

Environment & Energy Commission

City of Columbia & County of Boone

April 2, 2019

Re: Comments regarding the 2019 Renewable Energy Report

To: Columbia Mayor and City Council and Boone County Commission

The Environment & Energy Commission (EEC) is pleased to see that we are meeting our current renewable energy commitment established under Ordinance 27-106, known as the renewable energy ordinance. We appreciate the City Council's recent efforts in updating the ordinance to better account for the production and usage of energy. We would also like to thank Columbia Water and Light staff for their time in providing a summary of the City's renewable energy profile detailed in the report. Upon review of the draft Renewable Energy Report, the EEC makes the following recommendations:

- Expand the "Future Renewable Energy Production" section of the report to provide more detail on how new sources of renewable energy will help us reach our ordinance goal of 25% by 2022.
- Revisit the cost calculation used when comparing renewable and traditional sources of energy, and the need for the 3% rate cap.
- Review the current renewable energy goals.

Expand the "Future Renewables"

The EEC appreciates the update on future renewable energy generation in the "Future Renewable Energy Production" section of the report. However, we feel that this section has limited usefulness to the average citizen in that it does not articulate how these new energy developments will impact our progress in reaching our renewable energy goals as outlined in our ordinance.

For instance, the report talks about the 10 MW of energy from Truman Solar coming online by the end of the year and the 45 WM of energy from the Crystal Lake contract in 2023, but it does not describe how these increases in renewable energy will affect our overall renewable energy goal. Will we be at 17% by 2020 after the addition of the Truman Solar project or 21% after the Crystal Lake contract? Essentially, what is the net increase in our percent renewable profile for each new energy contract?

The EEC realizes these are projections, and that the dates and values are estimates. However, the EEC feels that by providing these numbers in relation to our overall goals, the average citizen would have a much better understanding of what these numbers mean and where the City stands on its commitments.

Cost and Rate Cap

The EEC was pleased to see the expanded methodology and explanation for calculating renewable energy costs presented in this report over previous years. However, we believe that the underlying cost calculation used to compare renewable and non-renewable energy contracts for the purposes of determining compliance with the 3% rate cap provides an incomplete picture. We would like to see included in this report, alternative cost analyses that may be more representative of the impact to rate payers for our current and potential energy contracts.

One problem with the current calculation of cost and the 3% rate cap is how capacity and energy are treated. **Capacity** is the ability to generate electricity, measured in MW and primarily covering construction and maintenance. **Energy** is the electricity itself, measured in MWH or kWh, primarily covering fuel costs. Historically, contracts included both the capacity and the energy which that capacity produced. Separate markets now exist for the two aspects in the electric industry.

The original Renewable Energy Petition was intended to reduce greenhouse gas production. Because of the terminology, the utility has chosen to compare Renewable **Energy** only to the costs in the energy market. This is less than half of the cost of having electricity. The cost of electricity from our three contracts with coal-fired generators is split into 65% fixed costs, primarily for construction or capacity, and 35% for energy costs.

This total cost is what drives changes in customer rates and the item which voters wished to see limited to no more than 3% increase. The initial concern about a large increase was very legitimate. Our first contract (2007) for wind energy, Bluegrass Ridge, cost \$69.35 per MWH, well above the total cost, \$54.58, from coal-fired plants. Our last contract (2017) for wind energy, Crystal Lake 2, cost \$19.55 per MWH, a 72% reduction.

The capacity market reflects over building in the last decade when electricity use grew very little. Columbia has two capacity only sources: Columbia Energy Center purchased in 2011 costing 83% less than the capacity price (fixed price) of coal fired plants and the Dynegy contract with 89% less. This permits us to obtain energy from sources which do not include capacity which has been true for wind and solar contracts.

Beyond the issue of cost calculation, we believe the 3% rate cap itself should be reevaluated. When the rate cap was first implemented, the cost of increasing the use of renewable energy was prohibitive and regulation structuring the markets was more restrictive. With the market decoupling of energy and capacity and the dramatic growth in cheap renewable energy, we need to make sure that our own policies do not prevent the kinds of innovation needed to create a more affordable and sustainable energy future. In addition, the Climate Action and Adaptation Plan (CAAP) process has also identified the 3% rate cap as a potential issue in reaching our community and municipal greenhouse gas emission reduction goals.

Review Renewable Energy Ordinance Goals

Columbia Water and Light is currently engaged in updating its Integrated Electric Resource Master Plan (IERMP). In light of the ongoing CAAP and IERMP programs, the EEC strongly recommends that these planning processes study the cost and feasibility of strengthening our Renewable Energy Ordinance goals.

The United Nations released a report last year produced by the Intergovernmental Panel on Climate Change (IPCC) which outlined the increasing urgency of addressing climate change. While this is a global issue, the impacts will be local and our solutions will have to include local efforts. Expanding our use of non-greenhouse gas producing renewable energy is one of the ways that we can engage.

Sincerely,

Ken Midkiff,
Chair, Environment and Energy Commission