

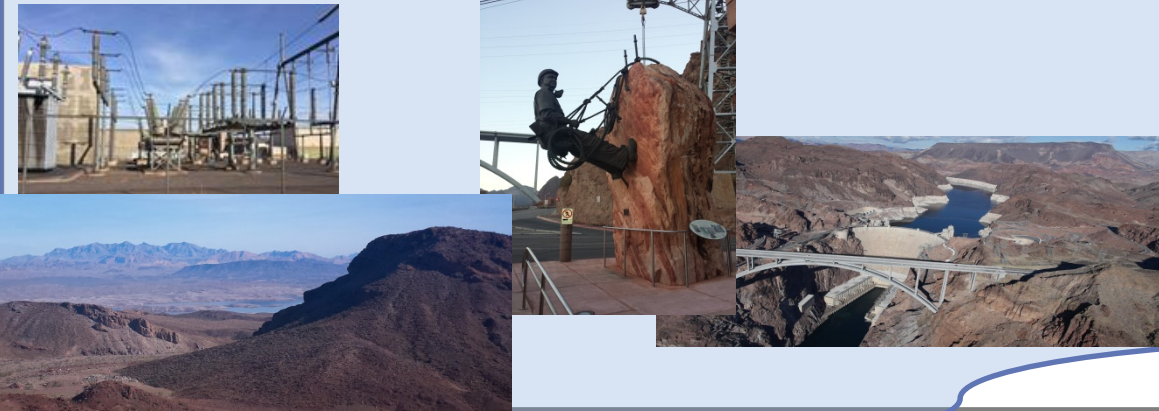
# Colorado River Commission of Nevada (CRCNV)

## Presentation to the Committee on Energy Choice

Technical Working Group on Generation,  
Transmission and Delivery  
&  
Technical Working Group on Energy Consumer  
& Investor Economic Impact

**Jayne Harkins, P.E.**  
**Executive Director**

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# Presentation Outline

- Colorado River Basin Overview
- CRCNV History, Organization, and Overview
- Federal Hydropower
  - Management, Contract , Provisions, Benefits
- State Contract Provisions
  - Reallocation Provisions
  - Benefits
- State Contractors
  - Full Requirements Contractors
  - Wholesale Non-Utility Contractors
  - Wholesale Utility Contractors
- Summary / Questions

# Colorado River Basin



- The Colorado River runs over 1,400 miles through seven “Basin States”: Arizona, California, Colorado, Nevada, New Mexico, Utah, and Wyoming.
- The Basin is divided into the Upper Basin and Lower Basin - each Basin receives an annual allotment of 7.5 million acre-feet of water.
- The “Mexican Water Treaty of 1944” apportioned 1.5 million acre-feet of the Colorado River’s annual flow to Mexico.
- Nevada’s annual allocated share of Colorado River water is 300,000 acre-feet.

# CRCNV History

- The CRCNV is an executive agency of the State of Nevada responsible for acquiring and managing Nevada's share of water and hydropower resources from the Colorado River.
- Purpose – To protect, receive, safeguard and hold in trust the water and hydropower resources provided from the Colorado River for the benefit of the State of Nevada.
- Colorado River Benefits to Nevada:
  - Colorado River water.
  - Environmental resources.
  - Hydropower resources.
- CRCNV has been providing these benefits for 81 years.

# CRCNV Organization

- Created in 1935 by Nevada State Legislature as Hoover Dam construction was ending, contracts for water and hydropower were put in place.
- Through Nevada statutes that define the CRCNV operations:
  - Has broad statutory authority to buy and sell electricity and build transmission across Nevada (NRS 538.161-538.181).
  - Customer base is limited by NRS 704.787.
  - Is not subject to regulation by the NPUC (NRS 538.181, 704.787).
- CRCNV receives no State General Funds – Funding provided by water and hydropower customers.
- Organization consists of:
  - 7-member Commission that meets monthly.
  - Staff of 33 with 2 Field Offices, all located in southern Nevada.



# CRCNV Overview

CRCNV owns, operates and maintains power and communication facilities located in and around Las Vegas, Henderson and Boulder City.

Responsible for protecting the rights and interests to Nevada's entitlement of water made available from the Colorado River.

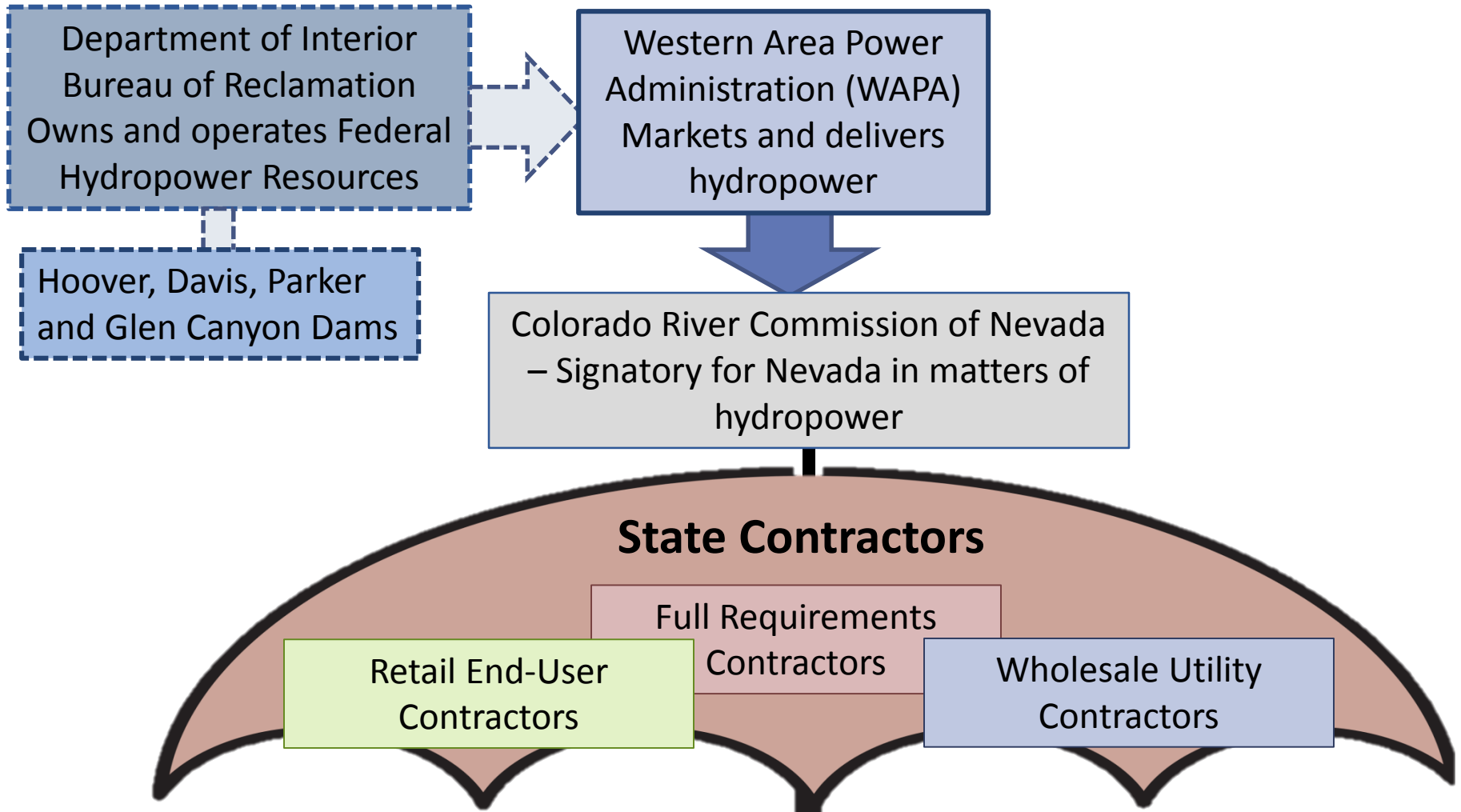
Purchases hydropower from federal hydroelectric facilities on the Colorado River located at Hoover, Davis, Parker and Glen Canyon dams and allocates the hydropower for the greatest benefit to Nevada. CRCNV also purchases non-hydropower resources for certain customers.

Strives to protect the water quality, and the aquatic and terrestrial integrity of the Colorado River Basin while ensuring the continued operation of the Colorado River for the authorized beneficial purposes.

# Federal Hydropower

- The Department of Interior, Bureau of Reclamation owns, operates, and maintains the dams and power plants.
- The Department of Energy, Western Area Power Administration (WAPA) markets and delivers the federal hydropower.
- Two ways federal hydropower is marketed:
  - Federal Regulatory Process and
  - Authorized by Congress in 1934, 1984 and 2011 (Hoover Dam)
- Federal hydropower law requires allocations under specific preference law provisions to non-profit public entities.
  - CRCNV serves as the non-profit preference customer
  - CRCNV allocates within the state under state law

# Federal Hydropower Contract Structure





# Federal Contract Provisions

- Long-term Contracts (40-50 years)
- Cost-based energy resource, typically below market
- Limited termination provisions
- Very little ability to get resource back if given up
- Restrictions on resale and resource use provisions
- Accept load in Nevada
- Within WAPA's marketing area

# State Contract Provisions

- Contract terms range from 15-50 years.
- The CRCNV seeks to ensure that Nevada's hydropower is used to the greatest possible benefit to this state (NRS 538.161).
- CRCNV's contracts with utility providers require the low cost benefits of hydropower be passed on to their customers (NAC 538.540 (3)).
- Nevada Power Company must pass through to its residential class of customers, the economic benefits of a portion of its Hoover hydropower resource (NAC 538.540 (4)).
- CRCNV passes through certain federal contract provisions.

# CRCNV Reallocation Provisions

- The CRCNV statutory regulations require a public, transparent process for reallocation (NAC 538.455).
- Contractor liable for payments until reallocation process complete.
- CRCNV also has temporary lay-off provisions; meaning unused hydropower can be provided to other contractors.

# CRCNV Hydropower Benefits

- Hydropower is a highly desirable resource because it is clean, low-cost and renewable.
- Cost-based rates:
  - Hoover \$22.13 MWH
  - Parker-Davis \$13.53 MWH
  - Glen Canyon Dam \$29.42 MWH
- CRCNV provides input into federal operations, maintenance and budgets.
- CRCNV passes through other costs (ie. Admin, transmission, and habitat improvement costs).

# Hoover Hydropower

- CRCNV's federal contract effective September, 2016 for deliveries beginning October 1, 2017 through September 30, 2067.
- CRCNV's allocation by Congressional Act. (Hoover Power Allocation Act of 2011 43 USC 619a)
- Hoover hydropower allocated by WAPA and CRCNV, all contracts with CRCNV.
- City of Boulder City allocated hydropower by Congressional Act.





# State Contractors beginning Oct 1, 2017

| Full Requirements Contractors | Wholesale Utility Contractors       | Retail End-User Contractors    |                                     |
|-------------------------------|-------------------------------------|--------------------------------|-------------------------------------|
| Basic Water Company           | City of Boulder City                | City of Henderson              | College of Southern Nevada          |
| Lhoist                        | Lincoln County Power District No. 1 | City of Las Vegas              | Las Vegas Valley Water District     |
| Olin Chlor Alkali Products    | Nevada Power Co. dba. NV Energy     | City of Mesquite               | Nevada Department of Administration |
| TIMET                         | Overton Power District No 5         | City of North Las Vegas        | Nevada Department of Corrections    |
| Tronox                        | Valley Electric Association         | Clark County School District   | Nevada Department of Transportation |
|                               |                                     | Clark County Water Reclamation | Southern Nevada Water Authority     |
|                               |                                     |                                | University of Nevada – Las Vegas    |

# Full Requirements Contractors

- NRS 538.161 and 538.181 allow for CRCNV to supply supplemental power.
- CRCNV contracts to provide scheduling and ancillary services.
  - Lhoist
  - TIMET
  - Tronox
  - Basic Water Company
  - Olin Chlor Alkali Products

# Wholesale Utility Contractors

- CRCNV contracts with southern Nevada utilities to provide hydropower.
- These utility companies may be affected by Energy Choice
  - City of Boulder City (also has own federal allocation by Congress)
  - Nevada Power Company dba NV Energy
  - Lincoln County Power District
  - Overton Power District
  - Valley Electric Association
- Right to renew per NRS 538.181(7), Hoover contract last renewal.

# Hydropower vs. Total Load Wholesale Utility Contractors

**Total of all Utility Deliveries in FY 2016 24,104,426,000 kWh**

Hoover 638,909,000 kWh

Parker-Davis 62,021,000 kWh

Glen Canyon 76,553,000 kWh

**Total Hydropower 777,483,000 kWh Or 3%**

- Currently federal hydropower does NOT qualify as “renewable” under Nevada’s Renewable Portfolio Standard (RPS).

# Summary

- Federal hydropower is a valuable, low-cost, renewable resource available to Nevada.
- The CRCNV, City of Boulder City and other Nevada entities hold long-term contracts with the federal Power Marketing Agencies for hydropower.
- The CRCNV allocates its hydropower within Nevada under long-term contracts and determines what is in the best interest of this State.



# Summary

- **The Energy Choice Initiative has raised questions regarding:**
  - Ability of Nevada to continue to benefit from low-cost, renewable federal hydropower.
  - Viability of these long-term hydropower contracts.
  - Policy of the CRCNV as to what is in the “best interest of the State”.
  - Process on providing value to some CRCNV customers will change.
  - Legal questions.
  - CRCNV may need specific legislation.

# Hoover Dam Allocations

- CRCNV's contract expires 2067.
- Some state allocations are 50 years and some are 15 years.

## CRCNV Allocations of Hoover Hydropower

| <u>Contractor</u>    | <u>Capacity</u><br>(kW) | <u>Annual</u><br><u>Energy</u><br>(kWh) | <u>Contractor</u>                | <u>Capacity</u><br>(kW) | <u>Annual</u><br><u>Energy</u><br>(kWh) |
|----------------------|-------------------------|---|----------------------------------|-------------------------|---|
| Basic Water Co.      | 4,875                   | 9,251,239                               | CSN                              | 282                     | 615,019                                 |
| Lhoist               | 386                     | 2,055,858                               | LVVWD                            | 7,049                   | 19,389,730                              |
| Olin                 | 1,750                   | 3,818,223                               | Lincoln Cty Power District No. 1 | 28,215                  | 101,245,012                             |
| Timet                | 21,609                  | 107,417,054                             | Nevada Power Company             | 237,558                 | 497,725,963                             |
| Tronox               | 17,824                  | 71,783,386                              | Overton Power District No. 5     | 19,707                  | 46,438,260                              |
| City of Boulder City | 8,584                   | 16,976,897                              | Southern NV Water Authority      | 17,146                  | 79,349,211                              |
| City of Henderson    | 3,695                   | 12,073,907                              | State of NV, Admin               | 109                     | 238,566                                 |
| City of Las Vegas    | 3,846                   | 12,397,834                              | State of NV, Corrections         | 282                     | 615,019                                 |
| City of Mesquite     | 1,000                   | 2,181,842                               | State of NV, Transportation      | 116                     | 253,887                                 |
| City of N. Las Vegas | 1,765                   | 3,851,805                               | Valley Electric Association Inc. | 17,673                  | 41,209,635                              |
| CC School District   | 3,007                   | 6,566,044                               | UNLV                             | 2,806                   | 6,122,153                               |
| CCWRD                | 3,469                   | 11,579,266                              | <b>CRCNV Total</b>               | <b>71,810 kW</b>        | <b>259,953,355 kWh</b>                  |



# Glen Canyon Dam Allocations

- CRCNV's contract and CRCNV's customers contracts expire September 30, 2024.

## CRCNV Allocations of Glen Canyon Dam Hydropower

| <u>Contractor</u>            | <u>Capacity<br/>(kW)</u> | <u>Annual Energy<br/>(kWh)</u> |
|------------------------------|--------------------------|--------------------------------|
| City of Boulder City         | 7,279                    | 21,570,508                     |
| Overton Power District No. 5 | 8,256                    | 24,464,888                     |
| Valley Electric Assoc.       | 11,879                   | 35,201,567                     |
| <b>CRCNV Total</b>           | <b>27,414 kW</b>         | <b>81,236,963 kWh</b>          |

# Parker – Davis Project Allocation

- CRCNV's contract and CRCNV's customer contracts expire September 30, 2028.

## CRCNV Allocations of Parker-Davis Hydropower

| <u>Contractor</u>               | <u>Capacity<br/>(kW)</u> | <u>Annual Energy<br/>(kWh)</u> |
|---------------------------------|--------------------------|--------------------------------|
| Basic Water Company             | 3,001                    | 6,039,944                      |
| Lhoist                          | 237                      | 1,342,210                      |
| Timet                           | 13,304                   | 70,130,458                     |
| Tronox                          | 17,581                   | 77,848,163                     |
| Southern Nevada Water Authority | 9,456                    | 46,641,788                     |
| Overton Power District No. 5    | 4,497                    | 21,923,409                     |
| Valley Electric Association     | 8,484                    | 40,097,644                     |
| <b>CRCNV Total</b>              | <b>56,560kW</b>          | <b>264,023,616 kWh</b>         |

Parker Dam – “Run of River”

# Questions?



JAYNE HARKINS, P.E.  
Executive Director

(702) 486-2670

COLORADO RIVER COMMISSION  
OF NEVADA  
555 EAST WASHINGTON AVE., Suite 3100  
LAS VEGAS, NV 89101

CRCNV Website:  
[crc.nv.gov](http://crc.nv.gov)