering to deliver a load shed signal to customers and end devices and return path for communications and data transfer back to the Company.

Technical requirements include the following;

- Vendor provides fully integrated architectural solution
  - Utility interface
  - Head end application
  - Load control devices
  - All necessary communication between utility interface, head end and load control devices
- Capable of curtailing the contracted amount of load within the agreed upon time of dispatch by PacifiCorp.
- The Company must retain the ability to selectively control the amount and duration of the demand reduction in a predetermined manner
- Provision of curtailment forecasts for full deployment, including seasonally, monthly, and day ahead
- Provision of near real time monitoring of curtailments in process

- Provision of post event reporting on demand reduction achieved
- Ability to comply with CAISO requirements as a participating or non-participating resource when > = to 3MW.
    - Business Practice Manual for Demand Response https://bpmcm.caiso.com/Pages/BPMDetails.aspx?BPM=Demand%20Response
    - Business Practice Manual for Metering https://bpmcm.caiso.com/Pages/BPMDetails.aspx?BPM=Metering
- Integration with EMS

Bidder's response should address how the program solutions meet each of these requirements and address the following elements.

A. Head End Application
Based on the system-level diagram, provide technical descriptions of the system management software that is proposed for the control of all deployed load control equipment and other infrastructure that may need to be controlled and managed.

a. Operator Interface
Describe and provide graphics (screen captures or other appropriate) illustrating what an operator would see, and what they would do to set up an event, trigger the event, and then monitor its progress and effectiveness.

b. Control Strategy Validation
Describe how your process will be tested when new load control strategies are implemented

c. Hosting
Based on the system-level diagram explain the options of whether the interface is hosted at the utility or the bidder's site as SaaS or a Cloud Based solution.

d. Status and Reporting

Based on the system-level diagram, describe your reporting capability as it relates to displaying the current system status and to log system status and activity for subsequent analysis.

Describe the data reports available for each element of the system.

e. 24-hour contact information
Describe plan for 24hour access to technical experts to address issues in a timely manner. The EMS is a 24 x 7 operating system and if there is an issue/problem with head end software then this may need immediate attention.

B. Describe preventative maintenance of program equipment and software to ensure reliable, safe operation

C. Describe Interoperability features and scalability of design
    a. Communication and control protocols support of open interoperability standards interfaces
    b. Upgrades forecasted over lifetime, plan for compliance with anticipated future industry standards

D. Execution of Events
    a. Plan for delivery of forecasted and actual demand reduction per event
    b. Methodology and calculations used to qualify, measure and verify demand reduction

E. Plan for secure data storage and transfer to the Company
    a. Quality control plan

F. Plan for providing visibility of program deployment / location / impacts to distribution planning functions of the Company

G. Communication Infrastructure
    a. Describe any communication infrastructure needed and how it will be used.
    b. Based on the system-level description, provide a complete description of the communication infrastructure that will be needed and how it will be used.
    c. Discuss the flexibility and adaptability of communications options used to monitor, control, and manage the remote devices. Discuss your ability to upgrade the communications options to adopt new technology and/or systems and services (e.g., AMI). Provide information about your proposed future communication options, the proposed time frame for these, and the additional features and capabilities this will provide

H. Metering

    Describe the type of metering that will be employed and frequency and resolution by which metering information will be relayed to the Company and summary reporting.

    Also indicate any requirements for the Company's installed metering, or the Bidder's intended use of Company meter data.