

March 4, 2016

VIA ELECTRONIC FILINGPublic Utility Commission of Oregon
201 High Street SE, Suite 100
Salem, OR 97301-1166

Attention: Filing Center

**RE: Advice No. 16-04
Proposed Irrigation Load Control Program Pilot**

In compliance with ORS 757.205, OAR 860-022-0025, and OAR 860-022-0030, PacifiCorp d/b/a Pacific Power (PacifiCorp or Company) submits for filing the following proposed tariff pages associated with Tariff P.U.C. OR No. 36, which sets forth all rates, tolls, charges, rules, and regulations applicable to electric service in Oregon. The Company requests an effective date of April 6, 2016.

Fifteenth Revision of Sheet No. INDEX-3	INDEX	Tables of Contents - Schedules
Original Sheet No. 105-1	Schedule 105	Irrigation Load Control Program
Original Sheet No. 105-2	Schedule 105	Irrigation Load Control Program

This filing requests authorization to implement a pilot irrigation load control program (Pilot Program) for irrigation customers near the Oregon and California border, specifically in the area comprising the Klamath Basin. The objective of the Pilot Program is to test the design characteristics of the Company's existing irrigation load control program offered in Utah and Idaho for applicability to agricultural pumping operations in the Company's Oregon and California service areas (a similar request for this Pilot Program is anticipated to be made to the California Public Utilities Commission). The Company intends to test for grower acceptance, barriers to participation, and cost to deliver within the Klamath Basin area.

The Company's analysis suggests a concentrated share of Oregon's irrigation load resides in the Klamath Basin area.¹ Much of that load is subject to customer water restrictions and/or scheduling and coordination challenges that the Company does not encounter to the same degree in the delivery of its irrigation load control programs in Utah and Idaho. The Company proposes running the Pilot Program for five years to allow sufficient time for growers and water districts to work through these scheduling and coordination issues and to investigate changes to pumping operations to facilitate participation. The Company will call a minimum of four dispatch events per season so growers experience and can adjust to operational impacts.

¹ In 2014, the Oregon Klamath Basin area represented 29 percent of Oregon's irrigation sector megawatt hour energy sales and 25 percent of its irrigation customers or 1,959 sites.

The Company's 2015 Integrated Resource Plan (IRP) selected capacity resources from irrigation load management in Oregon beginning in 2022. Action item 3a in the 2015 IRP described the implementation of a west-side irrigation load control pilot beginning in 2016. This action item was acknowledged in Order No. 16-071, issued by the Commission on February 29, 2016.² The Company proposes this Pilot Program to investigate whether its current standalone program design and approach operating in Utah and Idaho will be effective in agricultural environments such as those found in Oregon and California. Implementing a Pilot Program will provide the Company and its irrigation customers the time needed to evaluate the program to identify any necessary modifications before the 2022 resource need. Implementing this program may also help identify additional benefits from targeting a load control program in a specified geographic area such as the Klamath Basin.

Pilot Program Design

The Company will use EnerNOC who is delivering the program in Utah and Idaho to operate the Pilot Program. This vendor was selected for the existing programs through a competitive Request for Proposal process, which attracted multiple bidders. The vendor will have responsibility for the installation, operation and maintenance of the irrigation load control devices, dispatch of the devices as directed by the Company, customer participation, customer service and issuance of irrigation incentives to be paid to participating irrigation customers.

Participation in the Pilot Program will require irrigators to allow their irrigation to be interrupted under specific conditions. These interruptions will require the installation of a load control device utilizing a two-way cellular communication system. In addition to enabling interruption, the technology and associated pilot metering will enable the vendor to consolidate interval data from participating customers and to provide the Company accurate information regarding the load available for curtailment and results of load control events. An example calculation of the load available for curtailment (the baseline) at a customer site is provided in Attachment 1. Participants will be provided with day-ahead notice of program dispatch and the ability to opt-out of event participation before loads are controlled. The participating customers will also have access to energy usage data available in near real-time through a dynamic web portal. An illustration of the dispatch process from the vendor- utility perspective is provided as Attachment 2. Information from a vendor-customer perspective is provided as Attachment 3.

The program parameters are summarized in the table below:

Program Parameters	Description
Eligible Customers	Irrigation Customers on Schedules 41 or 48 in and around Klamath Falls.

² In addition to the acknowledgment of action item 3a, the Commission's order requires the Company to "[p]resent at a public meeting within six months . . . potential demand response pilot programs including: a time-varying rate pilot, peak-time rebate, and direct load control program for other sectors."

Program Period	Week including June 1 through week including August 15. ³
Program Hours	Weekdays, 12 p.m. to 8 p.m. Pacific Time.
Dispatch Limitations	52 hours per year, 20 events per year, 1 to 4 hours per event.
Incentive Rate	Estimated at \$23-\$27/kw per year. The program vendor may adjust the incentive rate based upon the needs of the program. ⁴
Opt-Outs	Participants may opt-out of dispatches. Opting out will lower participation payments proportionally.
Incentive Payments	The incentive payment is calculated at the end of the irrigation season and paid to each participant in the Fall. Participant incentives will be determined by multiplying the average load (kW) a customer can reliably shut-off during program hours by the incentive rate, adjusted for event participation (opt-outs).

The Pilot Program provides PacifiCorp with a capacity product and, consistent with the characterization of the voluntary load reductions as a capacity product, the Company would provide participants incentive payments based on the availability of load reduction, regardless of whether the Company calls upon a load reduction for any given event. The value of a capacity product, with standby characteristics similar to generating resources that can be called upon when needed to manage system reliability, is the *ability* to call for the load reduction *should* it be needed. In other words, the value of the resource is not limited to resource utilization (in this case, the need for load reduction). This concept is similar to capacity benefits from operating reserves, representing system capacity that is set aside and available as needed to respond to unanticipated changes in system conditions.

The Pilot Program is designed to provide availability of load (MW) reductions during peak summer days and to contribute system capacity toward the Company's planning reserve margin. Moreover, irrigation load management program designs that provide certainty for incentive availability, less opt-out reductions, incentivize the most reliable and consistent performance from participants. Without certainty of incentive availability, irrigators are much less likely to participate in the Pilot Program or curtail their operations when dispatch events are called.

Pilot Program participants are expected to coordinate their participation in the program with the irrigation or pumping district that supplies their water.

The Pilot Program is expected to compliment the irrigation time-of-use pilot program, which was filed under tariff advice letter 15-003 and 15-006, and approved by the Public Utility

³ In addition, voluntary events may be dispatched separately through September 30.

⁴ This incentive rate is comparable to the \$19-\$25/kW per year paid to Utah and Idaho participants in 2015. The incentive rate for the Utah and Idaho program was established in conjunction with the third-party vendor who has experience running programs in multiple jurisdictions. Incentive rate design is a balance between participation and cost management and the rate was successful in securing participation from 1,369 sites during the 2015 season.

Commission of Oregon on March 24, 2015, and April 28, 2015, respectively. The time-of-use program targets customers who are able to shift their daily usage to off-peak times. By contrast, the Pilot Program targets customers who are unable to shift their usage on a daily basis but can participate in a limited number of load reductions with day-ahead notice. To ensure both programs are positioned to deliver useful information about grower acceptance of the incentive offers and their ability to shift usage in response to these offers, a customer's participation in both programs will not be permitted.

Pilot Program Period and Size

Based on program experience and feedback from irrigators, PacifiCorp proposes a five-year pilot period. Irrigators require multi-year certainty to participate or may be reluctant to change their operations or incur any potential costs to change their equipment to participate in a program that may only be available for a short period. The Company will seek to enroll a variety of participants consistent with the provisions of Schedule 105 to ensure useful information about pump operations, crop types, water availability and other factors affecting the ability to shift usage is acquired during the pilot period.

Using the 2015 Conservation Potential Assessment for guidance, the expected average availability of the proposed Pilot Program is summarized in the table below:

	Year 1	Year 2	Year 3	Year 4	Year 5
Est. kW Delivered	0 - 2,000	3,000	3,000	3,000	3,000

Note: Year 1 availability is difficult to predict and is subject to, among other factors, timing of approval and initial response/interest from customers.

During the pilot period, the Company initially intends to limit maximum availability to 5,000 kW delivered. If the Pilot Program is successful, and if the Company's biennial IRP continues to select west-side load control resources, then the Company could propose to extend and/or expand the Pilot Program during or at the end of the five-year period. At that time, PacifiCorp could submit a filing with the Commission to request an on-going standalone irrigation load control program or a broader commercial curtailment program, which would include agricultural loads. That filing would include information on the five-year Pilot Program, including program participation, load control achieved, and program costs. It would also include the prospective cost-effectiveness of the program in support of its continued operation. The Company will provide information on program participation, load control achieved, other benefits and program costs within 90 days of the end of each calendar year prior to the end of the five year pilot that incorporates the key elements below:

1. Review of annual enrollment
 - a. Total program enrollment
 - b. Sites added and removed
 - c. Customer outreach
 - d. Crop(s)
 - e. Weather data from local weather station(s)
 - f. Available information on water restrictions
2. Customer satisfaction

- a. Customer requests for retirement
- b. Site reassignment management
- 3. Incentive payments
- 4. Review of annual program performance
 - a. Weekly available load reduction
 - b. Load control events
 - c. Availability and load reduction comparison
- 5. Key observations

Pilot Program Costs

The Company proposes the Pilot Program be implemented in advance of its selection in the preferred portfolio through the Company’s IRP process. Therefore, a cost effectiveness analysis has not been prepared in support of the Company’s request for Commission approval. As previously stated, the purpose of the Pilot Program is focused on whether the Pilot Program’s design can be effective in Oregon at gaining grower acceptance and managing irrigation loads at a delivery cost consistent with that assumed in the Company’s 2015 IRP, a cost that led to the selection of irrigation load control resources in Oregon in 2022. The need to validate the Pilot Program’s impact and cost assumptions in preparation for a potential standalone irrigation load control or a broader commercial curtailment program in 2022 and beyond is the purpose and scope of the Company’s request.

Estimated costs are provided in the table below for the Pilot Program, including: vendor costs, customer incentives, and customer outreach / advertising.

	Year 1	Year 2	Year 3	Year 4	Year 5
Est. Program Costs (Calendar Year)	\$150,000	\$225,000	\$225,000	\$225,000	\$225,000

Note: Costs are estimates and based on the expected average availability (i.e., 3MW in years 2-5).

Cost Recovery

The Company proposes to implement a surcharge to recover of the cost of this Pilot Program as a separate rate in the existing Schedule 297. Schedule 297 is typically updated annually, and the Company anticipates filing its next update within the next several weeks. The Company proposes to reflect the projected costs of the Pilot Program in a separate rate in Schedule 297 on a forecast basis with a true-up to actual costs during the annual evaluation of Schedule 297, typically submitted to the Commission in November. Each year the separate rate will be adjusted to account for variances from the prior year and to align forecasted collections from customers with the projected costs of the Pilot Program.

Stakeholder Involvement

The Company began discussions with irrigators during a Klamath Water and Power Authority (KWAPA) meeting on January 27, 2015. At that time the Company provided an overview of the

existing programs in Utah and Idaho and solicited feedback for implementation of similar programs in Oregon and California. The Pilot Program concept was also provided to participants at the Klamath Basin Irrigation Workshop on March 19, 2015, which had over 210 participants.

Additionally, the Company had informal discussions with Commission staff, Oregon Department of Energy, and the Northwest Energy Coalition on August 4, 2015, and again on December 16, 2015, during which representation from the Citizens' Utility Board of Oregon also participated. A copy of the draft filing was provided to the Energy Trust of Oregon on December 14, 2015.

It is respectfully requested that all formal data requests regarding this matter be addressed to:

By E-mail (preferred): datarequest@pacificorp.com

By Regular mail: Data Request Response Center
PacifiCorp
825 NE Multnomah Blvd., Suite 2000
Portland, OR 97232

Please direct any informal questions about this filing to Erin Apperson, Manager, Regulatory Affairs at (503) 813-6642.

Sincerely,



R. Bryce Dalley
Vice President, Regulation

Enclosures

Attachments:

- 1: ILC Facility Baseline Demand_Oct 2015
- 2: Dispatch_Process_Diagram_2015_utility_EnerNoc
- 3: EnerNoc Dispatch Notifications A Step-by-Step guide for customers

cc: Elaine Prause, Public Utility Commission of Oregon Staff
Citizens' Utility Board of Oregon
Northwest Energy Coalition
Oregon Department of Energy
Energy Trust of Oregon
Renewable Northwest

Schedule No.

SUPPLY SERVICE	
200	Base Supply Service
201	Net Power Costs – Cost-Based Supply Service
210	Portfolio Time-of-Use Supply Service
211	Portfolio Renewable Usage Supply Service
212	Portfolio Fixed Renewable Energy– Supply Service
213	Portfolio Habitat Supply Service
215	Irrigation Time-of-Use Pilot Supply Service
220	Standard Offer Supply Service
230	Emergency Supply Service
247	Partial Requirements Supply Service
276R	Large General Service/Partial Requirements Service – Economic Replacement Power Rider Supply Service

ADJUSTMENTS	
80	Generation Investment Adjustment
90	Summary of Effective Rate Adjustments
91	Low Income Bill Payment Assistance Fund
93	Independent Evaluator Cost Adjustment
96	Property Sales Balancing Account Adjustment
97	Intervenor Funding Adjustment
98	Adjustment Associated with the Pacific Northwest Electric Power Planning and Conservation Act
101	Municipal Exaction Adjustment
103	Multnomah County Business Income Tax Recovery
105	Irrigation Load Control Program (N)
196	Adjustment to Remove Deer Creek Mine Investment From Rate Base
197	Deer Creek Mine Undepreciated Investment Adjustment
199	Klamath Dam Removal Surcharges
202	Renewable Adjustment Clause – Supply Service Adjustment
203	Renewable Resource Deferral – Supply Service Adjustment
204	Oregon Solar Incentive Program Deferral – Supply Service Adjustment
205	TAM Adjustment for Other Revenues
206	Power Cost Adjustment Mechanism – Adjustment
270	Renewable Energy Rider – Optional
271	Energy Profiler Online – Optional
272	Renewable Energy Rider – Optional Bulk Purchase Option
290	Public Purpose Charge (3%)
294	Transition Adjustment
295	Transition Adjustment – Three-Year Cost of Service Opt-Out
296	Transition Adjustment – Five-Year Cost of Service Opt-Out
297	Energy Conservation Charge
299	Rate Mitigation Adjustment

IRRIGATION LOAD CONTROL PROGRAM PILOT

Page 1

Purpose

This optional tariff allows Customers in Klamath County, Oregon, taking service for agricultural irrigation and agricultural soil drainage pumping under Electric Service Schedule Nos. 41, and 48 to participate in a demand response pilot program.

Available

To areas served by the Company in and around Klamath Falls Oregon.

Applicable

Available to qualifying customers on Schedule Nos. 41, or 48 who are receiving service for agricultural irrigation and agricultural soil drainage pumping. The Program Pilot will expire after the 2020 irrigation season.

Program Description

A detailed description of the program can be found on the Company website at: www.pacificpower.net/orilc.

- **Mandatory Program Events:** The Company shall have the right to implement a Mandatory Dispatch Event according to the following criteria:
 - a) Dispatch Period: Week including June 1 through week including August 15
 - b) Available Dispatch Hours: 12 PM to 8:00 PM Pacific Time
 - c) Maximum Dispatch Hours: 52 hours per Program Year
 - d) Dispatch Duration: Not more than four hours per Dispatch Event or twelve hours per week
 - e) Dispatch Event Frequency: limited to a single (1) Dispatch Event per day
 - f) Dispatch Days: Monday through Friday, excluding holidays
 - g) Dispatch Notification: Day ahead notification will be provided for each Dispatch Event

- **Voluntary Program Events:** The Company shall have the right to implement a Voluntary Program Event as needed for the weeks including June 1 through September 30. Participating Customers may choose to opt-out of Voluntary Program Events with no penalties or reductions in their financial compensation for participation in the Irrigation Load Control Program.

- **Program Provider:** The Irrigation Load Control Program will be operated by a third party load control program provider. Participating Customers will contract directly with the Program Provider.

(Continued)

Program Description (continued)

- **Incentives:** Incentive options for participation shall be provided by the Program Provider to any eligible customer upon request through the process described on the Company website.
- **Non-Discrimination:** Eligible facilities of similar size, operations and ability to participate will be treated in a fair and consistent manner. Any claims of discriminatory treatment should be addressed through the dispute resolution process described below.
- **Participation:** The Company or Program Provider shall have the right to qualify program participants, at their sole discretion based on criteria the Company or Program Provider considers necessary to ensure the effective operation of the Program and utility system. Criteria may include, but will not be limited to: impact on the Company's transmission and distribution system and/or cost effectiveness. The Company may limit participation levels. Participation limits beyond those included in this schedule will be described on the Company website.
- Metered points of delivery enrolled in this pilot will not be eligible to participate concurrently in any time-of-use (TOU) pilot which is offered by the Company.

For additional information or to initiate participation, Schedule 41, or 48 customers who are receiving service for agricultural irrigation and agricultural soil drainage pumping should visit www.pacificpower.net/orilc.

DISPUTE RESOLUTION: Issues associated with the Irrigation Load Control Program that have not been resolved by the Program Provider should be directed to the Pacific Power irrigation hotline at (1-800-715-9238). In the event the issue is not resolved by Pacific Power, the customer may elect to follow the process outlined at

[http://www.puc.state.or.us/consumer/Customer Complaint Process.pdf](http://www.puc.state.or.us/consumer/Customer%20Complaint%20Process.pdf).

Attachment 1

ILC Facility Baseline Demand October 2015

PacifiCorp Irrigation Load Control Program Facility Baseline Demand Calculation

For each Participating Facility, the “Facility Baseline Demand” for all intervals during a Capacity Delivery Day that includes a Program Event shall be determined as the average Actual Electric Demand during Program Availability Hours during the most recent Capacity Delivery Day that does not include a Program Event.

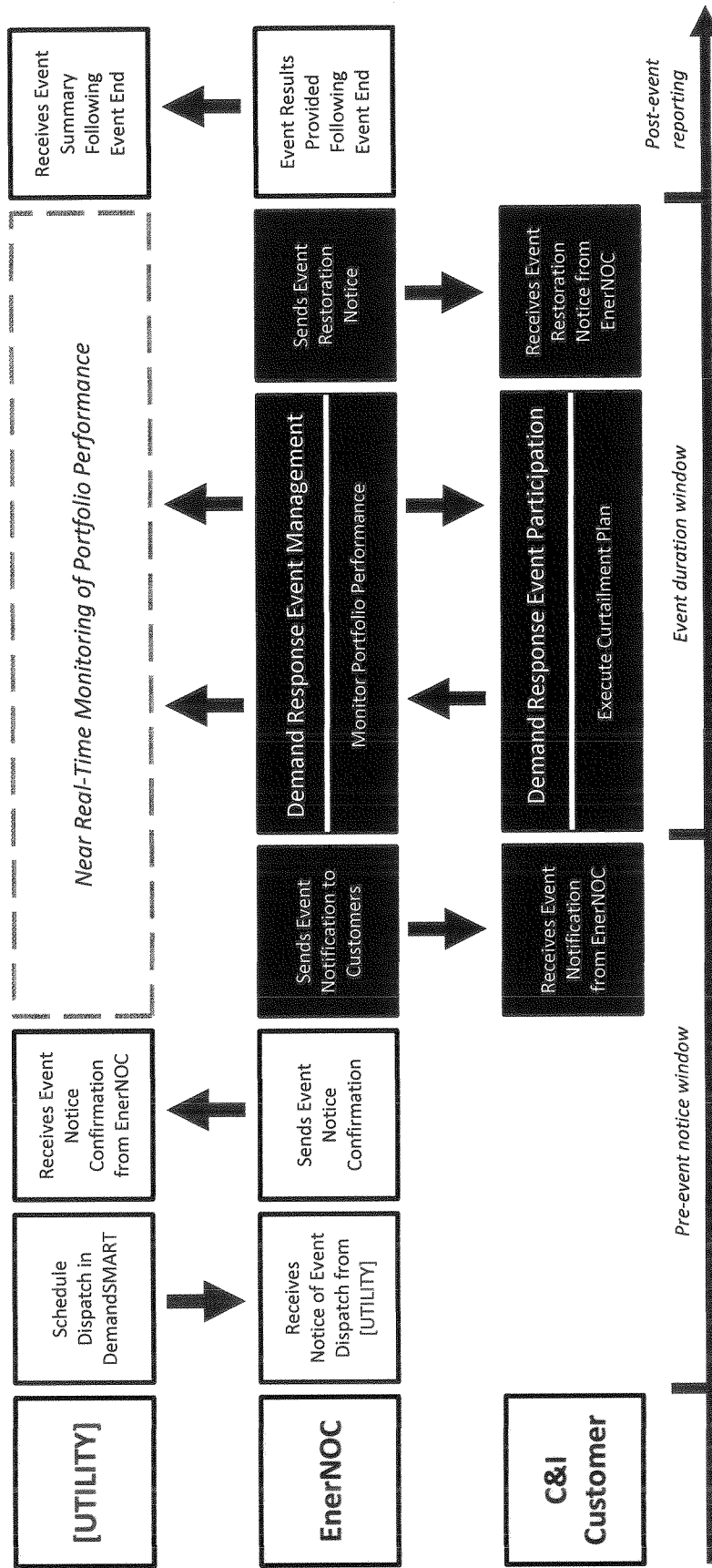
Example Hourly Demand (kW)

Hour	12 - 1 pm (H ₁)	1 - 2 pm (H ₂)	2 - 3 pm (H ₃)	3 - 4 pm (H ₄)	4 - 5 pm (H ₅)	5 - 6 pm (H ₆)	6 - 7 pm (H ₇)	7 - 8 pm (H ₈)	Average
Usage (kW)	110	120	120	115	115	110	120	110	115

$$\text{Facility Baseline Demand} = \text{Average usage} = (\text{Usage } H_1 + \text{Usage } H_2 + \dots + \text{Usage } H_8) / 8 = 115 \text{ kW}$$

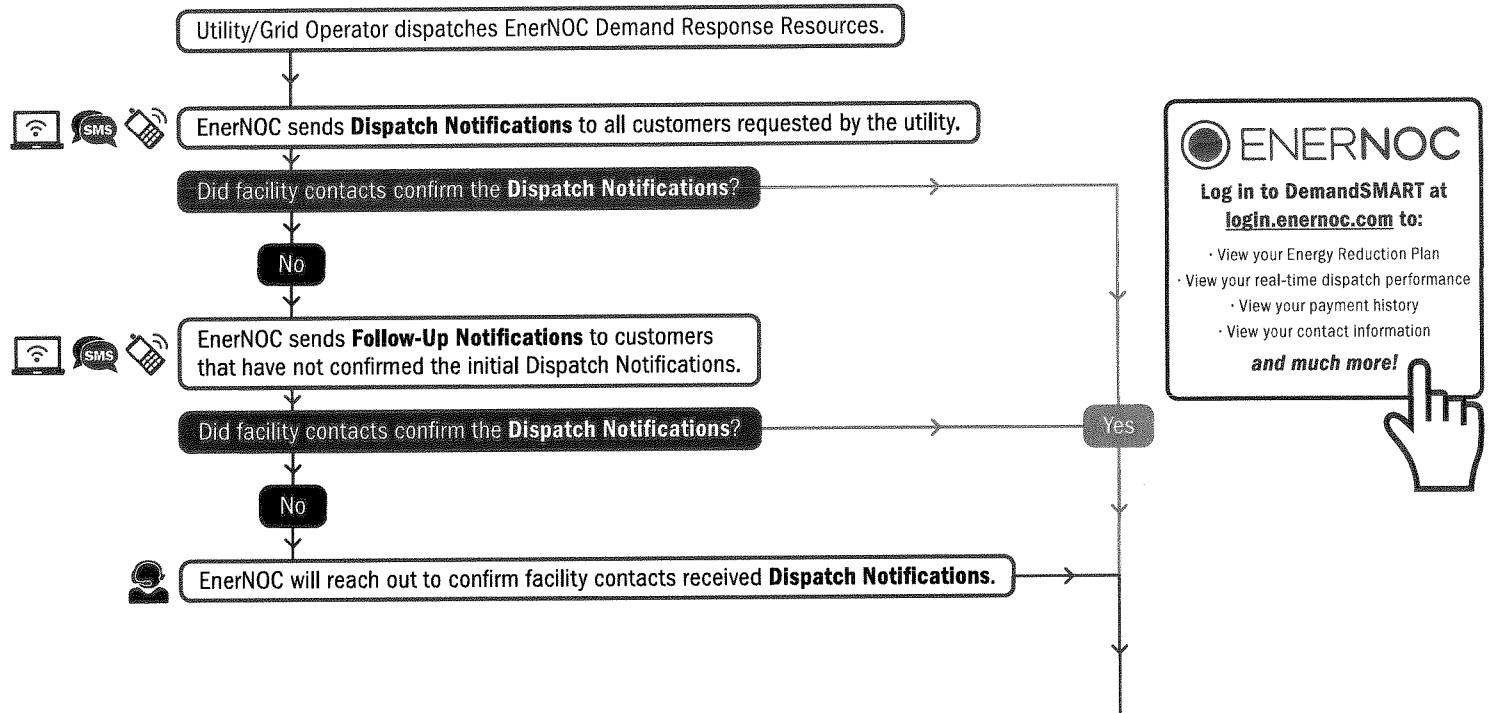
Attachment 2
Dispatch Process Diagram


Demand Resource Dispatch Process



Attachment 3

EnerNoc Dispatch Notifications Step-by-Step Guide






Log in to DemandSMART at login.enernoc.com to:

- View your Energy Reduction Plan
- View your real-time dispatch performance
- View your payment history
- View your contact information

and much more!



Frequently Asked Questions

How do I reach EnerNOC Customer Support?

You can call the 24/7 EnerNOC Customer Support Team at the following numbers:

- North America: 888.363.7662
- United Kingdom: 0800.680.0647
- Australia: 1800.775.096
- New Zealand: 0508.463.837

How do I manage my facility contacts and notification settings?

To add, remove, or update contact information or to change your email, phone, or SMS settings, please email us at support@enernoc.com.

How do I confirm the dispatch notifications?

- Click on the confirmation link at the top of the dispatch email
- Press '1' at the prompt after the dispatch phone call
- Send ANY response to dispatch SMS

Why is it important to confirm dispatch notifications?

We want to ensure that your facility is aware of dispatches, to help you implement your energy reduction plan on time, and to maximize your demand response payments. Dispatch notifications should be confirmed by at least one authorized contact.

What if I am unable to participate?

If you are unable to participate, please call EnerNOC Customer Support to inform us. As a reminder, if you do not participate you will not be required to pay out of pocket penalties. However, your compensation will be adjusted to reflect your level of participation.

Remotely Controlled Facilities Only

What if I do not want EnerNOC to remotely implement the Energy Reduction Plan at my facility?

If an emergency prevents participation, do not confirm Dispatch Notifications. You **MUST** call EnerNOC Customer Support immediately to ensure that your facility is not remotely controlled.

Log into DemandSMART at login.enernoc.com to view your real-time energy use and **Energy Reduction Plan**.

