

# Advanced Two-Way Metering

*Community Outreach- Staff Report*



CHELAN COUNTY

May 15 2017

# Outreach Overview



## □ Outreach Purpose

- Inform and educate
- Answer questions and share knowledge
- Provide the vision and potential timelines

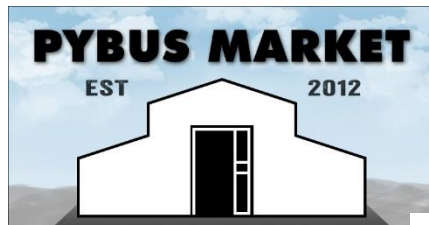
## □ Outreach Results

- Directly interacted with over 400 community members
- 16+ community meetings, County wide
- Of 32,000+ direct mailings and similar number of emails < 1% responded in person or by email/telephone (responses primarily supportive)

# Outreach Forums



**SURVIVE and**  
**THRIVE**  
HEALTH AND SAFETY FAIR



# Community Feedback



## ❑ Broad support for the project & technology

- Customers see value in outage notification, consumption data & remote reads
- Reducing PUD's carbon footprint & operating costs is highly valued
- Business community & electricians strongly favor the technology

## ❑ Opposition does exist

- RF health impacts, data privacy & network security remain the top concerns
- Those opposing strongly value opt-out policy
- Some expressed concerns about advanced two-way meters causing home fires
- PUD outreach team captured questions & concerns



CHELAN COUNTY

# Advanced Two-way Metering Community Outreach



Concerns & Clarifications

# Advanced Two-Way Metering Community Outreach Concern



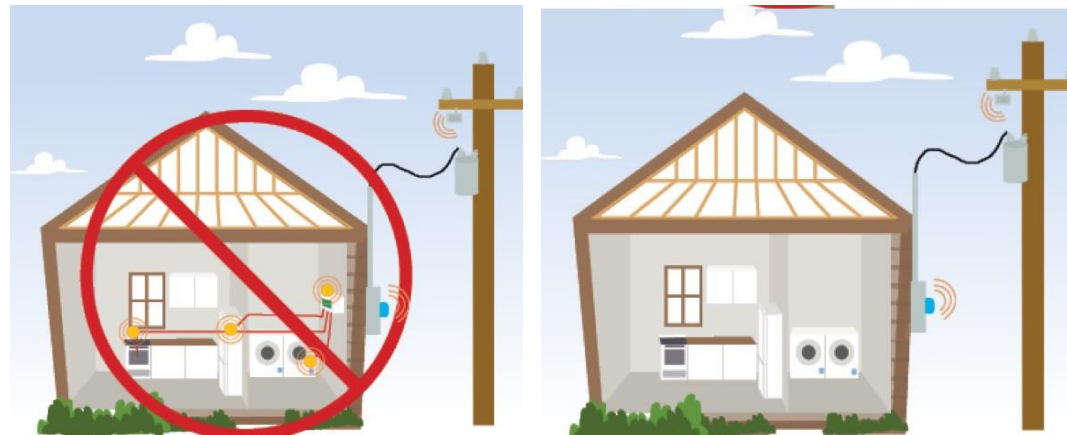
## Concern

### PUD IS INSTALLING “SMART METERS” TO SPY ON OUR ENERGY USE

## Clarification

- PUD is installing Advanced Two-Way meters \*
- Some “Smart Meters” are equipped with a device to communicate with a network of appliances within your home- NOT OUR RESIDENTIAL METERS
- PUD’s proposed advanced meters only communicate between the meter and the utility operations center through a secure network
- Only information such as hourly energy consumption and power quality will be sent

*\* Commercial & Industrial meters generally can offer more advanced data acquisition functionality which can include communication supporting control systems, demand response and distribution automation capabilities*



# Advanced Two-way Metering Community Outreach Concern



## Concern

## PUD WILL RAISE RATES TO PAY FOR THIS PROJECT – WHAT WILL METERS COST

## Clarification

- Project allows the utility to run more efficiently reducing pressure on the need to implement future rate increases
- Project has a “positive return on investment” and if implemented, should save the utility money
- There is no cost to the customer for meter and installation



# Advanced Two-way Metering Community Outreach Concern



Concern

## CUSTOMERS DO NOT HAVE A CHOICE ABOUT AN ADVANCED METER

Clarification

- Today, all meters are planned for replacement
- ~ 16K existing residential meters have one-way RF output for monthly reading purposes
- Customers may voluntarily choose to opt-out of having an advanced two-way meter on their home.\*

*\* Opt-out policies generally include a monthly charge based on the number of participants and operating costs to maintain traditional meter reads.*

PUD Meter Comparison	advanced meter	analog meter
Energy Alerts	✓	X
View Daily Energy Usage	✓	X
Outage Detection	✓	✓
Monthly Charge	FREE	TBD \$50.00



# Advanced Two-way Metering Community Outreach Concern

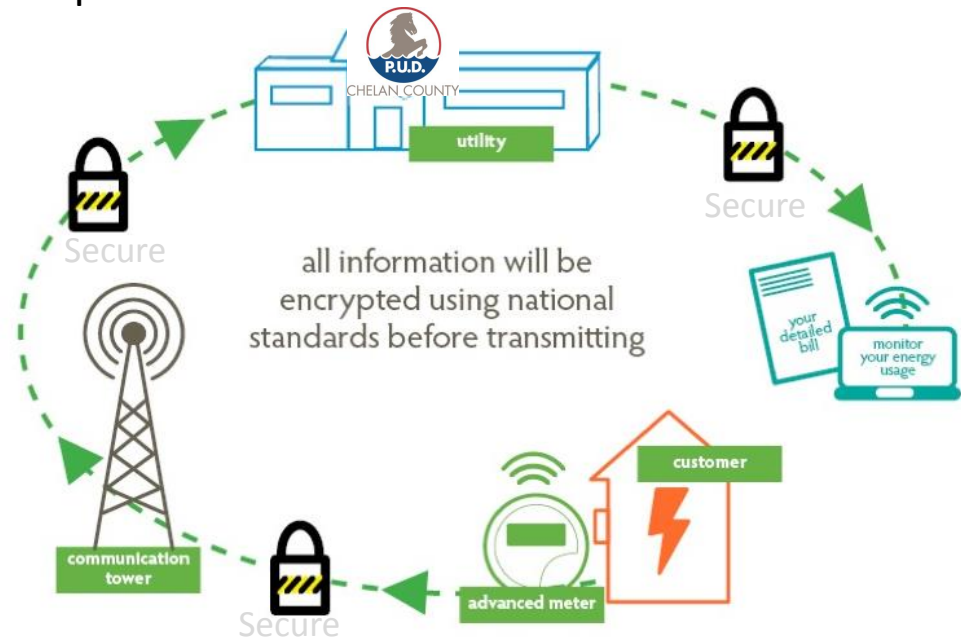


Concern

## CUSTOMER & ENERGY USE DATA IS UNSECURE

Clarification

- Customer information (e.g. name, address, account number) is not stored within the meter, or sent through the wireless RF network
- All meter reading data is encrypted with multiple layers of protection and transmitted back to the PUD's operation center
- PUD can NOT see beyond the meter on customers energy usage



# Advanced Two-way Metering Community Outreach Concern



Concern

## ADVANCED METERS CAUSE FIRES

Clarification

- Meter fires are normally caused by faulty meter bases or loose wiring
- Fires can occur with an analog meter, digital meter or advanced meter
- Highly skilled/trained employees inspect meter bases and install meters
- If a faulty meter base is discovered during meter replacement, the PUD will work with the customer to make the appropriate improvements
- Advance Meter deployment is an opportunity to inspect, identify, and repair these conditions.



# Advanced Two-way Metering Community Outreach Concern



Concern

## LOSS OF METER READER JOBS

Clarification

- Since 2007, the District has reduced from 13 full-time meter readers to 2
- A contract has been in place to provide temporary meter readers
- As we deploy advanced meters we will reduce the reliance on contractors
- Once fully deployed we will no longer need contract meter readers



# ADVANCED METER RADIO FREQUENCY (RF) IS HARMFUL TO MY HEALTH

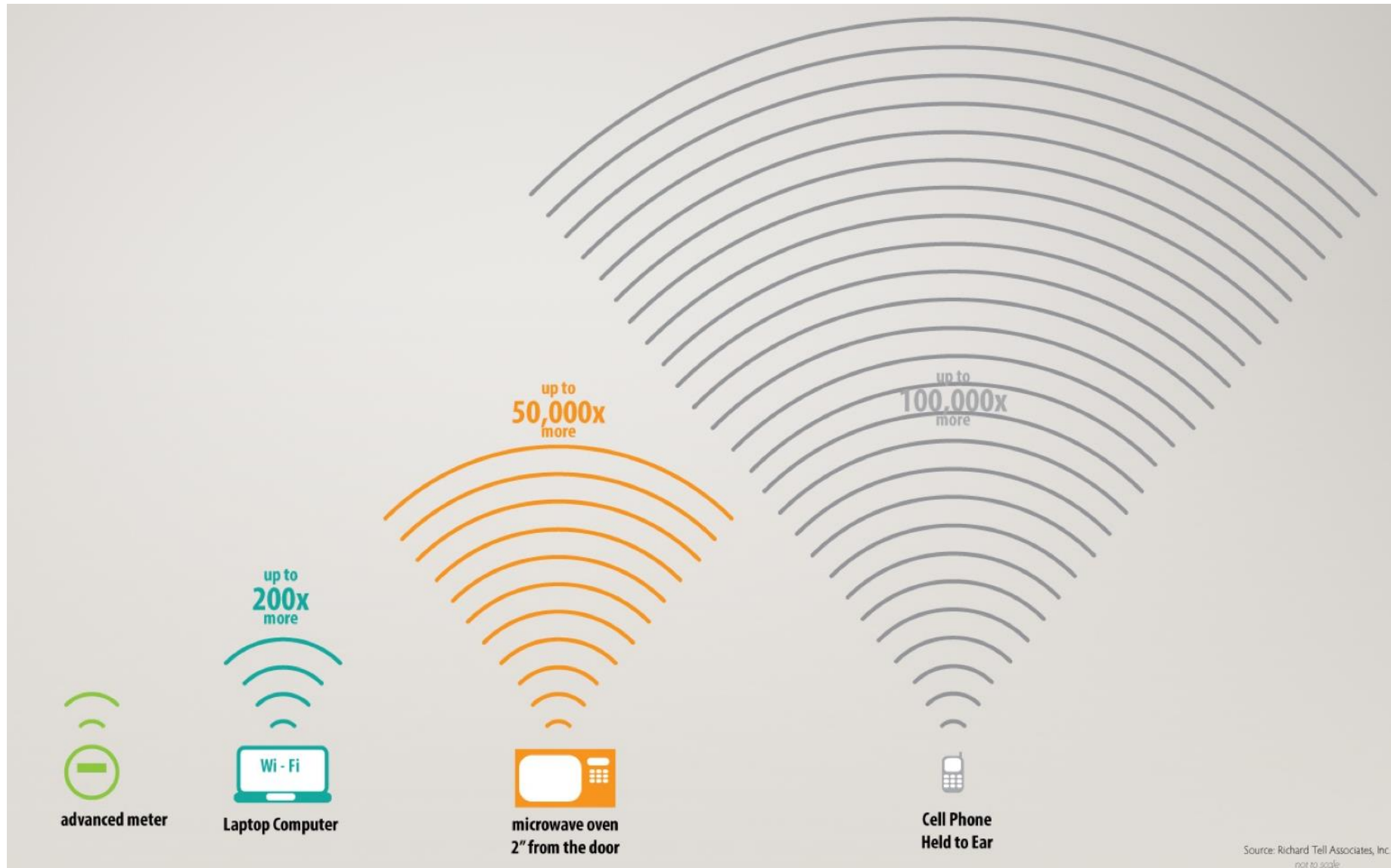


- It is a common practice to equate cell phone emissions to advanced meter emissions
- American Cancer Society quotes<sup>1</sup>: *“Because the amount of RF radiation you could be exposed to from smart meter is much less than what you could be exposed to from a cell phone, it is very unlikely that living in a house with a smart meter increases risk of cancer”*  
  
Dr. Peter Valberg quotes<sup>2</sup>: *“15 minutes of cell phone usage ~ = 375 years of advanced meter exposure”*
- The Federal Communications Commission (FCC) in conjunction with the American National Standards Institute (ANSI) and the National Council on Radiation Protection and Measurements (NCRP) have established rules to protect workers and the general public from known RF hazards. The FCC rules establish limits for emissions from devices and exposures to the population.
- Two-way meter data exchange can be in bursts less than two minutes total per day<sup>3</sup>

#### Sources:

- (1) American Cancer Society ([www.cancer.org](http://www.cancer.org))
- (2) Testimony from Dr. Peter A. Valberg before the Public Service Commission Maryland 2012,
- (3) Utiliworks Consulting LLC

# Comparison of RF Energy



Advanced Two-way Metering  
Community Outreach Summary



Questions?

[www.chelanpud.org/advancedmeters](http://www.chelanpud.org/advancedmeters)

## NEXT STEPS



- Report and check-in on 5/15 for any further Board questions
- 6/5 Seek Commission approval for advanced two-way metering
- If approved, Staff to begin updating the Customer Utilities 2018 – 2022 business plan to include the implementation of advanced two-way metering including:
  - Detailed System Design
  - RFP Development
  - Budgeting & Forecasting
  - Project Timeline