
Prepared for the Governor’s Committee on Energy Choice Workgroups

Generation, Transmission & Delivery

Energy Consumer & Investor Impacts

August 17, 2017

Richard “Hank” James
Executive Director
NREA
NEVADA RURAL ELECTRIC ASSOCIATION

• Founded in 1974, NREA members are not-for-profit associations of persons who procure and distribute electric service on behalf of their owner-members:
  • One municipal distribution system
  • Six rural electric cooperatives
  • Two power districts.

• NREA Advocates for owner-member/consumers with national and state legislators, agencies, local governments, and like-minded organizations about the importance of the services our utility members provide.
Governance

• Each NREA member is an individual association of people with a common purpose to procure and distribute aggregated energy load solely for the members of their Association.

• Local, democratically elected boards are at the center of each member’s electric distribution system with a common mission to distribute:
  • safe, reliable, and low-cost electric service for their owner-member/consumers

• PUCN oversight is limited as prescribed in various NRS enabling statutes relative to the Association’s entities:
  Electric Cooperatives --- Power Districts --- Municipalities.
NREA Utility Members Do Not Have “Customers”

• Net revenues are allocated back to the Owner/Members as *capital credits*... Either refunded by check or utility bill credit on a pro-rata basis. *(Cooperatives)*

• For Public Utility Districts and Municipalities, net revenues are returned to the consumer manifested in lower rates or lower taxes.

<table>
<thead>
<tr>
<th>Total Utility Plant Investment CY 2015</th>
<th>Total Annual Revenue CY 2015</th>
<th>Total Employees CY 2015</th>
<th>Total Annual Payroll CY 2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>$293,852,330</td>
<td>$184,353,076</td>
<td>266</td>
<td>$12,345,678</td>
</tr>
</tbody>
</table>
Fundamental Characteristics of NEVADA’S RURAL ELECTRIC DISTRIBUTION SYSTEMS

• NREA Members currently offer meaningful choice to their member/consumers...
  • In their power supply options, their rates, and in the make-up of their Boards’.
  • All owner-members have one vote regardless of the amount of energy purchased.

• Provide electricity over ~50% of the land and serve ~10% of the Nevada’s population.

• NREA utility members serve an average 5.2 consumers per mile of distribution power line, compared to over 34 consumers per mile.

• Nevada’s rural distribution systems seek to acquire and distribute least-cost power supply resources with high reliability (99.99%) to meet native demand as they arise.
Fundamental Characteristics of NEVADA’S RURAL ELECTRIC DISTRIBUTION SYSTEMS

- **The democratic structure** of NREA member Boards
  - Enable each utility system Board to make progressive changes to their own energy policies... only if their owner-members/consumers want change.
  - All owner-members have one vote regardless of the amount of energy purchased.
- **Not vertically integrated** (unique exception: Mt Wheeler – Deseret Power)
  - Aggregated community load within each Association’s Service Areas
  - Procure energy from providers of choice
  - Net metering for individual consumer-owned Distributed Generation
- NREA utility members have **no excess margin component** when setting rates.
  - Rate components = Energy + Demand + Cost of Business
NREA UTILITY MEMBERS

• Lincoln County Power District No. 1, Pioche, NV
• Mt. Wheeler Power, Ely, NV
• Wells Rural Electric Company, Wells, NV
• Overton Power District #5, Overton, NV
• Boulder City Electric Utility, Boulder City, NV
• Raft River Rural Electric, Malta, ID
• Harney Electric Cooperative, Hines, OR
• Surprise Valley Electrification Corp, Alturas, CA
• Plumas-Sierra Rural Electric Co-op, Portola, CA
LOCATION OF NEVADA’S RURAL ELECTRIC UTILITIES
Summary by the Numbers

• Utility Members: 9
• Renewable/Carbon-Free Portfolio: ~65%
• Nevada Consumers: 41,562
• Distribution - 12,248 Miles – Transmission 1,664 Miles (Local)
• Owner-Member/Consumers per mile of distribution line: 5.2
• Nevada Service Territory: 48,216 square miles
• Employees: 266
• Combined Load: 2,731,475 MWh - Peak Load: 502 MW (CY2015)
• Elected Owner-Member/Consumer Directors: 68
Transition to an Open Energy Market

• As defined in a previous ECI Committee meeting this Spring, Nevada’s new regulatory framework:
  • ...“May include economic and orderly divestiture of generation and limits on corporate affiliates serving as Retail Energy Providers”.  
    (Source: Nevadans for Affordable Clean Energy Choices, April, 2017)

• NREA members have procured long-term energy-supply contracts with the Federal Government
  • Carbon-free hydro power through BPA (North) and WAPA (South)
  • From 11 to 68 years induration
  • “Take or Pay” obligation
NREA Member Segmentation for Wholesale Power Supply

• ECI will uniquely impact each NREA member according to each individual system’s Board Policies.

• Common factors:
  • “Take or Pay” contract obligations for all
    • Five NREA Members: “All Requirements” customers of BPA (North)
    • Two Power Districts and one Municipal: Combination of Federal hydro contracts and Market-based purchases (South)
  • Interstate service for Six NREA members. (exceptions: OPD, LPD, BC)
  • Mt Wheeler Power: Unique G & T relationship
### Estimated Economic Impact of Energy Choice Initiative

#### Stranded Investment

<table>
<thead>
<tr>
<th>Description</th>
<th>Annual Cost</th>
<th>Term in Years</th>
<th>Extended Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bonneville Power Administration Wholesale Power Supply Contract</td>
<td>$29,707,392</td>
<td>11</td>
<td>$326,781,312</td>
</tr>
<tr>
<td>Northwest Energy Management Services</td>
<td>$1,440,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trout Creek Hydroelectric Generation Plant</td>
<td>$33,583</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transmission</td>
<td>$199,248</td>
<td>11</td>
<td>$2,191,728</td>
</tr>
<tr>
<td>Obsolete meters</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Stranded Investment Subtotal</strong></td>
<td><strong>$31,380,223</strong></td>
<td></td>
<td><strong>$328,973,040</strong></td>
</tr>
</tbody>
</table>

#### Contractual Obligations

<table>
<thead>
<tr>
<th>Description</th>
<th>Annual Cost</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Long-term debt</td>
<td>$493,266</td>
<td>$14,011,061</td>
</tr>
<tr>
<td>Post-retirement benefits</td>
<td>$2,814,088</td>
<td></td>
</tr>
<tr>
<td>International Brotherhood of Electrical Workers Local 1240? Labor Contract</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Member Equity (Allocated as Capital Credits)</td>
<td>$600,000</td>
<td>$18,871,720</td>
</tr>
<tr>
<td>Contractual Obligation Subtotal</td>
<td><strong>$3,414,088</strong></td>
<td><strong>$32,882,781</strong></td>
</tr>
</tbody>
</table>

**Total**                                              | **$361,855,821**|                     |
Overton Power District #5

Unfunded Portion of Contracts
(Future Amount to be Paid in 2017 Dollars Until Contract Term Expiration)

<table>
<thead>
<tr>
<th></th>
<th>WAPA-BCP</th>
<th>Market Contract</th>
<th>WAPA-SLCAIP</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/1/2018 – Expiration</td>
<td>$78,550,972.00</td>
<td>$113,680,760.18</td>
<td>$8,873,432.87</td>
<td>$201,105,165.07</td>
</tr>
<tr>
<td>1/1/2018 - 7/31/2023</td>
<td>$6,962,852.89</td>
<td>$89,425,567.35</td>
<td>$7,028,957.35</td>
<td>$103,417,377.59</td>
</tr>
<tr>
<td>8/1/2023 – Expiration</td>
<td>$71,588,119.18</td>
<td>$24,255,192.83</td>
<td>$1,518,029.21</td>
<td>$97,361,341.22</td>
</tr>
</tbody>
</table>

$401,883,883.88
<table>
<thead>
<tr>
<th>Description</th>
<th>Annual Cost</th>
<th>Term in Years</th>
<th>Extended Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stranded Investment</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Snake Valley Hydro Generation</td>
<td>$0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NITSA Transmission Contract (3) not including ancillary services</td>
<td>$1,113,000</td>
<td>17</td>
<td>$18,921,000.00</td>
</tr>
<tr>
<td>Obsolete meters(4)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Undepreciated Plant Assets owned by members</td>
<td></td>
<td></td>
<td>$37,668,709.00</td>
</tr>
<tr>
<td>Standed Investment Subtotal</td>
<td>$1,113,000</td>
<td></td>
<td>$56,589,709.00</td>
</tr>
<tr>
<td>Contractual Obligations</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Deseret Power Wholesale Contract (through 2080)</td>
<td>$9,100,000</td>
<td>63</td>
<td>$573,300,000.00</td>
</tr>
<tr>
<td>IPP Contract Wholesale Power Contract (Through 2077) Current Debt obligation</td>
<td>$0</td>
<td></td>
<td>$20,707,420.00</td>
</tr>
<tr>
<td>Western Area Power Administration Contract (Through 2025) (2)</td>
<td>$889,785</td>
<td>9</td>
<td>$8,008,065.00</td>
</tr>
<tr>
<td>Long-term debt (Annual P &amp; I)</td>
<td>$2,125,000</td>
<td></td>
<td>$15,250,000.00</td>
</tr>
<tr>
<td>Post-retirement benefits</td>
<td>$0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>International Brotherhood of Electrical Workers Local 1240 Labor Contract</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Member Equity (Allocated as Capital Credits)</td>
<td>$825,000</td>
<td></td>
<td>$27,339,358.41</td>
</tr>
<tr>
<td>USDA REDLG Community Facilities Obligations (WP County Judicial Center)</td>
<td>$0</td>
<td></td>
<td>$1,000,000.00</td>
</tr>
<tr>
<td>Contractual Obligation Subtotal</td>
<td>$12,939,785</td>
<td></td>
<td>$645,604,843.41</td>
</tr>
</tbody>
</table>
Lincoln County PD #1

- LCPD has a contract for hydroelectric power that extends through September 30, 2067
- The value of that contract in 2017 dollars is $106,892,062
- The contract is “Take or Pay” and does not provide for early termination
- If LCPD were precluded from selling this hydroelectric power to its customers as a result of the Energy Choice initiative:
  - LCPD would continue to have to pay for its hydroelectric power
  - The cost this power represents approximately 40% of LCPD’s operating budget and equates to $2,137,841 per year in 2017 dollars
Boulder City

• Boulder City’s Hoover Dam and SLCAIP contracts expire on 9/30/2067 and 9/30/2024, respectively. (Take or Pay)

• The value of the hydro contracts from 7/1/2023 through expiration is $86.4M, based on CY2016 actual hydro cost per MWh, and hydro contract allocations

• If Boulder City were required to replace hydro energy with market purchases, the cost would be $4.58M annually, based on CY2016 average cost of market energy.

• This amount is in addition to Boulder City’s existing market purchases.
Raft River Electric Cooperative

• *Estimated* Economic Impact of Energy Choice Initiative

**Stranded Investment:**

<table>
<thead>
<tr>
<th>Description</th>
<th>Annual Cost</th>
<th>Term in Years</th>
<th>Extended Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>BPA Contract (NV)</td>
<td>$1,818,182</td>
<td>11</td>
<td>$20,000,000</td>
</tr>
</tbody>
</table>

**Other Contractual Obligations**

• Long-term debt  (Transmission serving Nevada) $16,460,000
Additional Transition Costs for NREA owner-members in an Open Energy Market Structure would include:

- Alternative Power Providers’ profit margin (10-15%)
- Transmission and retail wheeling costs (TBD)
- NREA’s existing PPA Divestiture/Liquidation costs ($1 Billion+)
- Additional Transition costs
  - Including, but not limited to:
    - Automated Meter Infrastructure (if possible)
    - Billing software
    - New regulatory oversight/compliance
NREA’s Wholesale Power Supply Resources (Primary)

- Bonneville Power Administration (BPA)
  - 4 Northern Electric Cooperatives

- Deseret Power (G &T)
  - Mt Wheeler Power (Eastern NV)

- Western Area Power Administration (WAPA)
  - 2 South-Central Power Districts (CRC)
  - Boulder City

- Hoover Dam (Direct)
  - Boulder City
Nevada Rural Electric Association
Richard "Hank" James
Executive Director

1894 E. William Street, Suite 4222
Carson City, Nevada  89701
(775)275-0439
hjames@nrea.coop