



Presentation to Legislative Committee on Energy

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and

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Agenda Item IV B (Energy)
Meeting Date: 04-18-18



Southern Nevada Water Authority (SNWA)

Member Agencies include:

- Las Vegas Valley Water District
- City of Las Vegas
- City of Henderson
- City of North Las Vegas
- City of Boulder City
- Clark County Water Reclamation District
- Big Bend Water District



Power Management

The SNWA began managing its own power needs in 1990s

- High degree of reliability
- Significant amounts of energy
- Energy represents a significant portion of operating costs
- Energy price volatility directly influences water rates



Power Management

The SNWA built a transmission system to interconnect major pumping and water treatment facilities with a wholesale power hub (Mead)

- The majority of SNWA's power loads are on its own transmission system
- Western Area Power Administration (WAPA) provides ancillary services (regulation, reserves, balancing) for these loads
- SNWA's remaining larger power loads are embedded within NV Energy's distribution system
- Distribution Only Service (DOS) is purchased from NV Energy to wheel our power to these loads
- These loads paid exit fees in order to leave traditional bundled service from NV Energy (2004)
- SNWA also has some small power loads which take retail service from NV Energy



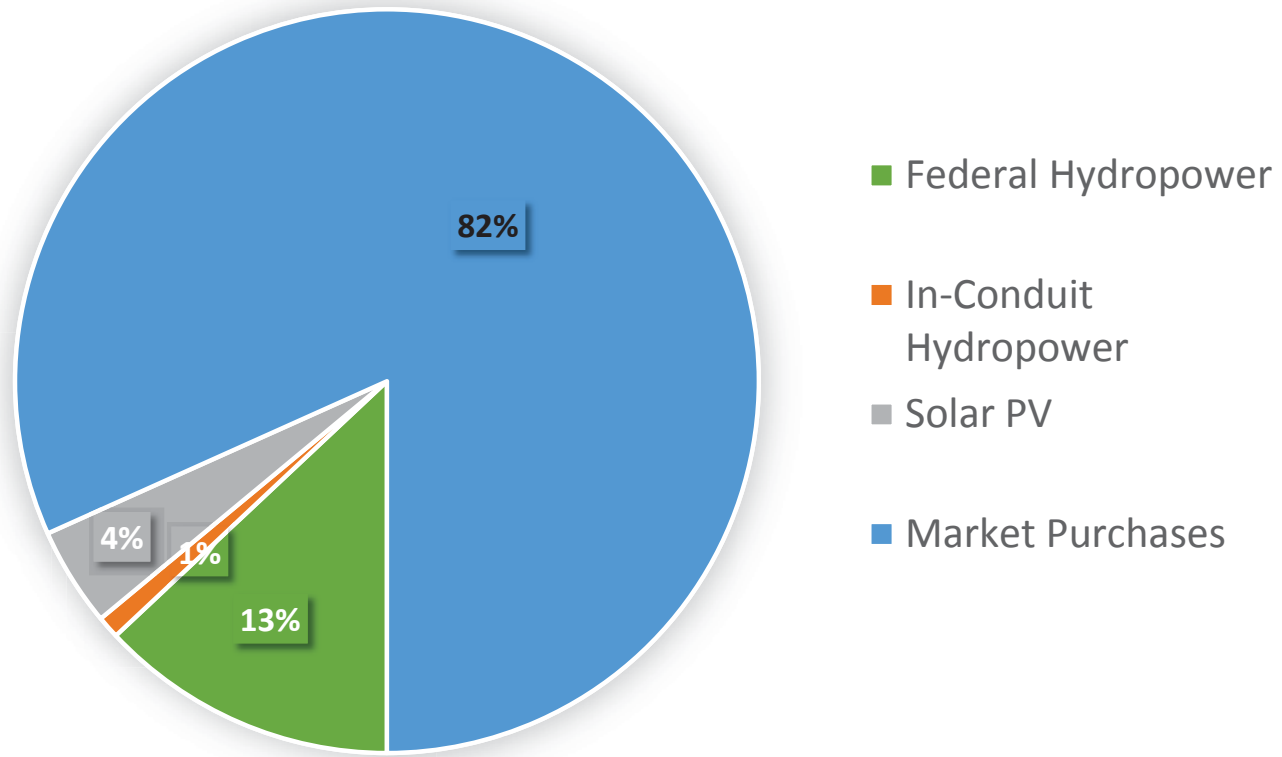
Power Management

The SNWA produces some of its power supplies and purchases some of its supplies

- Solar photovoltaic at multiple locations
- In-conduit hydropower
- Federal hydropower
- Purchased supplies



SNWA's Energy Portfolio





Power Management

NRS 704, SNWA also provides wholesale power to some of the water/wastewater related loads of its member agencies

- All of these loads are embedded within NV Energy's distribution system
- DOS is purchased from NV Energy to wheel power to these loads
- These loads paid exit fees in order to leave traditional bundled service from NV Energy (2006-2013)
- Some of these entities also produce and own some of their own energy supplies (solar power and federal hydropower)



Silver State Energy Association (SSEA)

The SNWA joined together with several other public agencies to form the SSEA in 2007

- A political subdivision of Nevada formed under NRS 277
- Governed by a five-member Board of Directors representing each of its members
- Staffed by employees of SNWA and Colorado River Commission of Nevada (CRC)
- Daily, hourly and real-time scheduling and trading performed by WAPA
- Members of SSEA receive services through participation in Project Services Agreements



SSEA Members

- City of Boulder City
- Colorado River Commission of Nevada
- Lincoln County Power District No. 1
- Overton Power District No. 5
- SNWA



Power Supply Management Service

Project participants may choose between two service types:

No. 1: LRS: Load Requirements Service

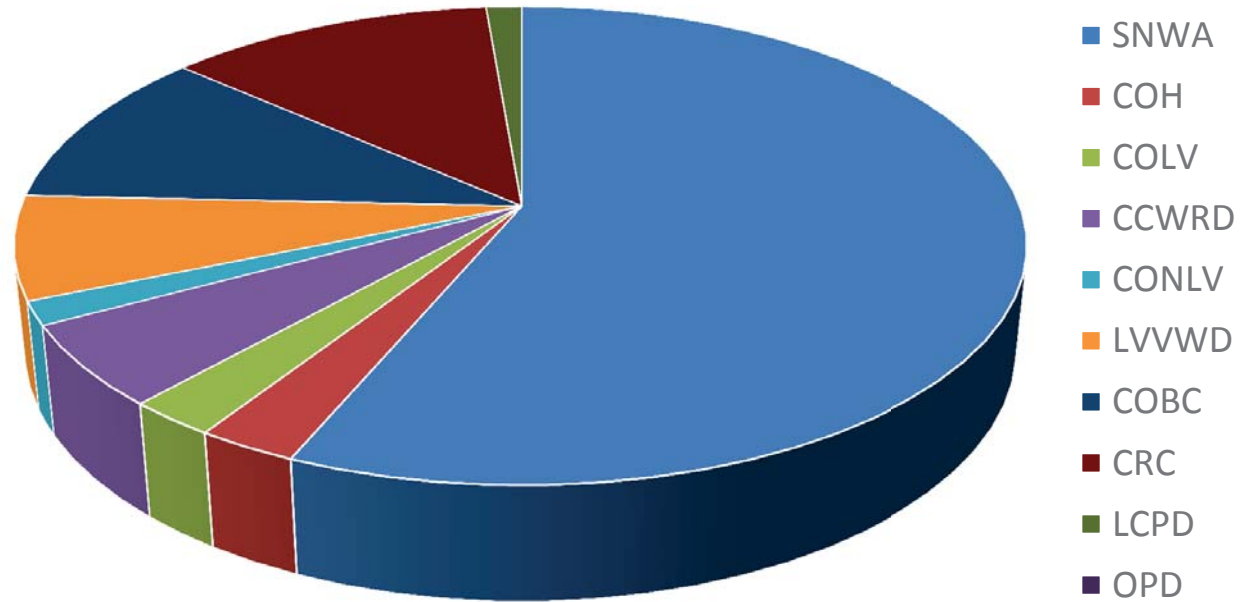
- Load forecasting
- Scheduling & tagging
- Resource procurement & optimization
- Price risk management

No. 2: PPSS: Power Purchase Sale Service

- Standard product purchase & sale upon request

SSEA 2017 Energy Deliveries to Members

1,504,739 MWh





SSEA Wholesale Market Trading

- Mead market hub
- Standard products (peak, off-peak, super-peak, etc.)
- WSPP Schedule C firm
- Standard block sizes
- Readily tradeable liquid products



SSEA Price Risk Management

- Fixed-priced physical power where viable
- Natural gas financial hedging otherwise
- Five-year forward trading horizon
- Direct bilateral trading
- Broker arranged trading
- Electronic exchange trading



SSEA Energy Risk Management Policy & Procedures

- All trading governed by policy and procedures
- Daily monitoring and reporting



Benefits of Portfolio vs. Individual Management

- Economies of scale
- Minimum size staff and resources required for any level of power management
- Adding additional load requires little/no extra overhead
- Manage to one combined energy requirement vs. each separately
- Resource optimization among members
- Shared resource development



Questions

