The purpose of this memo is to recap the October 24 meeting during the interviews with co-op managers with some takeaways at the end.

**Co-op #1**

- The triggering event for management was a no A/C load in summer, mild summer low energy revenues.
- Initially put demand on the bills, with no charge, before implementing $1 charge as part of an overall increase, was not a revenue neutral change.
- Board and management spent two annual meetings of talking about if before implementing.
- Best to do implementation during the heaviest energy usage season where energy costs are a sizable part of bill (demand charge not noticed as much but overall bill higher...)
- Demand charge takes away volatility of revenue, flattens the revenue stream in most cases (demand tends to be less variable than energy)
- Power Supply was not much of a factor in the decision. Still socialize demand in that the current demand charge is not as high as power supply demand costs on $/kW basis.
- Most impacted were loads like double income no kids type load, everything on in the morning and evening but not intermediate load. Wells not much of an issue
- Biggest challenge is explaining to customers what demand is...Had success using cattle watering example: If you try to water 1000 cows with a 100-gallon water tank as opposed to watering 1000 cows with a 1000-gallon water tank, think about how much faster you get them watered.
- Of 1900 members only had 10 complaints, about 20% of bills saw increase, overall lower usage per customer or conservation due to implementation, 1200 kwh is average residential, Did not have a high or max increase threshold, Did not change base charge (Residential rate 30 base, 9.5 cent/kwh, 3/kW demand)
- Negative impacts are on low energy user with high demand

**Co-op #2**

- Transitioned to demand charge seven years ago, triggering event for management was Central Montana G&T (power supplier) going to a demand charge.
- Also, did not want to rely on kwh sales only for revenues and wanted to mirror wholesale demand charge bill. The goal being matching how we collect with how we pay out for energy and demand.
- Always had commercial demand charge, never residential...before implementing residential charge.
- Load factor is important. A good load factor subsidizes bad load factor customers, but kept discussion positive approach, use energy efficiently you can save a little money...
- Started process implementing one-year ahead. First year billing reflected $0/kw charge.
- Lot of fun trying to explain demand, most questions on $0/kw- charge, but less questions later when actual charge implemented. Demand is a foreign concept to many folks.
- Implemented a progressive strategy of $1,3,4,5/kW – progressive increases in $/kw charge
- Decreased energy charge, but was not always revenue neutral, everyone’s load factor is different. Some folks’ bills went up and some went down, but no max increase cap from board.
- Do not know has many had bill reduction impacts, but never get a call from folks that have a bill decrease
Memo to Beartooth Electric Cooperative re Norval and Sun River Demand Charge Experience
October 28, 2019
Page 2

• Experience overall
  o People like options
  o Weather sales volatility reduced, kW demand charge turned out to be the more stable revenue, became weather agnostic for revenues
  o Goal is 45% for base/demand and 65% for energy
  o Going to $5/kW with almost no hate and discontent
  o Not sure where the board will go from here

• Advice
  o Coop boards scared of 3-part rate, unnecessarily...
  o Worst thing you can do is take too big of bite...too large of charge initially...
  o Members not going to understand demand, but build trust by going slow

Takeaways

Co-op #1 implemented a demand charge because the variability in energy sales created deficits unnecessarily. It was not a power supply focused choice, although they do have some part of their power supply that is demand related. They started small and have had some complaints but not a lot of controversy. A lot of talking and explaining mostly for both.

Co-op #2 implemented a demand charge because of a change in how their power supply contract worked, but also to reduce revenue volatility. Their intent was to communicate the price signal on demand from their power supplier. They also implemented the charge slowly over time but more aggressively than some co-ops.

Neither co-op progressed their demand charge all the way to their demand unit costs and are both still collecting demand-related costs in either the energy charge or facilities charge or both.

The key aspect seems to be as previously discussed to start small. However, Co-op #2 did make a point to say that it should be significant enough to help fix the misalignment and a real low charge may not be worth the effort.

Another theme is that consumers do not understand demand as a concept and will not understand it even with a fair amount of educational material and such. However, if the Co-op is fair and modest about implementation that is really a trust issue.