Office of the Secretary
Service Date
March 4, 2022

BEFORE THE IDAHO PUBLIC UTILITIES COMMISSION

IN THE MATTER OF IDAHO POWER COMPANY'S APPLICATION FOR APPROVAL TO MODIFY ITS DEMAND RESPONSE PROGRAMS	)))))	**CASE NO. IPC-E-21-32** **ORDER NO. 35336**

On October 1, 2021, Idaho Power Company ("Company") applied to the Commission for an order authorizing it to: (1) modify its demand response ("DR") programs; (2) implement associated revised tariff schedules; and (3) establish a revised cost-effectiveness method to evaluate DR. *Application* at 1. The Company sought a June 15, 2022, effective date and requested the Commission issue an order by February 15, 2022. *Id.* at 19.

On November 2, 2021, the Commission issued Notice of Application, and Notice of Intervention Deadline. Order No. 35214.

The Idaho Irrigation Pumpers Association, Inc. ("IIPA"), the Industrial Customers of Idaho Power ("ICIP"), the Idaho Conservation League ("ICL"), Micron Technology, Inc. ("Micron"), and the city of Boise City ("Boise City") intervened. Order Nos. 35207, 35229, and 35231.

On December 12, 2021, the Commission issued Notice of Modified Procedure setting a public comment deadline of February 10, 2022, and a Company reply deadline of February 17, 2022. Order No. 35266. Staff, the intervenors Boise City, ICL, and IIPA, and one public commenter, John Hafen, on behalf of the King Hill Irrigation District, filed comments to which the Company replied.

With this Order, we approve the Company's Application as described herein.

BACKGROUND AND APPLICATION

The Company stated it offers three DR programs "designed to meet potential peak-hour system capacity deficits that typically occur during low-hydro generation and high-load events on [the Company's] system." *Application* at 2. These DR programs are the residential Air Conditioner ("A/C') Cool Credit Program, the Commercial and Industrial Flex Peak Program ("Flex Peak Program"), and the Irrigation Peak Rewards Program ("IPRP"). *Id.* at 2-3.

The Commission previously approved suspending two of the Company's two DR programs and modifying the third. *See* Order No. 32776 (Commission approval of a settlement suspending the A/C Cool Credit and IPRP) and Order No. 32805 (Commission approval of changes to the Flex Peak Program). In 2013, the Commission approved a settlement ("2013 Settlement")[1] between the Company and stakeholders that contained program specific requirements, "including marketing limitations, the method for determining cost effectiveness, and the Term of the Stipulation . . . ." *Id.* at 4 (citing Order No. 32923).

After evaluating the three DR programs, the Company determined they would be ineffective in meeting system need over the 20-year planning horizon. As such, the Company requested Commission approval to modify the terms of the DR programs as set forth in the 2013 Settlement. In its Application, the Company seeks Commission authority to modify the DR programs' season by one month, shift the available event times by two hours, increase the weekly hours DR programs are currently available, from 15 hours to 16 hours, implement associated tariffs, and establish a revised cost-effectiveness methodology to evaluate DR. *Id.* at 1. The Company stated that the proposed modifications, if approved, are intended to supersede the terms of the 2013 Settlement entirely. *Id.*

STAFF COMMENTS

Staff reviewed the Company's Application and its response to discovery requests, and believed the Company should move forward with its proposal; however, Staff recommended the Company utilize a continuous improvement approach—reanalyzing needs and making adjustments and improvements as needs change. *Staff Comments* at 2. Due to changes in the market, customer needs, reliability, and resource mix, Staff recommended the Commission approve the terms of the Company's proposal and declare that the design of the proposed programs supersede the terms of the 2013 Settlement entirely. *Id.* at 2-3.

Staff formed its recommendation after analyzing: (1) the method to align the design of DR programs to the capacity needs of the system; (2) changes in the method for determining cost-effectiveness of the programs; (3) the method for determining the amount of DR potential that is available in the Company's system; (4) the frequency of impact evaluations; (5) the removal of the marketing cost cap; and (6) how the programs are managed in the future. *Id.* at 3.

---

[1] *In the Matter of the Continuation of Idaho Power Company's A/C Cool Credit, Irrigation Peak Rewards, and FlexPeak Demand Response Programs for 2014 and Beyond*, Case No. IPC-E-13-14, Order No. 32923 (Nov 12, 2013).

1. Alignment of DR Program Design to System Capacity Needs

Staff explained that the Company demonstrated that extending the season and shifting the hours of the DR programs could improve system reliability. Staff further explained that, due to modifications to the methods it uses to measure DR programs' reliability relative to critical system need, the Company discovered that the DR programs—as currently structured—are ineffective in maintaining system reliability. For example, the Effective Load Carrying Capability ("ELCC") of the Company's current DR programs—17 percent—indicates that, during the highest-risk Loss-of-Load Probability ("LOLP") hours, the DR programs would only reliably provide 17 percent of DR's maximum capacity. *Id.*

Staff noted that the current DR programs operate between 1:00 p.m. to 9:00 p.m. from June 15 through August 15. *Id.* But, as Staff observed, given the amount of solar generation currently available in the market and likely to be installed in the Company's service territory, the most critical hours are no longer at peak load, but when loads are near peak and after the sun goes down, when solar is no longer available. *Id.* at 4. Staff further mentioned that, due to hotter, drier weather extending later into summer, the Company determined that the most critical hours have also extended later into the season. *Id.*

Accordingly, Staff expected the Company's proposal to extend the DR programs' season one month later, from August 15 to September 15 and shift the available DR hours later—from 3:00 p.m. to 11:00—would increase the ELCC to 56 percent and provide greater reliability to the system during the highest-risk LOLP hours. *Id.*

Staff recommended that the Company regularly repeat its approach of first identifying hours of greatest system need then designing its DR programs to fit the changing resource and environmental needs and recommended that the Company analyze the role DR programs play in satisfying system needs in every Integrated Resource Plan ("IRP"). *Id.*

2. Revised Cost-Effectiveness Methodology

Staff noted that the Company made two modifications to its cost-effectiveness methodology to ensure the benefits and the level of reliability provided by DR and by the proxy resource were equivalent. *Id.* The Company first quantified the benefits provided by a simple cycle combustion turbine ("SCCT") beyond what DR can provide then adjusted the avoided cost by this amount. *Id.* The Company then determined the amount of DR nameplate capacity needed to provide an equivalent level of capacity contribution from an SCCT. *Id.* The Company stated that it would perform a verification step to ensure that the amount of incremental DR included in the IRP preferred portfolio was cost effective compared to the surrogate using both adjustments. *Id*.

Staff concurred with the Company's methodology and recommended it be repeated in subsequent IRPs.

3. Assessment of Available Demand Response

Staff noted the Company's estimate that there are 492 megawatts ("MW") of traditional DR potential for the Company's service territory. *Id.* at 5. While Staff believed the Company tried to accurately estimate the DR potential for its service territory based on a Northwest Power and Conservation Council ("NWPCC") assessment of the entire Northwest Region, Staff noted that the best method for obtaining accurate results would have been to conduct a DR potential study specific to the Company's service territory—territory distinct from that of the entire Northwest Region. *Id.* at 6.

Staff noted the Company selected a third-party contractor to conduct a DR potential study specific to the Company's service territory. *Id.* Staff asserted this study should indicate the updated participation level of the current programs by June 2022. *Id.* Staff believed this study would improve the accuracy of the Company's assumptions and calculations for the DR programs and in the IRP. Staff recommended the Company provide the results of the DR study and update the calculations and assumptions in its DR programs as soon as these results have been finalized and vetted for accuracy. *Id.*

4. Impact Evaluations

Staff noted the Company's representation that it will conduct internal evaluations and report results in its annual Demand Side Management ("DSM") report and its plan to complete a process evaluation in 2023 and third-party impact evaluations every five years thereafter. *Id.* at 7. Staff recommended the Company complete an impact evaluation as soon as sufficient program event data is available to conduct a meaningful evaluation.

5. Marketing Cost Cap

Staff believed that removing the budget cap on marketing expenses would help the Company meet its near-term need for capacity and increase participation in the DR programs. Staff recommended removing the cap so long as the Company ensured program costs were included in the cost-effectiveness calculations and that the programs remain prudent and cost-effective on an annual basis. *Id.* at 7.

6. Program Management

Staff stated that the Company's modification to the tariff language and establishment of a new cost-effectiveness method supersedes the terms of the 2013 Settlement. Staff expected the Company to actively manage its DR programs and ensure the programs remain cost effective. Staff recommended that the Company continually monitor and update items including, but not limited to, the variable and fixed incentive values, minimum and maximum number of events, event window, event duration, program season, the proxy resource used, DR potential, and IRP results, to ensure the program continually improves and is cost-effective on an annual basis. *Id.*

Staff further recommended the Company exercise one of the minimum events (if available) during the 2022 season, between August 15 to September 15 and during the 9:00 p.m. to 11:00 p.m. event window. Doing this, Staff believed, would ensure the changes to the DR programs resulted in a significant amount of DR achieved and allow the Company to effectively evaluate participant responses to accurately measure the potential for its DR programs during critical periods. Staff further recommended that the Company include updated information, like DR achieved, opt outs, and realization rates, in its annual DSM report to address the DR programs' effectiveness at satisfying system need during critical periods.

In summary, Staff recommended the Commission: (1) authorize the Company to modify its DR programs as described in its Application; (2) approve Tariff No. 101 for Schedule 23 (Irrigation Peak Rewards Program), Schedule 81 (Residential Air Conditioner Cycling Program), and Schedule 82 (Flex Peak Program), as filed; (3) authorize the Company's revised cost-effectiveness methodology to evaluate DR as described in its Application to supersede the 2013 Settlement; (4) order the Company to analyze the fit of its DR programs relative to system needs and perform the cost-effectiveness equivalency analysis in every IRP; (4) direct the Company to annually evaluate each of the DR programs to update key program characteristics to ensure the programs meet the needs of the system and remains cost-effective on an annual basis utilizing the needs analysis and cost-effectiveness equivalency analysis from the IRP; (6) direct the Company to exercise one of the minimum events (if available) during the 2022 season between August 15 to September 15 and during the 9:00 p.m. to 11:00 p.m. event window; and (7) eliminate the marketing cost caps and allow marketing costs necessary to promote participation so long as the costs are included in the cost-effectiveness calculations and the programs remain cost-effective.

INTERVENOR COMMENTS

A. Boise City

Overall, Boise City recommended the Commission approve the Company's proposed modifications to the DR programs. Boise City specifically recommended the Company: (1) continue to interface with all IPRP participants to best understand how to make its DR programs attractive and easy to participate in while continuing to make the programs cost-effective and beneficial; (2) intentionally market the A/C Cool Credit program to customers who would receive a significant financial benefit from the program, including high-energy burden households, multi-family housing, and customers who recently received bill payment assistance; and (3) identify and evaluate opportunities to leverage smart thermostats installed through the Company's residential heating and cooling efficiency program as a future strategy to expand DR program participation and capacity without deploying additional load control devices. *Boise City Comments* at 2-3.

B. ICL

ICL recommended approval of the Company's Application—specifically, the Company's shift in its ELCC methodology, the proposed changes to the DR programs, and the lifting of marketing bans on the DR programs. *ICL Comments* at 9. That said, ICL requested that the Company reassess the calculations it used for determining DR capacity over the 20-year planning period to ensure that its models accurately reflected the full amount of solar generation that will come online over that period. *Id.* ICL further requested that the Company account for all the benefits the DR programs confer, such as the deferred costs of transmission and distribution lines, lower customer bills, and positive environmental impacts. *Id.* Finally, ICL requested that the Company plan for a "robust suite of demand response programs" and market them to benefit a "wide array of customers, including low income customers . . . ." *Id.*

C. IIPA

IIPA ultimately supported the Company's Application to modify its existing DR programs. However, IIPA noted that the proposed modifications would increase the burden of the program on IPRP participants by: (1) shifting the time of curtailment later into the night; (2) increasing the weekly limit to curtailed hours; (3) extending the season of curtailments; and (4) removing the variable incentive payment for the fourth curtailment of the season. *IIPA Comments* at 1. Nonetheless, IIPA agreed that this burden appeared to be appropriately offset by increased incentive payments and was warranted given the evolving nature of the Company's system demand needs. *Id.*

According to IIPA, the most significant change to the DR programs is the shift in the time of curtailments. *Id.* at 2. IIPA asserted that many current IPRP participants face technical and labor challenges associated with late day curtailments due to issues associated with restarting their irrigation systems. *Id*. IIPA stated that it discussed these difficulties with the Company and understood the Company's intent to proactively minimize the negative impacts these late day curtailments have on customers. *Id.* All in all, while it believed the modifications to the program may cause some reduced participation from IPRP participants, IIPA stated its expectation that the modified DR programs will continue to have material participation rates from existing participants. *Id.* Accordingly, IIPA recommended the Commission approve the Company's Application as filed.

PUBLIC COMMENT

John Hafen ("Mr. Hafen"), on behalf of the King Hill Irrigation District ("King Hill"), commented that the Company's proposed modifications to the DR programs would be deleterious to the irrigators in King Hill. Mr. Hafen expressed concern that having more than one event a week would reduce the water available for valuable crops and therefore recommended that the maximum events per week needs to be one rather than four and that the total number of events over the duration of the DR programs' season needed to be 13 rather than 15.

Mr. Hafen stated that King Hill would ideally prefer a total of six events over the season due to the reality that after four events the costs to turn pumps off and on after four hours, and employ people to watch water fill a canal, "is equal to the lower Peak Rewards pay out and does not cover the opportunity cost of not shutting off and participating . . . ." Mr. Hafen further explained that interrupting the King Hill irrigators' system whereby water is pumped up from the river in a 48-hour long process more than once a week would economically harm King Hill irrigators.

COMPANY REPLY COMMENTS

The Company appreciated the comments of the Intervenors and Staff supporting approval of its Application to modify its DR programs and agreed with Staff's recommendation to use a "'continuous improvement approach' in evaluating how DR programs can cost-effectively meet future system needs." *Company Reply* at 1-2. In response to ICL's comment that it reassess how it estimated the total available amount of DR capacity, the Company clarified that its conclusion that the DR programs could be relied on to provide approximately 300 MW of load reduction during summer peak load periods was not a cap but "rather an estimate of achievable load reduction from these existing programs that can be relied upon for planning purposes." *Id.* at 2. The Company further clarified that it would continue to assess the potential for expanded DR resources "that, if identified as cost-effective and achievable, would be presented for Commission approval as part of a future separate proceeding." *Id.* at 2-3.

The Company explained that, based on customer surveys, it expected to see an initial decrease in participation in the DR programs. Thus, the Company believed that 300 MW—rather than the currently enrolled nameplate capacity of 380 MW—was a more reliable estimate for planning purposes. *Id*. at 3. The Company further clarified that the 584 MW of DR potential was a number compiled by NWPCC and did not reflect capacity that is actually "valuable and cost effective[,]" but rather a technical potential that the Company used to establish an ELCC "that could be used to help set a cost-effectiveness threshold for programs [and] as a modeling constraint in the IRP analysis." *Id.* at 4.

In response to ICL's comment that the Company didn't plan to expand DR capacity sufficiently now or in future planning periods, the Company explained that it assessed expanding the current program by an additional 280 MW of DR but determined that "DR's operating characteristics didn't align with the need, there was a less costly resource available, or a combination of those factors." *Id.*

The Company clarified that it planned to complete a specific DR potential study by fall 2022, per Staff's recommendation, which it "commits to reviewing with interested parties and the Company's Energy Efficiency Advisory Group ("EEAG") prior to recommending any new or modified programs." *Id.* at 5. The Company also stated this study will be included in the Company's following DSM report as well as in its 2023 IRP, providing an opportunity for the Commission Staff, the Commission and other interested parties to review it. *Id.* The Company stated that the above approach—rather than the approach of implementing new DR programs and expanding its DR portfolio in the current proceeding, as ICL suggested—was the most appropriate way for it to expand its current DR portfolio and potentially develop new DR programs. *Id.* at 4-5.

The Company stated that it considered the effect its program had on IPRP customers and that it would work to decrease barriers to customer participation as well as balancing the need to minimize curtailments and customer impact with the necessity to ensure the program meets system needs. *Id.* at 5-6.

The Company agreed that Staff's recommendation to conduct one of the minimum events between August 15 to September 15 during 9:00 p.m. to 11:00 p.m. would provide the Company valuable insight and stated that it will "endeavor to run an event in the stated window if one of the three minimum events is available . . . ." *Id.* at 6.

In summary, the "Company agree[d] with Staff's comments and recommendations on the revised cost-effectiveness methodology and will repeat the analyses in future IRPs . . . . and conduct an impact evaluation as soon as sufficient program event data is available to conduct a meaningful evaluation for the DR program." *Id.* at 7. The Company further "commit[ed] to utilizing the DSM annual report and its annual prudence request to present the cost-effectiveness results and impact evaluation recommendations" and marketing the DR programs to all qualified customers. *Id.*

FINDINGS AND DISCUSSION

The Company is an electric utility subject to the Commission's regulation under the Public Utilities Law. *Idaho Code* §§ 61-119 and 61-129. The Company's rates, charges, classifications, and contracts for electric service in the State of Idaho are subject to the Commission's jurisdiction. The Commission has jurisdiction over this matter under *Idaho Code* §§ 61-501, -502, and -503. The Commission is empowered to investigate rates, charges, rules, regulations, practices, and contracts of public utilities and to determine whether they are just, reasonable, preferential, discriminatory, or in violation of any provision of law, and to fix the same by order. *Idaho Code* §§ 61-502 and 61-503.

Pursuant to this authority, we have reviewed the record, including the Company's Application, the Parties' comments, the public comment, and the Company's reply comments. Based on that review, we find the Company's proposed modifications to its DR programs fair, reasonable, and in the public interest.

We further find it reasonable to have the Company annually evaluate each DR program for need and cost-effectiveness using the needs analysis and cost-effectiveness analysis from the IRP. It is reasonable that the Company analyze the fit of its DR programs relative to system need and perform the cost-effectiveness equivalency analysis in every IRP. We also find it reasonable for the Company to exercise one of the minimum events during the 2022 season between August 15 to September 15 (if available) and during the 9:00 p.m. to 11:00 p.m. event window.

We acknowledge the Intervenor comments and recommendations and direct the Company to continue exploring the DR program opportunities and implementation recommendations. The ongoing evaluation results should be reviewed with the EEAG and interested parties.

We therefore approve the Company's Application as filed and direct the Company to implement the modifications to its DR programs as described in the Application and consistent with Staff's recommendations. We further find that the modifications to the terms of the DR programs supersede the terms of the 2013 Settlement entirely.

ORDER

IT IS HEREBY ORDERED that the Company's proposed modifications to its DR programs—the residential Air Conditioner Cool Credit Program, the Commercial and Industrial Flex Peak Program, and the Irrigation Peak Rewards Program—are reasonable and approved, effective June 15, 2022.

IT IS FURTHER ORDERED that the Company implement associated tariffs, consistent with Staff's recommendations and the Company's reply comments.

IT IS FURTHER ORDERED that the modifications to the terms of the DR programs supersede the terms of the 2013 Settlement approved by Commission Order No. 32923 entirely.

THIS IS A FINAL ORDER. Any person interested in this Order may petition for reconsideration within twenty-one (21) days of the service date of this Order regarding any matter decided in this Order. Within seven (7) days after any person has petitioned for reconsideration, any other person may cross-petition for reconsideration. *See Idaho Code* § 61-626.

DONE by Order of the Idaho Public Utilities Commission at Boise, Idaho this 4th day of March 2022.

ERIC ANDERSON, PRESIDENT

JOHN CHATBURN, COMMISSIONER

JOHN R. HAMMOND JR., COMMISSIONER

ATTEST:

Jan Noriyuki
Commission Secretary

I:\Legal\ELECTRIC\IPC-E-21-32 Demand Response\orders\IPC2132_finalorder_rn.doc