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# ATTACHMENT

**Residential Customer Bill Impact Analysis** **SJWC Service Area**

**Typical bill comparisons current to CFC's proposed 3 tier rate design for 5/8" x 3/4" Customers**

**Based on Meter/Service Charge Plus Quantity Charges Times Consumption**

| | Meter Chg | Q Charge |
|---|---|---|
| Current | $ 13.18 | $ 2.1700 |
| Proposed | $ 13.18 | |
| | Block 1 | $ 1.9005 |
| | Block 2 | $ 2.5997 |
| | Block 3 | $ 4.8000 |
| Tier 1 Block | 10 | ccf |
| Tier 2 Block | 20 | |
| Tier 3 Block | Over 20 | |

| ***small usage*** | consumption | 5 ccf/mo | | | | ***annual avg*** | consumption | 15.36 ccf/mo | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Current bill | $ 24.03 | | | | | Current bill | $ 46.50 | | | $ 40.00 | |
| block | rate | consum | | bill | | block | rate | consum | | bill | |
| 10 | $ 1.9005 | 5.00 | $ | 9.50 | | 10 | $ 1.9005 | 10.00 | $ | 19.00 | |
| 20 | $ 2.5997 | 0.00 | $ | - | | 20 | $ 2.5997 | 5.36 | $ | 13.92 | |
| Over 20 | $ 4.8000 | 0 | $ | - | | Over 20 | $ 4.8000 | 0 | $ | - | |
| | | total bill | $ | 22.68 | | | | total bill | $ | 46.11 | |
| | | Percent change in bill | | | **-5.61%** | | | Percent change in bill | | | **-0.85%** |

| ***Average Winter*** | consumption | 10.20 ccf/mo | | | | ***Average summer*** | consumption | 21.50 ccf/mo | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Current bill | $ 35.31 | | | | | Current bill | $ 59.83 | | | | |
| block | | consum | | bill | | block | | consum | | bill | |
| 10 | $ 1.9005 | 10.00 | $ | 19.00 | | 10 | $ 1.9005 | 10.00 | $ | 19.00 | |
| 20 | $ 2.5997 | 0.20 | $ | 0.51 | | 20 | $ 2.5997 | 10.00 | $ | 26.00 | |
| Over 20 | $ 4.8000 | 0 | $ | - | | Over 20 | $ 4.8000 | 1.50 | $ | 7.19 | |
| | | total bill | $ | 32.70 | | | | total bill | $ | 65.37 | |
| | | Percent change in bill | | | **-7.39%** | | | Percent change in bill | | | **9.26%** |

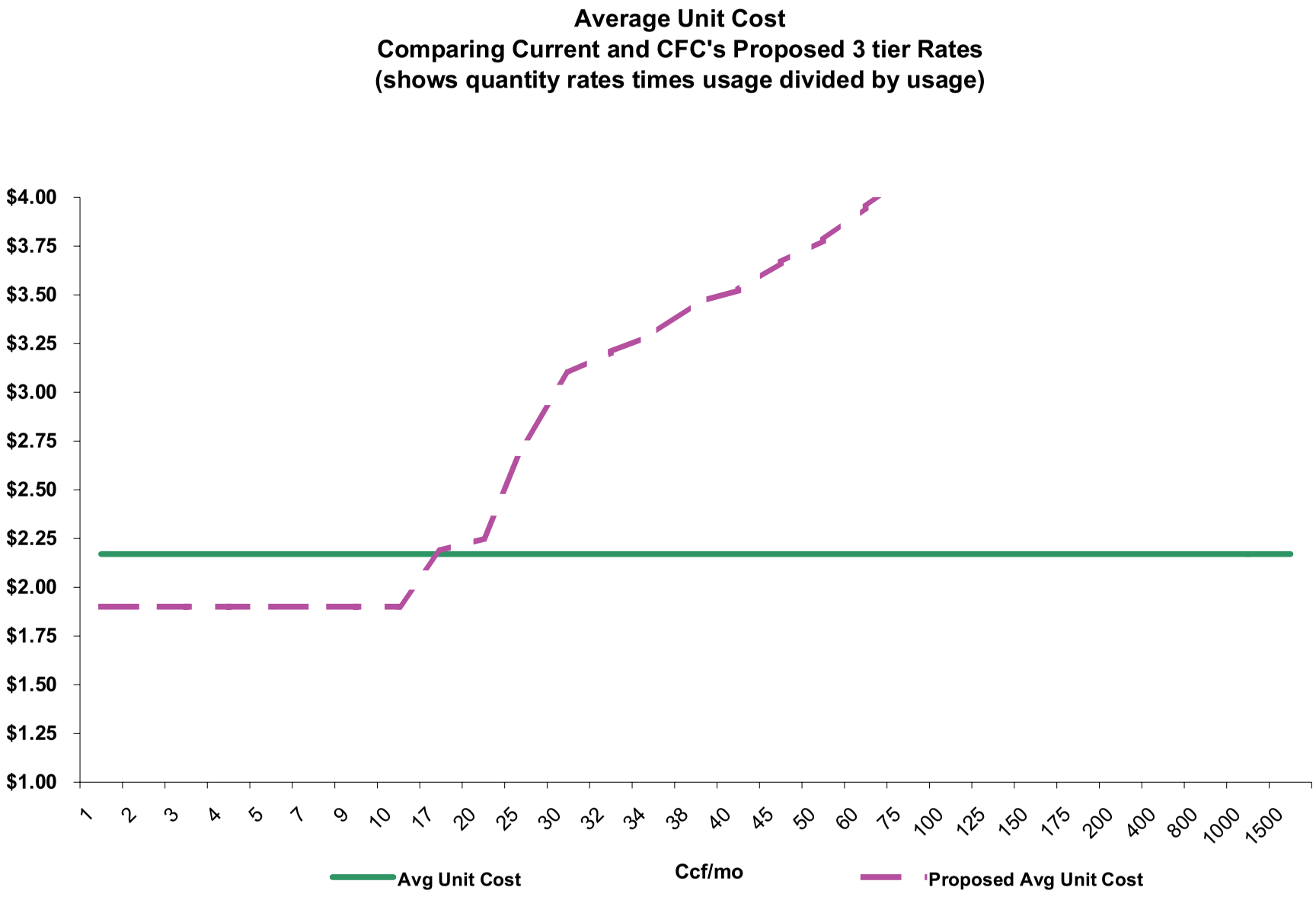
| ***Large user*** | consumption | 25 ccf/mo | | | | ***largest user*** | consumption | 1854 ccf/mo | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Current bill | $ 67.43 | | | | | Current bill | $ 4,036.36 | | | | |
| block | rate | consum | | bill | | block | rate | consum | | bill | |
| 10 | $ 1.9005 | 10.00 | $ | 19.00 | | 10 | $ 1.9005 | 10.00 | $ | 19.00 | |
| 20 | $ 2.5997 | 10.00 | $ | 26.00 | | 20 | $ 2.5997 | 10.00 | $ | 26.00 | |
| Over 20 | $ 4.8000 | 5.00 | $ | 24.00 | | Over 20 | $ 4.8000 | 1834.00 | $ | 8,803.27 | |
| | | total bill | $ | 82.18 | | | | total bill | $ | 8,861.45 | |
| | | Percent change in bill | | | **21.88%** | | | Percent change in bill | | | **119.54%** |

**Bill Impact Analysis at Various Usage Levels of CFC's Proposed 3 tier rates**

**Change in Bills for Residential Customers with 5/8" x 3/4" Connections**

| Usage | Typical Bills Under Current Rates | | | | Typical Bills Under Proposed Rates | | | | | | Change in Bills (5) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ccf Per | Meter Chg | Qntty Rate | Total | Avg Unit | Meter Chg | Tier 1 | Tier 2 | Tier 3 | Proposed | Proposed Avg | Dollar ($) | Percent (%) |
| Month | Charge | $2.1700 | Bill (1) | Cost (2) | Charge | $1.9005 | $2.5997 | $4.8000 | Total Bill (3) | Unit Cost (4) | Difference | Difference |
| 0 | 13.18 | 0.00 | 13.18 | 0.00 | 13.18 | 0.00 | | | 13.18 | 0.00 | 0.00 | 0.00% |
| 1 | 13.18 | 2.17 | 15.35 | 2.17 | 13.18 | 1.90 | | | 15.08 | 1.90 | -0.27 | -1.76% |
| 2 | 13.18 | 4.34 | 17.52 | 2.17 | 13.18 | 3.80 | | | 16.98 | 1.90 | -0.54 | -3.08% |
| 3 | 13.18 | 6.51 | 19.69 | 2.17 | 13.18 | 5.70 | | | 18.88 | 1.90 | -0.81 | -4.11% |
| 4 | 13.18 | 8.68 | 21.86 | 2.17 | 13.18 | 7.60 | | | 20.78 | 1.90 | -1.08 | -4.93% |
| 5 | 13.18 | 10.85 | 24.03 | 2.17 | 13.18 | 9.50 | | | 22.68 | 1.90 | -1.35 | -5.61% |
| 7 | 13.18 | 15.19 | 28.37 | 2.17 | 13.18 | 13.30 | | | 26.48 | 1.90 | -1.89 | -6.65% |
| 9 | 13.18 | 19.53 | 32.71 | 2.17 | 13.18 | 17.10 | | | 30.28 | 1.90 | -2.43 | -7.42% |
| 10 | 13.18 | 21.70 | 34.88 | 2.17 | 13.18 | 19.00 | - | | 32.18 | 1.90 | -2.70 | -7.73% |
| 17 | 13.18 | 36.89 | 50.07 | 2.17 | 13.18 | 19.00 | 18.20 | | 50.38 | 2.19 | 0.31 | 0.62% |
| 20 | 13.18 | 43.40 | 56.58 | 2.17 | 13.18 | 19.00 | 26.00 | 0.00 | 58.18 | 2.25 | 1.60 | 2.83% |
| 25 | 13.18 | 54.25 | 67.43 | 2.17 | 13.18 | 19.00 | 26.00 | 24.00 | 82.18 | 2.76 | 14.75 | 21.88% |
| 30 | 13.18 | 65.10 | 78.28 | 2.17 | 13.18 | 19.00 | 26.00 | 48.00 | 106.18 | 3.10 | 27.90 | 35.64% |
| 32 | 13.18 | 69.44 | 82.62 | 2.17 | 13.18 | 19.00 | 26.00 | 57.60 | 115.78 | 3.21 | 33.16 | 40.14% |
| 34 | 13.18 | 73.78 | 86.96 | 2.17 | 13.18 | 19.00 | 26.00 | 67.20 | 125.38 | 3.30 | 38.42 | 44.18% |
| 38 | 13.18 | 82.46 | 95.64 | 2.17 | 13.18 | 19.00 | 26.00 | 86.40 | 144.58 | 3.46 | 48.94 | 51.17% |
| 40 | 13.18 | 86.80 | 99.98 | 2.17 | 13.18 | 19.00 | 26.00 | 96.00 | 154.18 | 3.53 | 54.20 | 54.21% |
| 45 | 13.18 | 97.65 | 110.83 | 2.17 | 13.18 | 19.00 | 26.00 | 120.00 | 178.18 | 3.67 | 67.35 | 60.77% |
| 50 | 13.18 | 108.50 | 121.68 | 2.17 | 13.18 | 19.00 | 26.00 | 144.00 | 202.18 | 3.78 | 80.50 | 66.16% |
| 60 | 13.18 | 130.20 | 143.38 | 2.17 | 13.18 | 19.00 | 26.00 | 192.00 | 250.18 | 3.95 | 106.80 | 74.49% |
| 75 | 13.18 | 162.75 | 175.93 | 2.17 | 13.18 | 19.00 | 26.00 | 264.00 | 322.18 | 4.12 | 146.25 | 83.13% |
| 100 | 13.18 | 217.00 | 230.18 | 2.17 | 13.18 | 19.00 | 26.00 | 384.00 | 442.18 | 4.29 | 212.00 | 92.10% |
| 125 | 13.18 | 271.25 | 284.43 | 2.17 | 13.18 | 19.00 | 26.00 | 504.00 | 562.19 | 4.39 | 277.76 | 97.65% |
| 150 | 13.18 | 325.50 | 338.68 | 2.17 | 13.18 | 19.00 | 26.00 | 624.01 | 682.19 | 4.46 | 343.51 | 101.43% |
| 175 | 13.18 | 379.75 | 392.93 | 2.17 | 13.18 | 19.00 | 26.00 | 744.01 | 802.19 | 4.51 | 409.26 | 104.16% |
| 200 | 13.18 | 434.00 | 447.18 | 2.17 | 13.18 | 19.00 | 26.00 | 864.01 | 922.19 | 4.55 | 475.01 | 106.22% |
| 400 | 13.18 | 868.00 | 881.18 | 2.17 | 13.18 | 19.00 | 26.00 | 1824.02 | 1882.20 | 4.67 | 1001.02 | 113.60% |
| 800 | 13.18 | 1736.00 | 1749.18 | 2.17 | 13.18 | 19.00 | 26.00 | 3744.03 | 3802.21 | 4.74 | 2053.03 | 117.37% |
| 1000 | 13.18 | 2170.00 | 2183.18 | 2.17 | 13.18 | 19.00 | 26.00 | 4704.04 | 4762.22 | 4.75 | 2579.04 | 118.13% |
| 1500 | 13.18 | 3255.00 | 3268.18 | 2.17 | 13.18 | 19.00 | 26.00 | 7104.06 | 7162.24 | 4.77 | 3894.06 | 119.15% |

1 - Total current bill includes meter charge plus usage times quantity rate which is a uniform/single quantity rate
2 - Average unit cost is calculated as usage times current quantity rate (which is a uniform/single quantity rate) divided by usage
3 - Total proposed bill includes meter charge plus usage times quantity rate which is a uniform/single quantity rate
4 - Average unit cost is calculated as usage times proposed quantity rates (which are tiered rates) divided by usage
5 - Change in bills refers to dollar and percent difference from current total to proposed total bills


Average Unit Cost
Comparing Current and CFC's Proposed 3 tier Rates
(shows quantity rates times usage divided by usage)
$4.00
$3.75
$3.50
$3.25
$3.00
$2.75
$2.50
$2.25
$2.00
$1.75
$1.50
$1.25
$1.00
1
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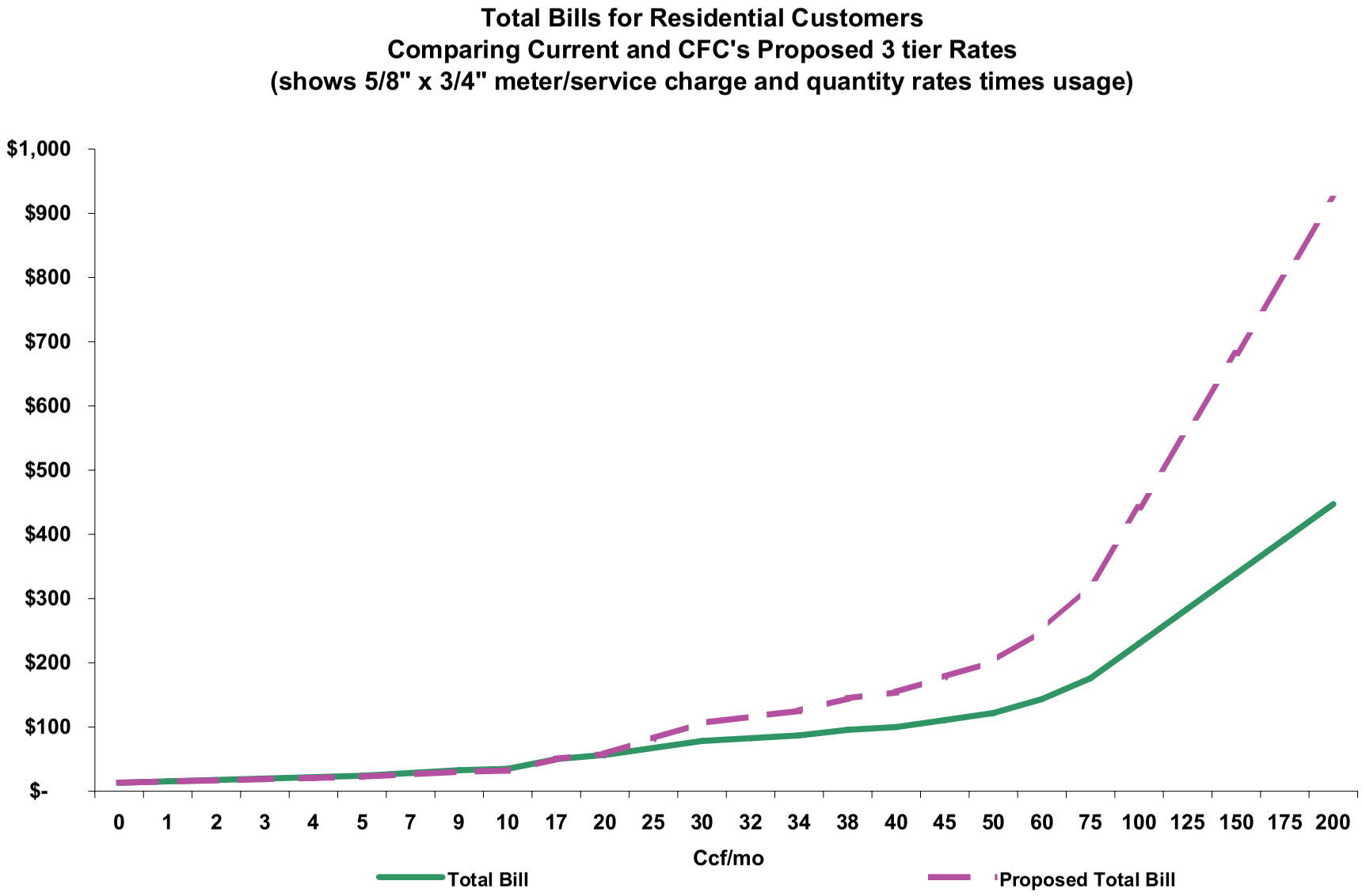
20
25
30
32
34
38
40
45
50
60
75
100
125
150
175
200
400
800
1000
1500
Ccf/mo
Avg Unit Cost
Proposed Avg Unit Cost


Total Bills for Residential Customers
Comparing Current and CFC's Proposed 3 tier Rates
(shows 5/8" x 3/4" meter/service charge and quantity rates times usage)
$1,000
$900
$800
$700
$600
$500
$400
$300
$200
$100
$-
0 1 2 3 4 5 7 9 10 17 20 25 30 32 34 38 40 45 50 60 75 100 125 150 175 200
Ccf/mo
Total Bill
Proposed Total Bill

**Residential Customer Bill Impact Analysis** **SJWC Service Area**

**Typical bill comparisons current to CFC's proposed 4 tier rate design for 5/8" x 3/4" Customers**

**Based on Meter/Service Charge Plus Quantity Charges Times Consumption**

| | Meter Chg | Q Charge |
|---|---|---|
| Current | $ 13.18 | $ 2.1700 |
| Proposed | $ 13.18 | |
| | Block 1 | $ 1.8000 |
| | Block 2 | $ 2.4998 |
| | Block 3 | $ 3.6999 |
| | Block 4 | $ 5.4500 |
| Tier 1 Block | 10 | ccf |
| Tier 2 Block | 20 | |
| Tier 3 Block | 40 | |
| Tier 4 Block | over 40 | |

| ***small usage*** | | consumption | 5 ccf/mo |
|---|---|---|---|
| Current bill | $ 24.03 | | |
| block | rate | consum | bill |
| 10 | $ 1.8000 | 5.00 | $ 9.00 |
| 20 | $ 2.4998 | 0.00 | $ - |
| 40 | $ 3.6999 | 0 | $ - |
| over 40 | $ 5.4500 | 0 | |
| | | total bill | $ 22.18 |
| | | Percent change in bill | **-7.70%** |

| ***annual avg*** | | consumption | 15.36 ccf/mo |
|---|---|---|---|
| Current bill | $ 46.50 | | $ 40.00 |
| block | rate | consum | bill |
| 10 | $ 1.8000 | 10.00 | $ 18.00 |
| 20 | $ 2.4998 | 5.36 | $ 13.39 |
| 40 | $ 3.6999 | 0 | $ - |
| over 40 | $ 5.4500 | 0 | |
| | | total bill | $ 44.57 |
| | | Percent change in bill | **-4.16%** |

| ***Average Winter*** | | consumption | 10.20 ccf/mo |
|---|---|---|---|
| Current bill | $ 35.31 | | |
| block | | consum | bill |
| 10 | $ 1.8000 | 10.00 | $ 18.00 |
| 20 | $ 2.4998 | 0.20 | $ 0.49 |
| 40 | $ 3.6999 | 0 | $ - |
| over 40 | $ 5.4500 | 0 | |
| | | total bill | $ 31.67 |
| | | Percent change in bill | **-10.29%** |

| ***Average summer*** | | consumption | 21.50 ccf/mo |
|---|---|---|---|
| Current bill | $ 59.83 | | |
| block | | consum | bill |
| 10 | $ 1.8000 | 10.00 | $ 18.00 |
| 20 | $ 2.4998 | 10.00 | $ 25.00 |
| 40 | $ 3.6999 | 1.50 | $ 5.54 |
| over 40 | $ 5.4500 | 0.00 | |
| | | total bill | $ 61.72 |
| | | Percent change in bill | **3.16%** |

| ***Large user*** | | consumption | 35 ccf/mo |
|---|---|---|---|
| Current bill | $ 89.13 | | |
| block | rate | consum | bill |
| 10 | $ 1.8000 | 10.00 | $ 18.00 |
| 20 | $ 2.4998 | 10.00 | $ 25.00 |
| 40 | $ 3.6999 | 15.00 | $ 55.50 |
| over 40 | $ 5.4500 | 0 | |
| | | total bill | $ 111.68 |
| | | Percent change in bill | **25.30%** |

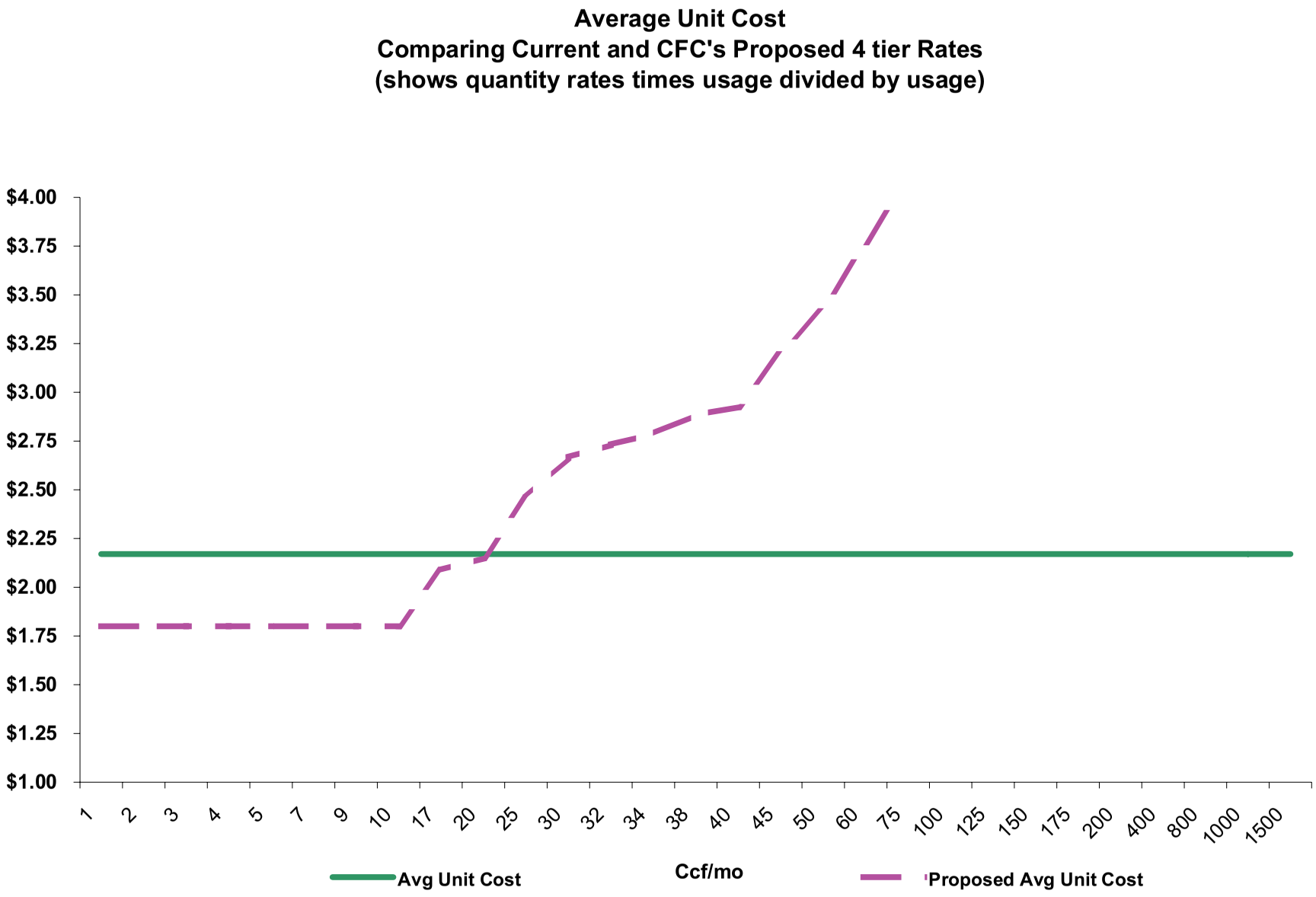
| ***largest user*** | | consumption | 1854 ccf/mo |
|---|---|---|---|
| Current bill | $ 4,036.36 | | |
| block | rate | consum | bill |
| 10 | $ 1.8000 | 10.00 | $ 18.00 |
| 20 | $ 2.4998 | 10.00 | $ 25.00 |
| 40 | $ 3.6999 | 20.00 | $ 74.00 |
| over 40 | $ 5.4500 | 1814.00 | $ 9,886.22 |
| | | total bill | $ 10,003.21 |
| | | Percent change in bill | **147.83%** |

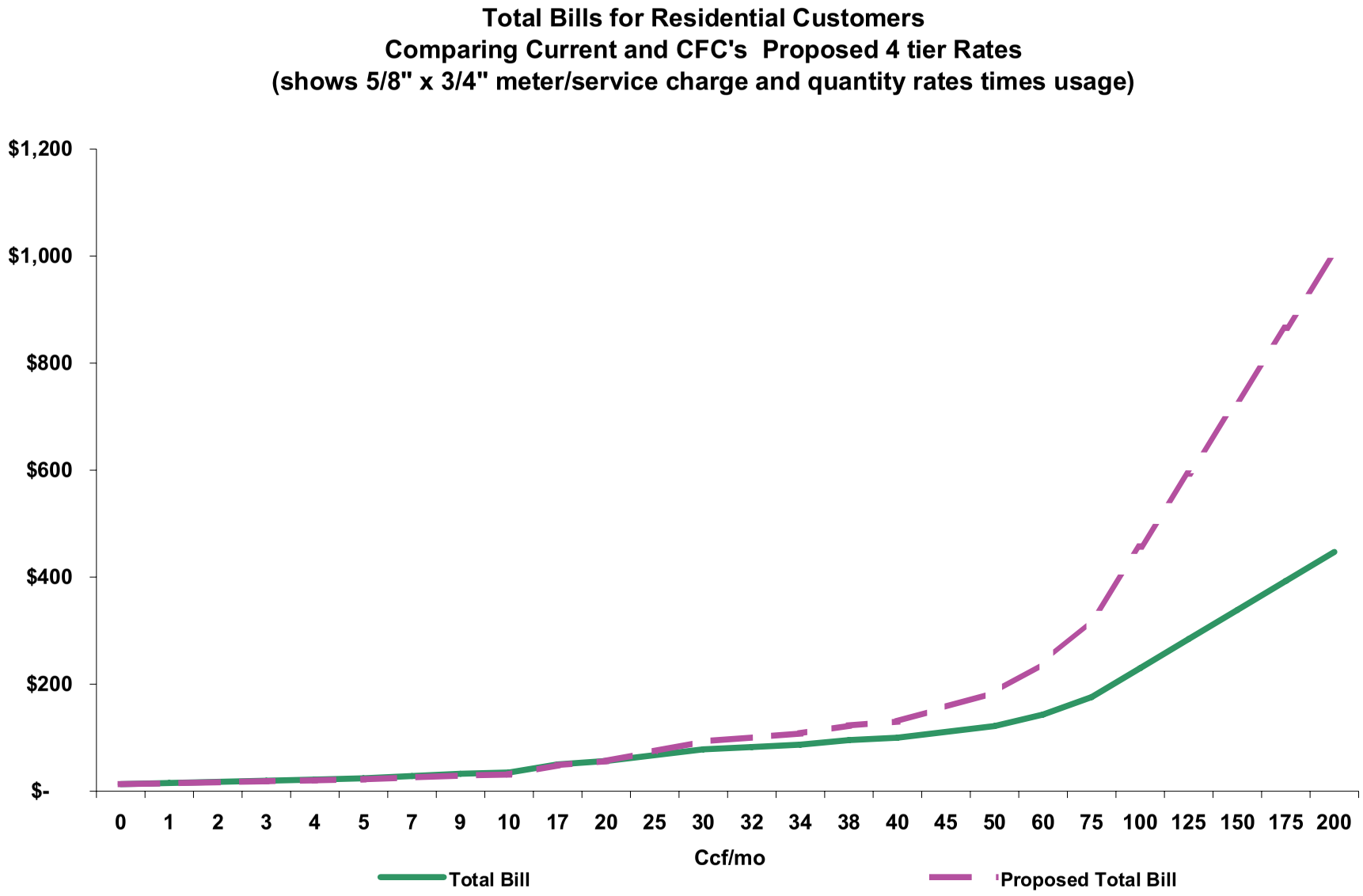
**Bill Impact Analysis at Various Usage Levels of CFC's Proposed 4 tier rates**

**Change in Bills for Residential Customers with 5/8" x 3/4" Connections**

| Usage | Typical Bills Under Current Rates | | | | Typical Bills Under Proposed Rates | | | | | | | Change in Bills (5) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ccf Per | Meter Chg | Qntty Rate | Total | Avg Unit | Meter Chg | Tier 1 | Tier 2 | Tier 3 | Tier 4 | Proposed | Proposed Avg | Dollar ($) | Percent (%) |
| Month | Charge | $2.1700 | Bill (1) | Cost (2) | Charge | 1.80 | 2.50 | 3.70 | 5.45 | Total Bill (3) | Unit Cost (4) | Difference | Difference |
| 0 | 13.18 | 0.00 | 13.18 | 0.00 | 13.18 | 0.00 | | | | 13.18 | 0.00 | 0.00 | 0.00% |
| 1 | 13.18 | 2.17 | 15.35 | 2.17 | 13.18 | 1.80 | | | | 14.98 | 1.80 | -0.37 | -2.41% |
| 2 | 13.18 | 4.34 | 17.52 | 2.17 | 13.18 | 3.60 | | | | 16.78 | 1.80 | -0.74 | -4.22% |
| 3 | 13.18 | 6.51 | 19.69 | 2.17 | 13.18 | 5.40 | | | | 18.58 | 1.80 | -1.11 | -5.64% |
| 4 | 13.18 | 8.68 | 21.86 | 2.17 | 13.18 | 7.20 | | | | 20.38 | 1.80 | -1.48 | -6.77% |
| 5 | 13.18 | 10.85 | 24.03 | 2.17 | 13.18 | 9.00 | | | | 22.18 | 1.80 | -1.85 | -7.70% |
| 7 | 13.18 | 15.19 | 28.37 | 2.17 | 13.18 | 12.60 | | | | 25.78 | 1.80 | -2.59 | -9.13% |
| 9 | 13.18 | 19.53 | 32.71 | 2.17 | 13.18 | 16.20 | | | | 29.38 | 1.80 | -3.33 | -10.18% |
| 10 | 13.18 | 21.70 | 34.88 | 2.17 | 13.18 | 18.00 | - | | | 31.18 | 1.80 | -3.70 | -10.61% |
| 17 | 13.18 | 36.89 | 50.07 | 2.17 | 13.18 | 18.00 | 17.50 | | | 48.68 | 2.09 | -1.39 | -2.78% |
| 20 | 13.18 | 43.40 | 56.58 | 2.17 | 13.18 | 18.00 | 25.00 | 0.00 | | 56.18 | 2.15 | -0.40 | -0.71% |
| 25 | 13.18 | 54.25 | 67.43 | 2.17 | 13.18 | 18.00 | 25.00 | 18.50 | | 74.68 | 2.46 | 7.25 | 10.75% |
| 30 | 13.18 | 65.10 | 78.28 | 2.17 | 13.18 | 18.00 | 25.00 | 37.00 | | 93.18 | 2.67 | 14.90 | 19.03% |
| 32 | 13.18 | 69.44 | 82.62 | 2.17 | 13.18 | 18.00 | 25.00 | 44.40 | | 100.58 | 2.73 | 17.96 | 21.73% |
| 34 | 13.18 | 73.78 | 86.96 | 2.17 | 13.18 | 18.00 | 25.00 | 51.80 | | 107.98 | 2.79 | 21.02 | 24.17% |
| 38 | 13.18 | 82.46 | 95.64 | 2.17 | 13.18 | 18.00 | 25.00 | 66.60 | | 122.78 | 2.88 | 27.14 | 28.37% |
| 40 | 13.18 | 86.80 | 99.98 | 2.17 | 13.18 | 18.00 | 25.00 | 74.00 | 0.00 | 130.18 | 2.92 | 30.20 | 30.20% |
| 45 | 13.18 | 97.65 | 110.83 | 2.17 | 13.18 | 18.00 | 25.00 | 74.00 | 27.25 | 157.43 | 3.21 | 46.60 | 42.04% |
| 50 | 13.18 | 108.50 | 121.68 | 2.17 | 13.18 | 18.00 | 25.00 | 74.00 | 54.50 | 184.68 | 3.43 | 63.00 | 51.77% |
| 60 | 13.18 | 130.20 | 143.38 | 2.17 | 13.18 | 18.00 | 25.00 | 74.00 | 109.00 | 239.17 | 3.77 | 95.79 | 66.81% |
| 75 | 13.18 | 162.75 | 175.93 | 2.17 | 13.18 | 18.00 | 25.00 | 74.00 | 190.75 | 320.92 | 4.10 | 144.99 | 82.42% |
| 100 | 13.18 | 217.00 | 230.18 | 2.17 | 13.18 | 18.00 | 25.00 | 74.00 | 327.00 | 457.17 | 4.44 | 226.99 | 98.62% |
| 125 | 13.18 | 271.25 | 284.43 | 2.17 | 13.18 | 18.00 | 25.00 | 74.00 | 463.25 | 593.42 | 4.64 | 308.99 | 108.64% |
| 150 | 13.18 | 325.50 | 338.68 | 2.17 | 13.18 | 18.00 | 25.00 | 74.00 | 599.50 | 729.67 | 4.78 | 390.99 | 115.45% |
| 175 | 13.18 | 379.75 | 392.93 | 2.17 | 13.18 | 18.00 | 25.00 | 74.00 | 735.74 | 865.92 | 4.87 | 472.99 | 120.37% |
| 200 | 13.18 | 434.00 | 447.18 | 2.17 | 13.18 | 18.00 | 25.00 | 74.00 | 871.99 | 1002.17 | 4.94 | 554.99 | 124.11% |
| 400 | 13.18 | 868.00 | 881.18 | 2.17 | 13.18 | 18.00 | 25.00 | 74.00 | 1961.98 | 2092.16 | 5.20 | 1210.98 | 137.43% |
| 800 | 13.18 | 1736.00 | 1749.18 | 2.17 | 13.18 | 18.00 | 25.00 | 74.00 | 4141.97 | 4272.14 | 5.32 | 2522.96 | 144.24% |
| 1000 | 13.18 | 2170.00 | 2183.18 | 2.17 | 13.18 | 18.00 | 25.00 | 74.00 | 5231.96 | 5362.13 | 5.35 | 3178.95 | 145.61% |
| 1500 | 13.18 | 3255.00 | 3268.18 | 2.17 | 13.18 | 18.00 | 25.00 | 74.00 | 7956.93 | 8087.11 | 5.38 | 4818.93 | 147.45% |

1 - Total current bill includes meter charge plus usage times quantity rate which is a uniform/single quantity rate
2 - Average unit cost is calculated as usage times current quantity rate (which is a uniform/single quantity rate) divided by usage
3 - Total proposed bill includes meter charge plus usage times quantity rate which is a uniform/single quantity rate
4 - Average unit cost is calculated as usage times proposed quantity rates (which are tiered rates) divided by usage
5 - Change in bills refers to dollar and percent difference from current total to proposed total bills


Average Unit Cost
Comparing Current and CFC's Proposed 4 tier Rates
(shows quantity rates times usage divided by usage)
$4.00
$3.75
$3.50
$3.25
$3.00
$2.75
$2.50
$2.25
$2.00
$1.75
$1.50
$1.25
$1.00
1
2
3
4
5
7
9
10
17
20
25
30
32
34
38
40
45
50
60
75
100
125
150
175
200
400
800
1000
1500
Ccf/mo
Avg Unit Cost
Proposed Avg Unit Cost


Total Bills for Residential Customers
Comparing Current and CFC's Proposed 4 tier Rates
(shows 5/8" x 3/4" meter/service charge and quantity rates times usage)
$1,200
$1,000
$800
$600
$400
$200
$-
0 1 2 3 4 5 7 9 10 17 20 25 30 32 34 38 40 45 50 60 75 100 125 150 175 200
Ccf/mo
Total Bill
Proposed Total Bill