#### AGENDA - May 3rd

New Mo' Website Data Centers Memo on Reporting Savings to Utilities



#### **ETHAN** MANTHEY





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## **ENTER A WORLD OF YOUR IMAGINATION**!

### Data Centers

# Why should we



## **405aMW**

#### 7<sup>th</sup> Plan 2017

#### Embedded Data Center Load



### **55aMW**

#### **Savings Target**

#### With <u>no</u> program in place to capture it

7th Plan Potential, 2016-2021

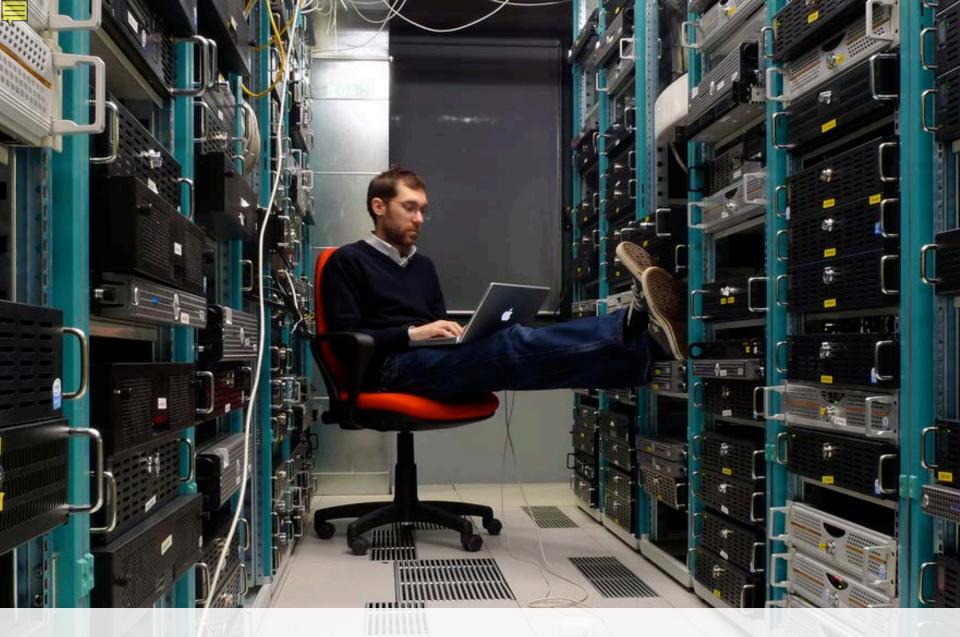
#### So what is a data center?



#### Closets

#### Server Room





#### Localized Data Centers

#### Mid-Tier Data Centers

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Co-Location, 'Colos'

#### Enterprise









#### What they all have in **common**



#### Priorities Security Reliability Efficiency

- Servers
- Storage
- Networking (communications)

#### HVAC and Infrastructure

- Cooling
- Power management



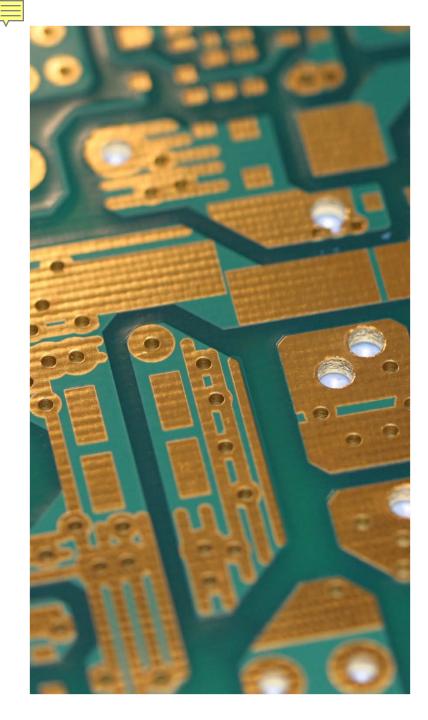
- Servers
- Storage
- Networking (communications) HVAC and Infrastructure
  - Cooling
  - Power management



- Servers
- Storage
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#### HVAC and Infrastructure

- Cooling
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- Servers
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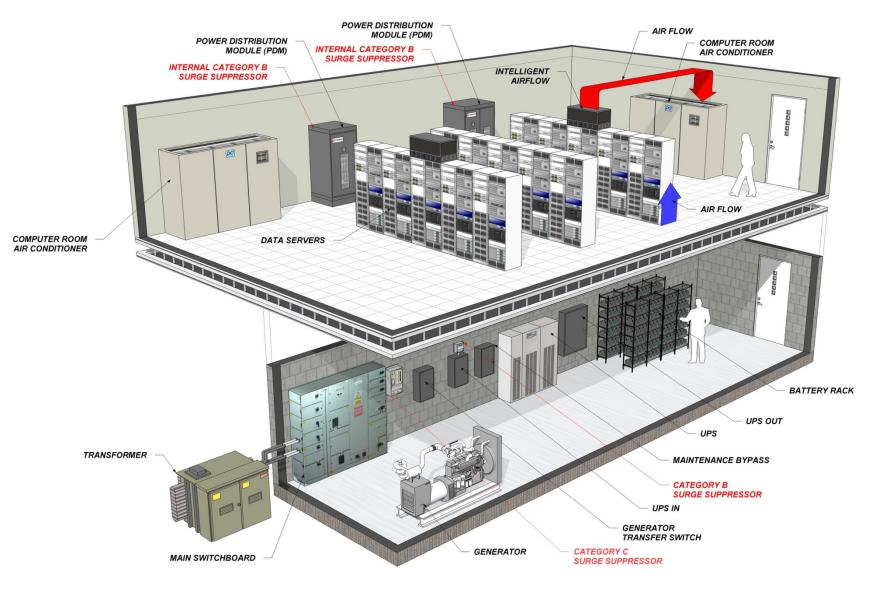
#### **HVAC and Infrastructure**

- Cooling
- Power management

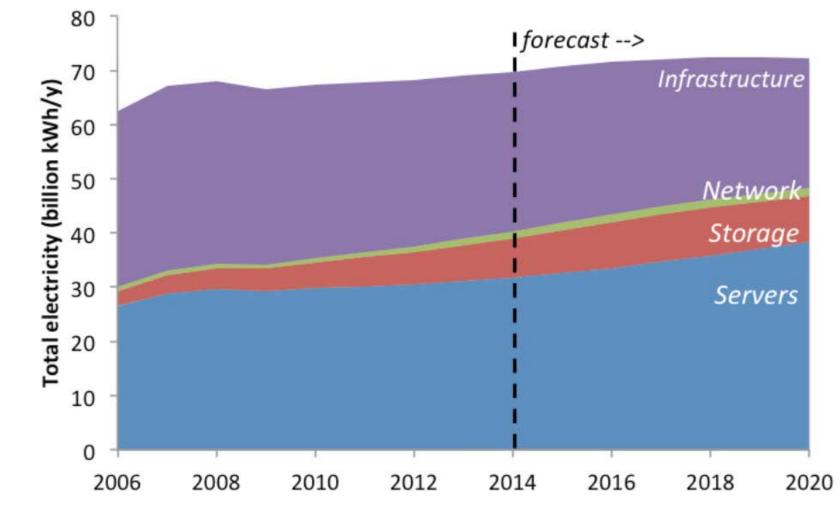
#### Computer Wattage $\rightarrow$ BTUs

#### IT and Infrastructure

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#### **Consumption Nationally**



Berkeley National Lab



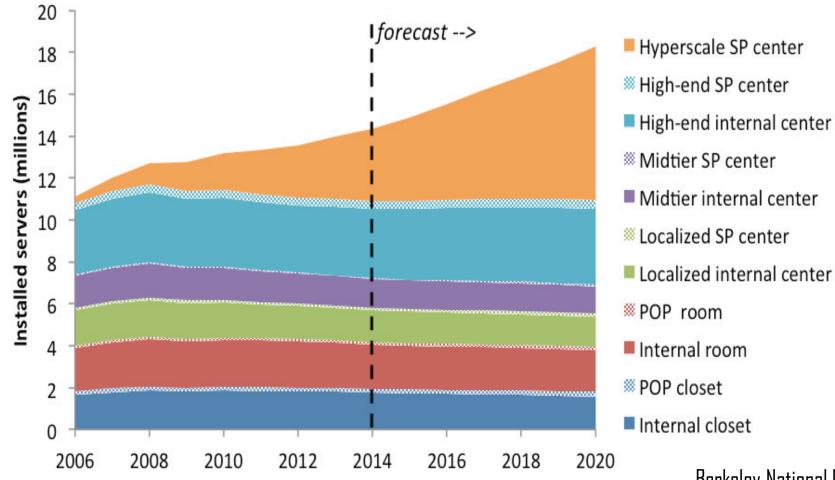
#### **Data Centers in the PNW** ??? Enterprise **Mid-Tier** 500 Localized 700 Server Rooms 20,000

Server Closet

16,233



#### **Trend to Enterprise DCs**

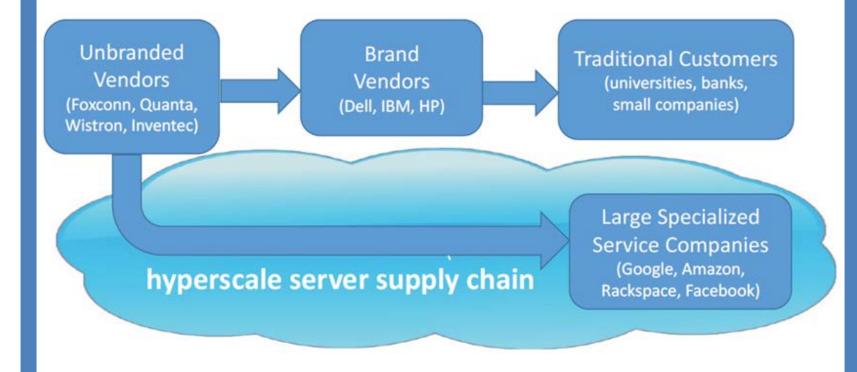


Berkeley National Lab

#### *"Moving to the cloud"* ... just means using someone else's computer

#### **Supply Chain**

#### Our understanding of the supply chain is pretty basic



#### **Market Actors**

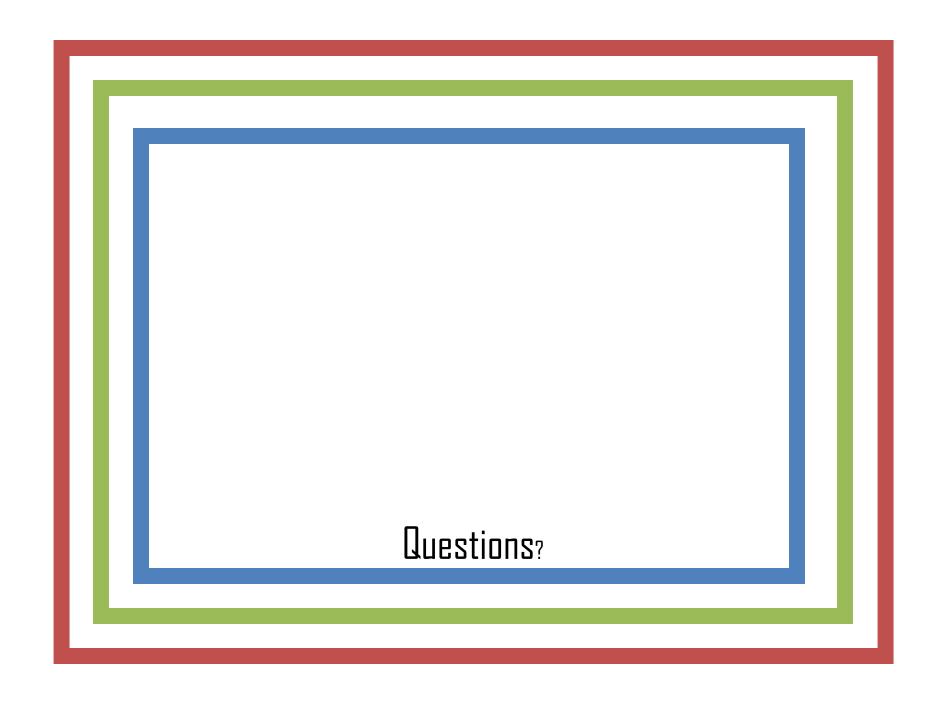
#### **Supply Chain Market Actors**

 Manufacturers, VARs (Value Added Reseller), IT service providers, System integrators

#### Data Center Actors

- Facilities Manager, IT Manager, CFO
- Good information on decision-making process at DC

#### Next Month EE in the DC



## Decision Memo Released

## RTF Market Analysis subcommittee

Email: <u>RTFAdmin@NWCouncil.org</u>

## 

#### Efficiency Exchange May 9-10





#### Adapting Lighting Programs in a Changing Market DAY 1 - 5/9 @ 1:30pm



## 

## Making it to the Big Leagues: How National Accounts Influence Efficiency

DAY 2 - 5/10 @ 1:00pm

#### **Coming Soon** June 1<sup>st</sup> Residential Lighting Brownbag



#### **Thanks for coming!**

#### Join us next month – June 7th