RUC AGENDA ITEM #100228

Tiered Water Rate Discussion

Regional Utilities Committee

September 8, 2010

GRU More than Energy

History of Water Rates

- Prior to 1975
  - Customer Charge included 4,000 gallons
  - Declining Block Rates for additional usage
    - Five Blocks
    - The more you use, the lower the price
- 1991
  - St. John's River Water Management District (SJRWMD) establishes prohibition of irrigation between the hours of 10 am and 4 pm.
- 1992
  - Established separate Residential & Non-Residential Classes
  - Residential had customer charge (no kgals included) and seasonal *inclining* block rate
    - April –October, pay more for more use (irrigation)
      - 0-9 kgals, $0.91
      - Over 9 kgal $1.18
    - November – March, single kgal rate $0.91
  - Non-residential had customer charge and single kgal rate

History of Water Rates (continued)

- **1995**
  - A 10 kgal cap had been in place for WW in addition to winter max
  - Cap was removed and customers who watered in January and February (when winter max is established) wanted alternative
  - Residential Irrigation meters were established
    - No associated WW billing
    - Two tiers - Priced at 2nd and 3rd tier domestic water, 0-15 kgals and over 15 kgals
- **2000**
  - SJRWMD publishes its first long-term (20 year) water supply plan
- **2001**
  - Third Tier added to Residential Rates - > 24 kgals
- **2005**
  - Seasonal Block extended to all months
  - SJRWMD begins mass media campaign focusing on watering lawns only twice a week, up to ¾" per watering.
  - SJRWMD votes to limit irrigation to no more than 2 days per week, to become effective March 1, 2006, continues the prohibition of watering between 10 am & 4 pm.
- **2010**
  - Non-residential Irrigation Rate established

Water Pricing 1975 to present

Fiscal Year	Customer Charge	Residential Block 1	Residential Block 2	Residential Block 3	Non-Residential Potable	Non-Residential Irrigation
1975	1.50	0.75			0.75	
1976	1.50	0.69			0.69	
1977	1.50	0.69			0.69	
1978	1.50	0.69			0.69	
1979	1.50	0.69			0.69	
1980	1.50	0.69			0.69	
1981	2.25	0.66			0.66	
1982	2.25	0.66			0.66	
1983	2.45	0.69			0.69	
1984	2.54	0.72			0.72	
1985	2.54	0.72			0.72	
1986	2.54	0.72			0.72	
1987	2.54	0.72			0.72	
1988	2.54	0.72			0.72	
1989	2.65	0.75			0.75	
1990	2.90	0.82			0.82	
1991	2.90	0.87			0.87	
1992	2.90	0.91	1.18		0.91	
1993	2.90	0.98	1.27		0.99	
1994	3.00	0.99	1.29		1.00	
1995	3.00	0.94	1.29		1.00	
1996	3.00	0.94	1.29		0.96	
1997	3.00	0.98	1.29		0.99	
1998	3.00	0.98	1.29		0.99	
1999	3.00	0.98	1.29		0.99	
2000	3.00	0.98	1.29		0.99	
2001	3.00	0.98	1.29		0.99	
2002	3.00	0.98	1.29	2.22	0.99	
2003	3.00	0.98	1.29	2.22	0.99	
2004	3.00	1.01	1.33	2.29	1.01	
2005	3.15	1.01	1.33	2.29	1.23	
2006	3.53	1.27	1.69	2.91	1.69	
2007	4.86	1.42	2.35	4.04	2.35	
2008	5.35	1.56	2.82	4.93	2.82	
2009	7.00	1.59	3.11	5.50	3.11	
2010	7.30	1.65	3.30	6.00	3.30	4.35
2011	7.75	1.99	3.65	6.00	3.40	4.40

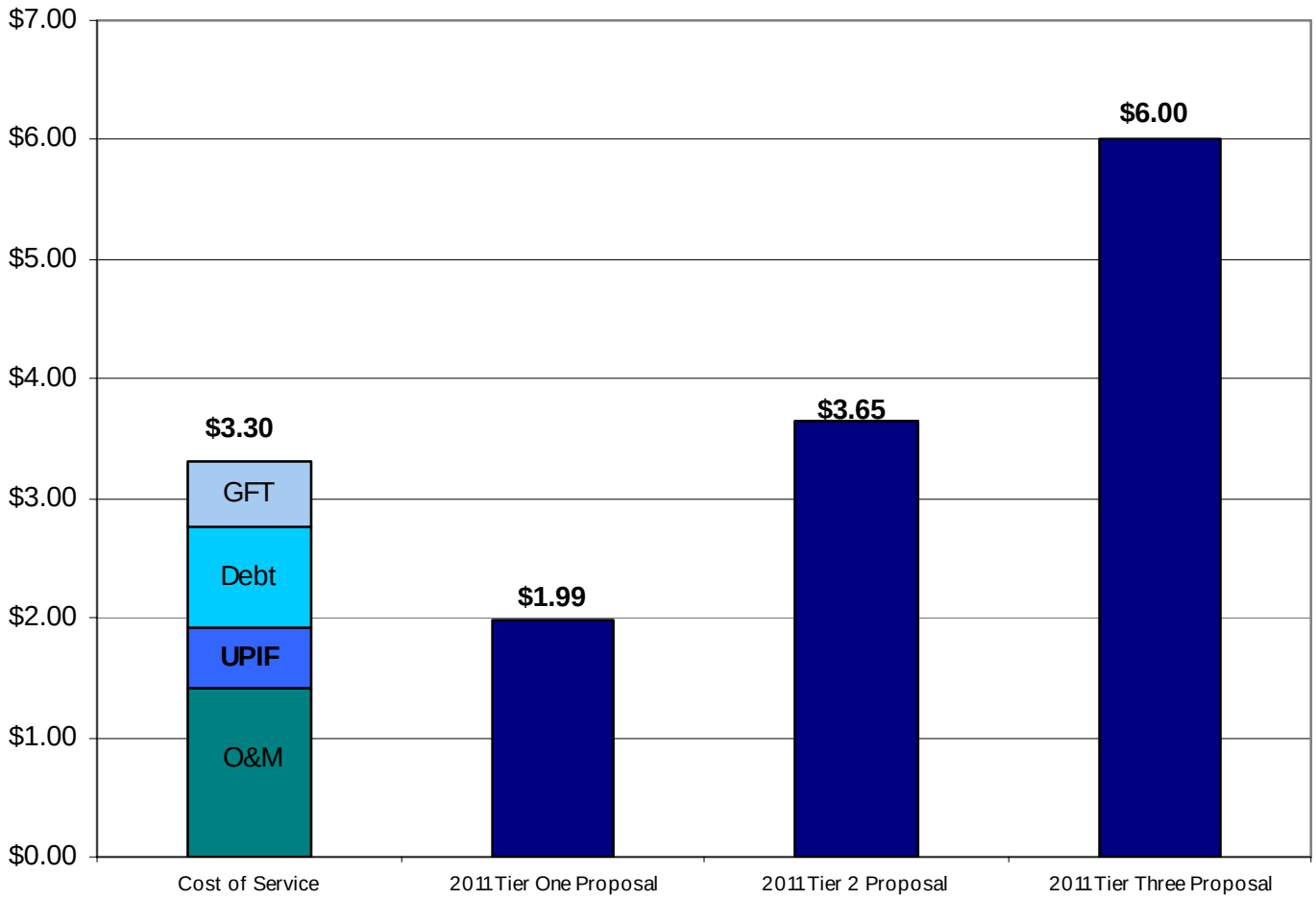
Forecasting

- Model includes several inputs
  - Number of people per household
    - We estimate that domestic water use is 1.5 – 2 kgals per person per month
  - Seasonal rainfall
  - Delivered price
    - Impacted by usage levels and rate structure
- Stability in historical billing practices serves to improve the ability to measure customer behavior as a function of rate structure

Revenue Volatility

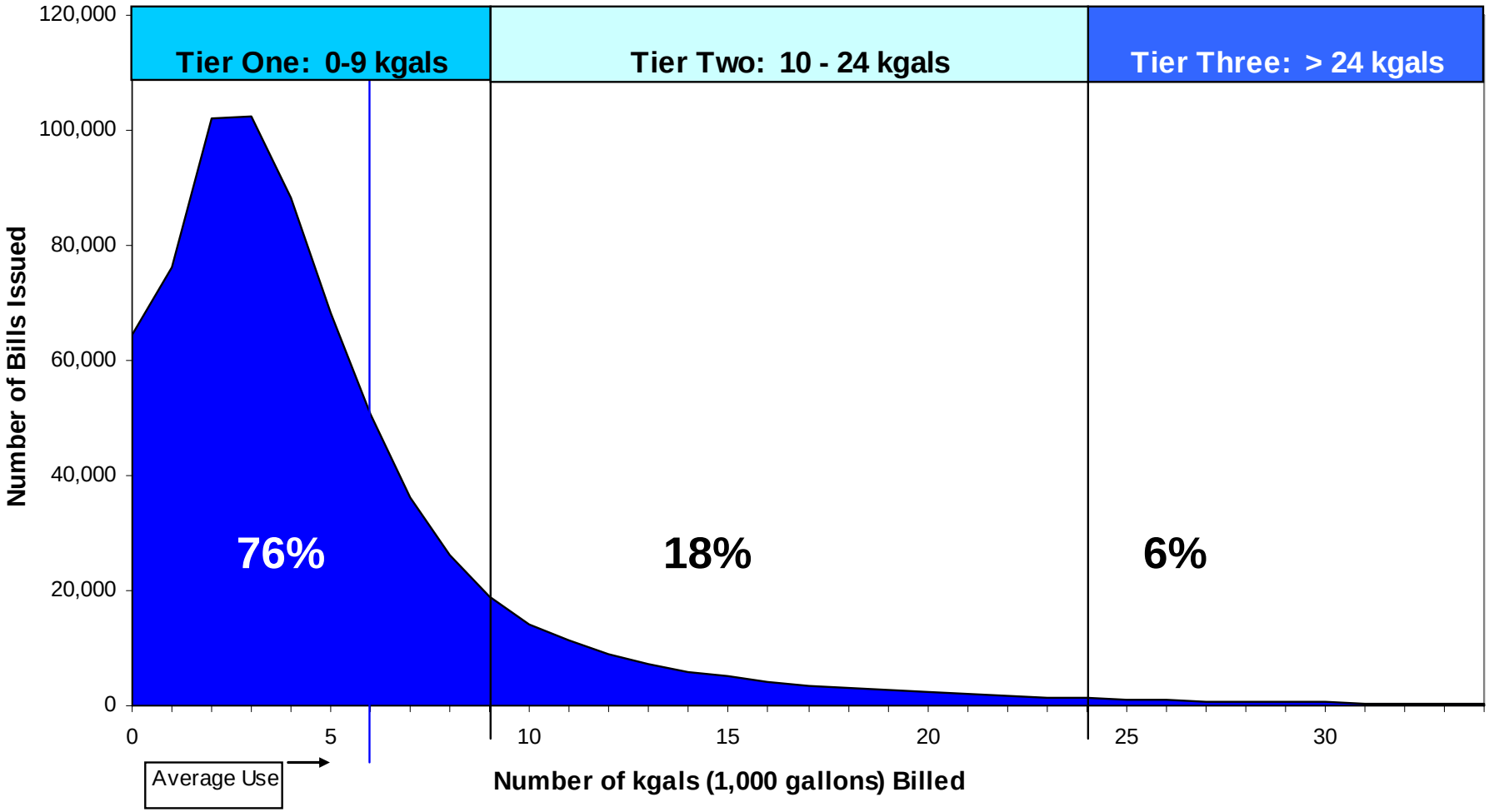
- Greater increases in price yield greater behavior changes, in general
- Changes to structure make estimating number of kgals in each tier difficult to project
- Estimating volumes in each tier incorrectly will impact the ability to meet revenue requirements
- First tier sales are most stable, less likely to be greatly impacted by conservation.
- Pricing below cost lowers customers' bills, but erodes stable revenue source. This lost revenue needs to be recovered in other tiers, which is an unsustainable model.
- SJRWMD will continue to increase its emphasis on conservation moving forward, adding upward rate pressure. Their policies may reduce the amount of water we can withdraw in the future, requiring the use of more expensive sources, providing additional rate pressure.
- We need to price each kgal to recover costs, even at lower usage levels.

Cost to Provide Service for 1 kgal of Water vs. FY11 tier proposals



Does not Include Costs Covered by Customer Charge

Distribution of Water Bills in FY 2009



Customer Impacts

- Low Blocks – break at smaller kgal quantity
  - Tend to benefit small household size
  - Customers in apartments are an example
    - No outdoor water use and likely no laundry facilities
    - 40% of households in GRU service area are multi- family housing units
- Additional tiers may be confusing and dissatisfying
  - Difficult for customers to understand why one kgal is priced differently than another.
  - Calculating a bill is not a straight forward process for customers when may tiers are involved
- Low Income considerations
  - Assumption is that low income = low use, which may or may not be true

Goals

- Provide safe and reliable water to our customers
- Set pricing that is
  - Easily understood by customers
  - Provides a fair recovery of costs
  - Produces stable revenue for the utility
  - Promotes conservation of a finite resource
- Stay mindful of future rate pressures
  - Operationally – maintenance/quality
  - Regulatory – water restrictions/withdrawal limits