Ben Otto
Energy Associate
Idaho Conservation League
710 N 6th Street
PO Box 83701
Boise, ID 83702
208.345.6933 x 112
botto@idahoconservation.org

BEFORE THE IDAHO PUBLIC UTILITIES COMMISSION

IN THE MATTER OF IDAHO POWER COMPANY'S 2019 INTEGRATED RESOURCES PLAN	)))))	CASE NO. IPC-E-19-19

SIERRA CLUB COMMENTS

January 20, 2021

Table of Contents

Table of Figures

BEFORE THE IDAHO PUBLIC UTILITIES COMMISSION

IN THE MATTER OF IDAHO POWER COMPANY'S 2019 INTEGRATED RESOURCES PLAN	)))))	CASE NO. IPC-E-19-19

SIERRA CLUB COMMENTS

I. Introduction

The Commission has often noted that Integrated Resource Plans (IRPs) are an iterative process. Indeed, the development of an IRP is a lengthy process that requires substantial input from stakeholders, the utility, and the Commission. With two revisions of the 2019 plan having been completed and the 2021 IRP development process already underway, Sierra Club acknowledges that review of the 2019 IRP is no exception.

Even at this relatively late date, Sierra Club appreciates the opportunity to make these brief final comments regarding Idaho Power Company's (IPC) 2019 IRP.

II. Sierra Club Applauds the Process Improvements in Idaho Power's 2019 IRP

Idaho Power's 2019 IRP represents significant steps forward, both within the Advisory Council ("IRPAC") process and in the use of a substantially more capable analytical framework compared to that used in the 2017 IRP.

At the process level, we acknowledge the overall increases in transparency and stakeholder engagement in 2019. Sierra Club especially appreciates the open communication the Company's IRP team engaged in with Sierra Club's Idaho Chapter during the development of the 2019 IRP.

While no model guarantees an absence of bias, using a model framework designed to answer the right questions reduces the opportunity to influence the results through preconceptions or erroneous analytical constructs. In this case, IPC's introduction of a capacity expansion model

framework may have resulted in outcomes that would otherwise not have been immediately apparent to planners.

IPC's use of capacity expansion modeling did carry with it some start-up problems in this IRP iteration. Nonetheless, the new modeling approach represented a dramatic improvement from the 2017 IRP. We applaud Idaho Power in making this shift in model use. It represents a critical step towards advancing IPC's capabilities in examining clean, low cost futures.

With those improvements in mind, we see remaining opportunities for further improvement in the planning process.

III. Don't Let PacifiCorp hold Idaho Power Hostage

Among the most noticeable differences between the 2017 and 2019 IRP analyses is the increasing urgency of retiring IPC's costly engagement at the Jim Bridger coal plant. In particular, it was clear that the further IPC looked at the issue, the more apparent it became that accelerated closure of the plant was in the best interests of customers.

Idaho Power owns one-third of Jim Bridger. The remainder is owned by PacifiCorp. PacifiCorp's 2019 IRP also concluded that accelerating the closure of Jim Bridger would result in a net benefit to ratepayers. Nevertheless, while Idaho Power has confirmed that an expedient and structured exit of all four Jim Bridger units is beneficial, PacifiCorp has signaled its intent to effectuate a closure at a far slower pace. Specifically, whereas Idaho Power is seeking exit from one Bridger unit as early as 2022 and a second Bridger in 2026, PacifiCorp announced they intend to only exit Jim Bridger 1 "by the end of December 2023,"[1] and Bridger 2 by 2028, delays of a year and two years, respectively.

Sierra Club is concerned that PacifiCorp's delayed retirement is not designed to protect ratepayers, but rather protect the utility's interests in Wyoming, a state openly hostile to the closure of non-economic coal plants. Such political machinations should not impact the ratepayers of Idaho. We ask that the Commission ensure that PacifiCorp's election to maintain

[1] PacifiCorp 2019 IRP, Volume 1 at 22 ("Action Item 1c")

the Bridger coal plant, even non- economically, not be allowed to impose a risk or a cost on IPC's customers.

IV. Opportunities to Improve Cost Modeling in the 2021 IRP iteration

After reviewing the IRP documents, as well as additional information provided in response to Production Requests filed under this docket, Sierra Club suggests that the following three substantive changes be implemented in the 2021 IRP process:

A. Improve How Aurora Values Storage

Idaho Power uses the Aurora model to assess likely market prices, regional resource adequacy and resource availability. The stability of market pricing and resource availability is critical in the IRP because, among other things, it influences the perceived ability of Idaho Power to introduce additional renewable energy cost effectively. In our assessment, the Aurora model, as used by Idaho Power in 2019, failed to include appropriate levels of storage, undermining the ability of IPC to introduce more Idaho sited renewable energy cost effectively.

As shown in Figure 1 below, the Aurora model projected net deletions of thermal resources in Washington, Oregon, and California over the 20-year forecast period and simultaneously added more than 23 gigawatts of wind and solar resources in those same states. Yet, these substantial amounts of additional variable generation resources were not accompanied by adding storage in any of those states.

The failure to add storage calls into question the accuracy of some aspects of the model's output. Substantial amounts of storage are being added in California already, with more planned. Storage is expected to become even more cost-effective in future years as technological advances cause further declines in storage costs. As a result, it's unrealistic to assume that no new storage will come online in Washington, Oregon, and California.

Moreover, by assuming that the west coast states will not have the ability to use storage to time-shift wind and solar output for local consumption, the model likely assumes that large amounts of that variable generation will be exported. The increased quantity of power exports would then

be predicted to suppress market prices, creating a bias toward lowering expected west coast wholesale market prices.

One effect of such a bias in Idaho Power's IRP is to expand market purchases and over-estimate the value of investments that allow increased access for purchasing energy in markets like Mid-C. As a result, by under-estimating the value of storage in Washington, Oregon and California, the IRP reduces the apparent efficacy of building clean energy resources in Idaho, a prime solar location, and unrealistically expands Idaho Power imports via market purchases.

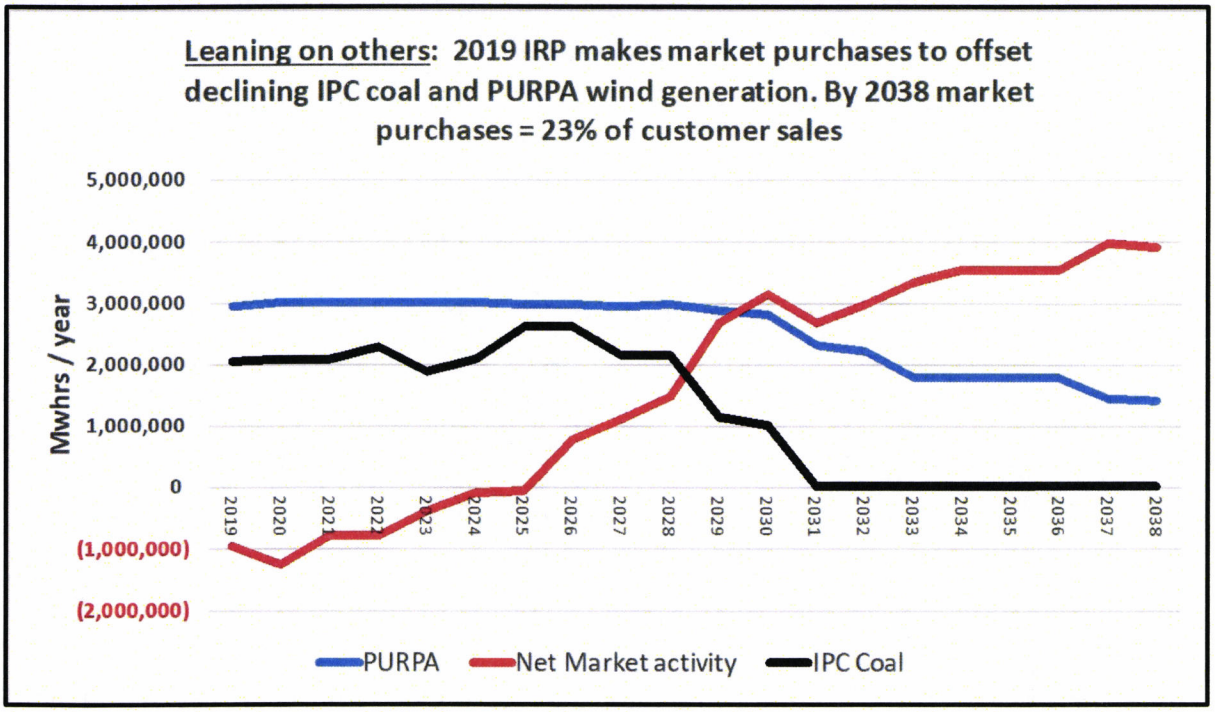
Figure 1 – WECC wide Aurora model resource additions and deletions over the 20-year planning period

	Megawatts of Resource additions - (deletions) 2019 through 2038			
	Coal	**Gas**	**Solar & Wind**	**Storage**
WA, OR & CA	(670)	(57)	23,050	0
Idaho Power	(1,026)	411	400	80
Interior* WECC	(8,586)	32,738	6,700	0
Totals	**(10,282)**	**33,092**	**30,150**	**80**

*Interior WECC includes parts or all of British Columbia, Alberta, Montana, Wyoming, Colorado, Utah, Nevada, New Mexico, Arizona and Baja California

B. Review Projected Net Market Purchases for Reasonableness

Figure 2 - The 2019 IRP unrealistically leans on others to meet IPC's customer load



The 2019 IRP projects dramatic increases in Idaho Power market purchases. As shown in Figure 2 the 2019 IRP envisions that Idaho Power goes from being a net supplier of energy (i.e. net annual energy sales, shown by the red line as a negative in this graph) prior to 2026 and the Boardman to Hemingway transmission line coming on-line, to becoming a substantial net purchaser of energy, acquiring almost one-fourth of its total customer sales from other western entities by 2038.

The graphic also shows that the shift to net energy purchases is largely coincident with the retirement of IPC's coal and PURPA contracts. In other words, the 2019 IRP does not backfill for the output lost by coal plant closures or expiring PURPA wind contracts by adding generation in Idaho. Rather it projects an ability to lean on others to serve a high and rising portion of its customer load.

As participation in the Western Energy Imbalance Market (EIM) has demonstrated, broadly sharing a diverse supply resources can provide substantial benefits to all parties. However, the EIM is designed for sharing resources, not for consistently leaning on others. An expectation that IPC will be able to rely on others for such a high portion of the energy required for its customer load seems highly unrealistic and should be carefully examined when reviewing portfolio alternatives in the 2021 IRP iteration.

C. Make More Realistic Estimates of Future Summer Peak Load Growth

Figure 3 – Over-estimates of future peak load growth disadvantage Idaho-based alternatives

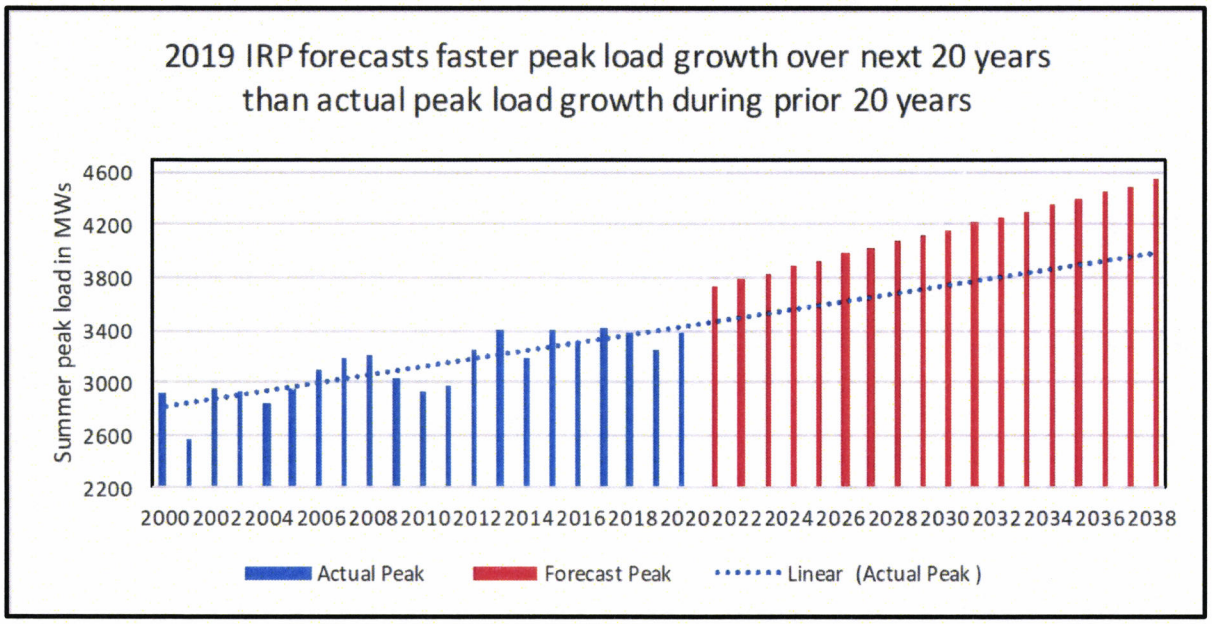


Figure 3 shows that in the 2019 iteration of the IRP, the Company forecasts peak load growth over the next two decades at dramatically higher rates than the Company has experienced over a similar period in the past. Idaho Power's second amended 2019 IRP projects peak loads to grow at 50 MW per year while the average energy requirement grows by only 20 MW per year.[2]

Peak load growth at 50 MW per year, compounded over two decades, results in a 2038 forecasted peak load almost 500 megawatts higher than historic load growth would suggest. Idaho Power's assumption of aggressive peak load growth reduces the perceived value of low-

[2] Second Amended 2019 IRP, page 31

cost energy sources such as Idaho solar and implies unrealistic barriers to economically beneficial earlier retirement of coal units. A review of more modest increases in projected future peak load growth should be required in the 2021 IRP.

The 2021 IRP could benefit by using more realistic assumptions related to storage in western states and WECC wide, more realistic IPC peak load growth rates, and a careful review of the risks associated with heavy reliance on out-of-state resources.

Distributed energy resources (DERs) sited in Idaho could mitigate the risk of over-reliance on out-of-state resources. While developing this next IRP iteration, IPC should study the potential to use storage and improved control processes on its distribution system to harness the benefits that Idaho sited DERs can potentially provide.

Sierra Club appreciates the Commissions continued review of the IRP, despite the extended period. The iterative process has resulted in an improved outcome, and a lower-risk, more considered future for the customers of Idaho Power. We thank the Commission for its attention to these matters.

Respectfully submitted,

/s/ Benjamin J. Otto
Benjamin J. Otto
Energy Associate
Idaho Conservation League

Attorney for Sierra Club

CERTIFICATE OF SERVICE

I hereby certify that on this 20th day of January 2021, I delivered true and correct copies of the foregoing COMMENTS to the following persons via the method of service noted:

/s/ Benjamin Otto
Idaho Conservation League

Electronic Mail only (See Order 34602):

Idaho Public Utilities Commission
Jan Noriyuki, Commission Secretary
secretary@puc.idaho.gov

Edward Jewell, Deputy Attorney General
Idaho Public Utilities Commission
Edward.jewell@puc.idaho.gov

Idaho Power
Lisa D. Nordstrom
Matthew Larkin
lnordstrom@idahopower.com
mlarkin@idahopower.com
dockets@idahopower.com

Idahydro
C. Tom Arkoosh, Arkoosh Law Office
Tom.arkoosh@arkoosh.com
Erin.cecil@arkoosh.com

Industrial Customers of Idaho Power
Peter J. Richardson
Richardson, Adams, PLLC
peter@richardsonadams.com

Dr. Don Reading
dreading@mindspring.net

Stop B2H Coalition
Jack Van Valkenburgh
Van Valkenburg Law, PLLC
jack@vanvalkenburglaw.com

Jim Krieder, STOP B2H Coalition
jim@stopb2h.org

Micron Technology, Inc
Jim Swier, Micron
jswier@micron.com

Austin Rueschhoff
Thorvald A. Nelson
Holland & Hart, LLP
darueschhoff@hollandhart.com
tnelson@hollandhart.com
aclee@hollandhart.com
glgarganoamari@hollandhart.com

Idaho Conservation League
Benjamin J. Otto
botto@idahoconservation.org