

High Density Load Rate Public Information Meetings

January 4, 2016 – Leavenworth office – 6:00 pm

January 5, 2016 – Chelan office – 6:00 pm

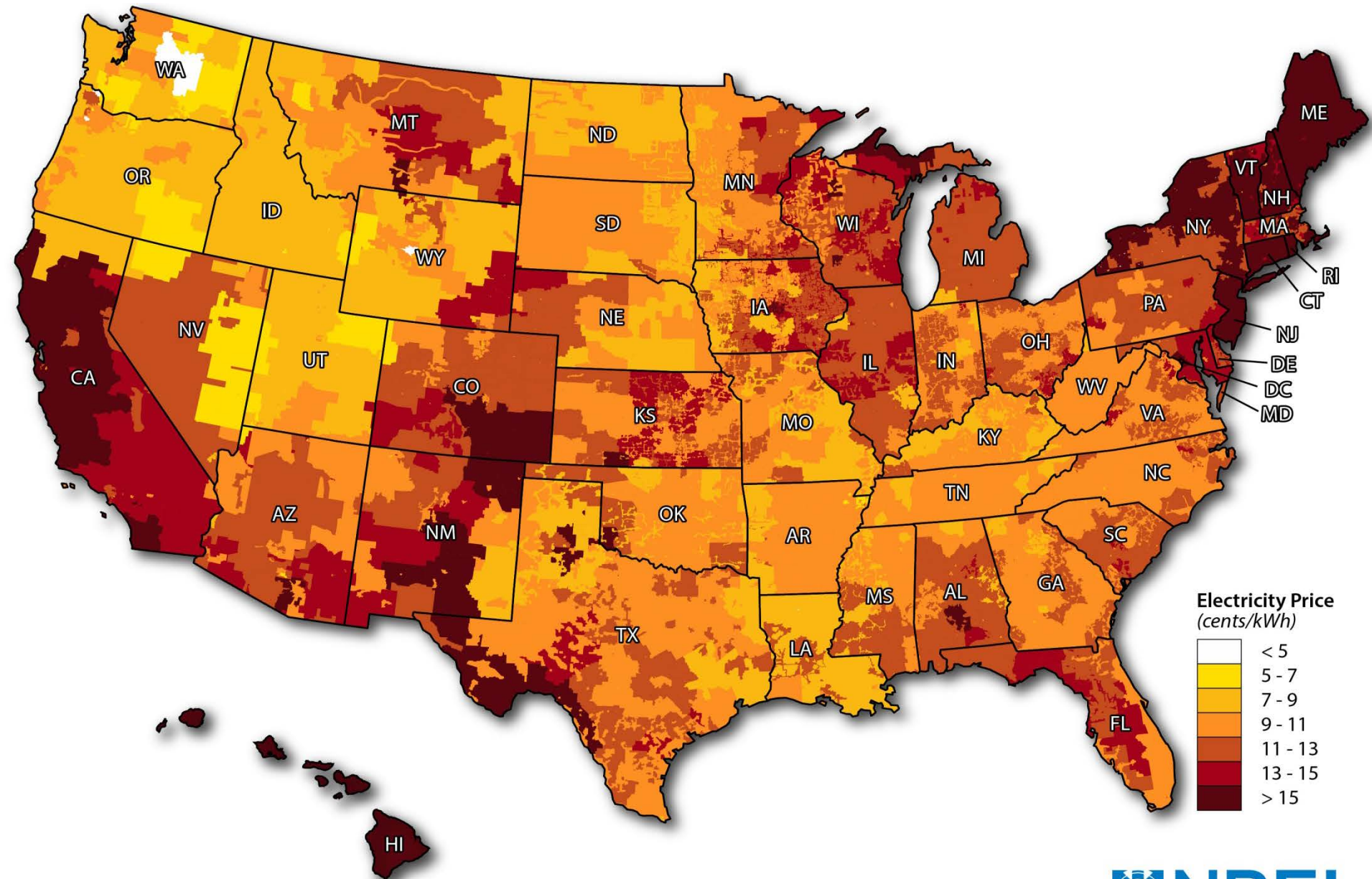
January 12, 2016 – Wenatchee auditorium – 5:30 pm

Today's Purpose

- Share information regarding PUD staff recommendation to implement a High Density Load rate classification and electric rate
- Provide an open forum for questions, comments and customer feedback
- Discuss next steps
 - Rate implementation timeline

Background on moratorium

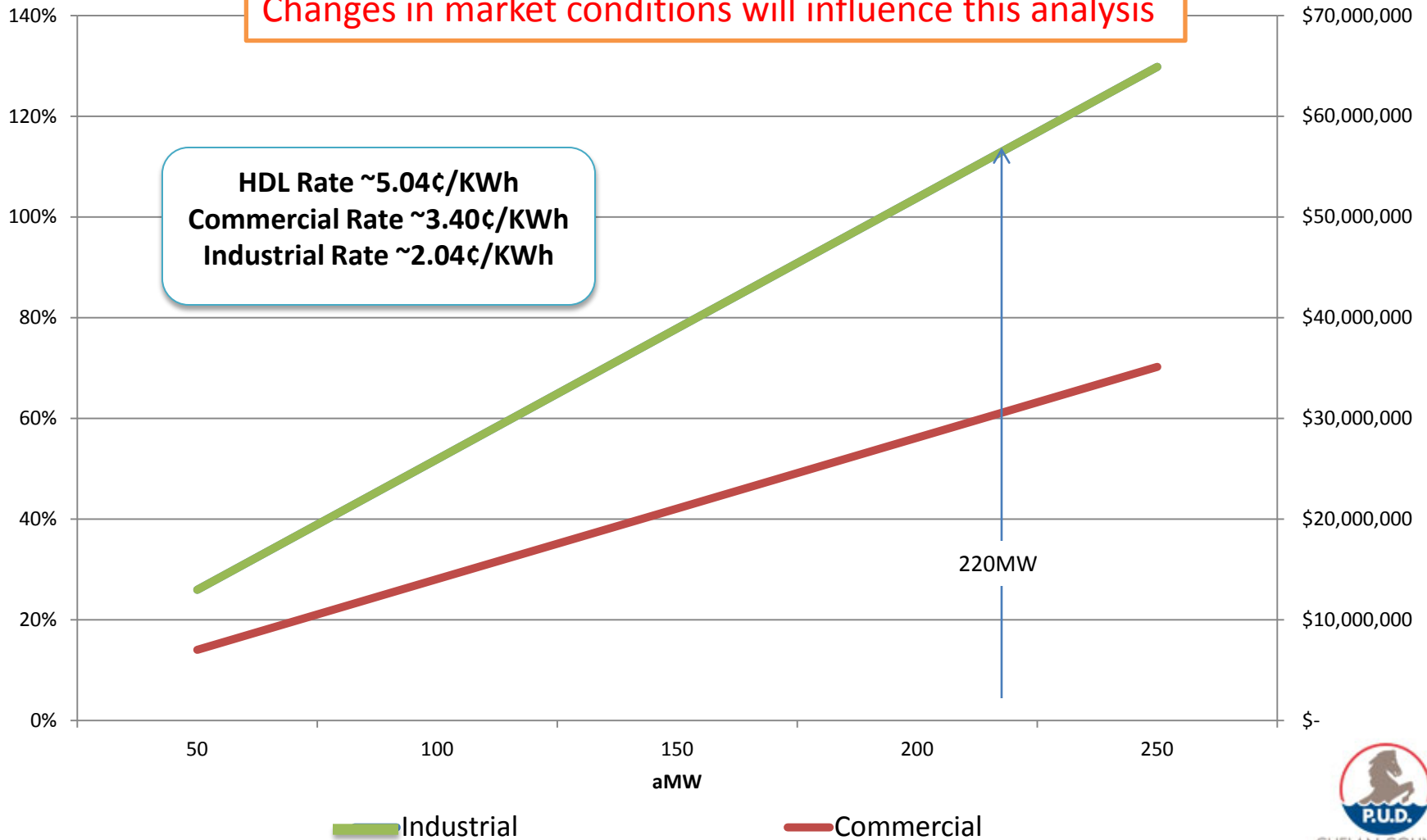
- A total of 34 inquiries representing 220 aMW were made in 2014 alone – much more than we would usually receive
- 1 aMW could provide service to ~417 households for a year, so the interest shown for new medium to large loads is significant
- In a “normal” year, the PUD would receive load growth requests totaling between 1 and 3 aMW, with historic realized load growth averaging 0.9aMW
- The HDL growth of this magnitude would have operational impacts such as system capacity and reliability, and on District staffing, as well as cost implications for all customers



General impacts to current retail electric rate revenue

(proposed HDL versus Commercial/Industrial rates)

Changes in market conditions will influence this analysis

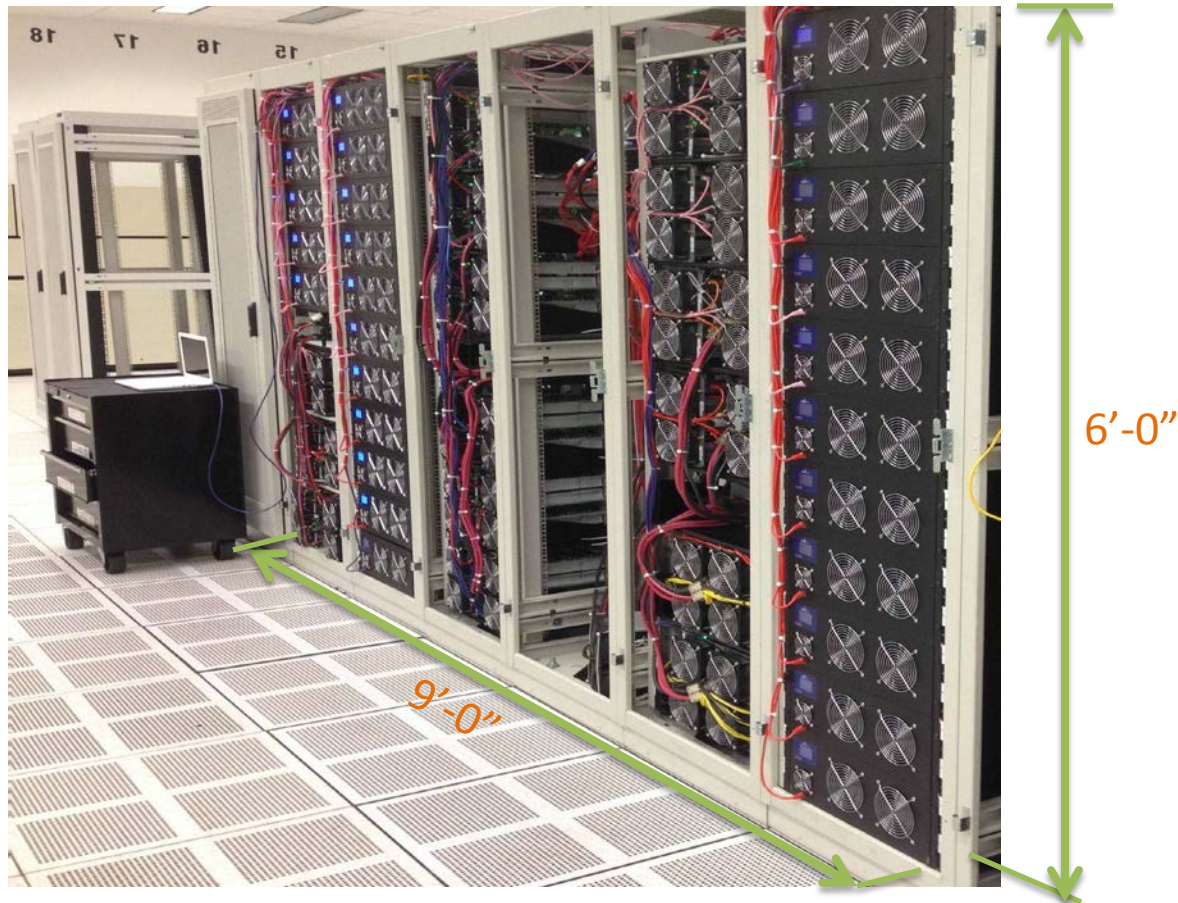


High Density Load

Example

This example of (HDL) Data processing equipment uses ~100KW. Typically runs 24/7 365 days.

Could use the equivalent energy of = ~73 residential services in a year.



Electrical Usage

Residential average = 1,666 kWh / Month

Commercial (Non-HDL) average = 6,264 kWh / Month

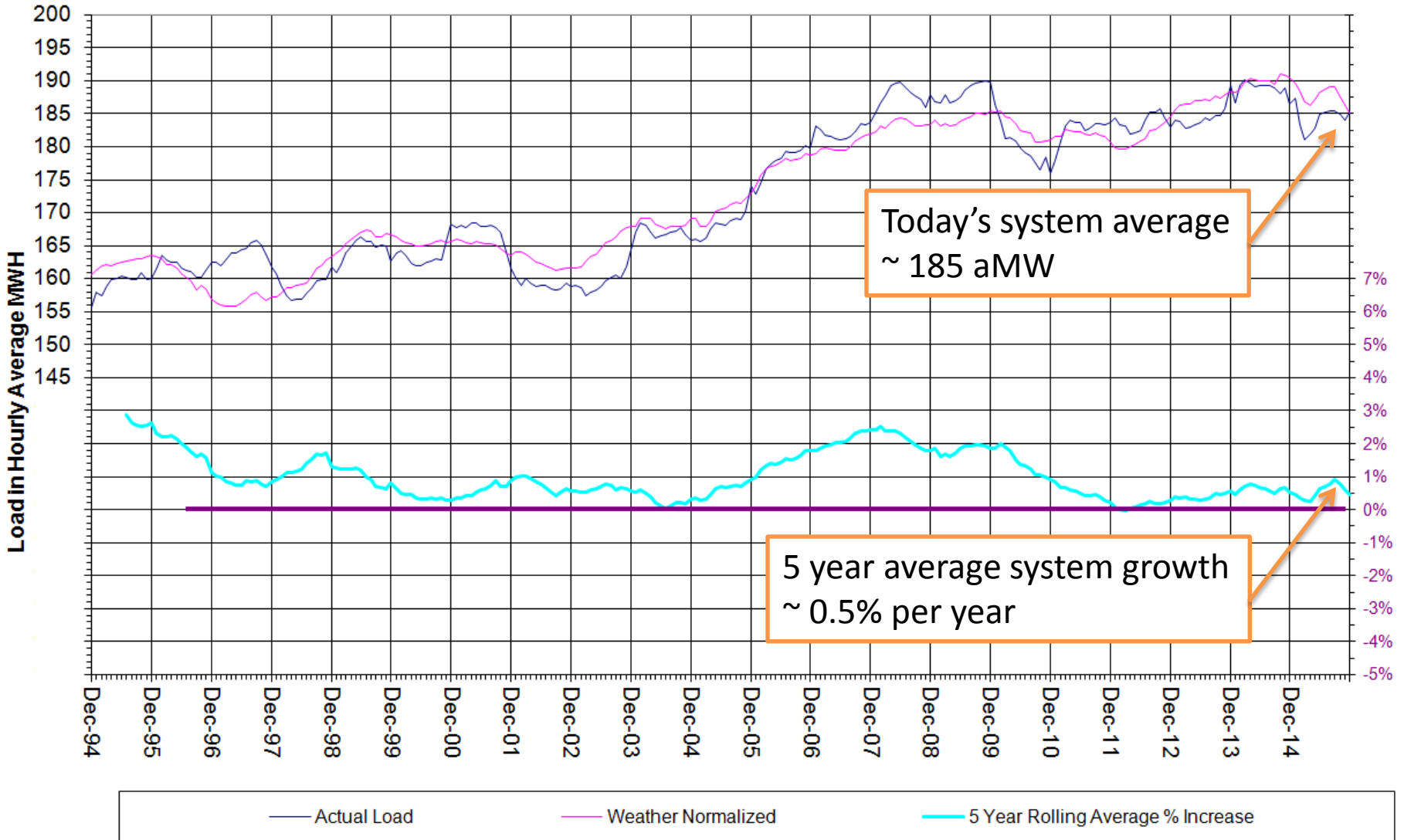
Commercial HDL average = 157,375 kWh / Month

Industrial (Non-HDL) average = 706,828 kWh / Month

Industrial HDL average = 974,817+ kWh / Month

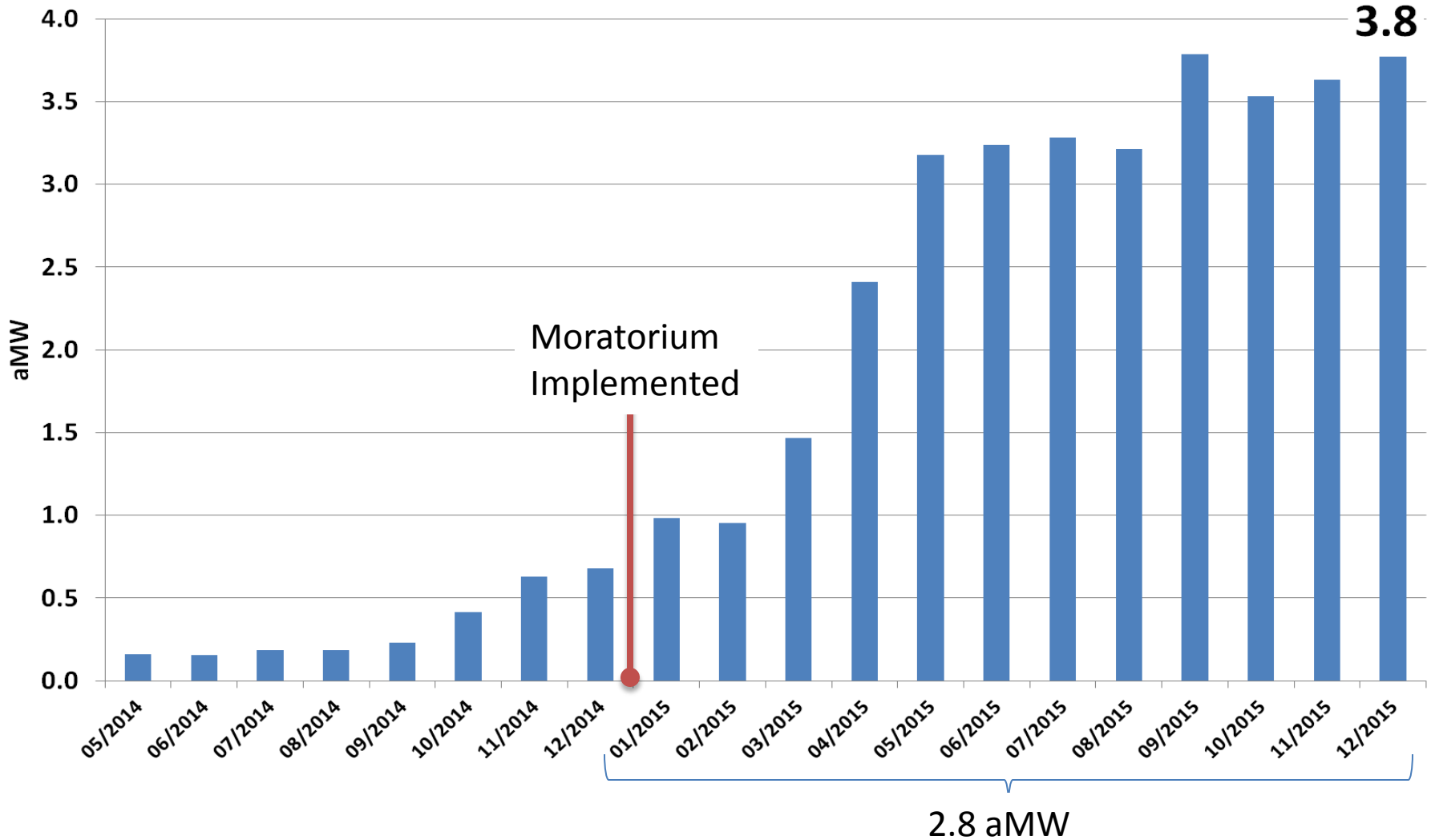
Chelan County PUD System Load Growth

12 Month Rolling Average – Conservation Savings Included



New High Density Load Electrical Usage

Since May 2014



Electrical System Growth

(Conservation Saving Included)

- 2015 System average load = ~ 185 aMW
- 5-yr avg annual increase = 0.5% or ~ 0.9 aMW
- 2015 HDL load growth = $\sim 1.5\%$ or ~ 2.8 aMW
- 2015 HDL load growth = 3X average load growth
- 2015 HDL load = $\sim 1,600$ Residential Services

Actions to Date

December 15, 2014 – Moratorium Implemented

- Moratorium on applications for 1aMW or greater

February 2, 2015 – Moratorium Public Hearing

- Examples of average loads and historical growth
- Connection to strategic planning efforts
- Operating impacts overview
- Typical substation planning

March 2, 2015 – Status Update

- Working group overview
- Industrial rate comparison
- Work plan guidelines
- Planned critical path items

April 6, 2015 – Status Update

- Existing industrial rate structures
- Review rate approach concepts
- Community benefit tool

June 1, 2015 – Status Update

- Stakeholder feedback
- Characteristics of new large loads
- Introduction of Energy Use Intensity (EUI)

June 15, 2015 – Status Update

- Continued EUI discussion
- Classification concept/characteristics
- Framework for 3 EUI rate approaches
- Plans for July 6 moratorium public hearing

July 6, 2015 – Moratorium Public Hearing

- Summary of staff actions to date & proposed actions forward
- Public comment
- Motion extending moratorium and modifying to include high EUI loads
- Public hearing set for December 7, 2015

July 20, 2015 – Policy work plan

- Policy Committee forming two smaller work groups; policy and rates
- Revised residential and non-residential service applications
- Timeline for policy efforts

August 17, 2015 – Rate work plan

- Rate analysis and development scope
- Timeline for rate efforts

September 21, 2015 – Draft policy proposals *(no action, discussion only)*

- Security deposit
- Disconnection of service
- Metering
- Definitions and aggregation
- Changes in load

September 21, 2015 – Rate Classification *(no action, discussion only)*

- Rate class considerations
- EUI threshold considerations
- Draft rate class definition

October 19, 2015 – Draft Policy Proposals *(no action, discussion only)*

- Review of proposed policy changes presented on Sept 21
- Added correction of index name used in the Fixed Rate Energy Surcharge

November 2, 2015 – Resolution seeking adoption of proposed Policy changes

- Policy proposals presented on Sept 21 and Oct 19 (minus aggregation) were approved via resolution

November 16, 2015 – HDL Rate Design Discussion *(no action, discussion only)*

- Review HDL rate class definition
- Review established rate setting guidelines
- Cost of service rate components
- HDL rate components
- HDL rate recommendation

December 7, 2015 - Moratorium Public Hearing

- Lift moratorium on non-HDL loads over 1aMW
- Extend moratorium on HDL loads
- Set rate information meeting and public hearing dates

Current Board Rate Setting Guidelines

(Res. 08-13395, confirmed in 2011)

- Fair, Equitable, Non-Discriminatory
- Provide Stable and Predictable Revenue
- Cost Based
- Continuity in Philosophy
- Assist Low-Income Customers
- Promote Conservation & Efficient Usage
- Simplicity in Understanding and Administration
- Major Shifts Adjusted Over Time

Additional Guidance Received

- Rate design for High Density Load (HDL) service should incorporate methodologies that mitigate risks to the District's finances and seek to avoid shifting cost impacts of this class to other rate classes
- Rate design should incorporate methodologies that avoid restrictions to existing strategic plans as a result of HDL service

Proposed Rate Class

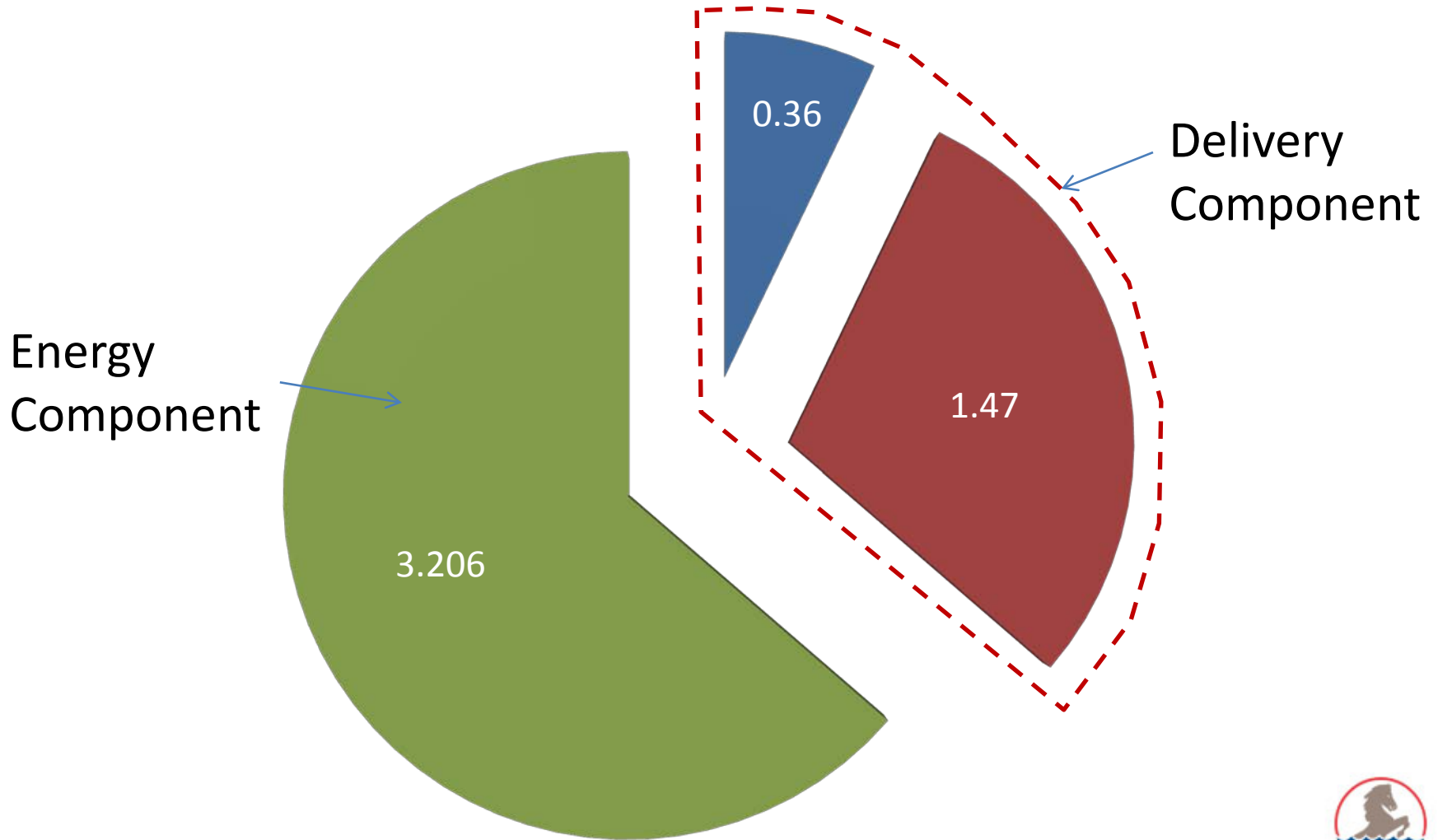
High Density Load

This schedule applies to server farms and similar technological operations. An entity otherwise subject to this rate schedule will be excluded from this schedule if the entity demonstrates to the District's reasonable satisfaction, or the District determines on its own initiative, that the EUI of the subject facility is less than 250 kWh/ft²/year.

Proposed Rate Class Definitions

- “Energy Use Intensity” or “EUI” 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 at the Point of Delivery serves mostly one or more computer server machines and any ancillary loads including HVAC, UPS, power systems, and lighting.
- 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.

HDL Rate Proposal – 5.036¢/KWH



Rate Component Overview

- Customer/Base Charge
 - Intended to cover cost associated with providing a service connection
- Delivery Charge
 - Intended to cover cost associated with the actual delivery of electricity
- Supply/Commodity Charge
 - Intended to cover cost associated with the purchase/production of electricity, including the District's hedging program

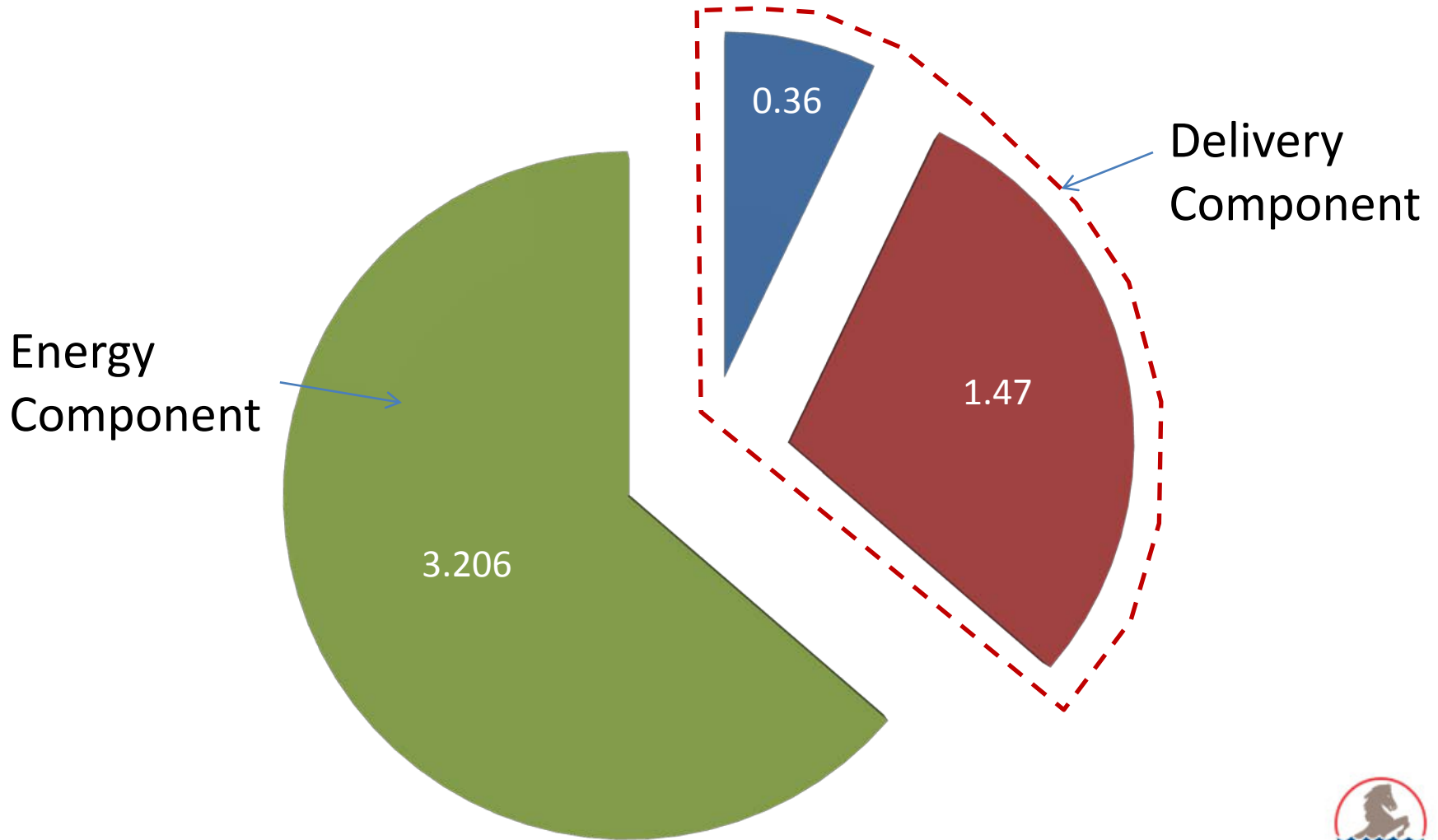
High Density Load (HDL) Considerations

- Customer and Delivery Charge:
 - HDL services are very diverse in size
 - Customer service needs and system requirements will likely be similar to commercial and industrial type customers
 - A cost-based customer and delivery charge for these similar customer types would be most appropriate until class data is accumulated

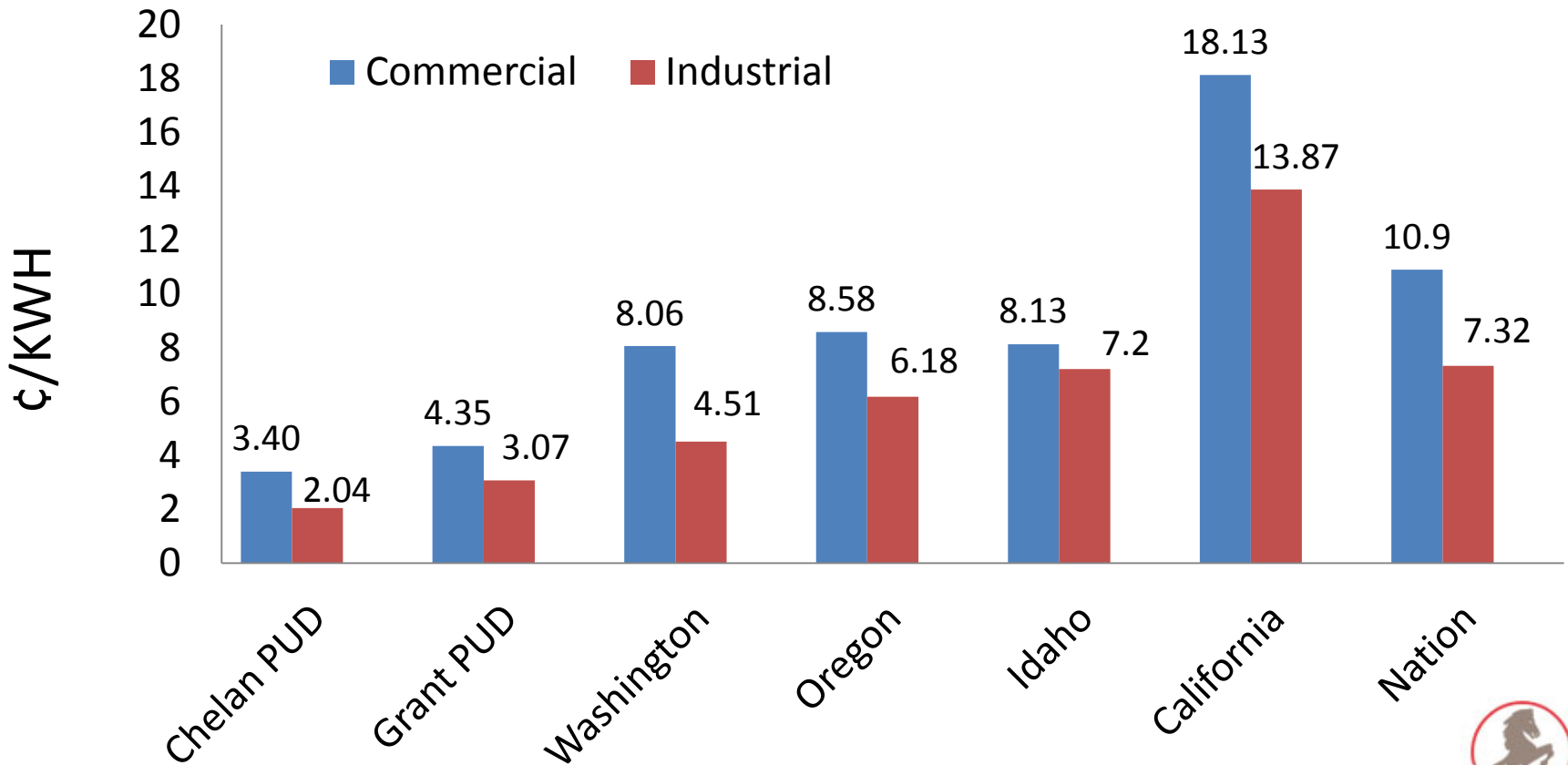
High Density Load (HDL) Considerations

- Supply Charge:
 - HDL customers have potential to impact District financial position
 - Uncertainty of HDL customer's ongoing energy requirements may impact and make ineffective the 5-year hedging program implemented for rate stability
 - The most recent slice product is a reasonable estimation of the value of District energy

HDL Rate Proposal – 5.036¢/KWH



Commercial and Industrial Average Rate Comparison (2014)



Timeline

Jan. 1 – Jan. 17: Informational meetings

Jan. 18 – Jan. 31: Waiting period

Feb. 1: Public Rate Hearing

Mar. 7: Moratorium Hearing

March: Rates Implemented (if approved)

Questions/Comments



For comments, questions or feedback please contact:

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