

Comments from Don Kurtz
re: 9/7/17 Public Advisory Group Session

I have a number of serious concerns, detailed below, about the planning assumptions being made by EPE in the current IRP process.

Concern #1

In the 22 pages of slides presented at the September 7 PAG meeting by Jessica Christianson, Manager of the EPE Environmental Department, there was no mention whatsoever of the need to limit carbon emissions in coming years.

Whatever the current political atmosphere surrounding the issue of climate change, it is clear to most planners that carbon emissions are going to be closely regulated at some point in the not too distant future.

While federal oversight may be temporarily stalled, states are moving forward quickly to fill the void. As just one local example, the New Mexico Attorney General's Office recently petitioned the NM PRC for a new energy standard that would require utilities serving New Mexico customers to reduce carbon dioxide emissions by 4% a year through 2040.

The judiciary is also growing increasingly active in requiring attention to carbon emissions. In an August 22, 2017 decision on a natural gas pipeline case, the U.S. Court of Appeals ruled that a FERC environmental impact statement "did not contain enough information on the green-house gas emissions that will result from burning the gas the pipelines will carry." This kind of interest in a particular carbon trail is a powerful indicator of the kind of judicial scrutiny a utility's indifference to CO2 emissions is likely to entail.

For EPE not to pay close attention to limiting carbon outputs in its current IRP modeling would be irresponsible, and something that no unregulated, free market company would do.

From my own perspective as a ratepayer, EPE inaction on limiting carbon outputs represents a risk that must be accounted for in the modeling process, especially to the degree that EPE continues to rely on the construction of fossil fueled facilities with high capital costs and long pay back periods. The primary risk for ratepayers is that we will be stuck with stranded assets in the form of carbon-emitting plants that are no longer usable, even though many years of paying for them still remain.

PRC regulations covering the development of the IRP clearly state that the utility is required to provide **a summary of how "existing and anticipated environmental laws and regulations" were "considered in, or affected, the development of resource portfolios."** (17.7.3.9)

PRC regulations covering the development of the IRP also state that, to determine the most cost-effective resource portfolio, “...**the utility shall develop a reasonable number of alternative portfolios by altering risk assumptions and other parameters developed by the utility and the public advisory process.**” (17.7.3.9)

Based on these regulations, we should expect from the IRP process a summary of the many ways EPE is planning to reduce carbon outputs (to include energy efficiency, management of peak demand, etc.). We should also expect that specific Strategist runs will be dedicated to assessing planning options that address the direction that likely carbon regulation will take. Specifically, there should be a Strategist run assuming a 4% annual reduction in carbon production from EPE generating facilities through 2040, based on the Attorney General's PRC petition.

Concern #2

As would be readily acknowledged by all PAG participants, we inhabit a very dynamic energy environment. Renewable energy costs are plummeting, consumers are generating their own energy, and storage technologies are just now becoming real and viable supply side options. Utilities throughout the country are saving millions of dollars in new capital costs through energy efficiency and management of peak demand.

Within this dynamic environment, utilities must be very careful about committing themselves (and more importantly, their ratepayers) to high-cost, long-term capital investments in technologies that may soon be obsolete. In many ways, EPE's decision-making situation resembles that of a landline telephone company at the beginning of the telecom revolution, or a business weighing a large investment in mainframe computers just as Microsoft and Apple personal computers were coming on line.

Paradigm-changing renewable and storage technologies, as well as new technologies for effectively managing peak demand, are creating a future in which “fuel costs” from traditional sources will inevitably give way to “fuels” like solar and wind, that are essentially free, infinite and in great abundance locally.

At times like the present, any non-regulated company would be very hesitant to commit to large, long-term capital investments in facilities that may soon face obsolescence. EPE should demonstrate the same level of prudence.

For this reason, EPE should, in it's IRP process:

1. carefully examine assumptions in the Loads and Forecast analyses to see if new resources are actually needed in the near term
2. avoid the construction of any new fossil-fuel power plants for the foreseeable future
3. vigorously develop and employ technologies to control peak demand, thus eliminating the need for new generating capacity

These would be good practices in any case, but a key planning advantage for the current IRP is that the utility would be able to buy time to see how the energy environment is going to change and whether new technologies will prove clearly superior.

PRC regulations require that the IRP process “...**identify the most cost effective portfolio of resources to supply the energy needs of customers.**” (17.7.3.7) Any “most cost effective portfolio of resources” cannot be blind to the presence of rapidly emerging alternatives to current resources, especially if current resources, like fossil-fuel plants, are very costly, must be useful and paid for over many decades, and carry even a moderate risk of becoming stranded investments.

The IRP must reflect the clear cost effectiveness of not committing to risky long-term investments, and reflect every possible means at the utility’s disposal to avoid these capital costs.

Concern #3

Subsequent to the August PAG meeting, EPE provided, at my request, Total System Demand (“peak demand”) figures used for planning purposes from 1995 through 2036.

It is useful to compare EPE’s figures with peak demand figures from the Northwest Power and Conservation Council, which is charged with guiding utility policy in Washington, Oregon, Idaho and western Montana.

In the eighteen years for which I have comparable data, from 2017 through 2035, summer peak demand for the NWPCC, which includes rapidly growing metropolitan areas like Seattle and Portland, averages .18% per year, for a total growth in peak demand over the next 18 years, of 3.24%. Meanwhile, EPE projects a growth in average annual peak demand of 1.77%, and over the comparable 18 year period a growth in peak demand of 31.86% -- ten times the percentage increase for utilities in the northwest states.

Clearly there are differences among regional needs and available resources. The most important factor, however, is the NWPCC’s commitment to utilizing

energy efficiency and demand management rather than the construction of new power plants to meet resource needs.

I recommend the NMPCC's 7th *Power Plan*, adopted in 2016, available at <https://www.nwcouncil.org/energy/powerplan/7/plan/>

Here are some brief sections from that report's Executive Summary:

Using modeling to test how well different resources would perform under a wide range of future conditions, energy efficiency consistently proved the least expensive and least economically risky resource. In more than 90 percent of future conditions, cost-effective efficiency met all electricity load growth through 2030 and in more than half of the futures all load growth for the next 20 years. It's not only the single largest contributor to meeting the region's future electricity needs; it's also the single largest source of new peaking capacity. (page 1-1)

Efficiency is by far the least expensive resource available to the region, avoiding the risks of volatile fuel prices and large-scale resource development, while mitigating the risk of potential carbon pricing policies. Along with its annual energy savings, it helps meet future capacity needs by reducing both winter and summer peak demand. (page 1-6)

The least-cost solution for providing new peaking capacity is to develop cost-effective demand-response resources, the voluntary and temporary reduction in consumers' use of electricity when the power system is stressed. (page 1-6)

It's disturbing to me, and should be disturbing to ratepayers and regulators, that EPE projections have peak demand growing over 30% over the next 18 years while the utility does almost nothing to manage that growth. Meanwhile other reliable utility systems are projecting almost no increase during the same period. It is as if EPE has become a self-justifying construction company for new generating facilities that could easily be avoided.

I understand that EPE needs capital investments to make profit, but those investments would, from a ratepayer point of view, be much more profitably made in energy efficiency, managing peak demand, and, if practical and feasible, through entering into small fixed power purchase agreements for peak hours during the year.

I urge EPE managers to read the Executive Summary of the NWPCC 7th *Power Plan* at <https://www.nwcouncil.org/energy/powerplan/7/plan/>. NWPCC Commissioner Tom Karier (tkarier@nwcouncil.org) has offered to make himself and his staff a resource for the current IRP process.

EPE can no longer continue the same old way of doing business, and the same old way of approaching the IRP process. Ratepayer attention to problems in the current model will not diminish. Ratepayer attention leads to regulatory attention, while the rapid proliferation of other, more effective models has led to general awareness that cost-effective alternatives to the EPE's usual portfolio exist.

There is already interest in the New Mexico legislature moving electrical generation into the open market. For the current regulatory model to continue, and for the long-term benefit of both the utility and its customers, EPE has to demonstrate not just that it can provide a cost effective portfolio that is environmentally and economically sustainable, but that it can become the kind of flexible, responsive company that will survive in the 21st century.