

# HEATWISE: South Everett

## A Community DHP Pilot Program

### Emerging Technologies Showcase

July 30, 2014

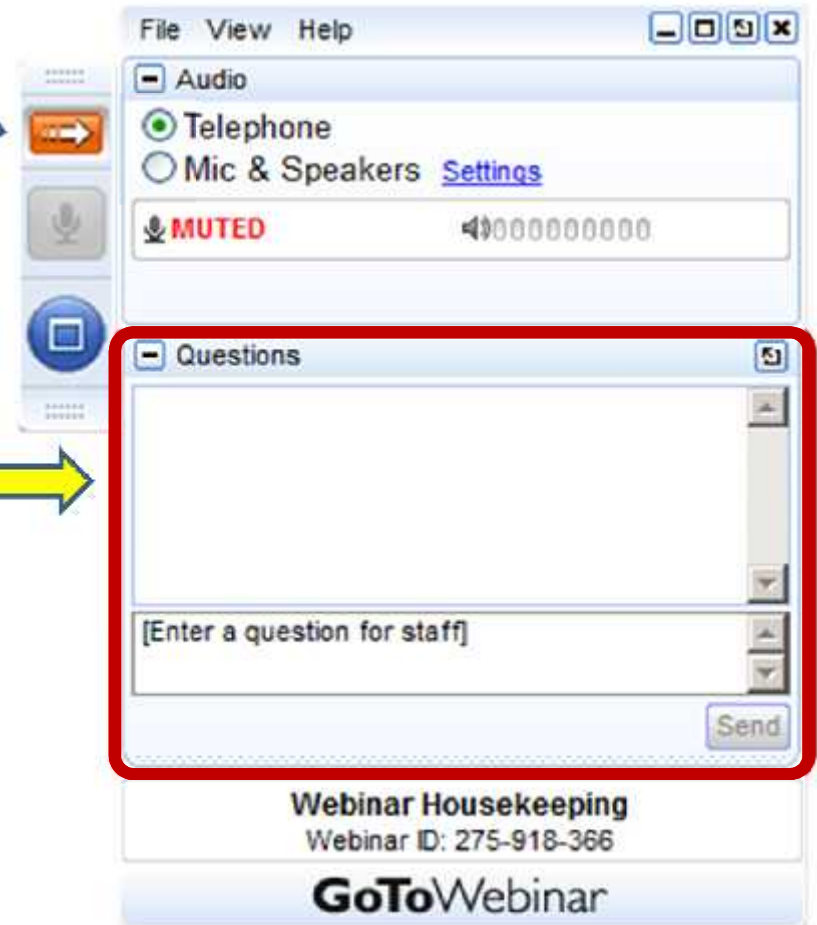
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# HEATWISE: South Everett

## A Community DHP Pilot Program



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Northwest SEED

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Snohomish County PUD



# Northwest SEED

## Background and interest:

- Founded in 2001, Northwest SEED offers project development, technical assistance and education to urban and rural communities interested in developing on-the-ground clean energy projects.
- Equity: how do we reach low- and middle-income homeowners?
- How do we diversify our organizational expertise?

# Snohomish County PUD

***Snohomish County PUD is the second largest publicly owned utility in Washington. We serve over 327,000 electric customers and 19,000 water customers. Our service territory covers over 2,200 square miles, including all of Snohomish County and Camano Island.***

## Pilot Interests:

- New ways of doing business
- Leveraging community to raise energy awareness
- “Outstanding Financial Value”



# Partnership

- Partners on two previous Solarize campaigns
  - Solarize Stanwood/Camano
  - Solarize Mukilteo
- SnoPUD interested in adopting Solarize model for Energy Efficiency
- Northwest SEED conducted a feasibility study on DHP in 2012

# What's the Solarize model?

1

- Identify and engage target community

2

- Help community select installers

3

- Educate through workshops & webinars

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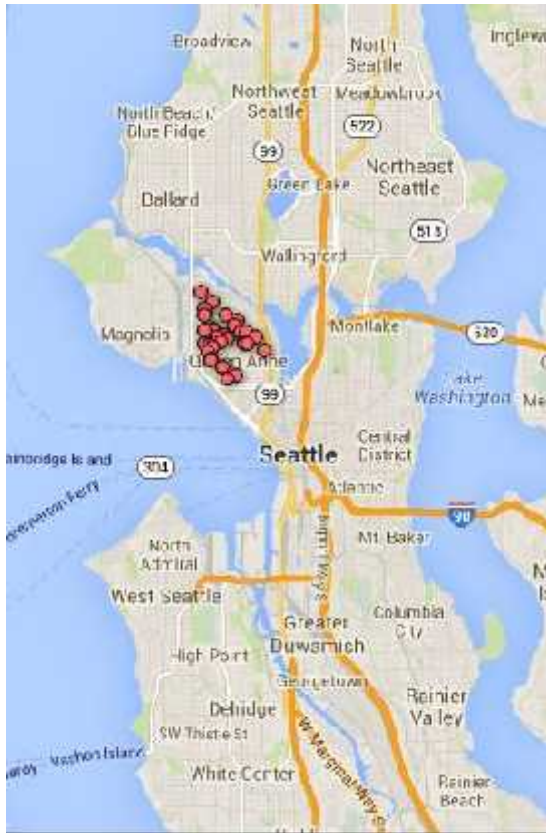
- Installers engage with target community

5

- Celebrate community and install success

# Piloting Solar in 2011

## Queen Anne Pilot 2011



## QA Pilot Results:

- 160 Registered Participants
- 150+ Workshop Attendees
- 96 site assessments (64%)
- 29 final installations (19%)
- 131.9 kW installed



# Solarize's Growth/Impact

## 2011 – 2014 Solarize Results



## Solarize by the Numbers:

- 3 campaigns currently running
  - 7 completed campaigns
- Over 2,165 people have attended workshops
- 475 contracts signed
- Nearly 2.2 MW of installed solar PV
- \$12.3 million invested back into the local economy

# Why Ductless Heat Pumps (DHPs)?

- Best fit for group purchase model:
  - Stand alone units
  - Visible
  - “New” technology
  - Excitement
- Meets utility concerns:
  - DHP costs relatively high in SnoPUD service area
  - Significant increased heat pump penetration identified in the region to meet growing energy savings targets

# DHP in the PNW

Since 2008...

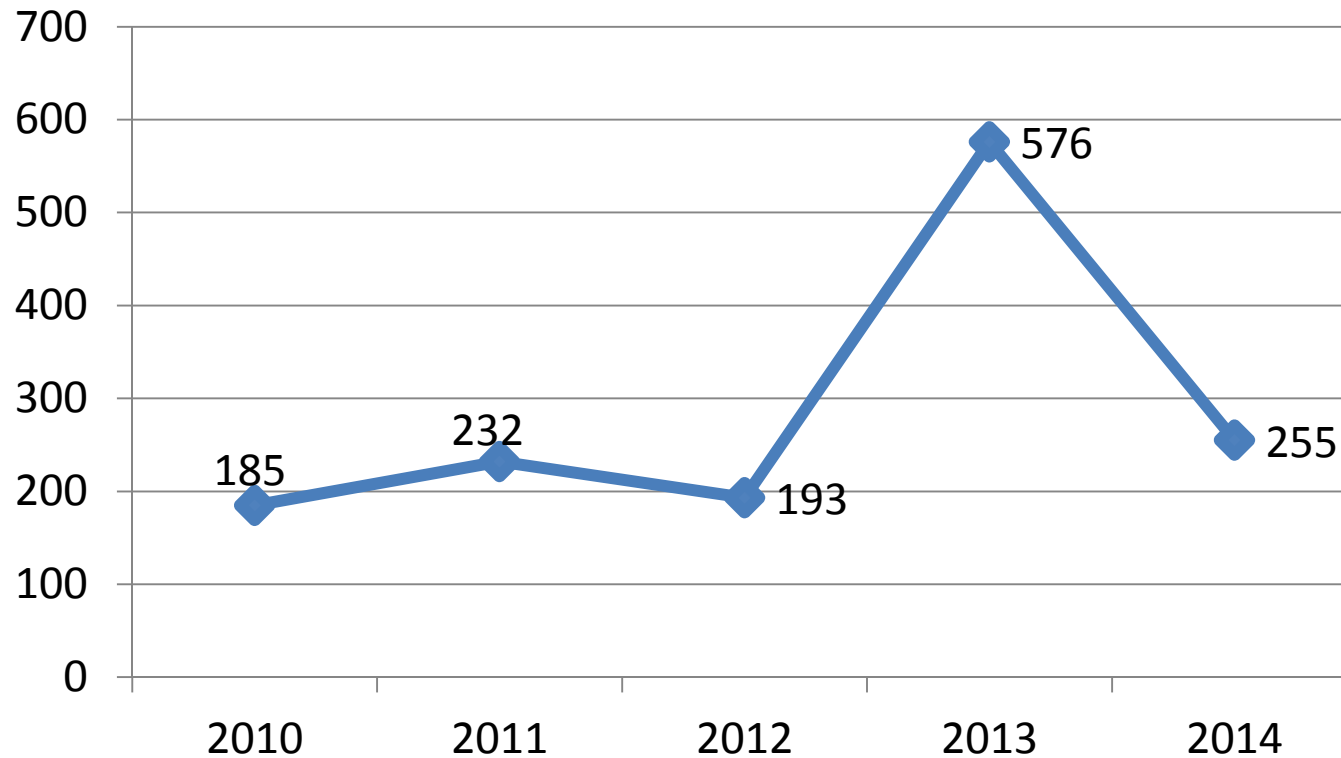
- More than 20,000 DHP installations in the PNW
- 71 million kWh saved per year\*

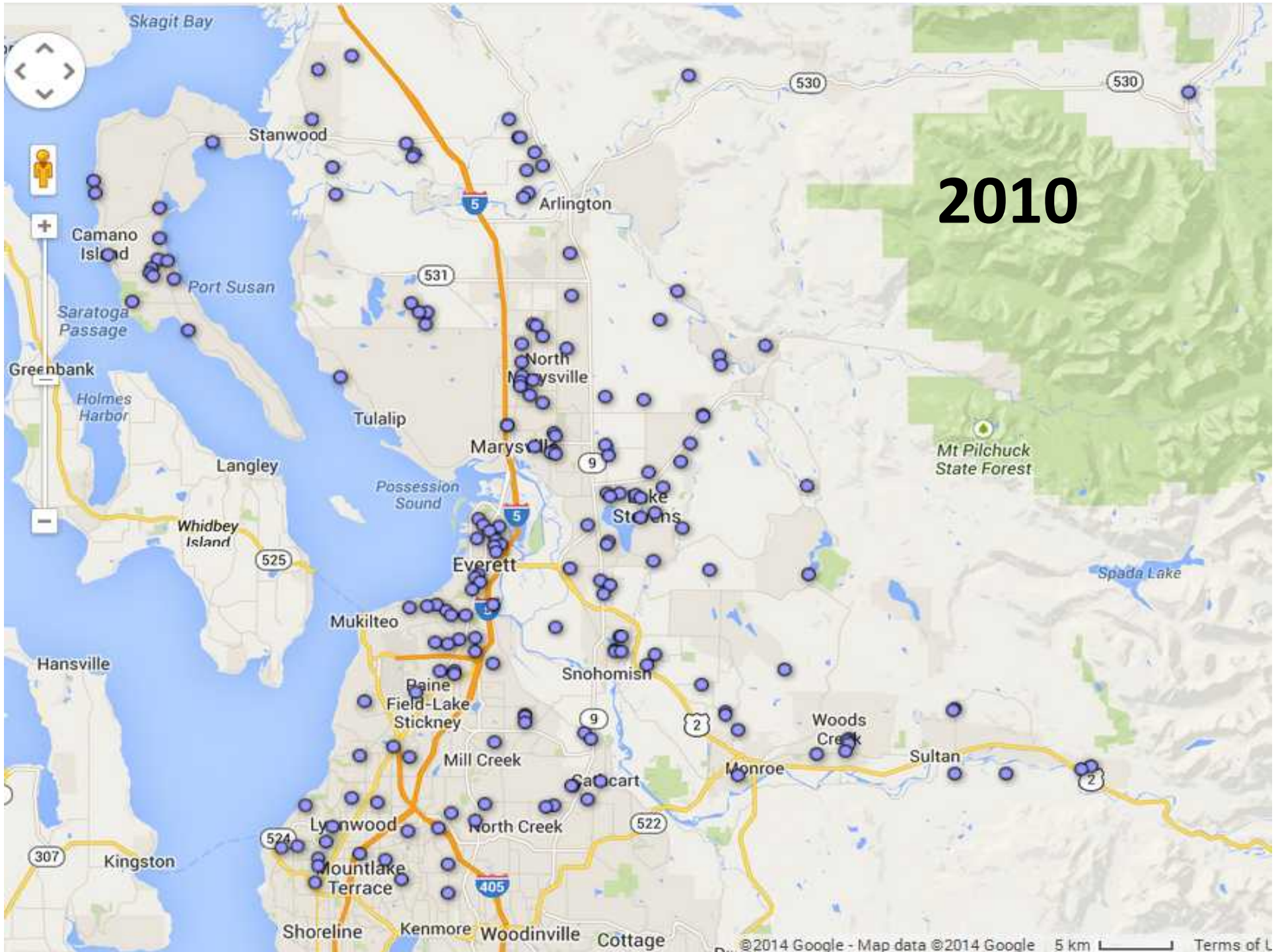
DHPs in Snohomish PUD territory

- 1,186 installed since 2010 (255 so far in 2014)
- Potential for up to 90,000 DHP installations in electrically heated homes

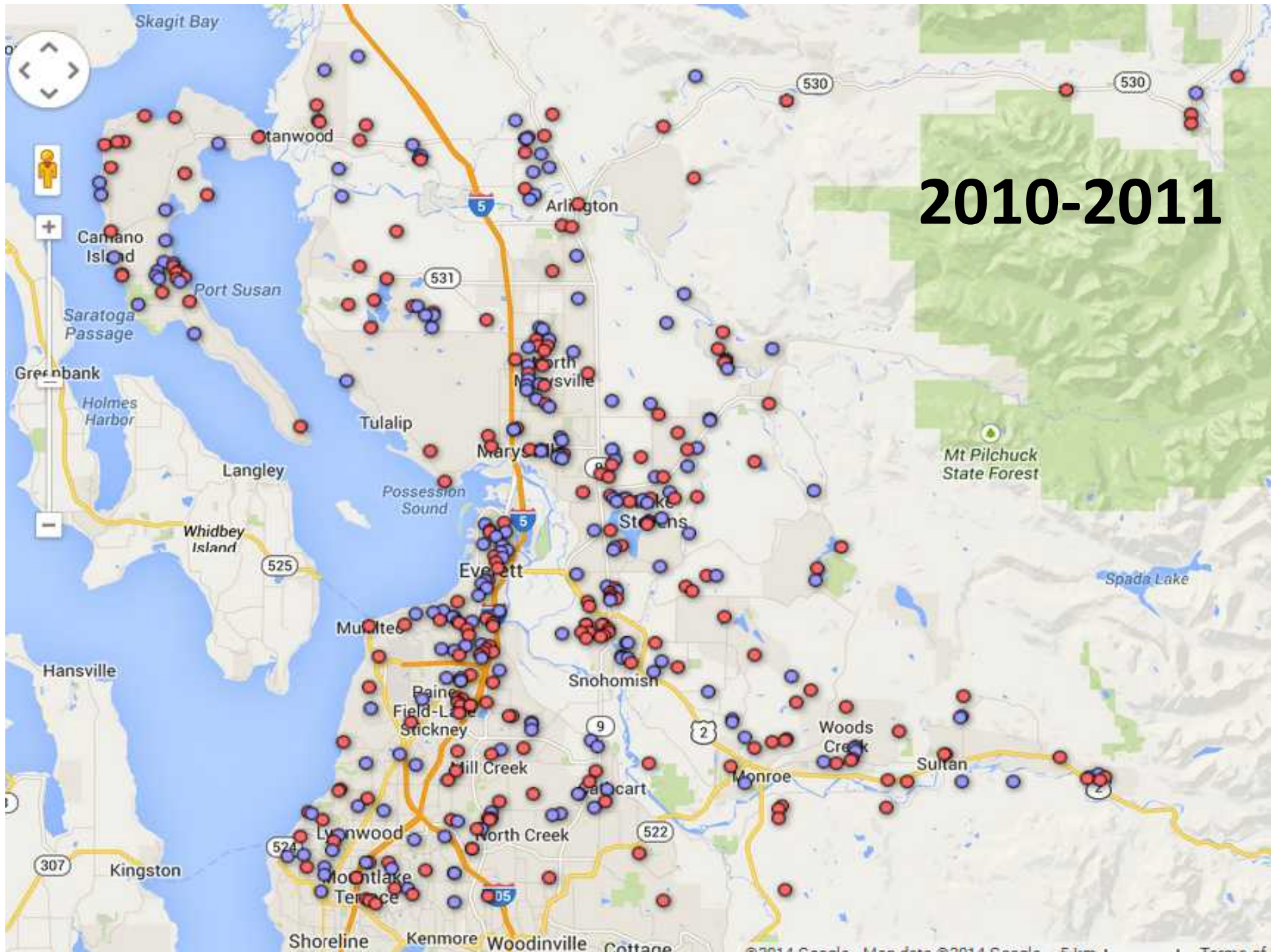
*\*Source: NEEA NW Ductless Heat Pump Project, 2013 Q3 newsletter*

# DHP Installations in SnoPUD Territory

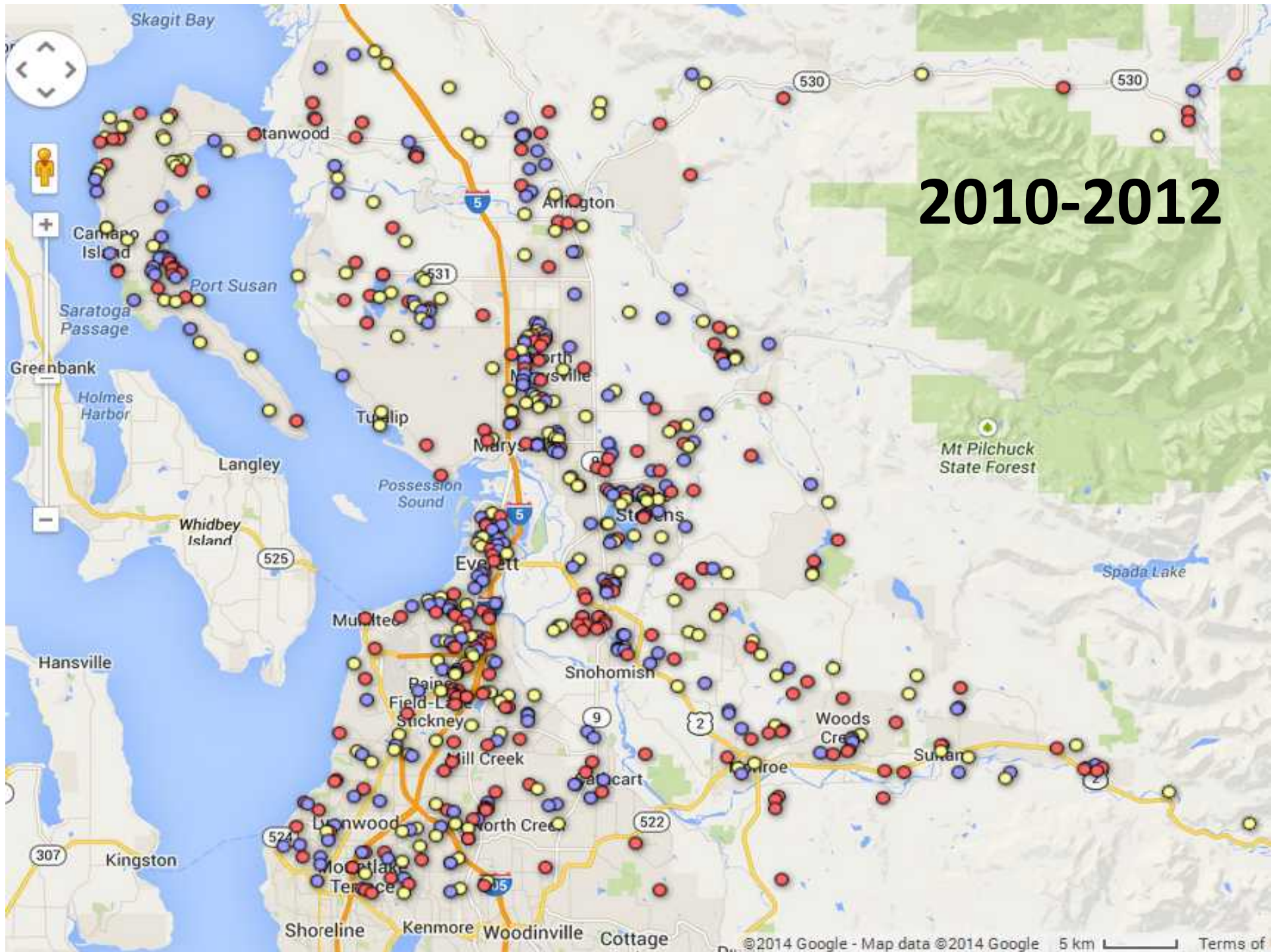




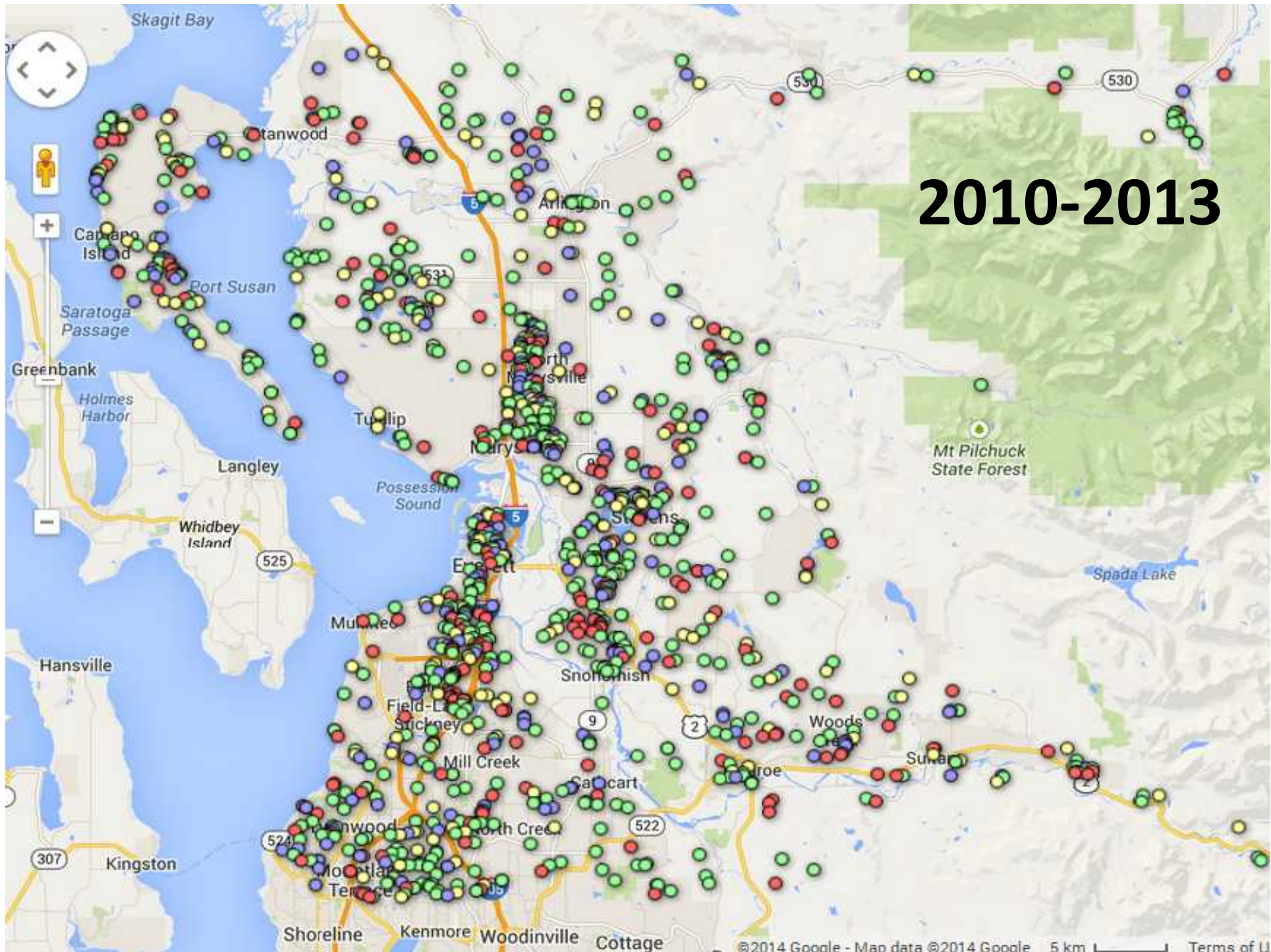
2010



2010-2011

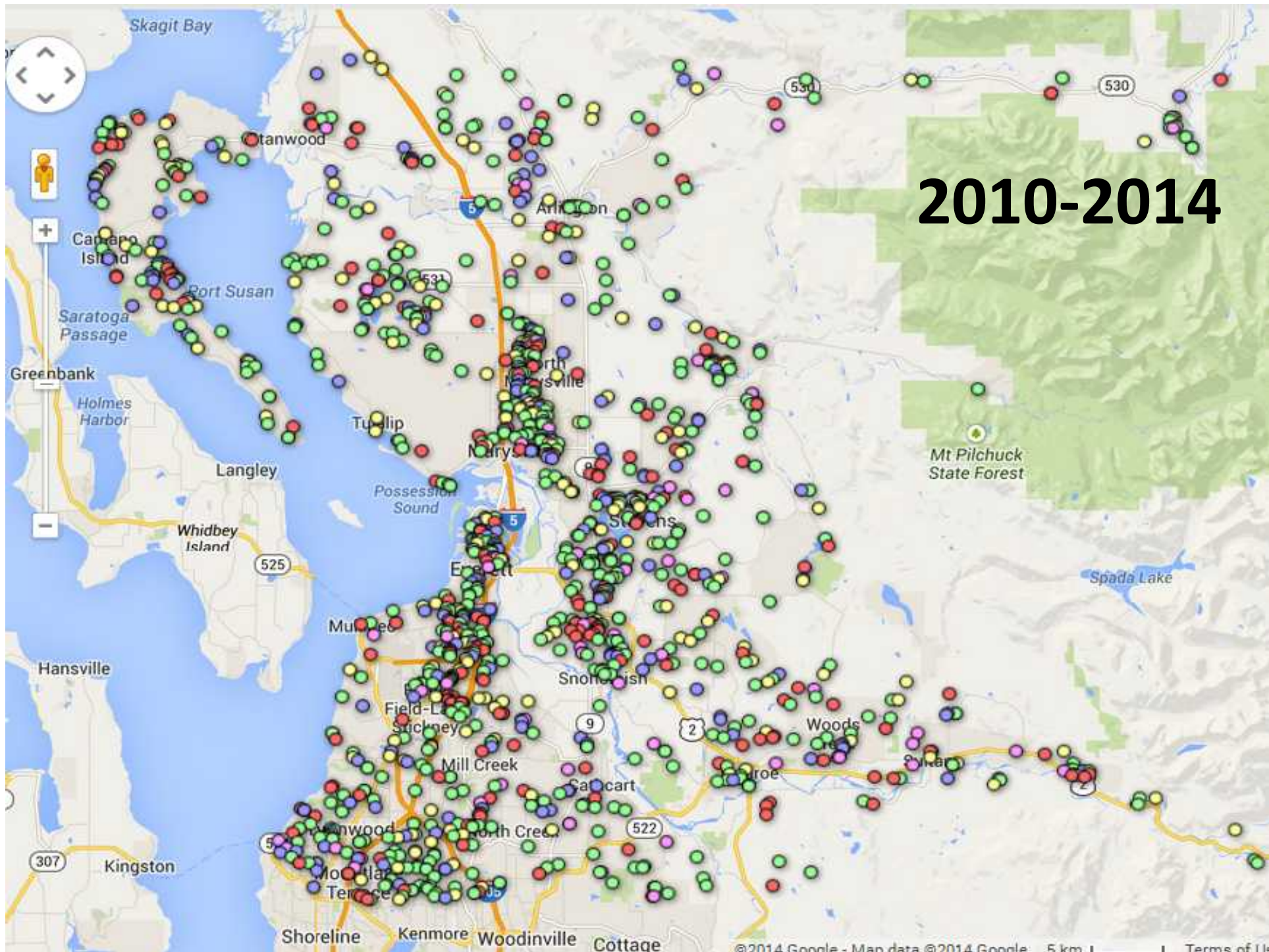


**2010-2012**



**2010-2013**





2010-2014

# Benefits of DHP Technology

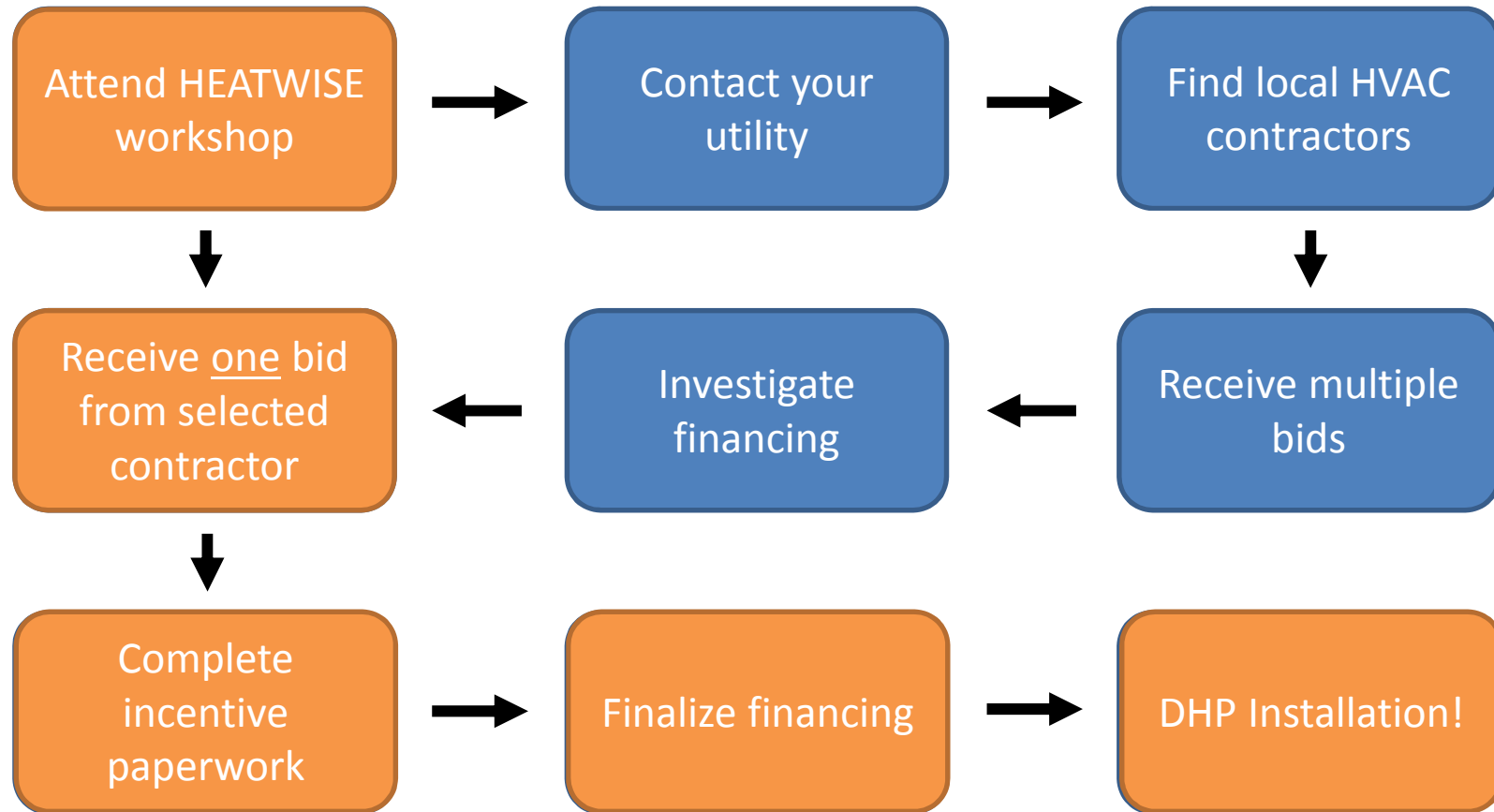
- Heating and cooling in one unit
- Low maintenance and long life
- High efficiency heating and cooling
- Increased comfort
- High customer satisfaction
- Utility incentives available



# About the DHP Pilot Program

- The pilot is based on the Solarize model and is designed to:
  - ✓ Reduce upfront cost
  - ✓ Streamline installation
  - ✓ Invoke action!
- Community-led effort
- Technical support from the experts
- The best deal possible

# The Process



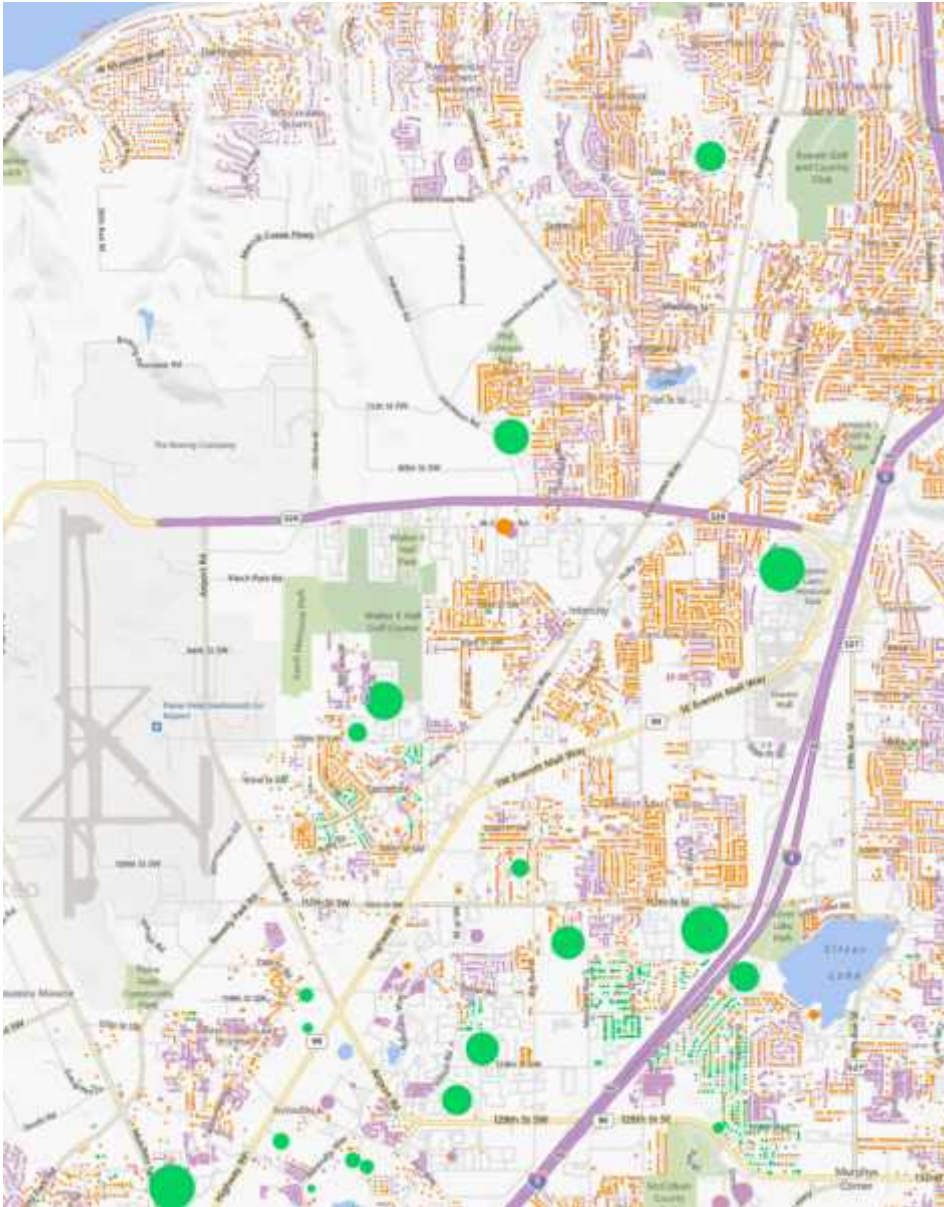
# Incentives and Financing

- Snohomish PUD Rebate = \$1,200 (electric heat only)
- HEATWISE Discount = up to \$550 off regular price
- Estimated Average Energy Savings  $\approx$  \$315/year\*
- Low interest financing available:
  - Snohomish County Energy Smart Loans (Puget Sound Cooperative Credit Union)
  - Wells Fargo or Green Sky – no interest, short term options
  - Umpqua Bank

\*Based on Regional Technical Forum deemed energy savings for DHP installations in single-family homes (3500 kWh annually) at an average cost of \$.09/kWh. Savings can vary widely by home. **Generally, DHPs can save 25-50% in heating costs compared to other electric heating systems.**

# Community Selection

- Community Selection Criteria
  - Socioeconomic diversity
  - Building diversity
  - Volunteer networks
  - Fuel type



## HEATWISE South Everett Heat Source Map By Building Type

- Electric Stick Built
- Electric Manufactured
- Non-Electric

# Volunteer Recruitment & Community Engagement

- Leveraged existing local communication channels
  - Everett Neighborhood Associations
  - Snohomish County Sustainable Stewards
- Contractor Selection committee
- Outreach challenges
  - Lack of volunteer interest for outreach



# Contractor RFP Selection

- Process:
  - Convene Volunteers
  - Release competitive RFP
  - Review responses
  - Select Installer
- Lessons Learned/feedback
- Outcome

# Workshops

- Two workshops completed: 44 registrants
  - Workshop #1:
    - 9 participants/households
    - 3 pending contracts
    - 5 contracts/completed installations to date
  - Workshop #2:
    - 19 participants/households
    - 8 site assessments scheduled to date
    - 2 contracts signed to date

# Next Steps

- Final workshops coming up
  - Workshop #3 on August 14<sup>th</sup>
  - Manufactured home community workshop
  - Webinar on September 10<sup>th</sup>
- Final review/lessons learned
- Replication

# Questions?

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# Upcoming Showcase Webinars

- Technology Performance Exchange (TPEX) – August 27, 2014
- CEA 2045 Concept – September 24, 2014
- Engine Generator Block Heaters – October 15, 2014

Information and registration at [www.e3tnw.org/webinars](http://www.e3tnw.org/webinars)

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