High Density Load Rate
Public Rate Hearing Continued

March 21, 2016

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Hearing Overview to Date

- Feb. 1, 2016 – Hearing opened, staff introduced additional options based on info session comments, heard public opinion for and against the initial rate proposal
- Feb. 3, 2016 –Emerging Technology Community Forum, heard public opinion for and against proposed rate action
- Feb. 16, 2016 – Staff presented impact of hypothetical 100 aMW HDL load growth

Agenda

- Seek guidance on rate class definition
- Seek guidance on rate options
- Seek guidance on upfront capital charges
- Seek guidance on rate implementation
- Public Comment
- Timeline

Recommendations included in this presentation are based on staff's interpretation of information obtained from the Board and public throughout the public hearing process, informational meetings and conversations.

Recommended Rate Class Definition

High Density Load - This schedule applies to server farms and similar high density technological operations with average electrical loads up to and including 5 annual aMWs at a single Point of Delivery. High density operations subject to this schedule typically have an EUI of 250 kWh/ft^2/year or more.

- "Energy Use Intensity" or "EUI" [1] means the annual kilowatt-hours of Energy usage divided by the operating space square footage used by the Energy consuming activity as determined by the District.
- "Server farm" means an entity whose Energy use serves mostly one or more computer server machines and any ancillary loads including HVAC, UPS, power systems, and lighting.

Does the Board agree with this definition?

[1.] The methodology for calculating EUI will be determined by the District. In developing and applying the methodology, the District may make reasonable assumptions and projections as necessary to estimate Energy usage and square footage based on the Customer's application, data regarding similar operations, and other sources.

Rate Options Meeting Board Guidance of Achieving Economic/Rate Neutrality for Existing Customers

1. *Full Value Recovery for District - Initial staff proposal: (Mitigate risk of revenue loss to District)*
   - Market cost for Energy (with a floor at production cost) + full recovery for customer & delivery costs
   - ~5.036 cents/KWh (1) (2)

2. *Cost Recovery Over Time: (Mitigate risk of increased rate pressure for existing customer classes)*

   a) No sharing of market benefit/risk - District holds market risk: Production cost for Energy + full recovery for customer & delivery costs
   - ~4.57 cents/KWh (2) + upfront cost

   b) Sharing of market benefit/risk - Customer holds market risk: Higher of production cost or market cost for Energy + current customer & delivery blended rate
   - ~3.99 cents/KWh (1) (2) + upfront cost
   - Supply component to be adjusted periodically (not more frequently than annual)
   - To be paired with Contract

(1) Rate will be variable based on market – currently based on an Energy charge of 3.21 cents/KWh

(2) Following rate design, average per KWh figures presented may vary by customer depending on individual usage and load profile

Rate Recommendation

Staff recommends 2a. Cost Recovery Over Time, no sharing of market benefit/risk (Production cost for Energy + full recovery for customer & delivery costs)

Basis:

- Rate most directly tied to cost
- Related to contract pricing previously used by the District

Does the Board agree with the staff recommendation?

Upfront Capital Charges

- We previously discussed impact to the District of increasing HDL demand and associated capital plant investment risk ($55 million investment for 100 aMW HDL growth)
- As capacity previously designated for long-term growth is used by loads not in the forecast, investment in the electric system must be accelerated
- District has experienced HDLs propensity to quickly relocate, increasing risk of overbuilding and abandoned assets

Upfront Capital Charges

- *Staff recommends an upfront capital charge*
- Purpose is to mitigate District's investment risk associated with:
  - Accelerated capital needs of HDL customers
    - Current cost is greater than historic; the upfront charge represents the marginal cost of capital plant investment
  - Potential asset abandonment
    - Payment upfront mitigates a portion of risk

Upfront Capital Charges

- Cost of service analysis allocates cost based on total added capacity
  - Previously presented investment to address 100 aMW build actually added 140 MW (5 – 28 MVA substations)
- Refined estimations result in required investment of ~$420,000/MW
- Present cost of service rates include ~$215,000/MW recovered over 30 years

Upfront Capital Charges

Does the Board agree with the presented basis for and staff recommendation regarding the upfront capital charge?

Current cost of capital investment ~ $420,000/MW

Cost of capital investment in rates ~ $215,000/MW

Marginal cost estimated to be ~ $200,000/MW

assuming distributed build-out; a localized, zone based build-out would decrease the charge

Rate Implementation

1. Implement recommended rate without phase-in for new connections
2. Evaluate the possibility of a contractual phase-in over a period of years with existing customers

Staff recommends a combination of 1 and 2

Does the Board agree with the staff recommendation?

Comments/Questions?

Public Comment Period

Timeline

If Board chooses to implement rates and upfront charges

- June 6, 2016
  - Proposed rate decision
- Summer 2016
  - Upfront system impact fees implementation
- October 3, 2016
  - Target rate plan effective date
  - Moratorium lifted