

WRA ATTACHMENT A

Presenting additional information related to PacifiCorp's Grid Modernization Roadmap

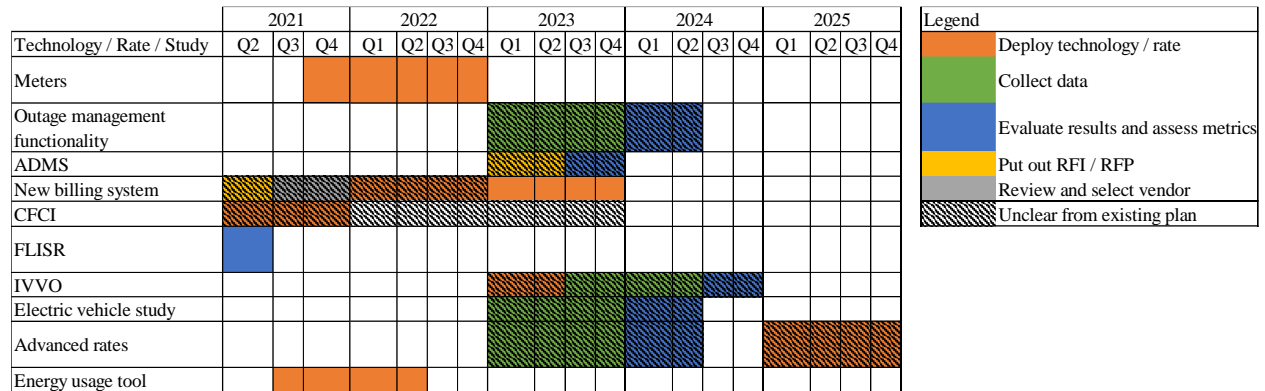
To improve the clarity of PacifiCorp's Grid Modernization Roadmap, Western Resource Advocates (WRA) recommends that PacifiCorp provide: (1) a Gantt chart or similar project schedule graphic to clarify actions and timelines associated with each action, technology, or study, and (2) a list or table of metrics that PacifiCorp intends to use to evaluate technologies for which deployment is conditional on their performance during testing. The figures below are intended to illustrate the type of information that WRA believes would prove valuable to the Commission and stakeholders.

I. GANTT CHART

In the roadmap, specific timelines are unclear; therefore, recommends PacifiCorp provide additional information as described in our comments. The following simplistic Gantt chart below is based on Figure 1 from the informational filing and additional details found in the roadmap. WRA has included hypothetical examples of actions and timelines based on our understanding of the roadmap. WRA does not intend for these examples to be interpreted as recommendations; they are intended to illustrate a framework that would be helpful for visualizing the overall plan. This type of chart could be helpful for viewing the timing and interdependencies of different technologies or investments.

The image uses colors to indicate specific types of actions associated with each grid modernization technology or approach (deploying physical equipment, collecting or analyzing data, conducting a request-for-proposal, etc.) and the timeline for each action. The list of actions

given in this image are not meant to be exhaustive, but rather illustrative of the type of detail that would be valuable in a roadmap.



II. TABLE OF METRICS

In Figure 1 of the informational filing, PacifiCorp indicates that most grid modernization technologies are still in the “evaluation” stage. In addition to adding detail about the actions and timelines for evaluation, as in a Gantt chart described above, PacifiCorp should clarify specific metrics it considers relevant for evaluating these technologies. PacifiCorp’s Figure 1 is helpful in understanding the business drivers for each technology, but paring these business drivers with expected metrics for evaluation would help clarify what factors will drive decision-making. If the deployment of certain technologies depends on meeting certain metrics, PacifiCorp should share the target metrics as part of the process. For example, will ultimate investment and deployment be based on a cost-benefit analysis, technical feasibility alone, meeting metrics such as improvements in SAIDI, etc.?

One way to present these metrics may be to use the same table as Figure 1, and use the cells to identify the relevant metrics for each technology and business driver, as shown below. If metrics are repetitive, however, another format may be preferable. WRA has entered potential examples of metrics for illustration, but these are not meant to be definitive or exhaustive.

	Outage management	SAIDI improvement	Voltage management	Wildfire mitigation	Distribution planning	Customer satisfaction
Outage management analysis	<i>ex: % reduction in outage duration</i>	<i>ex: % improvement in SAIDI</i>	N/A	N/A	N/A	N/A
ADMS assessment	TBD	TBD	TBD	TBD	N/A	TBD
CFCI	TBD	TBD	N/A	TBD	TBD	TBD
FLISR	TBD	TBD	N/A	TBD	N/A	TBD
IVVO	N/A	N/A	TBD	N/A	TBD	N/A
Electric vehicle study	N/A	N/A	N/A	N/A	TBD	TBD
Time-based rates	N/A	N/A	N/A	N/A	TBD	TBD
Energy usage tool	N/A	N/A	N/A	N/A	N/A	<i>ex: % of customers reporting tool satisfaction</i>