PC44: Rate Design Workgroup
Straw Proposal – DRAFT
June 27, 2017

<u>*Note*</u>*: This document is for discussion purposes only. It incorporates ideas from numerous stakeholders and does not necessarily reflect the views of the Commission or workgroup leaders. Unvarnished feedback is encouraged so that the pilot programs are developed with the best possible design to serve Marylanders and stakeholders.*

Pilot Program Goals/Objectives

1. *Primary Goal*: Reduce customer bill amount and/or effective rate paid by customer, especially for LMI customers, measured in overall changes in customer bills and average cents/kWh paid by customers
2. *Primary Goal*: Provide customers with attractive options for choices & control over how they use energy
3. *Primary Goal*: Send appropriate price signals to all market participants
4. *Secondary Goal to Assess*: Reduce long-term system costs
    4A. Reduce Peak Load
    4B. Improve System Efficiency
5. *Secondary Goal to Assess*: Enhance retail supply market in Maryland

Revised Straw Proposal: Two Pilot Programs

Pilot #1: Time-Varying Distribution Rate, with Time-Varying SOS supply
Pilot #2: Time-Varying Distribution Rate, with Time-Varying retail supply (within Commission-set parameters regarding peak hours and suggested target price ratio)

Features Of Pilot Programs

- All residential customers eligible
  - Consider providing LMI participants (or some percentage of LMI participants) extra incentive, education and/or technology. Ideally, the incentive should be similar to what LMI participants would be offered to participate in a TOU rate following the pilot.
- Opt-in for all customers
- Pilot #1 Rate Structure: preset by the Commission (with workgroup's recommendation)
  - Two-period (i.e. only "on-peak" and "off-peak"), with relatively narrow peak window (i.e. 5 hours) based on utility load curves
    - BGE: 3pm-8pm
    - Pepco: 6pm-11pm
    - DPL: 4pm-9pm
  - Rate structure parameters for SOS supply portion:
    - On-peak to off-peak price ratio – 3:1 for Pilot 1
    - Fixed price for 18 – 24 months
    - Distribution rate set based on utility projections (roughly 7:1 ratio per BGE info)
- Pilot #2 Rate Structure: preset by the Commission (with workgroup's recommendation)

- o Two-period (i.e. only "on-peak" and "off-peak"), with a more narrow peak window (i.e. 3 hours) based on utility load curves
        - o On -peak to off-peak price ratio target: as close to the 7:1 distribution rate as more narrow pricing supports (given market pricing fundamentals)
        - o On -peak to off-peak price ratio target – 7:1 for Pilot 2
        - o Fixed price for 18 – 24 months
    - Evaluation
        - o Evaluate after 12 months of data received. Commission commits to holding public hearing to review results and accept comments
    - No rolling enrollment
    - Include educational component
        - o Online bill comparison tool offered by BGE
        - o Promote enhancing technology? Maybe just to LMI customers?
        - o Retail suppliers should have incentive to target these customers
    - Start date: Spring 2018

Additional Questions:

-- Could the pilot target LMI customers in a particular area for the added benefit of measuring impact on distribution system? – TBD

Aligning Programs with Goals/Objectives

1. Primary: Reduce customer bill amount, especially for LMI customers

- Yes. Potential for bills savings and/or lower overall rate for all customers, and specifically LMI customers

2. Primary: Provide customers with choices & control

- Yes. Customers can choose a TVR, and can choose between 2 different TVR options. But not too complicated as to discourage choice

3. Primary: Send appropriate price signals to all market participants

- Yes. Aligns current supply costs and long-term distribution system costs with prices. It could encourage private market to develop products and services to help customers optimize bills savings

4. Secondary/gather data: Reduce long-term system costs
   4A. Reduce Peak Load
   4B. Improve System Efficiency

- Possibly. Pilot programs would collect data as first step in reviewing whether rate design could achieve 4A and 4B

5. Secondary/gather data: Enhance retail supply market

- Yes. Provides another avenue for retail suppliers to engage and enroll customers

Pilot Program Data Measurement/Collection

General question: EM&V process

General Data:
- Demographics (age, # of occupants, dwelling type, ownership, income, education)
- Historical usage & interaction with electric rates (e.g. past EmPOWER participation, past/current use of retail choice, knowledge of electric rate structure, already-installed enabling technology)
- Motivation for joining pilot
- EV ownership

1. Reduce customer bill amount, especially for LMI customers
    A. Customer Bill Savings
        i. Change in overall electricity usage and aggregate bills– aggregate and per-customer
        ii. Overall effective rate paid by participants in both pilots, total bill costs divided by total billed kWhs to yield a cents/kWh measure
        ii. Change in overall usage pattern – aggregate and per-customer load shapes
    B. Specific Savings of LMI Customers
        i. Compare bill savings of LMI & non-LMI customers and effective rates

2. Provide customers with choices & control
    A. Customer Enrollment
        i. Percentage and number ("%/#") of customers enrolled in each pilot
        ii. %/# of customers that remain enrolled throughout entire pilot
        iii. %/# of customers that switch during the pilot
        iv. %/# of customers intending to or desiring to continue with TVR after pilot completion
        v. %/# of customers interested in (or participating in) regular text/email reminders of peak pricing
    B. Customer Satisfaction
        i. Overall customer satisfaction (esp. appreciation of having choice & control)
        ii. Compare satisfaction of LMI & non-LMI customers
        iii. Customer satisfaction assessed through survey
        iv. Survey whether interest in energy issues increased because of TVR
        v. Survey whether interest in EmPOWER programs increased because of TVR
        vi. Satisfaction with customer service
        vii. Number of log-ins into customer portals or other "touches" with supplier and/or utility

3. Send appropriate price signals to all market participants
    A. Qualitative assessment by PSC staff of how the pricing matches system demands, pricing, capacity and PJM charges
    B. Number of retail supplier participants
    C. Number of non-supply energy products (e.g. Nest thermostat, energy storage) purchased by customers to maximize bill savings

D. Customer survey on how much bill savings would be needed to prompt them to purchase a third-party energy management tool

4. Reduce system costs

4A. Reduce Peak Load

A. Rate Class and Per-customer reduction in peak demand (overall summer peak, 5CP, and any other relevant metric)

4B. Improve System Efficiency

A. Difference in peak demand on the top 25 particular feeders & substations with the greatest percentage of residential ratepayers opting in or more than one commercial, general service or industrial ratepayer participant (if these classes can participate)

B. Annual O&M costs on feeders/substations with significant # of pilot enrollees

5. Enhance retail markets

A. Percentage of customers choosing a retail supplier instead of SOS

B. Percentage of customers who were first-time retail market participants

C. Assess bill and cents/kWh savings of retail supply consumer opt-ins compared to utility/SOS consumer opt-ins.