The public may view the meeting live at the following link:

https://www.bcnv.org/191/City-Council-Meeting-Live-Stream-Video

ITEMS LISTED ON THE AGENDA MAY BE TAKEN OUT OF ORDER; TWO OR MORE AGENDA ITEMS FOR CONSIDERATION MAY BE COMBINED; AND ANY ITEM ON THE AGENDA MAY BE REMOVED OR RELATED DISCUSSION MAY BE DELAYED AT ANY TIME.

CALL TO ORDER

CONFIRMATION OF POSTING AND ROLL CALL

PUBLIC COMMENT

PUBLIC COMMENT DURING THIS PORTION OF THE AGENDA MUST BE LIMITED TO MATTERS ON THE AGENDA FOR ACTION. EACH PERSON HAS UP TO FIVE MINUTES TO SPEAK ON A SPECIFIC AGENDA ITEM.

MEMBERS OF THE PUBLIC MAY PARTICIPATE IN THE MEETING WITHOUT BEING PHYSICALLY PRESENT BY ONE OF THE FOLLOWING METHODS:

- Written comments may be submitted via the Public Comment Form (https://www.bcnv.org/FormCenter/Contact-Forms-3/City-Council-Comment-Form-111)

- To comment during the meeting, members of the public may call (702) 589-9629 when the public comment period is opened.

AGENDA

1. For possible action: Election of Chairman and Vice Chairman for the Utility Advisory Committee
2. For possible action: Approval of the May 4, 2022 Utility Advisory Committee meeting minutes
3. Update on ongoing capital improvement projects and Utility Fund Capital
Projects Year to Date provided by staff

4. Update and Discussion of the Electric Integrated Resource Plan (IRP) and Water Conservation Plan

5. For possible action: Discussion and Possible Action of Committee Goals, Priorities, and Deliverable Requests

6. For possible action: Discussion regarding potential agenda items for upcoming Utility Advisory Committee Meetings

7. Public Comment

Each person has five minutes to speak at the discretion of the Mayor/Chair. Comments made during the Public Comment period of the agenda may be on any subject. All remarks shall be addressed to the City Council/Board as a whole, not to any individual member of the Council/Board, of the audience, or of the City staff. No person, other than members of the Utility Advisory Committee and the person who has the floor, shall be permitted to enter into any discussion, either directly or through a member of the Utility Advisory Committee, without the permission of the Chair or Presiding Officer. No action may be taken on a matter raised under this item of the agenda until the matter itself has been specifically included on an agenda as an item upon which action will be taken.

Supporting material is on file and available for public inspection at the City Clerk's Office, 401 California Avenue, Boulder City, Nevada 89005 and the Boulder City website at www.bcnv.org, as per NRS 241. To request supporting material, please contact the City Clerk Tami McKay at (702) 293-9208 or cityclerk@bcnv.org.

Notice to persons with disabilities: Members of the public who are disabled and require special assistance or accommodations at the meeting are requested to notify the City Clerk by telephoning (702) 293-9208 at least seventy-two hours in advance of the meeting.

This notice and agenda has been posted on or before 9 a.m. on the third working day before the meeting at the following locations:

Boulder City Hall, 401 California Avenue
www.bcnv.org
https://notice.nv.gov/
Item 1 Election of Chairman and Vice Chairman

SUBJECT:
For possible action: Election of Chairman and Vice Chairman for the Utility Advisory Committee

ADDITIONAL INFORMATION:

<table>
<thead>
<tr>
<th>Description</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Item 1 Staff Report</td>
<td>Cover Memo</td>
</tr>
</tbody>
</table>
Utility Advisory Committee Meeting
June 15, 2022
Item No. 1

Staff Report

TO: Utility Advisory Committee
FROM: Joseph R. Stubitz, P.E., Utilities Director
DATE: June 15, 2022

SUBJECT: For possible action: Election of Chairman and Vice Chairman for the Utility Advisory Committee

Action Requested: That the Utility Advisory Committee select a Vice-Chair to serve for a one-year term.

Background Information: At its regular meeting April 9, 2019, City Council established the Utility Advisory Committee (Resolution No. 6917). The purpose of the committee is to advise Council, Utilities Director, and City Manager on matters concerning the operations of the municipal utilities. At the May 28, 2019, City Council appointed seven members to the Utility Advisory Committee.

At the May 25th, 2021, City Council meeting, the Council acted to reappoint three of the current members and appoint one new member.

At the June 30th, 2021, Utility Advisory Committee meeting, the UAC elected a Chairman and Vice Chairman. At this time, a new Chairman and Vice-Chair needs to be selected.

Staff Recommendation: That the Utility Advisory Committee select a Chairman and Vice-Chair to serve for a one-year term.
Item 2 Minutes

SUBJECT:
For possible action: Approval of the May 4, 2022 Utility Advisory Committee meeting minutes

ADDITIONAL INFORMATION:

<table>
<thead>
<tr>
<th>Description</th>
<th>Type</th>
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</thead>
<tbody>
<tr>
<td>5-4-22 UAC Meeting Minutes</td>
<td>Cover Memo</td>
</tr>
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</table>
BOULDER CITY
UTILITY ADVISORY COMMITTEE MEETING
[Agenda previously posted in accordance with NRS 241.020.3(a)]

CALL TO ORDER: The regular meeting of the Boulder City Utility Advisory Committee was called to order by Chairman Larry Karr at 3:00 p.m. Wednesday, May 4, 2022, in the Council Chamber, City Hall, 401 California Avenue, Boulder City, Nevada, with the following members present:

Present: Chairman Larry Karr
          Vice-Chairman Eileen Wilkinson
          Committee Member Marty Rihel
          Committee Member Ned Shamo
          Committee Member Lloyd Anderson

Also present: Utilities Director Joe Stubitz
               Utilities Analyst Joshua Hardy
               CIP Coordinator Carol Lelles

Absent: Committee Member Greg Todd
        Committee Member Howard Analla

PUBLIC COMMENT:
There were no public comments.

AGENDA:

1. For Possible Action: Approval of the April 6, 2022, Utility Advisory Committee meeting minutes

Utilities Director Stubitz corrected his statement regarding the raw water line was not concrete lined. It is concrete lined.

Motion: To approve the April 6, 2022, Utility Advisory Committee meeting minutes with corrections made by Director Stubitz.

Moved by: Seconded by:

Vote:

AYE: Chairman Larry Karr, Vice Chairman Eileen Wilkinson, Committee Member Marty Rihel, Committee Member Greg Todd, Committee Member Ned Shamo (5)
NAY: None

2. Discussion and Review of the 5-Year Utility Capital Improvement Plan

CIP Coordinator Carol Lelles presented the information from the agenda packet. In addition, she provided corrected sections of the packet to the Committee. The total cost for FY23-27 was $54,635,249.00 for three categories of Electric, Water, and Wastewater.

Carol Lelles discussed the funding sources. She added that the final funds from Track 349, the CIP number three, were $2,074,612. That would all go to the electric feeder project in FY23. The total Electric fund would be $40,412,137.00. The CIP number three fund was originally designated for a water project. When they received ARPA funding they moved the money to a different project. She detailed the timeline of moving the funds to the Feeder 63 to Substation 3 Tie project. In three months they would discuss ARPA funding for FY24.

The ARPA funding would be received in two parts. The first tranche was received at about $10.2 M. The second would be around that amount in May. They have to designate the money by December of 2024 and spend it by December 2026. They were designating money on projects already done. The City Managers’ report would show the current status of the ARPA money and how it’s used. She discussed that report.

Electric Fund Projects FY23-27

Carol Lelles commented on the ClearGov budget system and how to navigate it. She hoped to improve the reporting for clear information. The separate pages were not public and could not be accessed by the Committee. The public pages were only for the CIP and projects. She would provide the correct link to the Committee.

The total fund was $42,486,749.00. Changes would be made when it was decided how to do transformer and substation projects. The projects would not move forward until approved by the City Council. The timeline will be examined. The total needed for FY23 would be $13,878,196.00.

The committee discussed PayGo and how that would reduce the number and that it should be addressed with the City Council.

Water Fund Projects FY23-27

The biggest difference from the last report was that the ARPA funding was moved from FY23 to the projects. It had not been approved by the Council previously. It was a total of $7,110,000.00. The total for FY23 was $2,206,000.00. ARPA would fully fund this. They discussed moving projects forward to FY22 ARPA funds.

Wastewater Fund Projects FY23-27
The project for Aeration Basin may not be necessary if they build a treatment plant. All wastewater projects were anticipated as ARPA fund qualified. The total would be $5,038,500.00.

Chairman Karr asked if there were additional funds for wastewater.

Coordinator Lelles stated that it was for the headworks project. It was not in the CIP funding source. It was an existing project, so the approval to accept funding would go to City Council, and a budget adjustment would be made. It would not be seen in the CIP currently.

She continued with the presentation on the Timeline for Final Approval of CIP in the FY23 Operating Budget.

They opened the item for discussion amongst the Committee.

Chairman Karr wanted clarification that the $6M associated with the transformers had already been funded.

Coordinator Lelles stated that money was not added to the FY22 budget. A contract was never taken to the City Council to move forward. Once they went through the adjustment to the five-year CIP, it was then designated. The Utilities Director was closely observing the timing of things.

Director Stubitz stated that the timeline was looking at replacement and building new substations. They were looking at partnerships for transformer storage. They would have better information for the substations once they know what would happen with building a new substation. Transformers had an 18-month lead time.

Chairman Karr asked about the line to Solar Field.

Coordinator Lelles stated they discussed the existing line and needed new pressure valves.

Director Stubitz stated he did not have additional information on that project. He would get more information regarding that. They had grant money to upgrade the meters.

Chairman Karr asked if they would upgrade commercial meters.

Director Stubitz stated they would have money to upgrade those meters. He discussed the plan for that project.

Chairman Karr asked if they could make improvements on the San Filipe line while they were making repairs. He asked for specifications on the new water line.

Coordinator Lelles noted that in FY27, they had a project to remove the equipment.
Utility Advisory Committee Meeting Minutes, May 04, 2022

For possible action: Advise City Council to Approve Fiscal Year 2023 of the Utility Capital Improvement Plan

Director Stubitz commented they were working on getting an Engineer on staff. They were discussing ways to achieve all of the needed projects. He appreciated the Committee.

Chairman Karr noted that he understood two major issues were being addressed, replacing aging infrastructure and reliability.

Director Stubitz stated that redundancy would help them increase reliability.

Chairman Karr stated that he wanted the City Council to understand the reason for urgency with replacement and redundancy. They have found more projects needed and would require more money. He wanted the report to show its importance.

Committee Member Anderson stated that redundancy did not mean additional equipment but using what was existing.

Director Stubitz noted that they would provide safe and affordable utilities. They have identified areas that need replacement. They didn’t want to be in emergencies that required backup plans.

Chairman Karr noted that it helped to repeat the cut-over and emphasize its importance.

Committee Member Wilkinson was concerned that pushing projects to FY23 would not allow time for them to get done. Therefore, she did not want to approve that plan.

Chairman Karr stated that the budgeted amount needed to cover the required personnel. He wanted to have a more detailed conversation on the CIP. If it was approved, it needed to be continually worked on. He wanted to see updates.

Committee Member Shamo commented that the question to move projects forward was the personnel available. The efficiency was improving all the time. He felt good about the plan.

Committee Member Rihel interpreted Member Wilkinson’s comments that the Capital Improvement budgets were much larger than what could be done in a year. He agreed but noted the money needed to be in that budget because if something later came up, it needed to be approved by City Council. It could hold up projects.

Director Stubitz responded to Member Wilkinson's comments that some of the projects would not completed in FY23. However, they were confident they could finish the projects.

Committee Member Wilkinson did not think that they could start the number of proposed projects with the current volume. Citizens continuously complained that the capital projects were not being done.
They discussed how to make a motion.

**Motion:** The UAC Committee advises the City Council to approve the proposed FY23 CIP.

**Moved by:** Chairman Karr  
**Seconded by:** Committee Member Shamo

**Vote:**

**AYE:** Chairman Larry Karr, Committee Member Marty Rihel, Committee Member Greg Todd, Committee Member Ned Shamo (4)

**NAY:** Vice Chairman Eileen Wilkinson (1)

4. **Public Comment**

There were no public comments.

Chairman Karr asked that they post the next meeting time because it was different from the usual time.

5. **Adjournment**

**Motion:** To adjourn the meeting.

**Moved by:** Chairman Karr  
**Seconded by:** Committee Member Shamo

**Vote:**

**AYE:** Chairman Larry Karr, Vice Chairman Eileen Wilkinson, Committee Member Marty Rihel, Committee Member Greg Todd, Committee Member Ned Shamo (5)

**NAY:** None (0)

______________________________  ______________________________
Larry Karr, Chairman                Joshua Hardy, Utilities Analyst

Minutes Approved: ________
Item 3 Ongoing CIP

SUBJECT:
Update on ongoing capital improvement projects and Utility Fund Capital Projects Year to Date provided by staff

ADDITIONAL INFORMATION:

<p>| ATTACHMENTS: |</p>
<table>
<thead>
<tr>
<th>Description</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Item 3 Staff Report</td>
<td>Cover Memo</td>
</tr>
</tbody>
</table>
TO: Utility Advisory Committee

FROM: Joe Stubitz, P.E., Utilities Director

DATE: June 15, 2022

SUBJECT: Update on ongoing capital improvement projects and Utility Fund Capital Projects Year to Date provided by staff

Background Information: The Utilities Services and Public Works Department are responsible for the planning, design, and construction management for the Water, Sewer, Electric, and Landfill capital improvement projects. At the request of the Utility Advisory Committee, staff has developed a dashboard that provides high level information on that status of the ongoing CIP projects.

Utility Advisory Committee Goal: This agenda item is in alignment with Goal 1 (annually review 5-year CIP) of the Utility Advisory Committee Goals.

Attachments:
Project Status Dashboard Link: https://public.tableau.com/views/ProjectStatusReport_16471384563370/Dashboard1?language=en-US&display_count=n&origin=viz_share_link
Item 4 Electric IRP

SUBJECT:
Update and Discussion of the Electric Integrated Resource Plan (IRP) and Water Conservation Plan

ADDITIONAL INFORMATION:

<table>
<thead>
<tr>
<th>Description</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Item 4 Staff Report</td>
<td>Cover Memo</td>
</tr>
<tr>
<td>Boulder City Electric 2018-2022 IRP</td>
<td>Cover Memo</td>
</tr>
<tr>
<td>BC Water Conservation Plan</td>
<td>Cover Memo</td>
</tr>
</tbody>
</table>
TO: Utility Advisory Committee

FROM: Joe Stubitz, P.E., Utilities Director

DATE: June 15, 2022

SUBJECT: Update and Discussion of the Electric Integrated Resource Plan (IRP) and Water Conservation Plan

Background Information: The Utilities Department must maintain an updated Integrated Resource Plan for the City’s electric infrastructure. An updated five-year plan must be submitted by December 2022.

Utility Advisory Committee Goal: This agenda item is in alignment with Goal 3 (Review development of water conservation plans and programs) and Goal 4 (Review Electric Integrated Resource Plan) of the Utility Advisory Committee Goals.

Attachments:
Integrated Resource Plan
Water Conservation Plan
https://www.bcnv.org/284/Electric-Rebate-Program
# Table of Contents

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<td>7</td>
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<td>4. Existing Demand-Side Resources</td>
<td>9</td>
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<td>5. Load and Price Forecast</td>
<td>11</td>
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<td>6. Future Supply-Side and Demand-Side Resources</td>
<td>13</td>
</tr>
<tr>
<td>7. Environmental Considerations</td>
<td>14</td>
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<tr>
<td>8. Action Plan</td>
<td>15</td>
</tr>
<tr>
<td>9. Glossary of Terms</td>
<td>16</td>
</tr>
</tbody>
</table>
1. Background Information and Public Process

Integrated resource planning is a planning process for new energy resources that evaluates the full range of alternatives, including:

- supply-side resources - such as generation facilities or purchased power contracts
- demand-side resources that reduce the need to acquire supply-side resources - such as energy efficiency improvements to the utility distribution system, customer incentive programs for purchase of energy efficient appliances, and net metering programs

As a recipient of federal hydro-power, the City of Boulder City must comply with the requirements of the Energy Planning and Management Program (10 CFR Part 905), including:

- preparation of an IRP document conforming to the requirements of the Western Area Power Administration (WAPA) every five years
- public participation in the IRP process
- submittal of annual IRP updates to WAPA

The draft CY 2018 – 2022 IRP was presented at the Boulder City Council Meeting on June 26, 2018. Public and Council comments and City Staff responses were included this document, which was posted on July 2, 2018 to the City’s website at the following location:

http://www.bcnv.org/283

The City Council adopted this revised 2018 – 2022 IRP at its Public Meeting on Tuesday, July 10, 2018.
2. Utility/Customer Overview

The Municipal Electric Utility of the City of Boulder City (COBC) serves about 16,200 residents in the populated area of the City, about 35 of the 207 square miles of incorporated area. The unpopulated area southwest of the town site is served by NV Energy.

In accordance with Section 704.340 of the Nevada Revised Statutes, the Municipal Electric Utility is subject to the jurisdiction and approval of the Boulder City Council.

The Boulder City Electric Utility is a full-service provider (energy and delivery service) to ultimate customers. The Utility does not own or operate generation facilities.

Key Customers and Significant Loads

Notes
1. Calendar Year (CY) 2017 data.
2. The Commercial Service Class includes industrial, non-profit, and non-municipal government customers.
## Customer Mix

<table>
<thead>
<tr>
<th>% CY 2017 Energy Sold</th>
<th>Load Type</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>64.1%</strong></td>
<td>Residential</td>
</tr>
<tr>
<td>46.4%</td>
<td>Detached homes</td>
</tr>
<tr>
<td>2.6%</td>
<td>Apartments</td>
</tr>
<tr>
<td>5.3%</td>
<td>Condominiums</td>
</tr>
<tr>
<td>0.8%</td>
<td>Duplex homes</td>
</tr>
<tr>
<td>4.6%</td>
<td>Mobile homes</td>
</tr>
<tr>
<td>4.3%</td>
<td>Manufactured homes</td>
</tr>
<tr>
<td><strong>18.8%</strong></td>
<td>Commercial</td>
</tr>
<tr>
<td>1.3%</td>
<td>Automotive sales, service, fuel</td>
</tr>
<tr>
<td>1.3%</td>
<td>General commercial</td>
</tr>
<tr>
<td>0.2%</td>
<td>Construction</td>
</tr>
<tr>
<td>1.9%</td>
<td>Food (retail and wholesale)</td>
</tr>
<tr>
<td>2.5%</td>
<td>Lodging</td>
</tr>
<tr>
<td>0.9%</td>
<td>Manufacturing</td>
</tr>
<tr>
<td>3.7%</td>
<td>Healthcare and assisted living</td>
</tr>
<tr>
<td>0.7%</td>
<td>Financial, real estate and other professional services</td>
</tr>
<tr>
<td>2.5%</td>
<td>General retail sales and services</td>
</tr>
<tr>
<td>3.8%</td>
<td>Eating and drinking establishments</td>
</tr>
<tr>
<td><strong>6.4%</strong></td>
<td>Government</td>
</tr>
<tr>
<td>2.0%</td>
<td>City (excluding airport, golf courses, utilities)</td>
</tr>
<tr>
<td>4.5%</td>
<td>County, State, Federal (excluding schools &amp; research)</td>
</tr>
<tr>
<td><strong>1.8%</strong></td>
<td>Utility</td>
</tr>
<tr>
<td>0.8%</td>
<td>Municipal</td>
</tr>
<tr>
<td>1.0%</td>
<td>Non-municipal (including wireless)</td>
</tr>
<tr>
<td><strong>3.1%</strong></td>
<td>Golf courses</td>
</tr>
<tr>
<td>0.8%</td>
<td>City</td>
</tr>
<tr>
<td>2.3%</td>
<td>Private</td>
</tr>
<tr>
<td><strong>4.2%</strong></td>
<td>Schools and other mixed Government/Commercial</td>
</tr>
<tr>
<td>0.3%</td>
<td>Aviation</td>
</tr>
<tr>
<td>3.4%</td>
<td>Schools and daycare</td>
</tr>
<tr>
<td>0.5%</td>
<td>Research</td>
</tr>
<tr>
<td><strong>1.5%</strong></td>
<td>Non-profit</td>
</tr>
<tr>
<td>0.5%</td>
<td>Churches</td>
</tr>
<tr>
<td>1.0%</td>
<td>Charitable and social organizations</td>
</tr>
<tr>
<td><strong>100.0%</strong></td>
<td>Total Energy</td>
</tr>
</tbody>
</table>
Peak Drivers

Summer air conditioning load, especially residential, is the dominant driver of peak demand. The ratio of summer peak demand to yearly average demand is about 2.9 to 1 for feeders dominated by residential loads, and about 2.0 to 1 for feeders dominated by commercial loads.
### Rates

<table>
<thead>
<tr>
<th>Class</th>
<th>Description</th>
<th>Applies to</th>
<th># Accts</th>
<th>Service Charge</th>
</tr>
</thead>
<tbody>
<tr>
<td>RS</td>
<td>residential single-family units</td>
<td>6,958</td>
<td>$10.00 (2)</td>
<td></td>
</tr>
<tr>
<td>RM</td>
<td>residential master-metered five or more units</td>
<td>2</td>
<td>$50.00</td>
<td></td>
</tr>
<tr>
<td>GS</td>
<td>general service service where no other schedule applies</td>
<td>914</td>
<td>$15.00</td>
<td></td>
</tr>
<tr>
<td>LGS</td>
<td>large general service over 300 kW demand in 3 of last 12 months</td>
<td>6</td>
<td>$50.00</td>
<td></td>
</tr>
<tr>
<td>TOU</td>
<td>time-of-use over 500 kW demand in 3 of last 12 months</td>
<td>2</td>
<td>$200.00</td>
<td></td>
</tr>
<tr>
<td>BCH</td>
<td>Boulder City Hospital Boulder City Hospital</td>
<td>1</td>
<td>$25.00</td>
<td></td>
</tr>
<tr>
<td>MUN</td>
<td>municipal City of Boulder City</td>
<td>107</td>
<td>$10.00</td>
<td></td>
</tr>
<tr>
<td>SL</td>
<td>sports field lighting pole-mounted HID fixtures, minimum 10 kW</td>
<td>1</td>
<td>$50.00</td>
<td></td>
</tr>
<tr>
<td>AL</td>
<td>area lighting all customers</td>
<td>70</td>
<td>$8.77-$17.55</td>
<td></td>
</tr>
<tr>
<td>LL</td>
<td>landscape lighting irrigation control HOAs and PUDs</td>
<td>6</td>
<td>$8.77-$17.55</td>
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</table>

<table>
<thead>
<tr>
<th>Class</th>
<th>Applies to</th>
<th>Energy Rate ¢ per kWh</th>
<th>% of kWh sales in class</th>
<th>Demand $ per kW</th>
</tr>
</thead>
<tbody>
<tr>
<td>RS</td>
<td>1st 2000 kWh</td>
<td>9.05</td>
<td>90.7%</td>
<td>n/a</td>
</tr>
<tr>
<td></td>
<td>2001 - 4000 kWh</td>
<td>11.92</td>
<td>7.20%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>kWh &gt; 4000</td>
<td>13.15</td>
<td>2.10%</td>
<td></td>
</tr>
<tr>
<td>RM</td>
<td>All kWh</td>
<td>11.10</td>
<td>100%</td>
<td></td>
</tr>
<tr>
<td>GS</td>
<td>1st 3000 kWh</td>
<td>10.70</td>
<td>83.3%</td>
<td>3.05 (3)</td>
</tr>
<tr>
<td></td>
<td>kWh &gt; 3000</td>
<td>12.09</td>
<td>16.7%</td>
<td></td>
</tr>
<tr>
<td>LGS</td>
<td>All kWh</td>
<td>13.58</td>
<td>100%</td>
<td>3.05</td>
</tr>
<tr>
<td>TOU</td>
<td>Summer On-Peak</td>
<td>16.72</td>
<td>34.6%</td>
<td>14.33</td>
</tr>
<tr>
<td></td>
<td>Summer Off-Peak</td>
<td>11.88</td>
<td>35.2%</td>
<td>4.78</td>
</tr>
<tr>
<td></td>
<td>Non-Summer</td>
<td>13.43</td>
<td>30.2%</td>
<td>3.05</td>
</tr>
<tr>
<td>BCH</td>
<td>All kWh</td>
<td>9.13</td>
<td>100%</td>
<td>n/a</td>
</tr>
<tr>
<td>MUN</td>
<td>All kWh</td>
<td>4.00</td>
<td>100%</td>
<td>2.37 (3)</td>
</tr>
<tr>
<td>SL</td>
<td>All kWh</td>
<td>11.48</td>
<td>100%</td>
<td>n/a</td>
</tr>
</tbody>
</table>

**Notes**

1. Rates are effective for Fiscal Years 2018 and 2019 (July 1, 2017 – June 30, 2019).
2. Residential customers without AMR (radio-read) meters will be charged $25.00 per month after June 2018. Less than 0.2% of residential customers have selected this option.
3. A demand meter will be installed when billed energy exceeds 4,000 kWh in three months of previous 12 months. The demand charge applies to each kW above 10 kW.
4. Summer rates apply May through September. On-peak rates apply noon through 10 PM.
After almost seven years of no adjustments, electric rates were increased by 15% (effective October 2016), then by 6% (effective July 2017), to account for increased operating costs, fund approximately $45,000,000 of capital improvements over a ten-year period, and maintain adequate reserves.

The City provided four programs to reduce economic impact of electric increases on the City’s utility customers: tiered rates, low income energy assistance, energy efficient appliance rebates, and 12-month averaged billing.

**Tiered rates** – the impact of tiered rates on customer costs is described in Section 4.

**Low income energy assistance (LIEA)** – most electric sales in Nevada are subject to Universal Energy Charge (UEC) of 0.0039%, which helps to fund the state’s LIEA program. Over the last fiscal year, the State provided an average of $533 per eligible household.

However, Boulder City has funded its own separate energy assistance program for 40 years. Providing a 35% discount on residential energy and monthly service charges, the BCEAP is the most generous utility-funded energy assistance program in Nevada.

The following table lists LIEA metrics for Nevada’s non-profit (NP) electric utilities in State Fiscal Year 2017. It shows that, although the City accounted for only 5% of NP energy sold, it provided 65% of the total NP LIEA assistance.

<table>
<thead>
<tr>
<th>LIEA (Low Income Energy Assistance) Metrics – SFY17</th>
<th>Boulder City</th>
<th>Other NV non-profit utilities</th>
<th>Total</th>
<th>BC % Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total energy sales (Million $)</td>
<td>$14,408</td>
<td>$262,161</td>
<td>$276,569</td>
<td>5.2%</td>
</tr>
<tr>
<td>LIEA total provided ($)</td>
<td>$117,145</td>
<td>$33,161</td>
<td>$150,306</td>
<td>77.9%</td>
</tr>
<tr>
<td>LIEA customers assisted</td>
<td>298</td>
<td>163</td>
<td>461</td>
<td>64.6%</td>
</tr>
</tbody>
</table>

**Energy Efficient Appliance Rebates** are described in Section 4.
3. Existing Supply-Side Resources

Refer to Section 9 for descriptions of terms used in this section.

Purchased Power Contracts

<table>
<thead>
<tr>
<th>Description</th>
<th>Capacity</th>
<th>Expiration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hoover Schedule A</td>
<td>20.0 MW</td>
<td>2067</td>
</tr>
<tr>
<td>Hoover Schedule B</td>
<td>8.5 MW</td>
<td>2067</td>
</tr>
<tr>
<td>SLCAIP</td>
<td>5.5 MW (S)</td>
<td>2024</td>
</tr>
<tr>
<td></td>
<td>7.3 MW (W)</td>
<td></td>
</tr>
<tr>
<td>Market Energy (SSEA)</td>
<td>Varies</td>
<td>Varies</td>
</tr>
</tbody>
</table>

Business Relationships Related to Wholesale Power Services

Energy Delivered by Resource

The charts on the following page illustrate the benefits of COBC’s hydro resources:

- Hydro provided over half (53% - 56%) of the City’s energy requirement in each year of the preceding five years.
- Hydro deliveries are sufficient to supply the City’s entire energy requirement during the spring months.
- Hydro deliveries can be scheduled such that most market purchases are made during off-peak periods. Zero net on-peak energy was purchased during five of 12 months in 2017.
4. Existing Demand-Side Resources

Energy Efficiency Rebate Program

Boulder City has been providing energy efficiency rebates to residents for 27 years. All residents, regardless of income, qualify for rebates for installation of certain appliances, subject to the restrictions described below:

- Air Conditioners: $70 per ton for installation of units with a S.E.E.R. rating between 14.0 and 14.9; $125 per ton for units with a S.E.E.R. rating of 15.0 or higher.

- Window Treatments: $0.50 per square foot for the installation on west-facing windows of solar screens, or window film (reflectivity not greater than 40%). The shading coefficient must not be greater than 0.4 for screens, or 0.45 for film.

- Water Heater: $200 for the installation of a solar or natural gas domestic water heating system with a minimum storage of 40 gallons, to supplement an electric domestic water heating system.

- Evaporative Coolers: $50 per 1,000 CFM for installation of units to supplement air conditioned living or serving spaces.

- Pool Pumps: $100 for the installation of a two-speed pump; $200 for the installation of a variable speed pump.

As indicated in the table below, the number of customer rebates and total rebate disbursements have increased significantly over the preceding five years.

<table>
<thead>
<tr>
<th>Calendar Year</th>
<th>Number of Rebates</th>
<th>Total Disbursements</th>
<th>MWH Saved</th>
<th>Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>64</td>
<td>$20,548</td>
<td>472.4</td>
<td>0.49</td>
</tr>
<tr>
<td>2014</td>
<td>63</td>
<td>$24,187</td>
<td>494.0</td>
<td>0.51</td>
</tr>
<tr>
<td>2015</td>
<td>108</td>
<td>$35,823</td>
<td>286.8</td>
<td>0.41</td>
</tr>
<tr>
<td>2016</td>
<td>85</td>
<td>$27,930</td>
<td>247.9</td>
<td>0.75</td>
</tr>
<tr>
<td>2017</td>
<td>139</td>
<td>$54,951</td>
<td>403.5</td>
<td>1.28</td>
</tr>
<tr>
<td>Average</td>
<td></td>
<td>$32,688</td>
<td>380.9</td>
<td>0.69</td>
</tr>
</tbody>
</table>
Net Metering

In 2010, COBC instituted a net metering program for residential and commercial solar and wind generators. At the end of CY 2017, a total of 394 kW (DC) of net metered generation was installed in the City, providing an estimated energy savings of 682 MWH in that year.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Residential Meters</td>
<td>3</td>
<td>3</td>
<td>6</td>
<td>7</td>
<td>13</td>
</tr>
<tr>
<td>Commercial Meters</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>MWH Saved</td>
<td>587</td>
<td>587</td>
<td>607</td>
<td>618</td>
<td>682</td>
</tr>
</tbody>
</table>

Two of the four commercial net meter systems, totaling 13 kW (DC), are installed in COBC facilities.

Tiered Rates

Tiered rates provide a conservation incentive as shown below.

Typical consumption for 1,500 SF residence (average Boulder City size)
19,710 kWh/Yr
Average cost: 10.05 ¢/kWh
including $10 monthly service charge

2.0 x consumption of average residence
39,420 kWh/Yr
Average cost: 10.71 ¢/kWh
including $10 monthly service charge

Time-of-Use (TOU) Metering

TOU metering in Boulder City is required for commercial customers having a monthly demand exceeding 500 kW. Only two commercial customers in the City qualify for TOU metering.
5. Load and Price Forecast

Key Trends Affecting Resource Needs

Boulder City's population trend-line indicates recovery from the 2008 recession by 2013; population growth in the preceding five years has been 0.61% average per year. System summer peak demand has increased by an average of 0.8% per year while total energy consumption has decreased an average of 1.2% per year over the preceding five years.

<table>
<thead>
<tr>
<th>Calendar Year</th>
<th>Population Est.</th>
<th>Change</th>
<th>MW</th>
<th>Peak Demand</th>
<th>Change</th>
<th>MWH</th>
<th>Energy Consumed</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008</td>
<td>16,684</td>
<td></td>
<td>50.3</td>
<td>+1.0%</td>
<td></td>
<td>182,940.0</td>
<td></td>
</tr>
<tr>
<td>2009</td>
<td>16,064</td>
<td>-3.7%</td>
<td>50.8</td>
<td>+1.0%</td>
<td></td>
<td>177,602.0</td>
<td>-2.9%</td>
</tr>
<tr>
<td>2010</td>
<td>15,359</td>
<td>-4.4%</td>
<td>49.7</td>
<td>-2.2%</td>
<td></td>
<td>169,855.0</td>
<td>-4.4%</td>
</tr>
<tr>
<td>2011</td>
<td>15,335</td>
<td>-0.2%</td>
<td>48.1</td>
<td>-3.3%</td>
<td></td>
<td>167,038.0</td>
<td>-1.7%</td>
</tr>
<tr>
<td>2012</td>
<td>15,759</td>
<td>+2.8%</td>
<td>49.2</td>
<td>+2.4%</td>
<td></td>
<td>169,043.0</td>
<td>+1.2%</td>
</tr>
<tr>
<td>2013</td>
<td>15,635</td>
<td>-0.8%</td>
<td>49.9</td>
<td>+1.3%</td>
<td></td>
<td>165,374.3</td>
<td>-2.2%</td>
</tr>
<tr>
<td>2014</td>
<td>15,627</td>
<td>-0.1%</td>
<td>47.4</td>
<td>-5.0%</td>
<td></td>
<td>161,970.2</td>
<td>-2.1%</td>
</tr>
<tr>
<td>2015</td>
<td>15,813</td>
<td>+1.2%</td>
<td>46.3</td>
<td>-2.3%</td>
<td></td>
<td>166,220.0</td>
<td>+2.6%</td>
</tr>
<tr>
<td>2016</td>
<td>16,298</td>
<td>+3.1%</td>
<td>50.8</td>
<td>+9.7%</td>
<td></td>
<td>162,798.3</td>
<td>-2.1%</td>
</tr>
<tr>
<td>2017</td>
<td>16,121</td>
<td>-1.1%</td>
<td>50.9</td>
<td>+0.4%</td>
<td></td>
<td>159,389.2</td>
<td>-2.1%</td>
</tr>
<tr>
<td>5-yr avg. annual change</td>
<td>+0.5%</td>
<td>+0.8%</td>
<td>-1.2%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Forecast Basis

The estimated change in the City’s energy requirement of the five year period 2018 - 2022 is based on three scenarios for residential unit additions:

- Low growth: 192 homes in currently approved subdivisions, three homes per year built on privately-owned, pre-existing building lots
- Midrange growth: 192 homes in currently approved subdivisions, 50 homes in subdivisions not currently approved, five homes per year built on privately-owned, pre-existing building lots
- High growth: 192 homes in currently approved subdivisions, 100 homes in subdivisions not currently approved, seven homes per year built on privately-owned, pre-existing building lots

Assumptions:

- The average residential unit in currently approved subdivisions will be 2,064 SF (28.5 MWH annual energy consumption).
- The average residential unit for all other additions will be 3,000 SF (41.4 MWH annual energy consumption).
- Commercial load growth (load addition in per cent of existing load) matches residential load growth.
- The existing trend of conservation and efficiency improvements (1.2% per year) will continue over the forecast period.

Forecast Result

As shown in the following table, the City’s energy consumption is expected to grow between 0.0% and +1.0% per year over the next five years. Barring an unforeseen large load addition, energy consumption in the City will be less in CY 2022 than it was in CY 2008, the year immediately preceding the recession.

<table>
<thead>
<tr>
<th>Growth assumption</th>
<th>Low</th>
<th>High</th>
</tr>
</thead>
<tbody>
<tr>
<td>Base year (2017) energy</td>
<td>159,389</td>
<td>159,389</td>
</tr>
<tr>
<td>Load addition</td>
<td>9,173</td>
<td>12,912</td>
</tr>
<tr>
<td>Conservation/efficiency (1.2%/yr)</td>
<td>-9,563</td>
<td>-9,563</td>
</tr>
<tr>
<td><strong>2022 Forecast</strong></td>
<td><strong>158,999</strong></td>
<td><strong>162,738</strong></td>
</tr>
<tr>
<td>Annual growth rate % base year MWH</td>
<td>0.0%</td>
<td>0.4%</td>
</tr>
</tbody>
</table>
6. Future Supply-Side and Demand-Side Resources

Supply-Side Resources

COBC has firm resource commitments throughout the 2018-2022 five-year planning period. All hydro-power contracts and market contracts that secure power for COBC extend through 2022.

The forecasted price for each resource and the total energy budget for the planning period is shown in the following table.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Hoover</td>
<td>72,250,800</td>
<td>70,758,500</td>
<td>70,148,800</td>
<td>69,140,000</td>
<td>68,387,920</td>
</tr>
<tr>
<td>SLCAIP</td>
<td>23,002,410</td>
<td>22,964,970</td>
<td>22,985,920</td>
<td>22,986,640</td>
<td>22,998,340</td>
</tr>
<tr>
<td>SSEA Market</td>
<td>68,308,930</td>
<td>71,563,440</td>
<td>73,856,140</td>
<td>76,281,290</td>
<td>78,758,590</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Price per MWH</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Fiscal Year</td>
<td>Hoover</td>
<td>SLCAIP</td>
<td>Market Contract</td>
<td>Energy Budget</td>
<td></td>
</tr>
<tr>
<td>2018 - 2019</td>
<td>$24.51</td>
<td>$38.62</td>
<td>$45.48</td>
<td>$5,765,947</td>
<td></td>
</tr>
<tr>
<td>2019 - 2020</td>
<td>$24.97</td>
<td>$39.23</td>
<td>$42.03</td>
<td>$5,676,241</td>
<td></td>
</tr>
<tr>
<td>2020 - 2021</td>
<td>$26.26</td>
<td>$39.71</td>
<td>$36.31</td>
<td>$5,436,769</td>
<td></td>
</tr>
<tr>
<td>2021 - 2022</td>
<td>$26.39</td>
<td>$39.72</td>
<td>$38.42</td>
<td>$5,668,512</td>
<td></td>
</tr>
<tr>
<td>2022 - 2023</td>
<td>$25.68</td>
<td>$40.35</td>
<td>$40.49</td>
<td>$5,873,386</td>
<td></td>
</tr>
</tbody>
</table>
There are currently no state or federal regulations that will impact COBC’s resource requirements during the 2018-2022 planning period.

Based on the forecast described in the previous section, COBC is not anticipating that load growth will require the electric utility to obtain additional purchased power resources during the 2018-2022 planning period.

It is COBC policy that resource adequacy be evaluated if a commercial or residential load addition requires construction of a new distribution feeder.

Demand-Side Resources
The City plans to convert thirteen 4.16 kV feeders to 12.47 kV by 2026 in order to allow the retirement of two aged 4.16 kV substations.

This project requires the preliminary step of replacing all 4.16 kV distribution transformers with dual-voltage 4.16 kV/12.47 kV units. Approximately 330 4.16 kV transformers are pole-mounted units that are planned to be replaced during CY 2018 – CY 2021.

Almost all transformers to be replaced were manufactured in between 1930 and 1970, are significantly less efficient than the replacement transformers. The City estimates that system losses will be reduced 1,116 MWH per year after the pole-mount transformer replacement program is completed.

7. Environmental Considerations

Environmental evaluation is not required for supply-side resources, as none are planned to be acquired during the five-year planning period.

Environmental protection will be enhanced by COBC’s:

- Existing and planned demand-side resources.
- Electric vehicles. Three vehicles in the Electric Utility fleet are electric. In 2017, these vehicles provided an estimated 1,837 gallons of fuel savings to the City.
8. Action Plan

- COBC’s five-year goal is to maintain competitive rates, while providing reliable power to customers.

- Energy Efficient Appliance Program: the Boulder City Council has approved a rebate budget of $40,000 FY 2018-2019. COBC’s goal is to continue to make customer’s aware of the rebate program through the City’s web site and utility bill mail inserts.

- COBC will continue to measure the effectiveness of its demand-side programs by reporting expenditures and estimated peak demand and energy savings on an annual basis.

- COBC’s goal for the overhead transformer replacement program is 100 replacements per year, with all transformers replaced by July, 2021.

- Per public comments subsequent to presentation of the draft IRP on June 26, 2018, COBC Staff will evaluate the feasibility of the following proposals, and make recommendations to Council:
  - Install solar PV panels on future parking shade structures, and adjust proposed project budgets accordingly.
  - LED-for-incandescent bulb exchange program:
    - COBC purchases LED bulbs in bulk quantities, in order to significantly reduce the cost per bulb.
    - Local retailers exchange LED bulbs with customer incandescent bulbs on a one-for-one basis.
9. Glossary of Terms

- CRC – Colorado River Commission of Nevada, a political subdivision of the State.

- SSEA – Silver State Energy Association (a joint action agency with members including COBC, Southern Nevada Water Authority (SNWA), Overton Power District, and Lincoln County Power District; also a political subdivision of the State.) SSEA provides complete load requirements service for COBC and SNWA.

- WAPA DSW – Western Area Power Administration, Desert Southwest Region. DSW is responsible for the marketing and transmission of hydro-power generated at US Bureau of Reclamation Colorado River dams.

- WAPA EMMO - Western Area Power Administration, Energy Management and Marketing Office. EMMO’s functions as COBC’s Balancing Area Authority (BAA) and Scheduling Entity (SE), as described below.

- Hoover – “Schedule A” is hydro-power from Hoover Dam as originally configured, and received by COBC through a direct contract with the United States (WAPA). “Schedule B” is additional power from Hoover Dam available after generator upgrades and scheduling entity improvements were made in the 1980s. COBC receives Hoover B power through a contract with CRC.

- SLCAIP – (Salt Lake City Area Integrated Projects) is power generated from several hydro projects, principally Glen Canyon Dam. COBC receives SLCAIP power through a contract with CRC.

- Market energy – energy purchased or sold through bilateral contracts between SSEA and any of several power trading entities. Contracts are for whole-month trades of On-Peak or Off-Peak energy. Peak hours are 7:00 AM to 11:00 PM Monday through Saturday, excluding holidays.

SSEA executes purchases up to five years in advance of delivery in order to enhance price stability. SSEA may execute additional purchases or sales prior to delivery due to revised weather or hydro delivery forecasts.

- Balancing Energy – Energy for the next hour or next day, bought or sold by the SE in order to match and market resources to the expected load. Balancing energy is required because hydro and market contract energy is scheduled to be delivered to the City at a constant rate, but the energy consumed by the City varies throughout the day.

- Balancing Area Authority (BAA) – The entity responsible for maintaining an instant-by-instant balance between power resources and power demand. WAPA EMMO (via a contract with SSEA) has been the City’s BAA since 2013.

- Imbalance Energy – Instant-by-instant energy supplied or taken by the BAA in order to match delivered energy to the City’s continuously varying load.

- Ancillary Services – Reserves, regulation, reactive power and other overhead charges required by the BAA.
Chapter 14 - BOULDER CITY WATER CONSERVATION PLAN

9-14-1. - GENERAL PROVISIONS.

A. *Purpose And Policy.* This chapter is intended to establish measures to enhance the efficient use of water and to prevent and discourage the wasting of water in Boulder City. Conservation is an essential resource to help meet water needs.

B. *Scope.* The provisions of this chapter shall apply to all water services (i.e., recycled, raw, potable, and reclaimed, customers).

C. *Administration.* Except as otherwise provided herein, the Utilities Director or designee, shall administer, implement and enforce the provisions of this chapter.

D. *Enforcement.* Enforcement will be accomplished through water rates and water resource impact fees.

E. *Waivers.* There shall be no waivers or variances granted to the standards listed in this chapter. Such a request shall be considered a request to amend the requirements of this chapter and shall only be considered in accordance with the proper procedures.

(Ord. 1587, exh. A, 4-25-2017, eff. 5-18-2017; Ord. 1608, exh. A, 8-28-2018, eff. 9-20-2018)

9-14-2. - DEFINITIONS.

BUREAU OF RECLAMATION (BOR): Is part of the U.S. Department of the Interior entrusted with the management of the Colorado River.

COMMUNITY USE RECREATIONAL TURF: Any private or public park facility with the following characteristics:

1. A turf-dominated, multi-purpose recreational area of at least two-acres but not less than 100 feet wide in any dimension.

2. Accessible to at least twenty-five dwelling units or households.

COMMON AREA: Area held in common by an established Homeowners Association

NON-POTABLE WATER: Water not suitable for drinking.

ONE ACRE-FOOT OF WATER: Equivalent to 325,851 gallons of water.

POTABLE WATER: Water Suitable for drinking.


RECLAIMED WATER: Municipal wastewater processed to reduce contaminates. Not suitable for human consumption.

SOUTHERN NEVADA WATER AUTHORITY (SNWA): An organization formed by local agencies with an inter-local agreement to address Southern Nevada’s water needs on a regional basis.

SYRINGING: Process of applying small amounts of water to wet the turf canopy. Syringing cools the turf through evaporation of water from the leaf surface, which can help turf survive during mid-day stress periods.
XERISCAPE: A type of landscaping that incorporates drought-tolerant and low water-use plants with an organic or inorganic surface mulch layer as a water efficient alternative to traditional turf grass landscaping. Can be referred to as water smart landscaping.

(Ord. 1587, exh. A, 4-25-2017, eff. 5-18-2017)

9-14-3. - WASTE OF WATER GUIDELINES.

A. Boulder City residents are subject to the following "Waste of Water Guidelines".

1. It is unlawful for any owner, occupant, or manager of real property served by the City of Boulder City to waste water.

2. It shall be deemed unlawful for anyone to permit the excess use, loss or escape of water through breaks, leaks or malfunction in the water user's plumbing or distribution facilities for any period of time after such escape of water should have been reasonably discovered and corrected as determined by the proper Authority.

3. Allowing water to flow or spray directly into a public street, alley, or right-of-way, gutter or drain for more than ten (10) minutes is prohibited.

4. Where sewer receptacles are available, it is recommended that swimming pool water drainage from any filter, scum filter, scum gutter, overflow, or pool emptying line be discharged into the sewer.

(Ord. 1587, exh. A, 4-25-2017, eff. 5-18-2017)

9-14-4. - RESPONSIBILITY OF WASTE.

Any waste of water as set forth in this chapter, together with proof that such waste originated at any residence or place of business, shall constitute, in evidence, a prima facie presumption that the owner, occupant for the time being of such residence or place of business was responsible for such waste.

(Ord. 1587, exh. A, 4-25-2017, eff. 5-18-2017)

9-14-5. - LANDSCAPE WATERING RESTRICTIONS (RESIDENTIAL).

A. It is deemed unlawful to use water to irrigate exterior lawns, gardens, trees, grass, shrubbery, or other vegetation in variance with the following table:

WATER SCHEDULE FOR SPRAY IRRIGATION

<table>
<thead>
<tr>
<th>Schedule</th>
<th>Watering Restrictions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Winter (November - February)</td>
<td>Once per week</td>
</tr>
<tr>
<td>Spring (March - April)</td>
<td>Three days per week</td>
</tr>
<tr>
<td>Summer (^1) (May- August)</td>
<td>Any day except Sunday</td>
</tr>
<tr>
<td>Fall (September - October)</td>
<td>Three days per week</td>
</tr>
</tbody>
</table>

Note:

1. Watering between the hours of 11 a.m. through 7 p.m. prohibited.
B. For the purpose of managing the water supply distribution system, specific watering days and/or schedules may be assigned by Boulder City Staff, provided that all affected water users have been provided reasonable notification to implementation of the policy. If assigned watering schedules are in effect, it shall be unlawful to irrigate turf, gardens, trees, shrubbery, or vegetation, except in compliance with the assigned days, dates, times for the specific properties.

C. Regions will be designated and winter watering days assigned as follows:
   1. Region A shall water on Monday
   2. Region B shall water on Tuesday
   3. Region C shall water on Wednesday
   4. Region D shall water on Thursday
   5. Region E shall water on Friday
   6. Region F shall water on Saturday

D. Spring/Fall (March/April and September/October) watering days assigned as follows:
   1. A, C, E Monday, Wednesday, Friday
   2. B, D, F Tuesday, Thursday, Saturday
   3. Sunday is a “free day” for all groups.

E. Community use recreational turf areas, public and private common use recreation turf will be permitted to water four times each 14 days or twice per week during the winter schedule.

F. Exemptions to restrictions.
   1. Hand watering with hand held hose.
   2. Irrigation of new lawns or re-seeding of an existing lawn (annual), for a period of thirty days from the date of planting or installation.
   3. Drip and/or bubbler irrigation systems.
   4. Irrigation by licensed commercial gardens or plant nurseries.
   5. Landscape irrigation audits where the application rate and efficiency of an irrigation system is being tested. The technician must be present to observe the system performance.
   6. Municipal operations or procedures that are necessary to protect the health, safety, and welfare of the community.
   7. Golf courses shall be required to comply with water budgeting policies in lieu of specific water schedules.

(Ord. 1587, exh. A, 4-25-2017, eff. 5-18-2017)

9-14-6. - LANDSCAPE MATERIAL RESTRICTIONS.

Landscape materials for new residences shall be limited as described below. In the case of Building Permits issued prior to the adoption of these restrictions, the development rules at the time of permitting shall apply.

A. The following landscape material restrictions will apply.
   1. Residential Landscape Restrictions:
      a. Single-family and multifamily homes are prohibited from installing new turf in common areas of
residential neighborhoods. This restriction shall not apply to public or private community parks. The installation of new turf is prohibited in residential front yards and the use of drought tolerant landscaping materials is encouraged in residential front yards.

b. For single-family residential lots, the installation of new turf shall not exceed a maximum of five thousand square feet.

2. Non-Residential Landscape Restrictions:
   a. The installation of new turf in non-residential developments is prohibited. This provision shall not apply to community use recreational turf, golf courses, or sports complexes.

3. Any person(s) or association(s), regardless of date of establishment, is prohibited from imposing private covenants, conditions, restrictions, deed clauses or other agreements between the parties, which prevent person(s) from utilizing water efficient landscaping including but not limited to xeriscape, provided such landscaping receives appropriate architectural review and approval. In any event, landscaping materials and designs may not be prohibited solely on the basis that they make use of water-efficient landscaping.

(Ord. 1587, exh. A, 4-25-2017, eff. 5-18-2017)

9-14-7. - OTHER OUTDOOR WATER USE RESTRICTIONS.

A. Vehicle Washing.
   1. Washing of personal vehicles upon residential properties is limited to once per week per vehicle and requires a positive shut-off nozzle.
   2. Commercial vehicles may be washed at a commercial facility where water is discharged to the sanitary sewer through city approved methods, or by a high-pressure, low volume sprayer using less than ten (10) gallons of waste per vehicle.

(Ord. 1587, exh. A, 4-25-2017, eff. 5-18-2017)

9-14-8. - WATER BUDGET FOR GOLF COURSES.

A. Unless otherwise stipulated in existing agreements, private golf courses will be subject to water budgets, with appropriate surcharges applied to any water used over the budgeted amounts. These surcharges will be calculated on an annual basis, billed monthly after annual water budget is exceeded and will be in addition to the price paid for water as described in the table below.

<table>
<thead>
<tr>
<th>Percentage of budget</th>
<th>101 to 120 percent</th>
<th>121 to 140 percent</th>
<th>Over 140 percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Surcharge applied to water use in excess of budget</td>
<td>2.0 times the highest rate paid for water within budget</td>
<td>4.0 times the highest rate paid for water within budget</td>
<td>8.0 times the highest rate paid for water within budget</td>
</tr>
</tbody>
</table>
B. Municipal golf courses will be water budgeted based upon acre-feet of water for each acre currently irrigated. Irrigated acreage will be calculated based on irrigated areas as determined from aerial photography and field verification. The irrigated acreage will include lakes and ponds existing within a golf course. Once measured the irrigated acreage shall remain fixed, this creating an incentive for golf courses to convert unneeded turf to other styles of water efficient landscaping. However, if a golf course expands its course by increasing the number of playing holes, a new irrigated acreage will be determined.

C. New golf courses shall be exempt from water budgeting for the first two years after seeding to establish turf. Each golf course shall be required to submit its own water use reduction plan. A description of water use reduction strategies and timelines for implementing those strategies are required in the plan.

Exemption. Man-made lakes, where all or part of the water is used in whole or in part, as a functional reservoir for a golf course shall be included in the calculation of a golf course water budget.

(Ord. 1587, exh. A, 4-25-2017, eff. 5-18-2017)

9-14-9. - MAN-MADE LAKES PROVISIONS.

All man-made lakes shall pay Boulder City rates on all fill water.

(Ord. 1587, exh. A, 4-25-2017, eff. 5-18-2017)

9-14-10. - OPERATION OF ORNAMENTAL FOUNTAINS AND WATER FEATURES.

Fountains and water features utilizing potable or non-potable water provided by the water purveyor shall be prohibited. The following uses shall be exempt:

A. Swimming Pools.

B. Fountains and water features of less than twenty-five (25) square feet surface area at single-family residences. Swimming pools are not considered water features.

C. Fountains or water features that are necessary and functional components serving other allowable uses such as storage ponds on a golf course or aeration devices. Such device must be turned off during high winds. Allowable uses including but not limited to:
   1. Irrigation reservoirs, such as for a golf course, park or cemetery;
   2. An engineered component of a heat exchanger for a cooling system;
   3. An interpretive feature of an educational exhibit.

D. Indoor water features, or features with the majority of the total water volume contained indoors or underground. If practical alternatives exist for separating indoor and outdoor components, they shall be separated and managed accordingly. (E.g., timers on shut-off valves).

E. Commercial fountains or water features vital to a core economic function of the region, as determined by the governing jurisdiction on a case-by-case basis in a process with input from the public, including but not limited to:
   1. Recreation water parks, both public and private.
2. Water features integral or vital to an entertainment venue, such that substantial economic harm could be suffered with discontinuation of use.

F. Fountains or water features necessary to sustain aquatic animals, provided that the animal population has been actively and continuously managed within the water feature prior to 2003;

G. Fountains and water features in place prior to September 1, 2009.

Special Exemptions: The Public Works Director shall be vested with the authority to make exemptions to the provision of this chapter, when in the opinion of the Director; these exemptions protect the public health, safety and well-being of the purveyor's water system (i.e., hydrant flushing, valve testing and system maintenance). To be granted an exemption, the applicant must:

1. Submit an application to Boulder City Public Works;

2. Propose a modification to the property that will reduce consumptive demand by 20 times the estimated evaporative loss of the water feature, by participating in one of the following:
   a. Converting irrigated turfgrass upon the property to water efficient landscaping at a ratio of a minimum of 20 square feet converted for each square foot of water surface in the fountain or water feature;
   b. Reducing or eliminating an existing, compliant body of water upon the property that results in a net decrease in water surface area on the property;
   c. Supporting the regional water conservation program by paying a minimum of $40 for each square foot of water surface in the fountain or water feature to the Southern Nevada Water Authority conservation program.

(Ord. 1587, exh. A, 4-25-2017, eff. 5-18-2017)

9-14-11. - ENFORCEMENT.

The Public Works Director shall adopt and maintain administrative procedures for the enforcement of water conservation. Water resource impact Fees will be assessed where applicable for non-compliance with the provisions set forth in this conservation chapter.

<table>
<thead>
<tr>
<th>Meter Size</th>
<th>1st Violation</th>
<th>2nd Violation</th>
<th>3rd Violation</th>
<th>4th Violation</th>
<th>5th Violation</th>
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<tr>
<td>1&quot; or less</td>
<td>$75.00</td>
<td>$125.00</td>
<td>$200.00</td>
<td>$300.00</td>
<td>$600.00</td>
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<tr>
<td>1&quot; - 3&quot;</td>
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<td>$250.00</td>
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<td>3&quot; and Greater</td>
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<td>$300.00</td>
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<td>$2,000.00</td>
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(Ord. 1587, exh. A, 4-25-2017, eff. 5-18-2017)

9-14-12. - APPEALS FOR RECONSIDERATION.

Any User, permit applicant, permit holder, property owner, occupant, or responsible party affected by any decision, action or determination, including any enforcement action made by the City of Boulder City, interpreting or implementing the provisions of this chapter or in any permit issued herein, may file an appeal.
All appeals for reconsideration shall be written requests filed with the Director or designee within ten days of such action, setting forth in detail the facts supporting the user's request for appeal.

The decision of the Director or designee shall be rendered within 10 days of the date of the hearing of the appeal. Such decision shall be deemed to be the final administrative action on such appeal.

(Ord. 1587, exh. A, 4-25-2017, eff. 5-18-2017)

9-14-13. - LEGALITY OF THE BOULDER CITY CONSERVATION ORDINANCE.

The City Council of the City of Boulder City has been informed by its legal department as to the constitutionality of this chapter, and based upon such information, it is adopting this chapter in good faith with reasonable belief that the actions taken by the City of Boulder City are not in violation of any rights, privileges, or immunities secured by the Constitution or by laws providing for equal rights of citizens or persons.

(Ord. 1587, exh. A, 4-25-2017, eff. 5-18-2017)
Item 5 Committee Goals

SUBJECT:
For possible action: Discussion and Possible Action of Committee Goals, Priorities, and Deliverable Requests

ADDITIONAL INFORMATION:

<table>
<thead>
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<th>ATTACHMENTS:</th>
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<tbody>
<tr>
<td>Description</td>
<td>Type</td>
</tr>
<tr>
<td>Item 5 Staff Report</td>
<td>Cover Memo</td>
</tr>
<tr>
<td>UAC Goals</td>
<td>Cover Memo</td>
</tr>
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</table>
Utility Advisory Committee Meeting
June 15, 2022
Item No. 5
Staff Report

TO: Utility Advisory Committee
FROM: Joe Stubitz, P.E., Utilities Director
DATE: June 15, 2022

SUBJECT: For Possible Action: Discussion and Possible Action of Committee Goals, Priorities, and Deliverable Requests

Background Information: Discussion of committee goals, priorities, and deliverable requests.

Attachments:
Committee Goals
# Utility Advisory Committee Goals

<table>
<thead>
<tr>
<th>GOALS</th>
<th>OBJECTIVES</th>
<th>Tentative Timeline</th>
<th>UPDATE</th>
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</thead>
</table>
| 1. Annually review 5-Year CIP/Ongoing CIP Review | • Staff to present tentative 5-Year CIP to Utility Advisory Committee (UAC)  
• UAC to provide input on new projects and priorities  
• UAC to provide recommendations to City Council  
• Staff to provide Status Report and CIP report from CM report every other month | Follow annual CIP calendar will provide calendar.  
Every other month for related ongoing CIP update  
September and March | Staff to meet with city department directors in August. Will present to UAC following director meetings. Council tentatively approved the FY23 CIP in December 2021 |
| 2. Annually review Water, Sewer, Electric and Landfill revenue requirements | • Staff to update Financial Plan  
• Present UAC updated Financial Plan  
• Staff to present updated Financial Plan to City Council with UAC recommendations  
• FY End Audit  
• 5 Year Budget Plan  
• Next FY Budget  
• Rate Review | Staff to update Financial Plan January | Update of Financial Plan pending on completion of CAFR in late fall. |
### 3. Review development of Utility Conservation Plans and Programs

- Present Water Conservation plan to UAC for review and recommendations
- Staff to present Water Conservation plan with UAC recommendations to City Council

- Conservation to be discussed in Spring 2022 (March)

Present the latest data.

In the future create PowerPoint with SNWA conservation info and include how Boulder city is complying and/or how we want to further conservation efforts.

### 4. Review Utility Resource Plans

- Staff to update 5-year Electric Integrated Resource Plan (IRP)
  - Staff/SSEA to assess future impacts to energy portfolio
  - Staff to review Energy Efficiency Program
- Present updated IRP to UAC for review and recommendations
- Staff to present IRP to City Council
- Need to discuss solar rooftop and solar power for the City.
- Need to review the Utility infrastructure.

Present updated IRP to UAC by late spring 2022

Present updated IRP to City Council in the future

Updated IRP due December 2022

SNWA/SSEA or data from the entity to provide presentation by late spring.
Item 6 Future Agenda Items

SUBJECT:
For possible action: Discussion regarding potential agenda items for upcoming Utility Advisory Committee Meetings

ADDITIONAL INFORMATION:

<table>
<thead>
<tr>
<th>ATTACHMENTS:</th>
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<tr>
<td>Description</td>
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</tr>
<tr>
<td>Item 6 Staff Report</td>
<td>Cover Memo</td>
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Utility Advisory Committee Meeting
June 15, 2022
Item No. 6
Staff Report

TO: Utility Advisory Committee
FROM: Joe Stubitz, P.E., Utilities Director
DATE: June 15, 2022

SUBJECT: For Possible Action: Discussion regarding potential agenda items for upcoming Utility Advisory Committee Meetings

Background Information: Discussion of potential agenda items for upcoming Utility Advisory Committee meetings