



## **Northern Colorado Partners for Clean Energy Calls on PRPA to Implement 100% Renewable Energy in the Integrated Resource Plan**

**June 9, 2020**

### **Background**

Platte River Power Authority (PRPA) is a municipal utility providing power to four cities along the Front Range: Fort Collins, Longmont, Loveland, and Estes Park. Beginning in 2018 with a City Council Resolution in Longmont, all four cities passed commitments to transitioning their communities to 100% renewable energy by 2030. Following these commitments, PRPA developed a Resource Diversification Policy that stated the following: “The board of directors (the board) directs the general manager/CEO to proactively work toward the goal of reaching a 100 percent non-carbon resource mix by 2030, while maintaining Platte River’s three pillars of providing reliable, environmentally responsible and financially sustainable electricity and services.”<sup>i</sup> For the last few months, PRPA has been working on an Integrated Resource Plan that represents a 20-year plan for the utility. At the February 27, 2020 PRPA board meeting, the initial draft of the IRP was presented.<sup>ii</sup>

This document provides an overview of the current draft IRP and calls on elected officials within the PRPA service area to demand that PRPA transition to 100% renewable energy as soon as possible, to avert a climate crisis.

### **Analysis**

Northern Colorado Partners for Clean Energy (NCP4CE) urges PRPA to take a closer look at Portfolio Option 3 (“Zero Carbon”), presented to the Board in February, by performing two sensitivity analyses, and then adopt that portfolio. We also urge PRPA to begin work on establishing an interim goal that achieves a high level of non-carbon electricity as soon as possible. Portfolio Option 3 is the only one that attains the 100% non-carbon goal adopted by the Board in December 2018 via its Resource Diversification Policy. Portfolio Option #1 represents business as usual. Portfolio Option #2 achieves only 90% non-carbon electricity by 2030 and includes construction of a new gas-fired plant in 2030. The fourth option doesn’t achieve even the low bar of 90% non-carbon electricity until 2036, with construction of a new gas-fired plant slated for that year.

### **Cost**

Digging a little deeper into Portfolio Option 3 - the Zero Carbon option - we note that PRPA staff made a number of overly conservative assumptions that result in higher presumed rate increases compared to the other portfolios. For example, the future prices of wind and solar used in Portfolio Option #3 are 40% to 70% higher than the values predicted by an analysis by the [National Renewable Energy Laboratory](#) (NREL) in a study published in November 2018.<sup>iii</sup> Additionally, PRPA staff assumed that its four owner communities would do nothing over the next ten years to manage their electric loads –

they excluded any mention of Demand Side Management (DSM) options. However, Fort Collins has already made progress in reducing its peak electric loads through its recently implemented “Time of Day” rates.<sup>iv</sup> The variety of DSM programs and their ability to reduce the peak load of the four owner communities of PRPA will likely increase significantly in the next few years as electric vehicles replace gasoline-powered vehicles, homes and businesses convert to heat pumps for heating and cooling, and grid-interactive power control devices become more readily available for residential and small business consumers.

### **Carbon and Methane Pollution**

Portfolios 1, 2, and 4 ignore climate change and the need to rapidly move away from all carbon-based fuels. Total carbon dioxide pollution from the Rawhide power plant results in 2 million tons of CO<sub>2</sub> being released into the atmosphere per year. An additional 1 million tons, approximately, comes from the Craig power plant per year.<sup>v</sup> The costs shown in the draft IRP fail to account for the social cost of carbon, which the PUC and the state legislature have recommended for utility long-range planning.<sup>vi</sup> It does not take into account that the EPA has deemed the Northern Front Range an ozone non-compliance area<sup>vii</sup>, that nitrous oxides are one of the main precursors for the formation of ground-source ozone, and that PRPA’s Rawhide coal-fired power plant is the largest single point emitter of nitrous oxides in Larimer County.<sup>viii</sup> Our region has an F rating from the American Lung Association, and Fort Collins is listed as being one of the more polluted cities for air quality in the U.S.<sup>ix</sup>

In addition, natural gas alternatives such as the gas-fired Reciprocal Internal Combustion Engine (RICE) plant proposed in Portfolio 2 contribute to methane pollution. Methane is a harmful greenhouse gas. The global warming impact of burning natural gas at a power plant is less than that of burning coal, but the overall impact is greater once the emissions derived from extraction through unconventional means - such as fracking - are factored in. Given that PRPA has a significant amount of gas-fired generating capacity already in its portfolio, we do not support more investments in new gas plants or new natural gas infrastructure. PRPA’s existing gas generators may have a useful role to play in the near term, but our communities shouldn’t be building new natural gas infrastructure now that has a useful life span of 30-40 years.

### **Additional Concerns**

With a move to 100% renewable energy, reliability can be improved by joining power pools. Earlier this year PRPA announced their decision to join the Western Energy Imbalance Market (WEIM).<sup>x</sup> Yet the current draft IRP does not account for the advantages gained from joining an energy imbalance market. While we are concerned that the price of energy from renewables is inaccurately overpriced in the IRP, we are also concerned that the price of energy from coal and natural gas is, likewise, underestimated. PRPA acknowledged in the IRP that they intend to account for the social cost of carbon, but an estimated cost of environmental damage for each portfolio has not been presented to the PRPA Board. Potential severance taxes and compliance costs for fossil fuel extraction should also be addressed. As pressure is mounting for investors to divest from fossil fuels, increased financing costs should be factored into future cost estimates.

### **Conclusion**

Based on this analysis, NCP4CE believes there are several critical components missing from what has been provided through the IRP engagement process that the public and our PRPA Board representatives need in order to make a sound decision regarding future investment decisions.

NCP4CE therefore respectfully requests that PRPA provide the following:

- **Siemens Report:** The Siemens report that provided the modeling inputs for the future pricing of renewables should be made public immediately. These assumptions are critically important for understanding the economic impact of each of the four portfolios. PRPA’s modeling assumptions should be as transparent as possible. We request, therefore, that the Siemens report be made public.
- **Sensitivity Analyses:** The economic impact of each of the four proposed scenarios is largely based upon future energy price assumptions for fossil fuels and renewables. We request that PRPA make those future energy price assumptions explicit for each of the four portfolios, and that PRPA frame the projected economic impact of each portfolio using a price sensitivity analysis. For Portfolio #3, we ask that a sensitivity analysis be conducted based on the percentage of renewables - in other words, what is the economic impact of reaching 95% renewable electricity at the earliest possible date? What is the economic impact of reaching 92.5% renewable electricity?.. 90%?... etc..
- **Social Cost of Carbon:** We request that PRPA release a report that estimates the cost of the environmental damage of each portfolio’s cumulative greenhouse gas emissions using the U.S. federal social cost of carbon.
- **DER Integration Plan:** PRPA staff have stated in their reports to the Board that DERs will be a critically important facet in helping PRPA reach its 2030 Resource Diversification goal. NCP4CE understands a committee has been formed to develop a strategy for the incorporation of DERs. While this work is ongoing, NCP4CE requests that PRPA staff include a general description of how it plans to use DERs in each of the four portfolios they propose.
- **2023 Interim Goal:** NCP4CE reiterates its request that PRPA devise an interim goal to reach 70% renewable electricity, system-wide (not “delivered electricity”) by 2023. Our modeling shows that this is feasible and will result in reduced costs for PRPA ratepayers. Our specific request is not for the Board to adopt this goal directly, but to ask the PRPA modeling team to conduct an analysis using NCP4CE’s modeling assumptions and produce a report for the Board that details the modeling assumptions, investment requirements, cost implications, and rate impacts of achieving such a goal.

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<sup>i</sup> <https://www.prpa.org/media-releases/platte-river-board-passes-energy-policy/>

<sup>ii</sup> <https://www.prpa.org/wp-content/uploads/2020/02/02.27.2020-Board-of-directors-combined-presentations.pdf>

<sup>iii</sup> <http://mnsolarpathways.org/wp-content/uploads/2018/11/solar-potential-analysis-final-report-nov15-2.pdf>

<sup>iv</sup> Fort Collins City Council Meeting Presentation February 11, 2020  
<https://fortcollinstv.viebit.com/player.php?hash=31oxsDV3ICEB#>

<sup>v</sup> The EPA’s Emissions and Generation Resources Integrated Database ([eGRID](#)) lists the 2018 emission factor for the Rawhide power plant as 2,085 pounds of CO<sub>2</sub>e per MWh of generation. The 2018 emission factor in eGRID for the Craig power plant is 2,292 lb CO<sub>2</sub>e/MWh. The 2018 emission factor for electricity from RMPA in the WECC - our section of the grid - is listed by the EPA’s eGRID as 1,282 lb/CO<sub>2</sub>e/MWh. Electricity is purchased by PRPA under a joint dispatch agreement to compensate for planned and unplanned outages at Rawhide and Craig. PRPA’s 2019 Annual Budget [Report](#) shows that Rawhide is budgeted to produce 2,303 GWh in 2019, Craig is budgeted to produce 742 GWh, and purchased electricity is budgeted to be 193 GWh. From this data, we deduce that PRPA’s CO<sub>2</sub>e emissions from its two coal plants and from purchased electricity will be 3.374 million tons in 2019. PRPA has emitted over 3 million tons of CO<sub>2</sub>e from those three sources each year, 2017-2019.

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<sup>vii</sup> <https://www.epa.gov/newsreleases/epa-reclassifies-denver-area-serious-nonattainment-ozone>

<sup>viii</sup> The EPA requires large emitters of greenhouse gases to report annual emissions to the Greenhouse Gas Reporting Program ([GHGRP](#)). Large emitters are defined as any entity emitting over 25,000 tons of CO<sub>2e</sub> per year. Based on GHGRP data, as was [reported](#) in 2016, PRPA's Rawhide power station is by far the largest emitter of greenhouse gases in Larimer County. According to the EPA's eGRID, Rawhide power station emitted 1,114 tons of NO<sub>x</sub> emissions in 2018. NO<sub>x</sub> emissions are a necessary precursor for the formation of ground-source ozone. The federal Bureau of Transportation Statistics [states](#) that the average NO<sub>x</sub> emissions for cars on the road in 2019 was 0.289 grams/mile. Assuming the average car is driven 12,500 miles a year, the NO<sub>x</sub> emissions at Rawhide is equivalent to 279,752 additional cars on the road.

<sup>ix</sup> <http://www.stateoftheair.org/city-rankings/most-polluted-cities.html>

<sup>x</sup> <https://www.prpa.org/media-releases/four-colorado-power-providers-to-join-the-california-western-energy-imbalance-market/>

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Northern Colorado Partners for Clean Energy (NCP4CE) is a coalition of organizations in the four municipalities that own the Platte River Power Authority (PRPA). We have a shared goal of transitioning PRPA to 100% renewable electricity by 2030. NCP4CE is a committee of the Colorado Coalition for a Livable Climate, but retains autonomy with regard to its work with the PRPA and all local initiatives. The member organizations of the NCP4CE are: 350 Northern Colorado, Colorado Renewable Energy Society, Colorado Sierra Club, Community for Sustainable Energy, EnergyShouldBe.org, Environment Colorado, Estes Valley Clean Energy Coalition, Fort Collins Sustainability Group, Renewables Now Loveland, Sustainable Resilient Longmont, Transition Fort Collins. For more information please visit <https://colivableclimate.org/about-2/>