# Proposed Rate Changes for FY 2019 

City Commission \& UAB Workshop
July 9, 2018

## Terminology

- Revenue Requirements
- The amount of revenue required to operate the system
- Rates \& Prices
- Customer Charge, Usage Charge, Demand Charge, Fuel Adjustment Charge
- Usage Charge applies to Billing Blocks or Tiers
- Bill Amounts
- Total dollar cost when applying prices to usage levels
- We typically use industry standard usage levels


## Approach to Electric Rate Options

- No changes are proposed for customer charges, demand charges or fuel adjustment charges
- Identify a consistent and logical approach for setting $1^{\text {st }}$ and $2^{\text {nd }}$ block prices for the three scenarios
- Increased revenue requirement is applied across the board to all four rate categories


## Residential Rate Structures

| Utility | Rate Structure | Customer Charge | Inversion <br> Differential | Number of Customers |
| :---: | :---: | :---: | :---: | :---: |
| JEA | flat rate | \$5.50 |  | 453,703 |
| OCA | flat rate | \$9.33 |  | 52,456 |
| OUC | 1000 | \$8.00 | 16\% | 231,229 |
| TAL | flat rate | \$7.59 |  | 114,573 |
| LAK | 1000/1500 | \$9.50 | 11\% | 127,153 |
| FTP | 750 | \$6.01 | 10\% | 28,306 |
| KIS | 1000 | \$10.17 | 10\% | 69,905 |
| VER | 1000 | \$8.33 | 57\% | 35,216 |
| FPL | 1000 | \$8.01 | 17\% | 4,840,240 |
| DEF | 1000 | \$8.82 | 20\% | 1,743,136 |
| TEC | 1000 | \$16.62 | 21\% | 730,504 |
| GPC | flat rate | \$19.20 |  | 453,139 |
| CLY | 1000 | \$23.00 | 26\% | 171,777 |
| GRU | 850 | \$14.25 | 37\% | 95,161 |
| median | 1000 | \$9.08 | 19\% | 149,465 |
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## Distribution of Residential Electric Bills - CY2017 Average Month



## Distribution of Residential Electric Bills - July 2017

| JULY_kwh Miapoint |  | Freq | cum. Freq | Percent | cum. <br> Percent |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 0 | *********** | 535 | 535 | 0.64 | 0.64 |
| 50 | *********** | 547 | 1082 | 0.66 | 1.30 |
| 100 | **************** | 809 | 1891 | 0.97 | 2.27 |
| 150 | ******************** | 944 | 2835 | 1.13 | 3.41 |
| 200 | ********************** | 1108 | 3943 | 1.33 | 4.74 |
| 250 | ************************* | 1267 | 5210 | 1.52 | 6.26 |
| 300 | ***************************** | 1464 | 6674 | 1.76 | 8.02 |
| 350 | ********************************** | 1709 | 8383 | 2.05 | 10.07 |
| 400 | *************************************** | 1928 | 10311 | 2.32 | 12.39 |
| 450 | ********************************************* | 2258 | 12569 | 2.71 | 15.10 |
| 500 |  | 2462 | 15031 | 2.96 | 18.06 |
| 550 | ************** | 2525 | 17556 | 3.03 | 21.09 |
| 600 | ******************* | 2817 | 20373 | 3.38 | 24.48 |
| 650 | *********** | 2958 | 23331 | 3.55 | 28.03 |
| 700 | ******************) | 3085 | 26416 | 3.71 | 31.74 |
| 750 | ************* | 3036 | 29452 | 3.65 | 35.39 |
| 800 | *** | 3190 | 32642 | 3.83 | 39.22 |
| 850 | ** | 3254 | 35896 | 3.91 | 43.13 |
| 900 |  | 3204 | 39100 | 3.85 | 46.98 |
| 950 |  | 3083 | 42183 | 3.70 | 50.68 |
| 1000 | 閏***************************** | 2922 | 45105 | 3.51 | 54.19 |
| 1050 |  | 2869 | 47974 | 3.45 | 57.64 |
| 1100 |  | 2728 | 50702 | 3.28 | 60.92 |
| 1150 |  | 2597 | 53299 | 3.12 | 64.04 |
| 1200 | * | 2520 | 55819 | 3.03 | 67.07 |
| 1250 | ********************************************** | 2274 | 58093 | 2.73 | 69.80 |
| 1300 | ****************************************** | 2107 | 60200 | 2.53 | 72.33 |
| 1350 |  | 2056 | 62256 | 2.47 | 74.80 |
| 1400 |  | 1850 | 64106 | 2.22 | 77.02 |
| 1450 | *********************************** | 1771 | 65877 | 2.13 | 79.15 |
| 1500 | ******************************* | 1593 | 67470 | 1.91 | 81.07 |
| 1550 | ***************************** | 1430 | 68900 | 1.72 | 82.78 |
| 1600 | ************************** | 1303 | 70203 | 1.57 | 84.35 |
| 1650 | ************************ - 1016 | 1195 | 71398 | 1.44 | 85.79 |
| 1700 |  | 1053 | 72451 | 1.27 | 87.05 |
| 1750 | ******************** | 1024 | 73475 | 1.23 | 88.28 |
| 1800 | ***************** | 853 | 74328 | 1.02 | 89.31 |
| 1850 | ***************** | 829 | 75157 | 1.00 | 90.30 |
| 1900 | ************** | 684 | 75841 | 0.82 | 91.12 |
| 1950 | ************** | 685 | 76526 | 0.82 | 91.95 |
| 2000 | ************ | 613 | 77139 | 0.74 | 92.68 |
| 2050 | *********** | 567 | 77706 | 0.68 | 93.36 |
| 2100 | ********** | 505 | 78211 | 0.61 | 93.97 |
| 2150 | ********* | 467 | 78678 | 0.56 | 94.53 |
| 2200 | ********* | 425 | 79103 | 0.51 | 95.04 |
| 2250 |  | 4126 | 83229 | 4.96 | 100.00 |
|  |  |  |  |  |  |

## Residential Electric Customers by Home Type and Fuel Source

Total Electric

$$
n=84,000
$$

Home Type
Unattached
Attached
Mobile Home
\% Homes Avg kWh 44.5\% 970 52.9\% 670
2.6\% 850

Electric with Gas

$$
n=30,000
$$

\% Homes Avg kWh 83.6\% 930
15.0\%

530
1.4\%

620
notes: $\quad 84,000$ Total Residential Electric Customers
30,000 Residential Electric Customers with Gas Service
67\% of Customers in Unattached Homes also have Gas Service
10\% of Customers in Attached Homes also have Gas Service 20\% of Customers in Mobile Homes also have Gas Service

## Inverted Block Rates

- Objective
- Incentivize Efficient Use of Resources
- Collect Incremental Revenue During High Use Periods
- Cautions
- Accommodate Different Customer Profiles
- Appliance Mix, Home Type, Home Size, Occupancy
- Number of Days in Billing Cycle
- Revenue at Risk
- Customer Understanding


## Residential Electric Bill for 1000 kWh

3.1\% Base Rate Revenue Requirement in FY2019


Flat Rate Bill minus Inverted Block Rate Bill


# Proposed Electric Pricing To Meet 3.1\% Base Rate Revenue Requirement 

| Existing | Residential 850 kWh Break | GS Non-Demand 1500 kWh Break | GS Demand | Large Power |
| :---: | :---: | :---: | :---: | :---: |
| Customer Charge (\$/month) | \$14.25 | \$29.50 | \$100.00 | \$350.00 |
| Block 1 Energy Charge (\$/kWh) | \$0.0680 | \$0.0890 | \$0.0601 | \$0.0563 |
| Block 2 Energy Charge (\$/kWh) | \$0.0930 | \$0.1220 | N/A | N/A |
| Demand Charge (\$/kW) | N/A | N/A | \$9.50 | \$9.75 |
| Proposed | Residential 850 kWh Break | GS Non-Demand 1500 kWh Break | GS Demand | Large Power |
| Customer Charge (\$/month) | \$14.25 | \$29.50 | \$100.00 | \$350.00 |
| Block 1 Energy Charge ( $\$ / \mathrm{kWh}$ ) | \$0.0725 | \$0.0937 | \$0.0627 | \$0.0585 |
| Block 2 Energy Charge (\$/kWh) | \$0.0892 | \$0.1246 | N/A | N/A |
| Demand Charge (\$/kW) | N/A | N/A | \$9.50 | \$9.75 |
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## Proposed Residential Electric Pricing

 To Meet 3.1\% Base Rate Revenue Requirement| FY2018 | $750 \text { kWh }$ Break | $850 \text { kWh }$ Break | $1000 \text { kWh }$ Break | Flat Rate |
| :---: | :---: | :---: | :---: | :---: |
| Customer Charge (\$/month) |  | \$14.25 |  |  |
| Block 1 Energy Charge ( $\$ / \mathrm{kWh}$ ) |  | \$0.0680 |  |  |
| Block 2 Energy Charge (\$/kWh) |  | \$0.0930 |  |  |
| Fuel Adjustment Charge ( $\$ / \mathrm{kWh}$ ) |  | \$0.0350 |  |  |
| FY2019 | $\begin{gathered} 750 \text { kWh } \\ \text { Break } \end{gathered}$ | $\begin{gathered} 850 \text { kWh } \\ \text { Break } \end{gathered}$ | $\begin{gathered} 1000 \text { kWh } \\ \text { Break } \end{gathered}$ | Flat Rate |
| Customer Charge (\$/month) | \$14.25 | \$14.25 | \$14.25 | \$14.25 |
| Block 1 Energy Charge ( $\$ / \mathrm{kWh}$ ) | \$0.0708 | \$0.0725 | \$0.0741 | \$0.0762 |
| Block 2 Energy Charge (\$/kWh) | \$0.0906 | \$0.0892 | \$0.0867 | N/A |
| Fuel Adjustment Charge ( $\$ / \mathrm{kWh}$ ) | \$0.0350 | \$0.0350 | \$0.0350 | \$0.0350 |
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## Proposed Wastewater Changes

- We have Identified an Increased Revenue Requirement of 2.4\%
- Increase the Customer Charge from: $\$ 9.10 /$ month to $\$ 9.35 /$ month
- Increase the kGal Volume Charge from: $\$ 6.30 / \mathrm{kgal}$ to $\$ 6.45 / \mathrm{kgal}$
- 7 kGal Residential Bill Increases from: $\$ 53.20 /$ month to $\$ 54.50 /$ month


## Remaining Systems

- We are proposing no rate increases for the Water System
- Water and Wastewater Connection Charges are determined separately
- We are proposing no rate increases for the Gas System


## Appendices

## Bill Comparison Charts

## for <br> May 2018

## Residential Electric $1,000 \mathrm{kWh}$



## Residential Water 7.000 Gallons



## Residential Wastewater 7,000 Gallons



## Residential Natural Gas 25 Therms



## GS Non-Demand Electric 1,500 kWh


$\$ 120.00$
Small Commercial Natural Gas 35 Therms


## GS Demand Electric 75 kW / 30,000 kWh



## Non-Residential Water 30,000 Gallons



## Non-Residential Wastewater 30,000 Gallons



## Commercial Natural Gas 300 Therms



## GS Large Demand 1,000 kW / 430,000 kWh



## Large Volume Natural Gas 30,000 Therms



