

DYNAMIC PRICING DISTRICT OF COLUMBIA

MADRI Meeting

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Very Short History of Dynamic Pricing in DC

- In December 2009 the Commission ordered PEPCO to file a DP tariff.
- On April 2, 2010 PEPCO filed a DP tariff
- On September 23, 2010 the Commission held a hearing on PEPCO's DP plan.
- On May 26, 2011 the Commission denied PEPCO's DP tariff
- Since that time there has been no new DP proposals from PEPCO

What PEPCO Filed

- Start with 5,000 residential customers and 2,000 non-residential until AMI completely installed
- When full AMI deployed all SOS customers eligible for DP:
 - CPR will be default;
 - CPP an option;
 - Applicable SOS rate also an option
 - DP to be revenue neutral. i.e. slice-and-dice SOS fully hedged, levelized rate.

Commission's Stance Since Rejection of DP Tariff

- Commission did want to rush into DP, wanted to have AMI data for a full year.
- Data can be used to answer questions of who is most affected by DP:
 - Effect on RAD customers
 - Who are “winners,” who are “losers”?
 - How big a reserve is needed for CPR refunds?
- Are there other options the Commission should look at?

Other Options for DC

- Biggest option for DC is emulate MD and institute CPR as part of the Distribution section of the bill rather than the Energy section:
 - What I call, “giving everybody a default CSP.”
 - Allows explicit development of reserve fund for underfunding of rebates
- Another option is opt-in real time pricing:
 - I feel a viable option if done right
 - Could save vast bulk of ratepayers significant amounts of money

Biggest Problem of PEPCO DP Tariff (DRC opinion)

- The PEPCO is “revenue neutral”
- DP pricing (except CPR) is not inherently revenue neutral. It has a lower expected value than levelized (fully hedged) SOS
- That means for most customers if they are on a properly designed DP rate and *DO NOT CHANGE THEIR BEHAVIOR THEY WILL HAVE LOWER ENERGY COSTS OVER THE LONG-RUN.*

Why DP is a Good Idea

- What is the object of DP?
 - Expose customers to the market price of electricity, i.e. expose customers to price risk.
 - Economically efficient
 - Gives customer's control over energy decisions
 - Helps create a downward sloping demand curve, i.e. not vertical.
 - Change behavior to have consumption decisions be affected by prices

DP is Inherently Not Revenue Neutral

- Current Flat rates are fully hedged and all price risk is assumed by supplier
 - Supplier sets prices to cover price risk
 - Customer pays for that hedge.
- DP customer assumes price risk, shouldn't have to pay for hedge (unless wants to, market can provide)
- Any DP tariff that relies on a fully hedged SOS rate indicates that the DP rate designer does not know the basic idea behind DP and has designed an inappropriate rate

Implications of DP and Electricity Supply

- In a restructured state supplying electricity for CPP is not straightforward.
 - Normal bidding won't get you an un-hedged product
 - Need to change how SOS supply is bought
- Probably will always have to have true-ups, hopefully minor in a well designed DP tariff
 - Third party suppliers can't use true-ups
 - Seems to be doubtful they can provide either CRP or CPP

CPR is Not DP

- CPR does not have customers bear any price risk
- There is uncertainty whether market revenues will be sufficient to cover rebates which leads to the risk that the pool of rebate funds will be insufficient. That risk has to be hedged
- Result, CPR has a higher expected value than flat rate SOS.
- CPR is often called the “no regrets” strategy, I call it the “all regrets” strategy because of its higher expected value than flat rate SOS.

Real Time Pricing

- Real Time Pricing (RTP) has a lot going for it
 - Lowest expected value over the long-term, i.e. customers can get economically efficient price signals and save money without changing behavior, can save even more with behavioral changes
 - Supply problems are minimized when relying on the spot market
 - Can do prices-to-devices better than any alternative, can take advantage of daily price fluctuations, e.g. doing dishwasher and laundry overnight.
 - Third party suppliers can offer it (although it isn't a big money maker)
- I think it can be sold as opt-in program
 - Use shadow billing, i.e. "If you had real time pricing your bill this month would have been \$xx"
 - If the RTP bills are consistently less, then people will gravitate toward that option.
 - Then you can explain how to get greater savings through behavior changes
 - If this would be the likely outcome can be tested using AMI data, as can other DP tariff ideas