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Platte River Studies Expanded Renewable Energy Options

By Jason Frisbie and Cecil Guitirrez

Nearly 20 years ago, Platte River Power Authority (Platte River) became the first utility in the region to provide wind energy to customers in Colorado – from the Medicine Bow Wind Project. The Medicine Bow facility continues to provide emission-free electricity to customers in northern Colorado and Platte River has added more renewable sources over time. Indeed, renewable energy supplied from wind and solar generation has nearly quadrupled since 2013 and non-carbon sources (wind, solar and hydropower) now comprise nearly one-third of the electricity provided to Estes Park, Fort Collins, Longmont and Loveland. Platte River and our owner communities have also invested over \$40 million in energy efficiency programs since 2002 – reducing load growth by over 25% and cutting greenhouse gases and other emissions. These programs have helped our owner communities' residents and businesses save over \$60 million so far on their energy costs, and savings continue to accrue over time.

Looking forward, Platte River has listened to its owner communities and is considering more renewable energy for delivery to local customers. We issued a request for proposals earlier this year to add new wind resources, which could expand non-carbon energy production by another five to ten percent. Of course wind pricing, transmission access, operational impacts and other factors will be weighed in the review process. If results are favorable and agreements can be reached, non-carbon resources could make up close to 40% of the total electricity supply mix to the municipalities by 2020.

But a 40-percent non-carbon electricity supply may not meet our communities' goals over the long term. That's why Platte River has initiated efforts to consider even more significant resource changes. We launched a study in 2016 to provide the municipalities with a range of options to meet individual community goals. Referred to as "customized resource planning" (CRP), detailed computer models are being applied to evaluate large additions of wind and solar generation at a system level (all municipalities combined). Factors being considered include cost, operational impacts and emissions reductions. To date, wind and solar resource additions have been studied to a level that could provide more than fifty percent non-carbon sources in the supply mix by 2030. This analysis includes reductions in municipal energy supply from coal generation at the Craig Station. Results of these studies are preliminary and will be reviewed over the next couple of months.

The Platte River Board of Directors recently agreed to proceed with a study of even higher levels of non-carbon resources, with focus toward modeling a 100 percent non-carbon resource scenario for all four municipalities. In this hypothetical case, the greenhouse gas emissions from all system resources would net to zero by 2030. Compared to the CRP scenarios considered to date, modeling a customized 100-percent (net) non-carbon resource scenario will be much more complex. Market purchases, modifications to traditional resources, and other enhancements would be needed at the wholesale level for reliable system operations. This more complex effort will take several months to complete and review. Preliminary results may be available late in the fall of 2017. An independent consultant has been retained to review and validate the results for eventual presentation to the Platte River Board; potentially by the end of this year.

As mentioned earlier, energy costs are an important factor in these studies. We currently produce and deliver energy to our municipal utilities at the lowest wholesale rates in the state, which in turn lead to very low retail rates for electricity. The significant changes in electric rates that may be needed to achieve a 100-percent (net) non-carbon goal must be considered because these could influence the regional economy and

impact local residents and businesses. As new non-carbon resource options are studied, be assured that Platte River remains committed to both financial and environmental sustainability.

Decisions regarding any significant changes to electric supply resources are made by the Platte River Board of Directors. Details of changes considered for 2020 and beyond will be brought to the Board for formal consideration over time. Platte River looks forward to working collaboratively and transparently with our owner communities to continue providing safe, reliable, environmentally responsible, and competitively-priced wholesale electric service.

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