SNOHOMISH COUNTY PUBLIC UTILITY DISTRICT
BOARD OF COMMISSIONERS SPECIAL MEETING
Everett Headquarters Building, 2320 California Street

Special Meeting
September 2, 2025

CONVENE SPECIAL MEETING – 10:00 a.m. – Arlington, WA

The Board of Commissioners of Public Utility District No. 1 of Snohomish County, Washington, will hold a **SPECIAL MEETING** on **TUESDAY**, **September 2, 2025,** at the North County Office located at 17628 63rd Ave NE, Arlington, Washington. The SPECIAL MEETING will convene at 10:00 a.m. for a SnoSMART workshop. It is anticipated that the SPECIAL MEETING will adjourn at approximately 12:00 p.m.

ADJOURNMENT

Agendas can be found in their entirety on the Snohomish County Public Utility District No. 1 web page at www.snopud.com. For additional information contact the Commission Office at 425.783.8611.

AT PLACES
AGENDA ITEM NO. 00.01

SNOHOMISH PUD

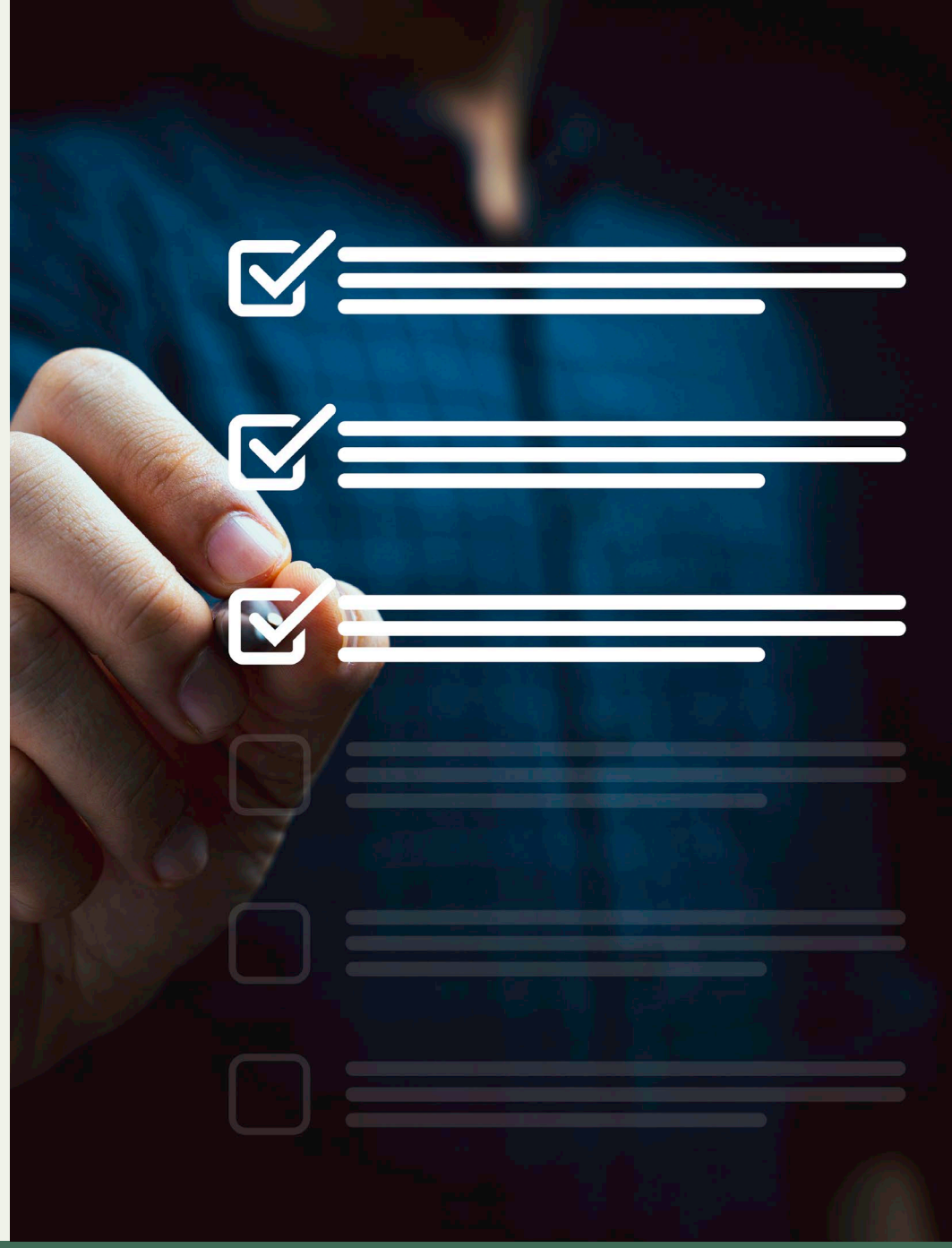
Energizing Life In Our Communities

Snohomish County PUD's
Secure **M**odern **A**utomated and **R**eliable **T**echnology Project

Workshop – September 2, 2025

Agenda

- Objectives and Goals
- SnoSMART Basics
- Customer Benefits
- How We'll Measure Progress
- Future Commission Quarterly Updates
- Q&A



Objectives/Goals of Workshop

- Gain foundational understanding of the SnoSMART Program
- Learn how customers will benefit in three key ways from the program
- Understand how progress will be measured

SnoSMART Basics

- Aligned with PUD's Strategic Priority 1: Bolster Operational Reliability and Resiliency
  - Objective 1.1: Develop the capabilities for an increasingly complex energy future
  - Objective 1.2: Build the distribution grid of our future
- Part of the PUD's Grid Modernization plan

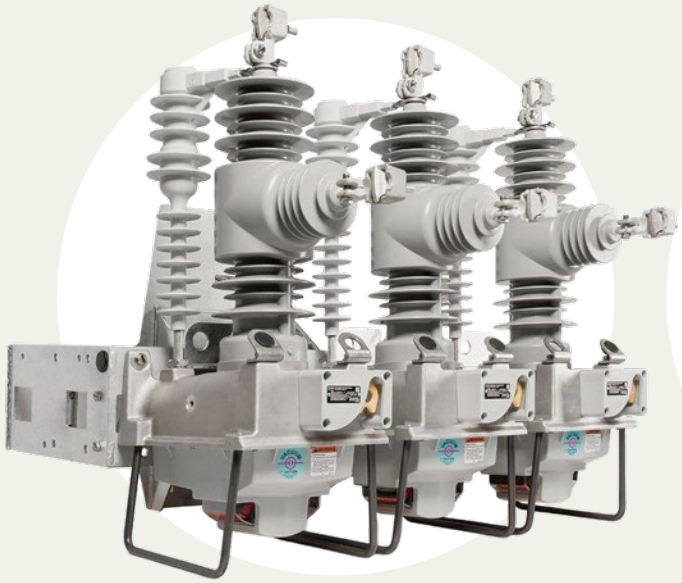
Grant Funding

Background

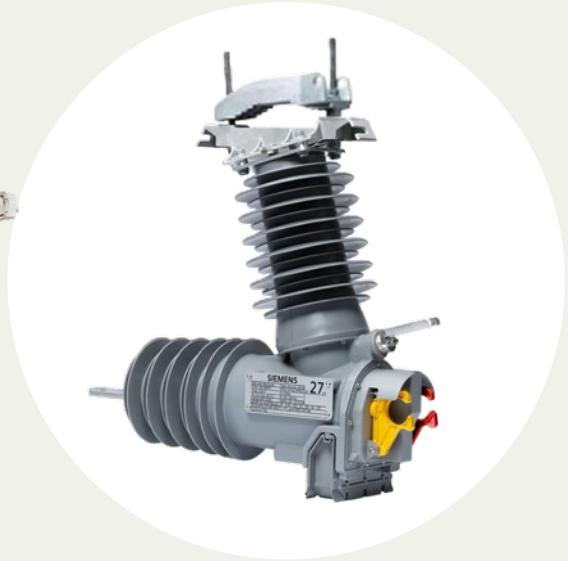
- DOE awarded PUD $30 million for SnoSMART Program
- Funding enabled:
  - Accelerated timeline (20 years to 5)
  - Expanded scope

SnoSMART Video and Demo

Smart Devices: Grid Reliability & Wildfire Mitigation



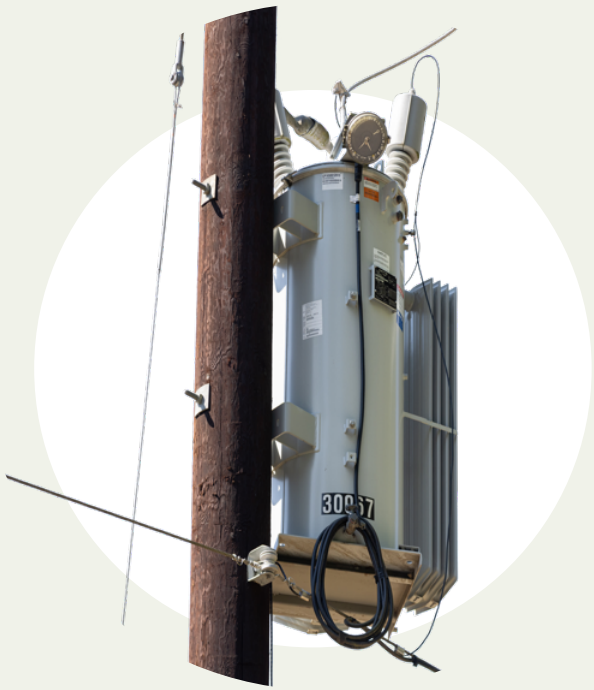
3-Phase Reclosers



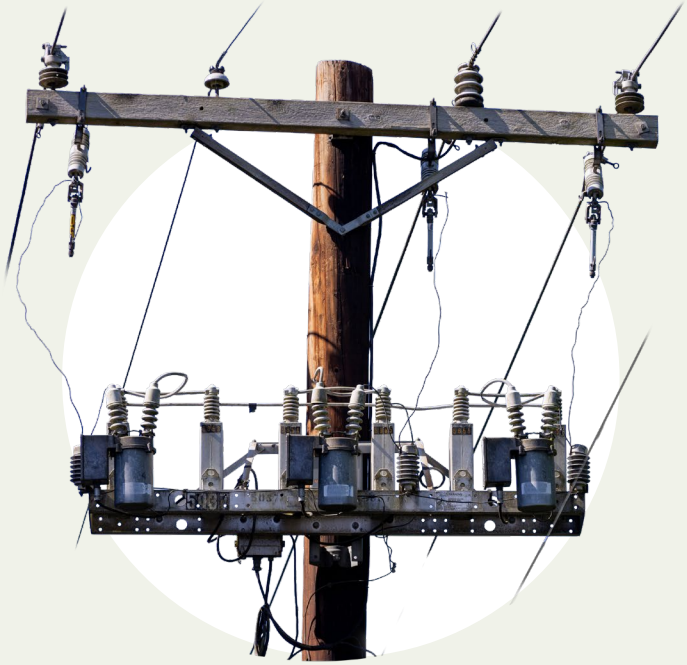
Single-Phase Reclosers

- Similar to the breakers in your home, **reclosers** automatically shut off and restore power
- They help clear temporary faults (like tree branches)
- Improve grid reliability and reduce outages

Smart Devices: Grid Efficiency



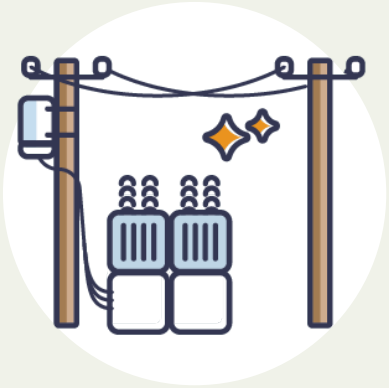
Voltage Regulators



Capacitor Bank Controls

- **Voltage regulators** automatically adjust voltage across the grid.
- **Capacitor bank controls** manage power flow and improve voltage stability by adjusting reactive power on the grid.

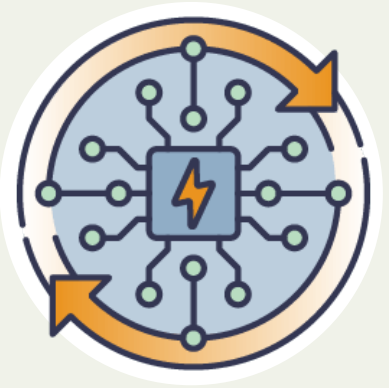
Advanced Distribution Management System (ADMS) Software Platform



Supervisory Control and Data Acquisition

Outage Management System

Distribution Management System



Energy Management System

Mobility

New Platform Capabilities

- All systems will be brought under same umbrella, simplifying access, controls and visibility
- Mobility gives field personnel and system operators real-time information
- Helps PUD meet its regulatory requirements

SnoSMART Benefits

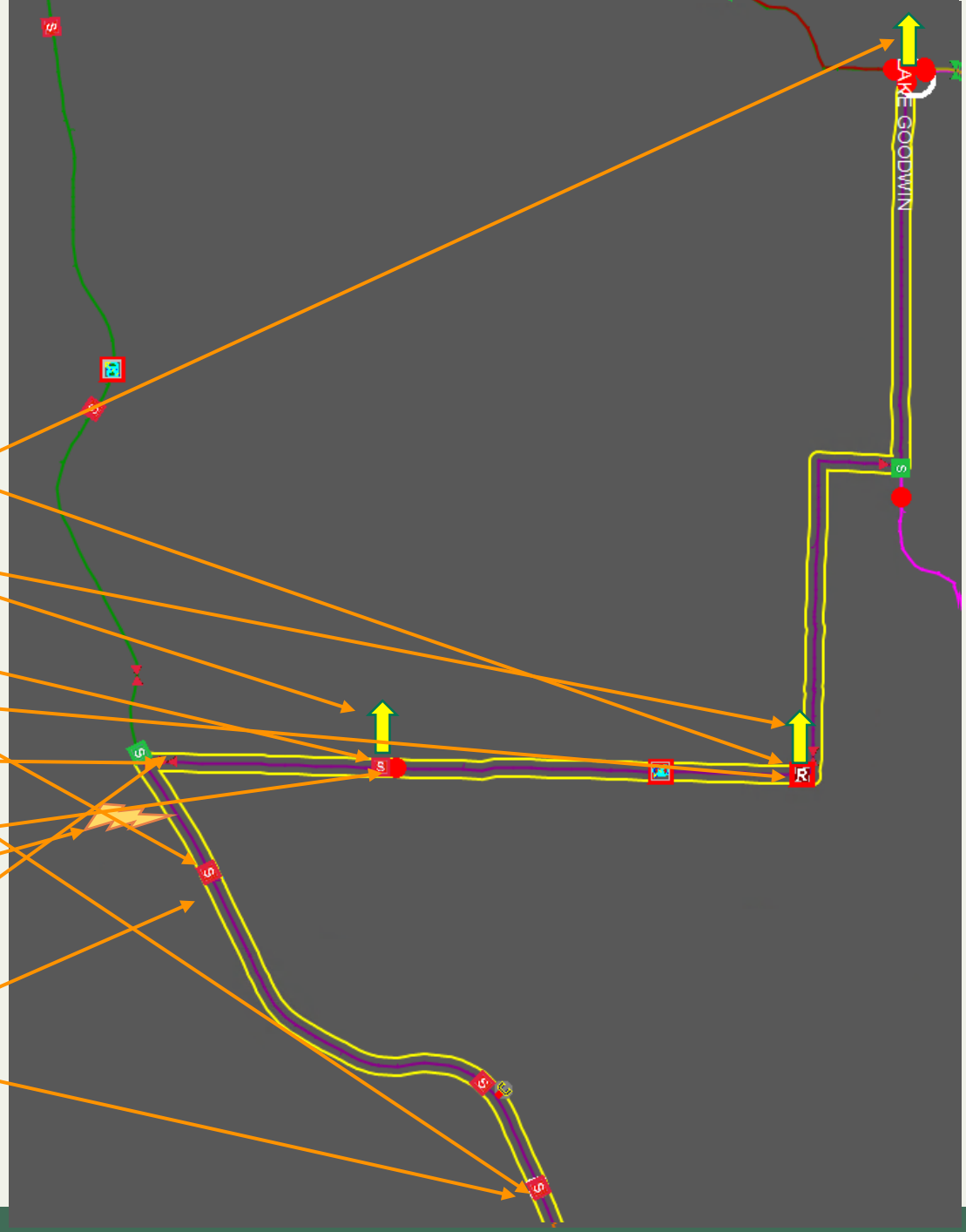
- Reduced Outage Times
- Improved Grid Efficiency
- Decreased Wildfire Risk

Benefit: Reduced Outage Times

- Smart, connected equipment paired with new software capabilities
  - Automatically finds and re-routes power around electrical problems to keep power flowing
  - Can be operated remotely by Energy Control Center staff
- Customer Benefits
  - Fewer impacted customers
  - Shorter outage times
  - More efficient storm restoration

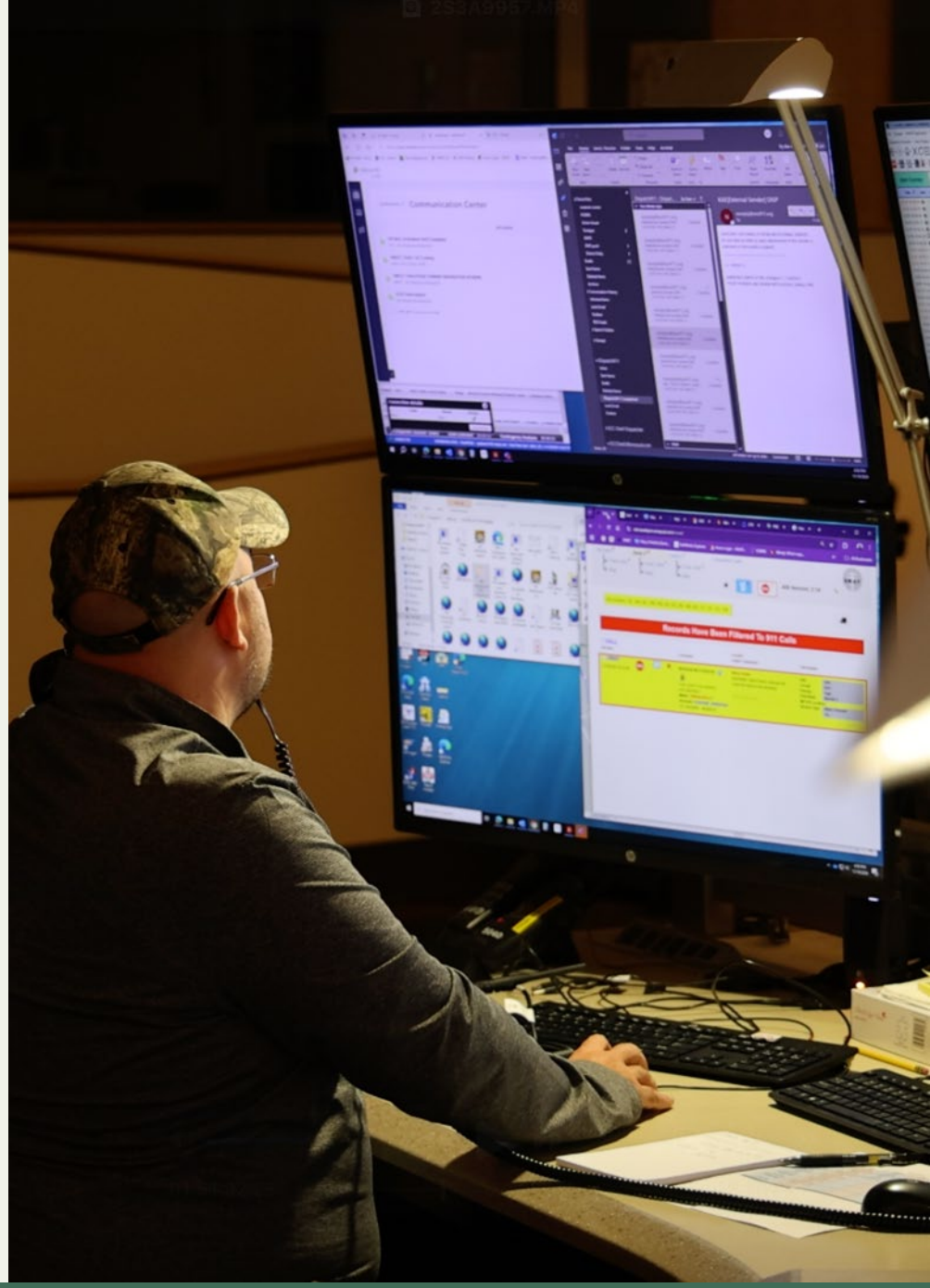
How does it Work? Example

1. Fault occurs; protection operates to isolate in < 1 second
2. Smart Reclosers send info to PUD systems that perform safety check
3. System analyzes and isolates fault
4. System and reclosers restore up and downstream
5. Serviceman patrols, diagnoses fault, informs operators, further isolates fault
6. Serviceman restores customers
7. Crew assembled, repairs damage
8. Crew restores customers in outage section
9. Serviceman or operators return system to normal state



Reduced Outage Times: Phased Approach

- **Near term:** Energy Control Center operators will remotely control devices to switch around outages
- **Medium term:** Software will provide recommendations to operators
- **Long term:** Software will automatically switch around outages



Benefit: Improved Grid Efficiency

Reduces amount of power used with no noticeable impact to customers

- Customer Benefits
  - Manages peaks when energy demand is high
  - Helps keep energy costs down
  - Conserves energy across the grid

Improved Grid Efficiency: Timing

- **Now:** Managed at the device only
  - Based on peak and minimum load scenarios; not reactive
- **Future:** SnoSMART voltage will be centrally controlled by advanced system
  - Full visibility into system
  - Ability to react in real-time

Improved Grid Efficiency: The Math

Did you know? We are constantly changing voltage on the grid by 0.625% increments

- Seems insignificant. Is it worth all this work?

Rated Watts	Voltage	Resistance	Actual Watts	Percentage
60	120	240	60	100%
60	118.8	240	58.806	98.01%

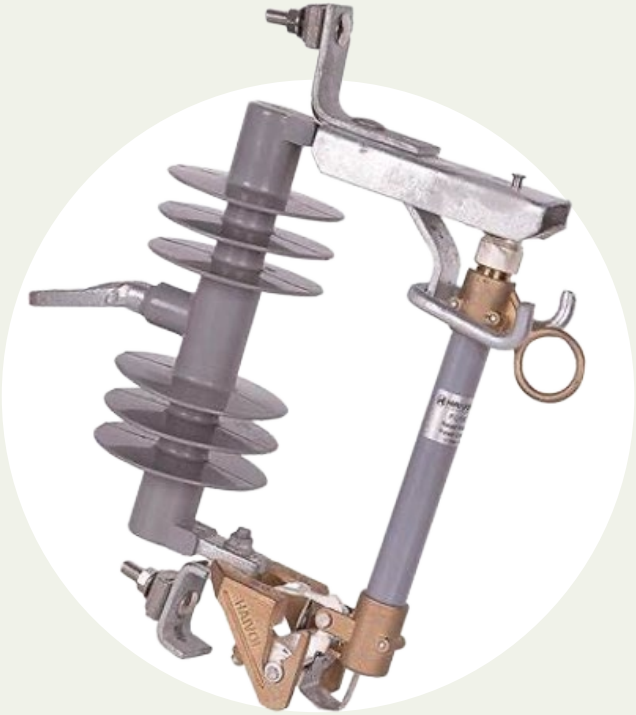
- These small, unnoticeable changes will save our customers money

Benefit: Decreased Wildfire Risk

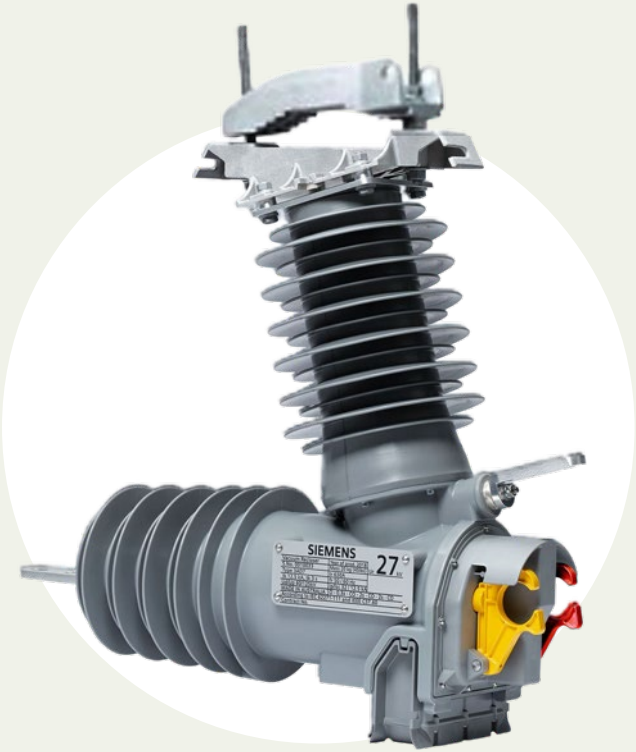
- Smart reclosers allow operators to remotely switch equipment to wildfire safety settings.
- Reclosers will replace fuses in high-risk areas.
- Customer Benefits
  - Decreased wildfire risk

Benefit: Decreased Wildfire Risk

Current fuse functionality



Single-phase recloser solution



Decreased Wildfire Risk: Timing

- **Now:** Switching equipment to wildfire protection settings is manual and must be performed on-site. Fuses are used to de-energize a line.
- **Future:** SnoSMART remote control reclosers can react to real-time wildfire conditions. Single-phase reclosers replace fuses in areas with high wildfire risk.

Stakeholder Engagement

- Working with Tribes, local governments
- Reaching out to customers who don’t speak English
- Coordinating with county on emergency management work
- SnoSMARTies and internal comms

How We'll Measure Progress

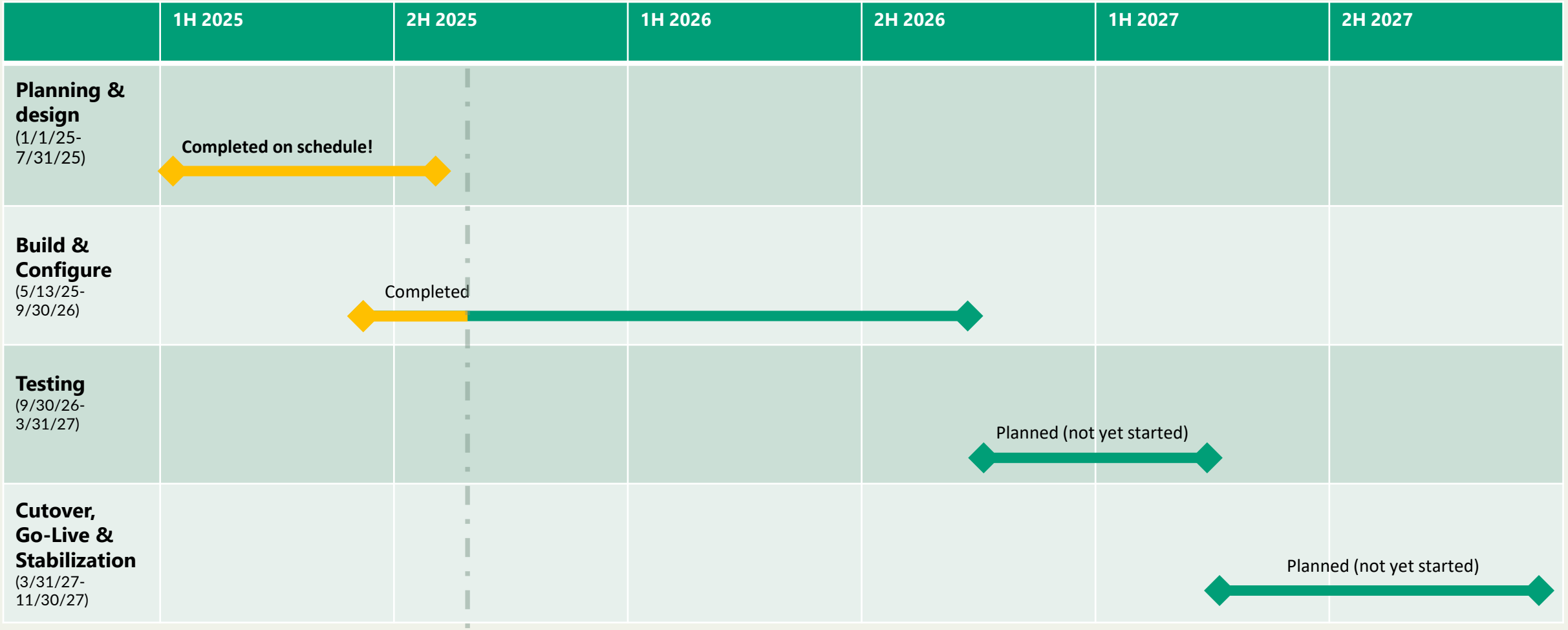
- Metrics
- Schedule
- Budget

Smart Devices

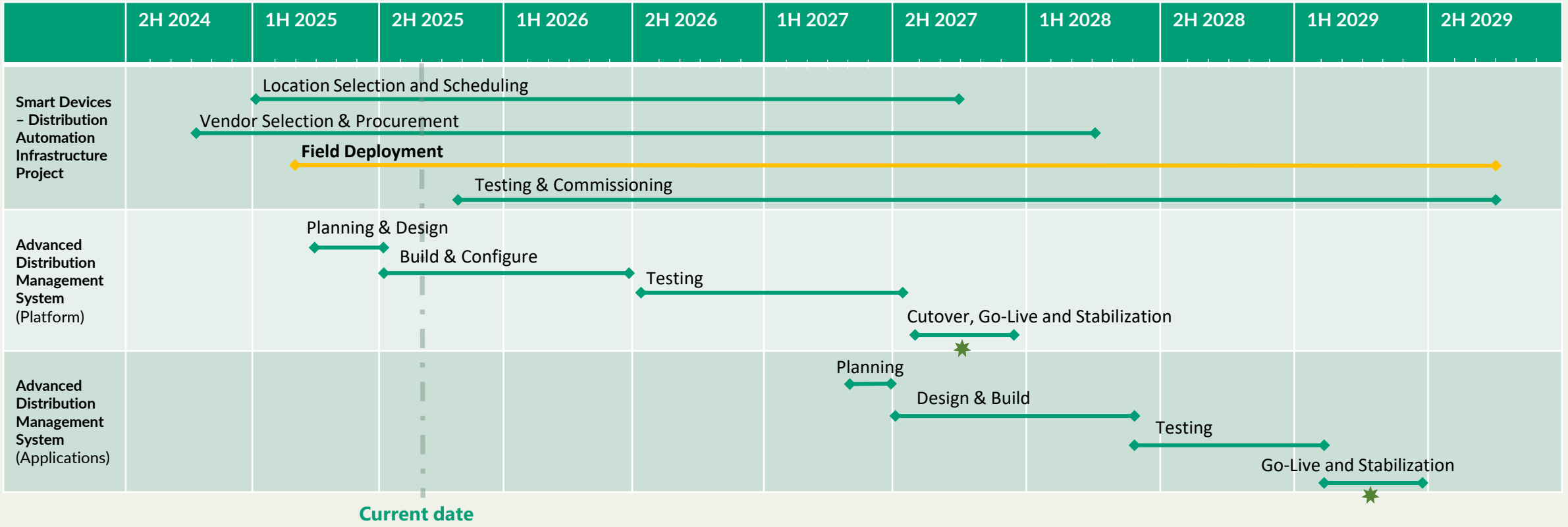
Equipment	Benefit	Schedule	Total	Initiated	Completed
Substation Designs	Reduced outage times	1/25-9/26	32	N/A	11
3-Phase Reclosers	Reduced outage times	1/25-9/29	430	120	24
Single-Phase Reclosers	Wildfire	9/26-9/29	350	0	0
Voltage Regulators	Improved grid efficiency	9/26-9/29	120	0	0
Capacitor Banks	Reduced outage times & improved grid efficiency	7/28-9/29	10	0	0

Completed column: green=on track; yellow=behind schedule with plan to recover; red=behind schedule impacting program timing; white=NA

Advanced Distribution Management System (Platform)



Program Schedule



Program Cost

Original budget	$74.2M
Projected cost through end of 2029	$74.5M
Over (under) budget	$300K

2025 actual spend YTD	$5.56M
2025 year forecast	$13.78M

Current total spend	$5.83M
DOE reimbursements to date	$416K
Pending DOE reimbursements (April 2025)	$730K

Future Commission Quarterly Updates

- Review of the Big 3 Benefits
- Program and DOE Updates
- Project Highlights (key accomplishments and challenges)
- Milestones/Metrics/Schedule Review
- Budget Review

Questions?

Thank you!

Resources:

- Video
- One-pager featuring program benefits and details

SnoSMART

› Building the Grid of Tomorrow – Today! ‹

Snohomish PUD's SnoSMART program is building the grid of the future. Smart, self-healing and responsive, this new grid will lead to reduced outage times, decreased wildfire risk and improved grid efficiency.

Customer Benefits

Smart devices = Reduced outage times

Smart reclosers coupled with our advanced meter communication network will allow PUD grid operators to isolate outages and re-route power, restoring power to many customers in minutes instead of hours. This technology can identify the location of a problem on the grid and recommend steps to restore as many customers as possible.

Wireless technology = Decreased wildfire risk

Leveraging smart reclosers and a communication network, PUD grid operators will be able to remotely switch equipment to wildfire safety settings, a job that now requires PUD field personnel to drive out to each device to manually operate. This allows the PUD to react more quickly to forecasted conditions in high-risk areas, reducing the risk of sparking a fire. It also means fewer PUD vehicles on the road.

Real-time voltage control = Improved grid efficiency

Smart voltage regulators and capacitor bank controls will give PUD operators the ability to better control voltage on our system and react in real-time. This technology can allow the PUD to operate the grid more efficiently, saving energy and money.

U.S. DEPARTMENT of ENERGY

The Grid of Tomorrow – Today! Thanks to the Department of Energy

The PUD's SnoSMART Program is being partially funded through a DOE Grid Resilience and Innovation Partnerships (GRIP) grant. The $30 million grant will accelerate these grid advancements from 20 years to five.

– See back for more information –

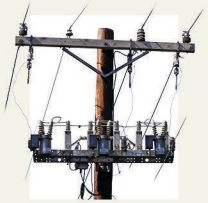
The Equipment

Installation of smart grid equipment will make the grid automated, remotely controlled and more efficient.

3-Phase Reclosers: Feed data into PUD systems and can be remotely controlled, allowing faults to be quickly isolated. *(For one on a pole, see reverse)*

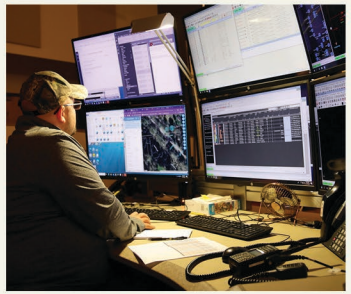
Single-Phase Reclosers: Allow equipment to be placed in wildfire protective settings remotely; also doesn't release hot metal when open like current fuses.

Voltage Regulators: Automatically adjust voltage incrementally across the grid, maintaining consistency and providing efficiency.



Capacitor Bank Controls: Work with other equipment to automatically regulate power and line voltage and communicate with PUD systems.

Timeline: Equipment and devices to be installed through 2029



The System

SnoSMART implementation will give PUD grid operators control of new automated devices deployed across the grid. It will also collect and analyze data from these devices and provide action recommendations. The new system will provide greater insight and control of the grid, a true leap forward in reliability, safety and efficiency that will benefit all PUD customers.

Timeline: Implementation scheduled for Sept. 2027 (Baseline System) and Sept. 2029 (Advanced Applications)

SNOHOMISH COUNTY PUD PUBLIC UTILITY DISTRICT NO. 1

snopud.com/snosmart

8/25