Welcome and Introductions

Energy Update – Eric Tharp, Chief Energy Services Officer
- Drake Power Plant Planning
- Electric Regional Transmission Organization
- Solar Purchase
- Rebates
- Five-year Service Business Plan

Water Update – Dan Higgins, Chief Water Services Officer
- Our Water Connection (video)
- Backflow Prevention
- Watermain Program
- Rebates
- Five-year Service Business Plan

Financial Outlook and Rate Case Overview
Questions and Discussion
Energy Update

Eric Tharp
Chief Energy Services Officer
Scenario #1: Replacement Generation at Drake and/or Birdsall

- Requires 128MW initially and an additional 80MW over 30 years with no new transmission

<table>
<thead>
<tr>
<th>Advantage</th>
<th>Disadvantage</th>
</tr>
</thead>
<tbody>
<tr>
<td>• No new transmission lines required initially</td>
<td>• Downtown aesthetics</td>
</tr>
<tr>
<td>• Potentially earliest decommissioning time</td>
<td>• Coordination of construction and decommissioning of plant</td>
</tr>
<tr>
<td>• Site already used for generation</td>
<td>• Requires continued additions of generation</td>
</tr>
<tr>
<td>• Generation close to load</td>
<td>• May require back-up fuel</td>
</tr>
</tbody>
</table>
Drake Planning Discussion

Scenario #2a: Replacement Generation Outside Service Territory*

- Build 128MW initially and an additional 80MW over 30 years
- Requires new transmission projects to access generation adjacent to our existing transmission

**Transmission Estimated Costs**

<table>
<thead>
<tr>
<th>Year of Decommission</th>
<th>Project A for $26M</th>
<th>Projects B &amp; C for $44M</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year 2042</td>
<td></td>
<td></td>
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*RTO decision may provide options

<table>
<thead>
<tr>
<th>Advantage</th>
<th>Disadvantage</th>
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<tbody>
<tr>
<td>Downtown aesthetics</td>
<td>Potential permitting and siting challenges</td>
</tr>
<tr>
<td>Potential for import/export of resources including renewables (RTO)</td>
<td>Back-up fuel</td>
</tr>
<tr>
<td>Portion available for redevelopment</td>
<td>Constrained gas pipeline capacity</td>
</tr>
</tbody>
</table>
Scenario #2b: Import Power*

- Buy 128MW and an additional 80MW over 30 years
- Requires new transmission projects to access generation from remote location

Transmission Estimated Costs

<table>
<thead>
<tr>
<th>Year of Decommission</th>
<th>Project A for $26M</th>
<th>Projects B &amp; C for $44M</th>
<th>Project D for $27M</th>
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<tbody>
<tr>
<td>Year 2042</td>
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<td></td>
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<tr>
<td>Year 2045</td>
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*RTO decision may provide options

<table>
<thead>
<tr>
<th>Advantage</th>
<th>Disadvantage</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Downtown aesthetics</td>
<td>• Potential permitting and siting challenges</td>
</tr>
<tr>
<td>• Potential for import/export of resources including renewables (RTO)</td>
<td></td>
</tr>
<tr>
<td>• Portion available for redevelopment</td>
<td></td>
</tr>
</tbody>
</table>
Scenario #3a: Generation inside and outside Service Territory/Import

- Requires 128MW (48 MW must be at Drake/Birdsall) initially and an additional 80MW over 30 years (64MW must be at Drake/Birdsall)

**Advantage**
- Potential for import/export of resources including renewables (RTO)
- Less generation downtown
- No additional transmission required

**Disadvantage**
- Downtown aesthetics
- Coordination of construction and decommissioning of plant
- Requires continued additions of generation
- Constrained gas pipeline capacity
Scenario #3b: Distributed Generation – Generation at Drake/Birdsall

- Requires 128MW (48MW must be at Drake/Birdsall) initially and an additional 80MW over 30 years (16MW must be at Drake/Birdsall)

<table>
<thead>
<tr>
<th>Advantage</th>
<th>Disadvantage</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Less generation downtown long term</td>
<td>• Downtown aesthetics</td>
</tr>
<tr>
<td>• No additional transmission required</td>
<td>• Requires continued additions of generation</td>
</tr>
<tr>
<td></td>
<td>• Microgrids are complex</td>
</tr>
</tbody>
</table>
**Scenario #3c: Distributed Generation – No Generation at Drake or Birdsall**

- Requires 192MW initially and an additional 80MW over 30 years inside or outside service territory

**Transmission Estimated Costs**

<table>
<thead>
<tr>
<th>Year of Decommission</th>
<th>Project A for $26M</th>
</tr>
</thead>
</table>

**Advantage**

- Downtown aesthetics
- Portion available for redevelopment
- No generation at Drake or Birdsall, but generation at military bases and import
- Allows transmission solution and gives flexibility

**Disadvantage**

- Potential permitting and siting challenges
- Gas availability unknown
- Back-up fuel
- Constrained gas pipeline capacity
- Microgrids are complex
- Transmission project
- Operation of multiple sites

**Note:** New Transmission routes, substations, project siting and permitting costs have not yet been determined. Map is only conceptual.
Electric Regional Transmission Organization: Mountain West Transmission Group
An Opportunity

- Changes to the industry provide the potential to better serve our customers.
- The Mountain West Transmission Group (MWTG), of which Colorado Springs Utilities is a participant, formed in early 2013 to evaluate a suite of options ranging from a common transmission tariff to RTO participation.
- MWTG is currently analyzing whether to join a Regional Transmission Organization (RTO) that maintains a regional transmission tariff.
Strategic Considerations

RTO Implications For:

Energy Vision
- Potential access to new renewables
- Potential facilitation of greater renewable integration
- Potential use of purchase power agreements to meet renewable portfolio standards

Rates
- Potential of lower customer rates for the entire region
- Regional rate differentiation for Colorado Springs Utilities may erode

Transmission Infrastructure
- Planning
- Permitting
- Siting
Strategic Considerations

RTO Implications For:

Utilization of Available Generation Capacity
  • Potential to increase use of available capacity

Efficiencies, Economies of Scale
  • Dispatch of lowest cost units
  • Most efficient use of transmission

Autonomy
  • Dispatch of generation
  • Transmission cost sharing based on member benefit
  • Greater FERC scrutiny on transmission revenue requirement - “Just and reasonable”
The Board recently approved a .95 percent price increase for 100 MW, 15.6 percent renewable.
Demand Side Management & Renewable Energy Incentives

- Custom Energy Efficiency - Applicable to projects not covered under other business rebate programs
- Lighting - Rebate commensurate with energy savings
- Cooling - Instant price markdown at distributor locations
- Builder Incentive - For new home construction, rebate based on Home Energy Rating Score (HERS)
- Business/Multifamily Windows
- Showerheads
- Community Solar Gardens
- Solar Photovoltaic
- Solar Thermal

**Contact your Account Manager for all program details**

Coming in 2018

Business Demand Reduction Incentive Program
Five-Year Service Business Plan

Electric Operational Focus 2018-2022

- Meet obligation to serve current and future customers
- Evaluate and potentially implement Regional Transmission Organization (RTO)
- Utilize advanced metering infrastructure
- Add new renewables to system
- Add storage to the system
- Utilize enhanced technology platforms
- Restructure rates to meet changing industry trends
- Replace aging infrastructure
- Comply with regulations
- Meet customer expectations/desires (rooftop solar, battery storage, electric vehicles, energy efficiency)
- Manage demand
- Enhance system safety
- Improve system reliability
Natural Gas Operational Focus 2018-2022

- Meet obligation to serve current and future customers
- Replace aging infrastructure
- Improve system reliability
- Comply with regulations
- Utilize advanced metering infrastructure
- Enhance system safety
- Complete propane air plant capacity upgrades
- Evaluate resource expansion
Water Update

Dan Higgins
Chief Water Services Officer
Colorado Springs’ Water System

Our Water Connection
Sharing History, Sharing Responsibility
Backflow Prevention Program Update

New state regulations to protect water
- Survey all commercial customers by 2020
- 100% testing by 2020
- Annual reporting to CDPHE
- Response to violations

New program from top down on track
- More than 3,000 surveys completed
- More than 90% of assemblies tested
- No Notices of Violation issued
360 Degrees of Customer Support

- Customer
  - City Code Standards
  - CSFD and PPRBD
  - Stakeholder Education
  - Variances
  - Extensions
  - Postcards
  - Letters
  - Phone calls
  - Site visits
  - Hotline
  - Email
  - Website
  - Newsletter
  - YouTube

Electricity | Natural Gas | Water | Wastewater
Water Main Replacement Program

- $19M Local System
- $18M Facilities
- $6M Programs
- $10M Raw Water
- $2M Public/Dev.
- $2M Water Resources
- $3M Other

Water General Spend Goal
Water & Wastewater Corrosion

$19M
Local System

$18M
Facilities

$6M
Programs

$10M
Raw Water

$2M
Public Dev.

$2M
Water Resources

$3M
Other

18” Hole for Condition Assessment

Pipeline Condition Assessment

Pipeline Condition Assessment

18” Hole for Condition Assessment
Mesa Water Treatment Plant

Upgrade

-$19M Local System

-$18M Facilities

-$6M Programs

-$10M Raw Water

-$2M Public/Dev.

-$2M Water Resources

-$3M Other

Water General Spend Goal

Upgrade Area

Construction Area

Highline Reservoir

Chemical Building

Filter Building

Train A

Train B

Train C

New Building Rendering

Historical Pictures of Mesa Water Treatment Plant

Filter Underdrain Replacement about 1958

Mesa Water Treatment Plant - 1942 Construction
Skyway Finished Water Reservoir Replacement

- **Local System**: $19M
- **Facilities**: $18M
- **Programs**: $6M
- **Raw Water**: $10M
- **Public/Dev.**: $3M
- **Other**: $2M

**Water General Spend Goal**

Two 200,000 gallon Steel Tanks located to be removed on Lyra Drive in Skyway

Replacement 400,000 gallon Post Tension Wire Wound Concrete Tank – 90% complete as of 10/13/2017
Homestake Suction Pipeline Section A Replacement

$19M Local System
$18M Facilities
$6M Programs
$10M Raw Water
$2M Public/Dev.
$2M Water Resources
$3M Other

Water General Spend Goal
Nichols Reservoir Repairs

- Spillway Construction
- Outlet Repair
- Spillway Replacement

- Local System $19M
- Facilities $18M
- Program $6M
- Raw Water $10M
- Public/Dev. $3M
- Other Water Resources $2M

Water General Spend Goal

Outlet Repair

Colorado Springs Utilities
It's what we do, connected
Arkansas River Diversion Design

Current Diversion

Physical Model based on 60% Design

Intake
Boat Passage
Spillway
Fish Passage

Water General Spend Goal

$19M Local System
$18M Facilities
$6M Programs
$10M Raw Water
$2M Public Dev.
$2M Water
$3M Water Resources
$3M Other

Current Diversion

60% Design

Physical Model based on 60% Design

Intake
Boat Passage
Spillway
Fish Passage
Manitou 30” Raw Water Pipeline Rehabilitation

$19M Local System
$18M Facilities
$6M Program
$10M Raw Water
$2M Public/Dev.
$2M Water Resources
$3M Other

Water General Spend Goal

Manitou Hydro Plant

Pipe Relocation Segment 1
Pipe Relocation Segment 2

Mesa Water Treatment Plant

First Section of Pipe Being Installed
Sand Creek parallel to Academy Blvd. before & after boulder drop structures & bank stabilization improvements.
Cottonwood Creek between Academy Blvd & I-25. Before & after sculpted concrete drop structures & bank stabilization.
Wastewater System Improvements

Monument Creek Interceptor Project from Drake Power Plant to Las Vegas Water Recovery Facility

54 – 66 inch WW Pipe Cured in Place Pipelining
## Little Fountain Creek

**Little Fountain Creek Stabilization Project** – Protecting Nixon Power Plant Solar Evaporation Ponds

<table>
<thead>
<tr>
<th>WW General Spend Goal</th>
</tr>
</thead>
<tbody>
<tr>
<td>$8M Program(s)</td>
</tr>
<tr>
<td>$6M Public/Dev.</td>
</tr>
<tr>
<td>$0.5M Other</td>
</tr>
</tbody>
</table>

*City of Colorado Springs Utilities – It's the work of connected.*
Las Vegas Wastewater - Biological Nutrient Removal

- $8M Program
- $6M Facilities
- $1M Public/Devel
- $0.5M Other

WW General Spend Goal
Water Efficiency Programs

We’re here to help!

• Irrigation Audits & Equipment Rebates
• Native Grass Conversion and Indoor Incentive Programs
• Industry Benchmarking
• Pre-Rinse Spray Valve Retrofits (commercial kitchens)
• Hotel Audits
• Key Account Representatives (Water & Energy Consultations)
• Invite Us to your next staff meeting – Learn about the value of water
Five-Year Service Business Plan

Water Operational Focus 2018-2022

- Prioritize infrastructure rehabilitation and replacement
- Utilize predictive maintenance
- Diversify supply
- Reduce weather driven volatility
- Implement asset management and life cycle management
- Collaborate with support services
- Manage projects consistently
- Utilize advanced metering infrastructure
- Manage demand
- Conduct water planning and condition assessments
- Invest in water supply, delivery, and treatment
- Comply with regulations
Five-Year Service Business Plan

Wastewater Operational Focus 2018-2022

- Comply with regulations
- Conduct wastewater planning and condition assessments
- Invest in treatment plant
- Improve wastewater collection system
- Enhance sanitary sewer creek crossings
Proposed 2018 Budget & Rates

Scott Shewey
Interim Chief Planning & Finance Officer

October 20, 2017
Proposed 2018 Budget

2018 Total Appropriations
$978,304
(in thousands)

- Fuel Operations & Maintenance
  $238,085
  24%

- Non-Fuel Operations & Maintenance
  $328,623
  34%

- Debt Service
  $184,925
  19%

- Capitalized Projects
  $192,992
  20%

- Transfers - Surplus Funds to City
  $33,380
  3%

- Other
  $0

2018 Total Appropriations: $978,304 (in thousands)
Revenues by Service

2018 Operating Revenues by Service
$923,638
(in thousands)

- Electric: $477,547 (52%)
- Natural Gas: $178,047 (19%)
- Water: $196,208 (21%)
- Wastewater: $67,756 (7%)
- Streetlighting: $4,080 (1%)
Proposed 2018 Budget Overview

Financial Metrics
- Adjusted Debt Service Coverage – 1.85
- Days Cash on Hand – 135
- Debt Ratio – 55.5%

Rate Adjustments
- Phased in rates
- 2.4% electric service total revenue
- Water – 4.2%

Expenditures
- Increased O & M
- Reduced Capital
- Reduced Fuel
- Does not include
  - Changes to surplus formula
  - Parks watering

Responsible Balance
## Total Commercial Typical Bill

<table>
<thead>
<tr>
<th>Rate Schedule</th>
<th>Current Rates (a)</th>
<th>Proposed Rates (b)</th>
<th>Increase / (Decrease) (d) = [c-b]</th>
<th>% Change (e) = [d / b]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electric - Non-Fuel</td>
<td>$ 393.05</td>
<td>$ 421.03</td>
<td>$ 27.98</td>
<td>7.1%</td>
</tr>
<tr>
<td>Fuel Capacity &amp; ECA</td>
<td>167.40</td>
<td>158.40 (9.00)</td>
<td>(5.4%)</td>
<td></td>
</tr>
<tr>
<td>Electric Service Total</td>
<td>$ 560.45</td>
<td>$ 579.43</td>
<td>$ 18.98</td>
<td>3.4%</td>
</tr>
<tr>
<td>Natural Gas - Non-fuel</td>
<td>$ 207.10</td>
<td>$ 207.10</td>
<td>-</td>
<td>0.0%</td>
</tr>
<tr>
<td>Fuel Capacity &amp; GCA</td>
<td>404.37</td>
<td>364.68 (39.69)</td>
<td>(9.8%)</td>
<td></td>
</tr>
<tr>
<td>Natural Gas Service Total</td>
<td>$ 611.47</td>
<td>$ 571.78 (39.69)</td>
<td>(6.5%)</td>
<td></td>
</tr>
<tr>
<td>Water</td>
<td>$ 208.84</td>
<td>$ 218.74</td>
<td>$ 9.90</td>
<td>4.7%</td>
</tr>
<tr>
<td>Wastewater</td>
<td>110.45</td>
<td>112.14</td>
<td>1.69</td>
<td>1.5%</td>
</tr>
<tr>
<td>Total</td>
<td>$ 1,491.21</td>
<td>$ 1,482.09</td>
<td>$ (9.12)</td>
<td>(0.6%)</td>
</tr>
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</table>
### Total Industrial Typical Bill

<table>
<thead>
<tr>
<th>Rate Schedule</th>
<th>Current Rates</th>
<th>Proposed Rates</th>
<th>Increase / Decrease</th>
<th>% Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a)</td>
<td>(b)</td>
<td>(c)</td>
<td>(d) = [c-b]</td>
<td>(e) = [d / b]</td>
</tr>
<tr>
<td>Electric - Non-Fuel</td>
<td>$22,401.74</td>
<td>$22,401.74</td>
<td>$ -</td>
<td>0.0%</td>
</tr>
<tr>
<td>Fuel Capacity &amp; ECA</td>
<td>11,137.60</td>
<td>10,177.60</td>
<td>(960.00)</td>
<td>(8.6%)</td>
</tr>
<tr>
<td>Electric Service Total</td>
<td>$33,539.34</td>
<td>$32,579.34</td>
<td>$ (960.00)</td>
<td>(2.9%)</td>
</tr>
<tr>
<td>Natural Gas - Non-fuel</td>
<td>$ 1,858.78</td>
<td>$ 1,858.78</td>
<td>$ -</td>
<td>0.0%</td>
</tr>
<tr>
<td>Fuel Capacity &amp; GCA</td>
<td>4,043.64</td>
<td>3,646.84</td>
<td>(396.80)</td>
<td>(9.8%)</td>
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<tr>
<td>Natural Gas Service Total</td>
<td>$ 5,902.42</td>
<td>$ 5,505.62</td>
<td>$ (396.80)</td>
<td>(6.7%)</td>
</tr>
<tr>
<td>Water</td>
<td>$ 2,702.19</td>
<td>$ 2,867.19</td>
<td>$ 165.00</td>
<td>6.1%</td>
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<tr>
<td>Wastewater</td>
<td>1,374.75</td>
<td>1,404.64</td>
<td>29.89</td>
<td>2.2%</td>
</tr>
<tr>
<td>Total</td>
<td>$43,518.70</td>
<td>$42,356.79</td>
<td>$ (1,161.91)</td>
<td>(2.7%)</td>
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</tbody>
</table>
### Five-year Financial Forecast

<table>
<thead>
<tr>
<th></th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
<th>2022</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Non-Fuel Operating Revenues</strong></td>
<td>$668,119</td>
<td>$677,866</td>
<td>$694,690</td>
<td>$708,371</td>
<td>$723,470</td>
</tr>
<tr>
<td><strong>Non-Fuel Operating Expenses</strong></td>
<td>$336,861</td>
<td>$343,598</td>
<td>$353,470</td>
<td>$357,479</td>
<td>$364,629</td>
</tr>
<tr>
<td><strong>Capital Expenditures</strong></td>
<td>$191,481</td>
<td>$199,834</td>
<td>$195,744</td>
<td>$191,969</td>
<td>$197,243</td>
</tr>
<tr>
<td><strong>Debt Service Coverage</strong></td>
<td>1.85</td>
<td>1.81</td>
<td>1.77</td>
<td>1.78</td>
<td>1.75</td>
</tr>
<tr>
<td><strong>Debt Service</strong></td>
<td>$184,848</td>
<td>$187,773</td>
<td>$195,875</td>
<td>$199,322</td>
<td>$207,624</td>
</tr>
<tr>
<td><strong>Debt Ratio</strong></td>
<td>55.6%</td>
<td>54.6%</td>
<td>53.3%</td>
<td>52.1%</td>
<td>50.5%</td>
</tr>
<tr>
<td><strong>Days Cash On Hand</strong></td>
<td>133</td>
<td>130</td>
<td>137</td>
<td>148</td>
<td>153</td>
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<tr>
<td><strong>Bond Issuance</strong></td>
<td>$-</td>
<td>$107,155</td>
<td>$-</td>
<td>$125,349</td>
<td>$-</td>
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### Rate Projections

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<th></th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
<th>2022</th>
<th>Five-year Average</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Electric</strong></td>
<td>2.40%</td>
<td>0.00%</td>
<td>1.50%</td>
<td>1.50%</td>
<td>1.50%</td>
<td>1.4%</td>
</tr>
<tr>
<td><strong>Gas</strong></td>
<td>0.00%</td>
<td>1.50%</td>
<td>1.50%</td>
<td>1.50%</td>
<td>1.00%</td>
<td>1.1%</td>
</tr>
<tr>
<td><strong>Water</strong></td>
<td>4.20%</td>
<td>3.00%</td>
<td>3.00%</td>
<td>3.00%</td>
<td>3.00%</td>
<td>3.2%</td>
</tr>
<tr>
<td><strong>Wastewater</strong></td>
<td>0.00%</td>
<td>2.00%</td>
<td>2.00%</td>
<td>2.00%</td>
<td>1.00%</td>
<td>1.4%</td>
</tr>
</tbody>
</table>

### Assumptions
- Drake decommissioning no later than 2035
- Current Banning Lewis Ranch annexation agreement
- Not operating under a Regional Transmission Organization
Questions?