

WESTERN AREA POWER ADMINISTRATION

The Future of the Colorado River

Moab Community Symposium

October 13, 2018

S. Clayton Palmer

WAPA



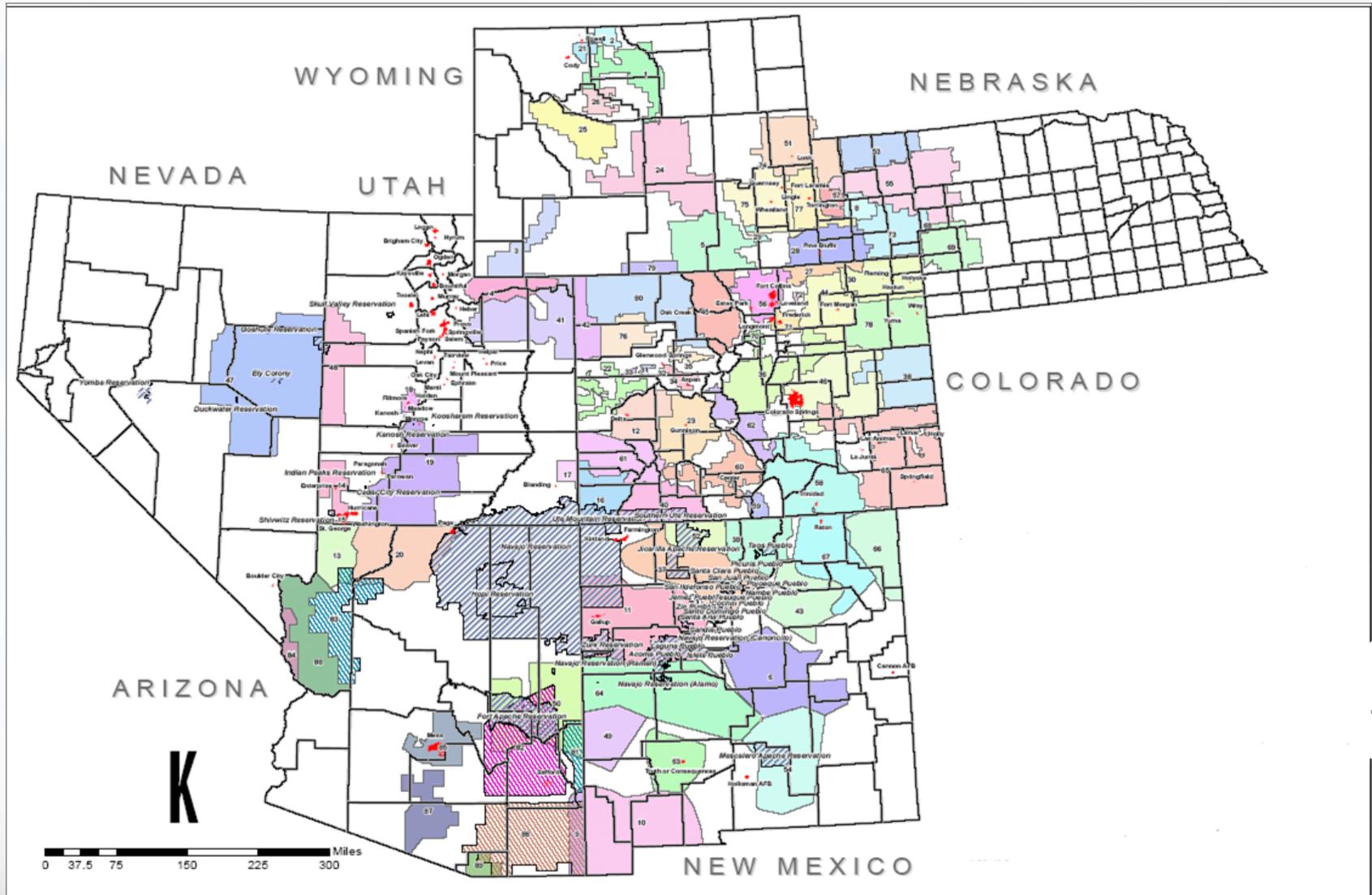
The Colorado River System Project

- A water storage and hydropower system of dams and reservoirs on the Upper Basin of the Colorado River.
- Designed as social infrastructure to facilitate the development of water resources to allow for settlement in the region and for economic development.
- Hydropower features are preferentially sold to publicly-owned utilities; intended to electrify rural and agricultural areas in Rocky Mountain states.
- CRSP currently provides water to over 25 million people and partially fills the electrical demand of over 5 million.

Map of CRSP Customer Service Areas

- The following map shows the service areas of the electrical utilities and others who are firm electric service customers of CRSP (or the SLCA/IP – the name of the hydropower resources marketed by WAPA that is made up of the CRSP and other smaller projects).
- This map illustrates that the CRSP power system provides power over a large area.
- It also shows that the CRSP hydropower system provides power to rural areas and to smaller towns and municipalities. The CRSP system was design for this purpose in mind.

CRSP Customer Service Areas



Electrical Power Markets are Changing

- The following graph is a “screen-shot” of the California Independent System Operator (Cal-ISO) website for October 11, 2018.
- This graph illustrates the extent to which (mostly) roof-top solar panels are changing the way California electrical utilities dispatch electrical generators to meet demand. These utilities must suddenly turn off generators when the sun rises.
- While the CRSP power system does not serve California, this is what all electrical providers face in the future. More importantly, what happens in California affects electrical prices across the West.

Meeting electrical demand in California – through the day: the effect of roof solar

California Electrical Demand
October 11, 2018



The Future of CRSP Hydropower

- Hydropower is a clean, renewable resource.
- CRSP hydropower is imbued with a social purpose and provides electricity for rural areas and smaller towns in the Rocky Mountain West.
- By providing electrical power to rural areas and to Native American tribes in the region, CRSP hydropower helps facilitate economic development in less-affluent regions.
- The CRSP hydropower system will be pressed to provide more and more “back-up” power for a non-dispatchable renewable generation such as wind and solar.