ENERGY RESOURCES DEPARTMENT

FY 19/20 BUDGET REVIEW

PROVIDE
SAFE, RELIABLE & ECONOMICAL
ELECTRIC & NATURAL GAS
UTILITY SERVICES
TO OUR CUSTOMERS

Frank McRae
John Petrof
## STRATEGIC PRIORITY ALIGNMENT

<table>
<thead>
<tr>
<th></th>
<th>COMMUNITY SAFETY</th>
<th>SUSTAINABLE ECONOMY</th>
<th>TRANSFORM NEIGHBORHOODS</th>
<th>PLACE-MAKING</th>
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</thead>
<tbody>
<tr>
<td>SAFETY</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
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<tr>
<td>RELIABILITY</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
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<tr>
<td>ECONOMICS</td>
<td>X</td>
<td>X</td>
<td>X</td>
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</tbody>
</table>

### Certifications

- **2017-2020 Platinum Level**
- **2017-2020 Silver**
PROPOSED FY 19/20 BUDGET

• No material changes unique to the Energy Resources Department.

• Funding system expansions to meet customer growth with a combination of contributions from customers and bonds.

• Supplementing our crews with contractors and temporary employees where effective.

• Compensation – recruiting and retention of qualified employees is critical to meeting the challenges and capitalizing on the opportunities for innovation and technology.
HIGHLIGHTED PROGRAMS/PROJECTS

• SEA – Summer Energy Assistance Program (Electric Low Income)
• Small Business Assistance Program (Downtown)
• Electric Economic Development Rate

• Enhanced Employee Training
  • Succession Planning
  • Safety – Technology for Inspections (IR Cameras)
  • System Integrity (Corrosion Control)
  • Operations & Maintenance (CNG station)
• Vehicle & Equipment Replacements
ELECTRIC O&M PER CUSTOMER

- Measure of efficiency
- Target is based on prior year budgeted expenditures and forecasted customers
- Direct labor, materials & equipment
  - T&D Ops & Maint
  - Substation Ops & Maint
  - Meter Ops & Maint

$-  $50  $100  $150  $200  $250

July  Aug  Sept  Oct  Nov  Dec  Jan  Feb  Mar  Apr  May  June

17-18 Target  17-18 Actual  18-19 Target  18-19 Actual
**GAS O&M PER CUSTOMER**

- Measure of efficiency
- Target is based on prior year budgeted expenditures and forecasted customers
- Direct labor, materials & equipment
  - System Ops & Maint
  - Emergency Response
  - Meter Ops & Maint
  - Regulatory Compliance
  - Utility Locating
  - Property Damages

![GAS O&M PER CUSTOMER Graph]

- Y-axis: $\text{\$} \quad \begin{array}{c} \$0 \\ \$20 \\ \$40 \\ \$60 \\ \$80 \\ \$100 \\ \$120 \end{array}$
- X-axis: July, Aug, Sept, Oct, Nov, Dec, Jan, Feb, Mar, Apr, May, June

- Trend lines:
  - 17-18 Target
  - 17-18 Actual
  - 18-19 Target
  - 18-19 Actual
AVERAGE RESPONSE TIME-ELECTRIC

- Measure of safety & reliability
- Time taken to respond to a customer call for emergencies or interruptions of service
- Number of calls in most recent 12 months - 456

Graph:
- Target
- 17-18 Actual
- 18-19 Actual

- Minutes
- July Aug Sept Oct Nov Dec Jan Feb Mar Apr May June

- 0 5 10 15 20 25 30 35

Actual versus Target
ELECTRIC RELIABILITY
DURATION OF OUTAGES (CUMULATIVE)

- Measure of reliability of service
- SAIDI
- Target for 19/20 adjusted to promote continuous improvement
- All months and associated events where targets are exceeded are thoroughly assessed and root causes for extended outages are identified and remedies developed and implemented
**EMERGENCY RESPONSE MESA-GAS**

- Measure of safety & reliability
- Time taken to respond to a customer call for emergencies or interruptions of service
- Number of calls in most recent 12 months 1,240

![Chart showing percent exceeding 30 minutes with data points for July to June with target and actual values for 2017-18 and 2018-19.]
GAS RELIABILITY
FREQUENCY OF OUTAGES (CUMULATIVE)

• Measure of reliability of service
• SAIFI
• All months and associated events where targets are exceeded are thoroughly assessed and root causes for extended outages are identified and remedies developed and implemented
Smart grid technologies provide tools to solve our challenges & opportunities:

- Aging infrastructure
- Growing demand
- Integration of renewable energy sources
- Integration of electric vehicles as energy storage resource
- Improve supply security
- Lower carbon emissions
SMART CITY & SMART GRID

• AMI Smart Meters are a critical component of Smart Grid & Smart City

• Utility Analytics & System Operations / Outage Management

• Optimization of renewable resources & other innovative technologies

• Achieving full potential of Smart Grid will require investment beyond the AMI Project
  • Professional Development
  • Energy Control Room - to identify & maximize the value of the data that AMI & Smart Grid generates
ENERGY RESOURCES ELECTRIC SUPPLY PORTFOLIO

- Renewable Hydro: 18.9%
- Ad-Hoc Market Purchases: 6.4%
- Customer-Owned Solar: 0.3%
- RFP Contracts: 74.4%
SMART CITY & RENEWABLE ENERGY

• Proposed 2019 Integrated Resource (IRP)
  • Customers & Community engagement
  • Enhanced focus on Solar & energy conservation
  • Continue existing customer owned solar program
  • Competitive RFP process

• April 2019 RFP
  • RFP for replacement of two contract components of portfolio
SMART CITY & RENEWABLE ENERGY

• June – July 2019: Purchase 10 MW utility scale solar

• Late 2019: With Sustainability, renew offers for utility solar generation within the ESA

• 2020: 10 MW of Renewable with storage for 2021-2022 delivery

• 2021: Replace two contracts
The rate component (EECAF) is adjusted monthly to timely pass through changes in energy supply costs. Decreases in electric energy supply costs have offset increases in general rates such that customers' bills over time have decreased.
• The rate component (PNGCAF) is adjusted monthly to timely pass through changes in energy supply costs.
• Decreases in natural gas supply costs have offset increases in general rates such that customers' bills over time have decreased.
### Financial Overview

#### ELECTRIC

<table>
<thead>
<tr>
<th></th>
<th>FY 17/18 Actuals</th>
<th>FY 18/19 Revised Budget</th>
<th>FY 18/19 Projected</th>
<th>FY 19/20 Proposed Budget</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sources of Funding</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Revenues</td>
<td>$18,453,285</td>
<td>$18,286,468</td>
<td>$18,411,785</td>
<td>$18,751,282</td>
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<td>EECAF Revenues</td>
<td>$13,233,811</td>
<td>$12,616,573</td>
<td>$11,548,700</td>
<td>$11,395,504</td>
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<tr>
<td><strong>Total Sources</strong></td>
<td>$31,687,097</td>
<td>$30,903,041</td>
<td>$29,960,485</td>
<td>$30,146,786</td>
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<tr>
<td><strong>Uses of Funding</strong></td>
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<tr>
<td>Operating Expenditures</td>
<td>$7,012,138</td>
<td>$7,813,262</td>
<td>$7,422,475</td>
<td>$7,419,254</td>
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<td>EECAF Expenditures</td>
<td>$13,131,317</td>
<td>$12,631,573</td>
<td>$11,093,915</td>
<td>$11,395,504</td>
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<tr>
<td><strong>Expenditure Subtotal</strong></td>
<td>$20,143,454</td>
<td>$20,444,835</td>
<td>$18,516,390</td>
<td>$18,814,758</td>
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<td>Project Costs</td>
<td>$43,303</td>
<td>$181,997</td>
<td>$181,267</td>
<td>$24,000</td>
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<td>General Fund Transfer</td>
<td>$6,656,624</td>
<td>$6,776,087</td>
<td>$6,776,087</td>
<td>$6,913,974</td>
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<td>Debt Service Transfer</td>
<td>$1,316,892</td>
<td>$1,488,572</td>
<td>$988,334</td>
<td>$1,982,893</td>
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<td>Lifecycle/ Infrastructure Transfers</td>
<td>$633,213</td>
<td>$637,773</td>
<td>$599,210</td>
<td>$602,936</td>
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<tr>
<td>Capital Transfer</td>
<td>$0</td>
<td>$149,468</td>
<td>$149,468</td>
<td>$124,539</td>
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<td>Economic Investment Fund Transfer</td>
<td>$233,430</td>
<td>$466,860</td>
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<tr>
<td>Other Transfers</td>
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<td>$0</td>
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<td><strong>Total Uses</strong></td>
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<td>$30,145,592</td>
<td>$27,677,615</td>
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<td><strong>Net Sources and Uses</strong></td>
<td>$2,651,180</td>
<td>$757,449</td>
<td>$2,282,870</td>
<td>$1,683,686</td>
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</table>
## Financial Overview

### NATURAL GAS

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<thead>
<tr>
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<th>FY 17/18 Actuals</th>
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<tr>
<td><strong>Sources of Funding</strong></td>
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<td></td>
<td></td>
<td></td>
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<tr>
<td>Revenues</td>
<td>$30,152,251</td>
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<td>$34,586,914</td>
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<td>PNGCAF Revenues</td>
<td>$9,572,586</td>
<td>$12,517,481</td>
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<td>$10,512,645</td>
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<td><strong>Total Sources</strong></td>
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<tr>
<td><strong>Uses of Funding</strong></td>
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<tr>
<td>Operating Expenditures</td>
<td>$12,489,955</td>
<td>$14,068,723</td>
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<td>PNGCAF Expenditures</td>
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<td><strong>Expenditure Subtotal</strong></td>
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<td>$26,586,204</td>
<td>$24,448,823</td>
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<tr>
<td>Project Costs</td>
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<td>$350,984</td>
<td>$282,297</td>
<td>$29,000</td>
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<tr>
<td>General Fund Transfer</td>
<td>$7,955,552</td>
<td>$8,098,326</td>
<td>$8,098,326</td>
<td>$8,263,120</td>
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<td>Debt Service Transfer</td>
<td>$5,460,468</td>
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<tr>
<td>Lifecycle/ Infrastructure Transfers</td>
<td>$794,686</td>
<td>$888,887</td>
<td>$895,628</td>
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<td>Capital Transfer</td>
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<tr>
<td>Economic Investment Fund Transfer</td>
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<td>$557,961</td>
<td>$557,961</td>
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<tr>
<td><strong>Total Uses</strong></td>
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<td>$42,129,825</td>
<td>$41,000,957</td>
<td>$39,853,513</td>
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<tr>
<td><strong>Net Sources and Uses</strong></td>
<td>$2,804,772</td>
<td>$1,587,138</td>
<td>$3,780,444</td>
<td>$2,942,443</td>
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Questions?
# Mesa Residential Electric Bill Comparison January 2018 to December 2018

<table>
<thead>
<tr>
<th></th>
<th>1st Q</th>
<th>2nd Q</th>
<th>Avg</th>
<th>3rd Q</th>
<th>4th Q</th>
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</thead>
<tbody>
<tr>
<td>Mesa</td>
<td>$490.65</td>
<td>$843.88</td>
<td>$1,084.43</td>
<td>$1,160.13</td>
<td>$1,781.96</td>
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<tr>
<td>SRP</td>
<td>$620.58</td>
<td>$1,000.79</td>
<td>$1,259.24</td>
<td>$1,343.45</td>
<td>$2,070.37</td>
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## Annual Bill

- **$500**
- **$1,000**
- **$1,500**
- **$2,000**
- **$2,500**
Mesa Residential Gas Bill Comparison January 2018 to December 2018

<table>
<thead>
<tr>
<th></th>
<th>1st Q</th>
<th>2nd Q</th>
<th>3rd Q</th>
<th>Avg</th>
<th>4th Q</th>
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<tbody>
<tr>
<td>Mesa Annual Bill</td>
<td>$243.11</td>
<td>$317.06</td>
<td>$391.40</td>
<td>$401.22</td>
<td>$627.39</td>
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<td>SWG Annual Bill</td>
<td>$196.87</td>
<td>$286.43</td>
<td>$381.95</td>
<td>$394.22</td>
<td>$711.55</td>
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