



# Bridging the Gap

**Moving from Planning to Programs**

Jill Steiner, Snohomish Public Utility District  
Lauren Miller Gage, Bonneville Power Administration

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# Background

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- The Northwest Planning and Conservation Council (NWPPC) creates a 20-year regional power plan every five years
- The draft 6<sup>th</sup> Power Plan was issued in early September for public review and comment
- The 5-year action plan calls for aggressive acquisition of conservation
  - ▣ 1200 aMW\* target
  - ▣ Range of 1100-1400 aMW reflects uncertainty
- Also calls for:
  - ▣ Coordinated research, development and demonstration activities
  - ▣ Enhance ability to track and verify achievements, and
  - ▣ Adaptively manage regional efficiency acquisition strategies
  - ▣ Mid-course review of accomplishments and calibration of regional targets

\*1 aMW = 8,760,000 kWh

# BPA and Snohomish PUD

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- **Bonneville Power Administration**
    - Federal agency under the U.S. Department of Energy
    - Markets wholesale electrical power at cost from federal dams, one non-federal nuclear plant and other nonfederal hydroelectric and wind energy generation facilities
    - A long-time leader in energy efficiency, BPA is supportive of ambitious conservation targets
  - **Snohomish Public Utility District No. 1**
    - Second largest publicly owned utility in the Pacific Northwest and the largest wholesale customer of BPA
    - Serves ~290,000 residential customers and 29,000 business customers
    - Plans to meet all load growth with conservation and renewable resources

# Regional Plan v. Utility Targets

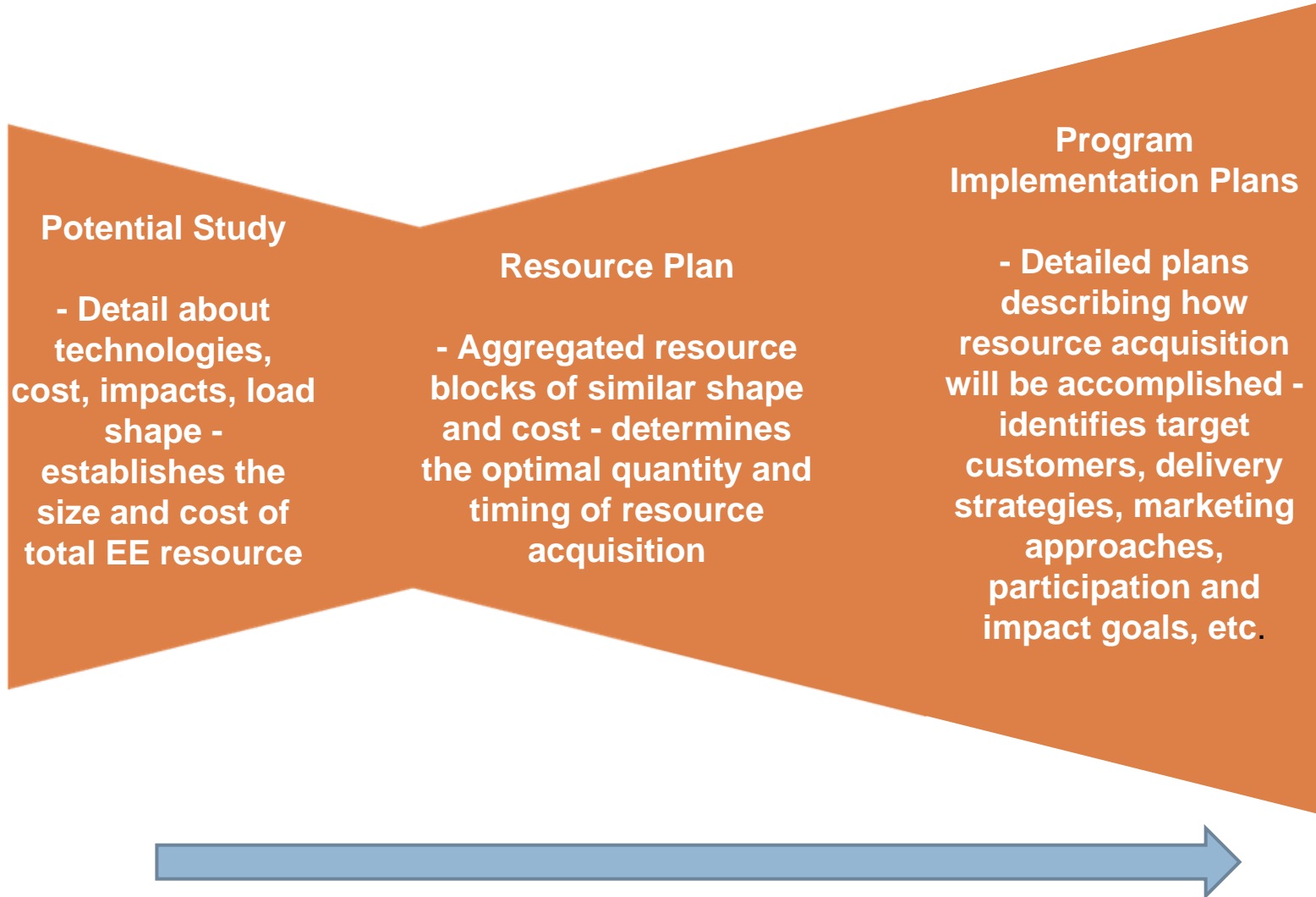
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- BPA ensures the public power share of the regional target is met
- WA utilities can use the Council's "calculator" to determine annual conservation goals to comply with I-937
  - ▣ Graduated renewable portfolio standard
  - ▣ All cost-effective achievable conservation
- Benchmarking standard for IOUs and SBC administrators

# Planning Process Overview


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# Sixth Power Plan Review

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- Conservation Resource Advisory Committee (CRAC)
  - Regional Technical Forum (RTF)
  - Ad hoc group of planners and program staff from public utilities, IOUs, program administrators, NEEA assessed:
    - ▣ Readiness of 144 measure bundles – full, partial, low
    - ▣ Inclusion in NEEA business plan – yes or no
    - ▣ Upstream market efforts required – incentive, education, none
    - ▣ End-user requirements - incentive, education, other
    - ▣ Opportunity for building code or equipment standards – yes or no
    - ▣ Lead and secondary implementation roles – Utilities, NEEA, State, Other

# Dealing with Uncertainty

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- Uncertainty poses different challenges for resource planners and program managers
- To assess full potential and establish aggressive goals, resource planners consider technologies or practices that are available or are expected to become available over the planning horizon
- Program managers that work toward annual or multi-year goals see need to rely on technologies or program strategies with more predictable results
- Addressing uncertainty upfront allows inclusion of emerging technologies in the supply curves and directs the programmatic actions to maximize conservation resources

# Types of Uncertainty

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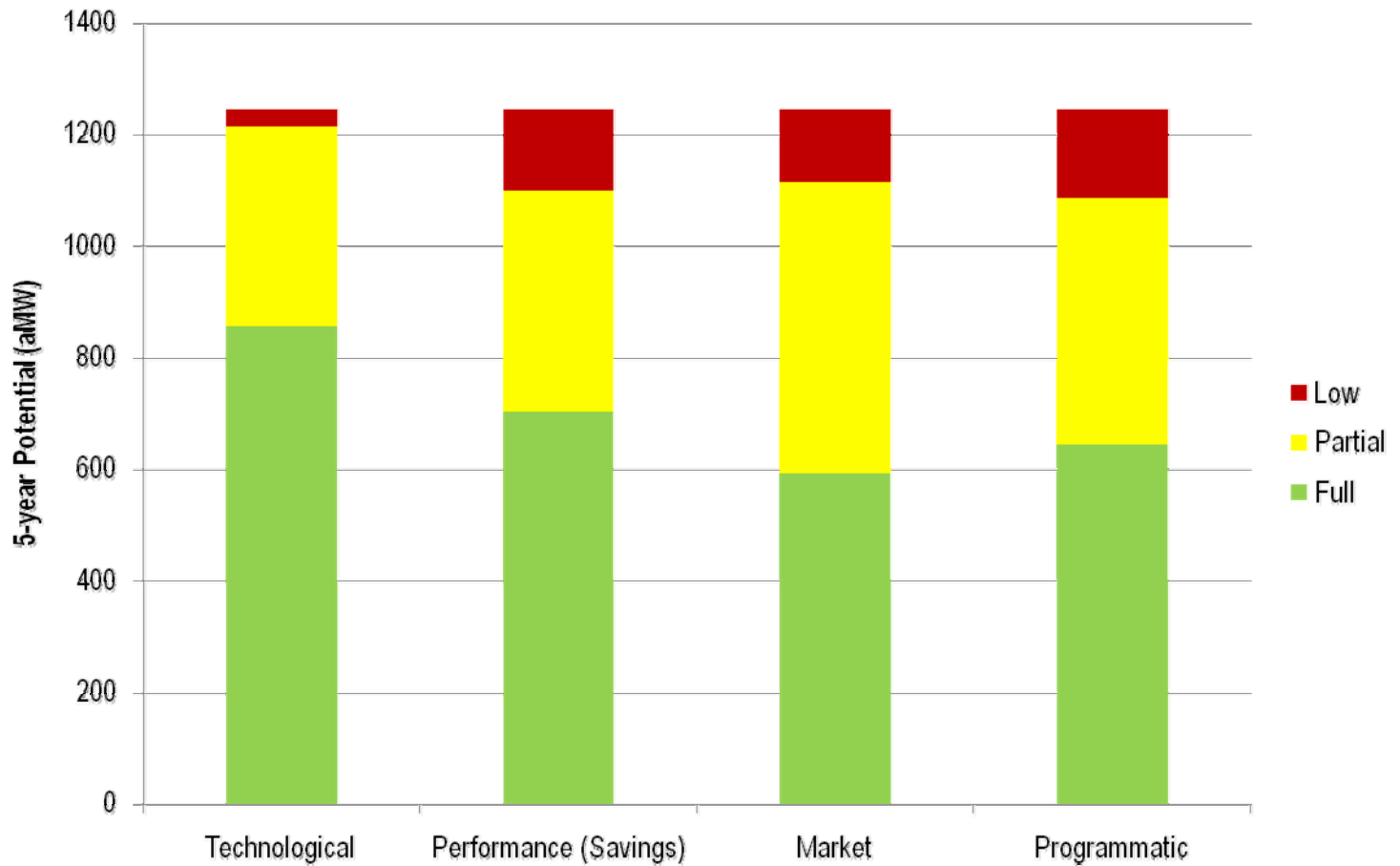


- **Technological** - *Is the technology proven, available, supported by the local infrastructure?*
- **Performance** - *How robust are savings assessments? Are there deemed savings or savings calculation methodologies?*
- **Market** - *Do all elements of the supply channel exist or can they be scaled easily?*
- **Programmatic** – *Is there successful program or pilot experience to build on? Is there clear knowledge of how best to encourage adoption of efficient technologies or practices?*



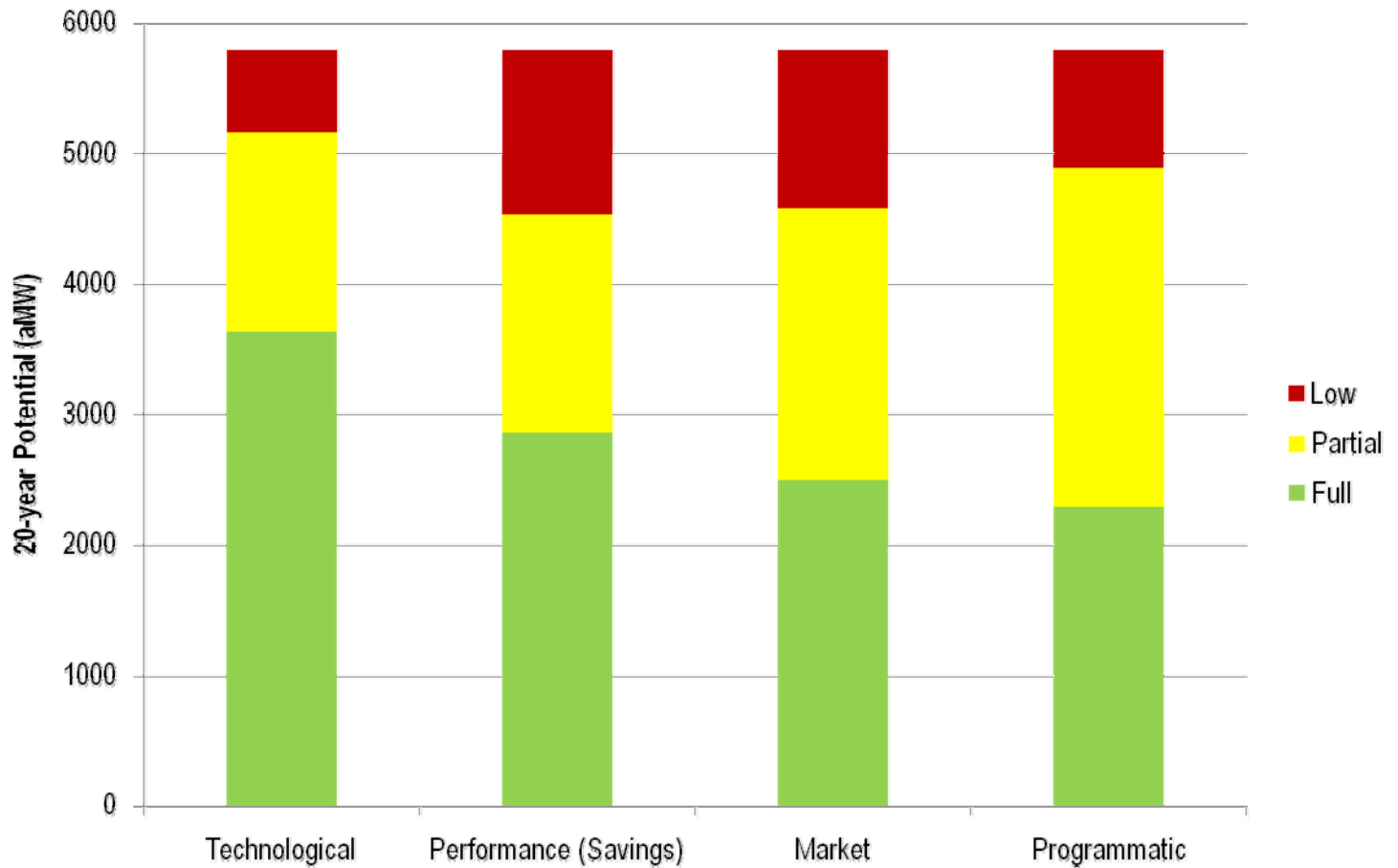
# Result of Analysis – 5 years

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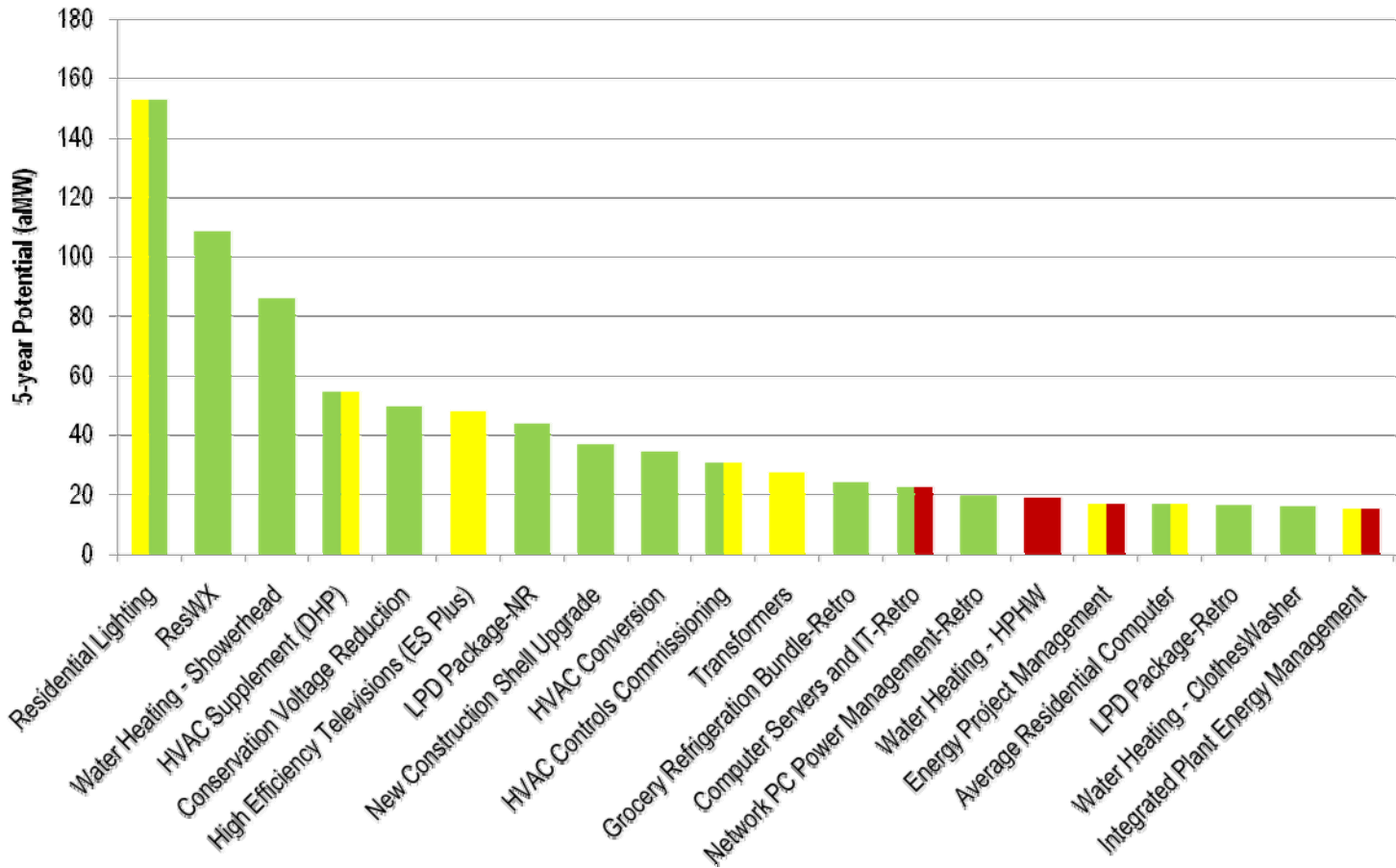
# Results of Analysis – 20 years

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# Technology Readiness/Performance

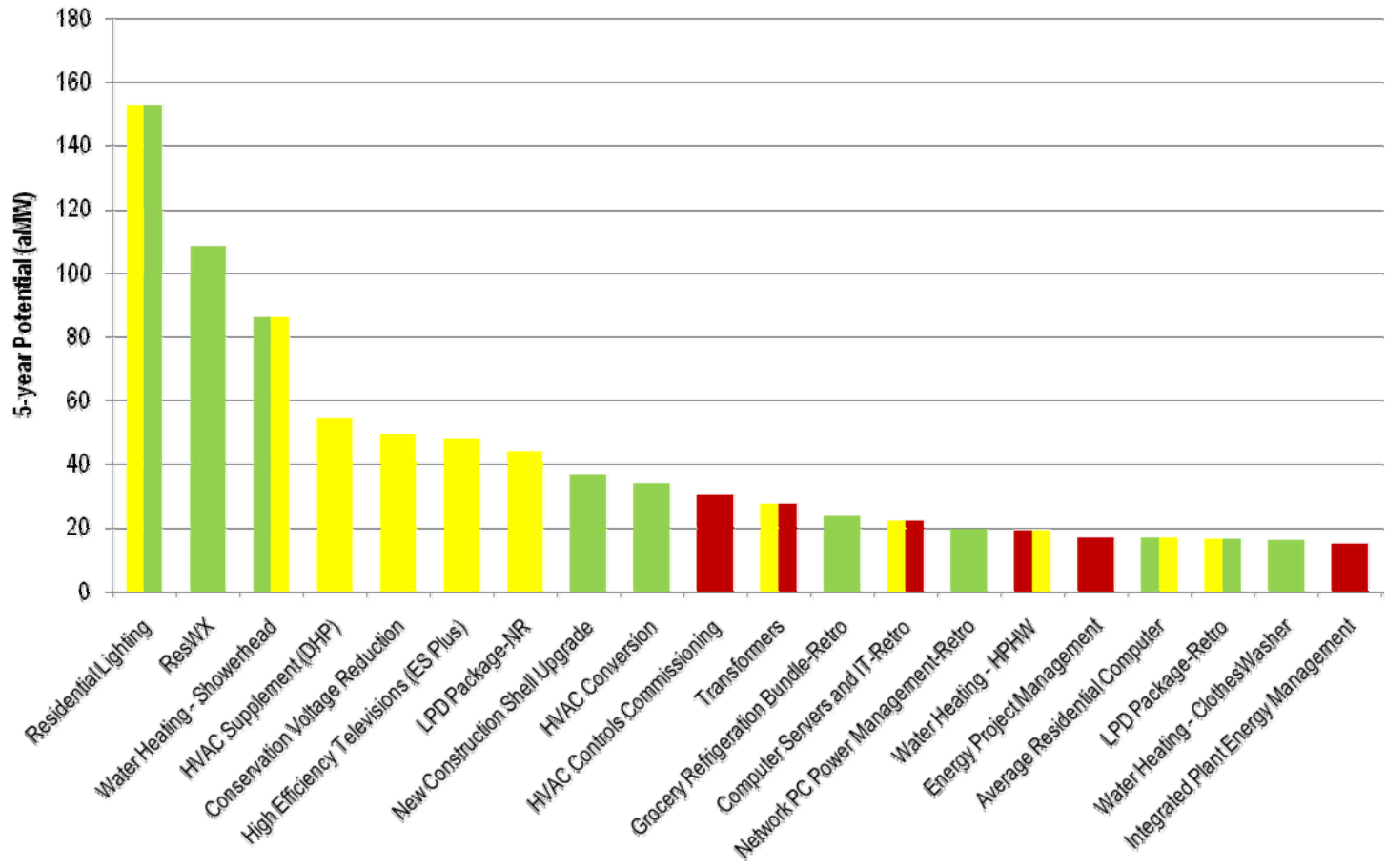
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Top 20 measures/measure bundles – 67% of 5 year potential

# Market/Programmatic Readiness

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Top 20 measures/measure bundles – 67% of 5 year potential

# Top 20 Measures – 20-year potential



Measure/Measure Bundle	aMW	Technological	Performance (Savings)	Market	Programmatic
High Efficiency Televisions (ES Plus)	511	Partial	Partial	Partial	Partial
Water Heating - HPHW	500	Low	Low	Low	Partial
HVAC Conversion	354	Full	Full	Full	Full
ResWX	324	Full	Full	Full	Full
LPD Package-NR	290	Full	Full	Partial	Partial
Shell Upgrade	184	Full	Full	Full	Full
Average Residential Computer	178	Full	Partial	Full	Partial
Conservation Voltage Reduction	164	Full	Full	Partial	Partial
HVAC Supplement (DHP)	162	Full	Partial	Partial	Partial
Residential Lighting	152	Partial	Partial	Partial	Full
HVAC Upgrade	131	Full	Full	Full	Full
HVAC Controls Commissioning	121	Full	Partial	Low	Low
Energy Project Management	112	Partial	Low	Low	Low
Water Heating - ClothesWasher	110	Full	Full	Full	Full
Average Commercial Computer	105	Full	Partial	Full	Partial
Integrated Plant Energy Management	98	Partial	Low	Low	Low
Grocery Refrigeration Bundle-Retro	94	Full	Full	Full	Full
EOL Voltage Control	93	Partial	Low	Low	Low
Average Set Top Box	91	Low	Low	Low	Partial
Computer Servers and IT-Retro	88	Full	Low	Partial	Low

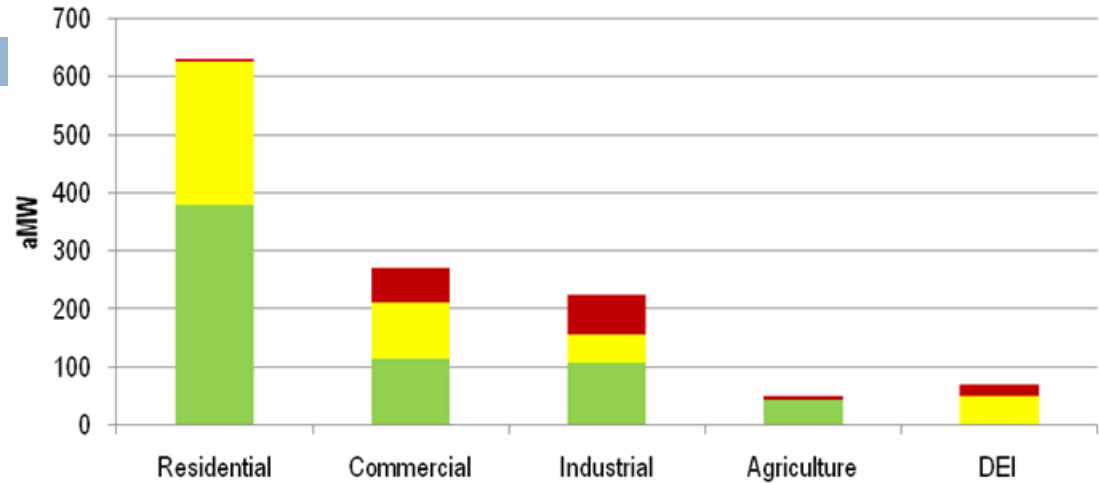


# Program Readiness by Sector

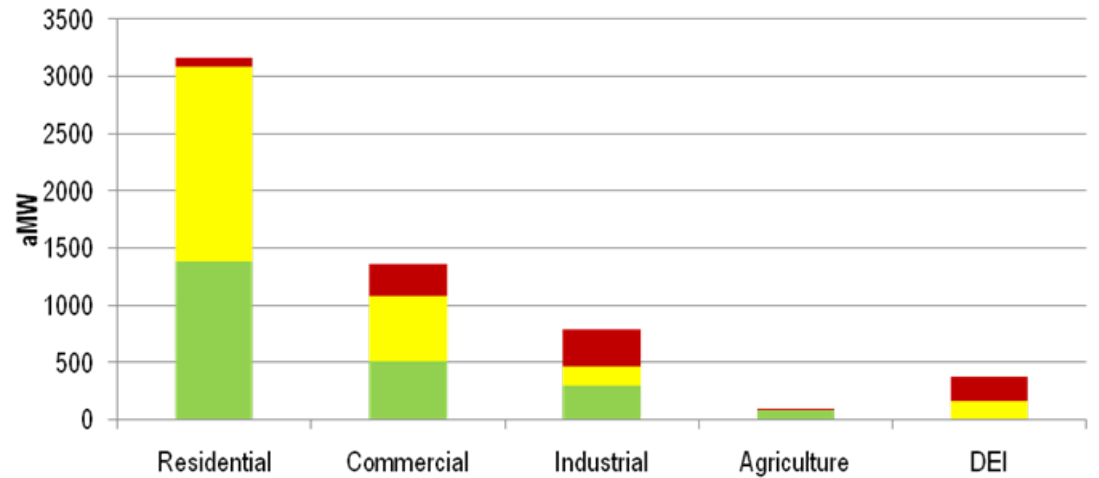
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5-year  
Potential



20-year  
Potential



# Implementation Strategies

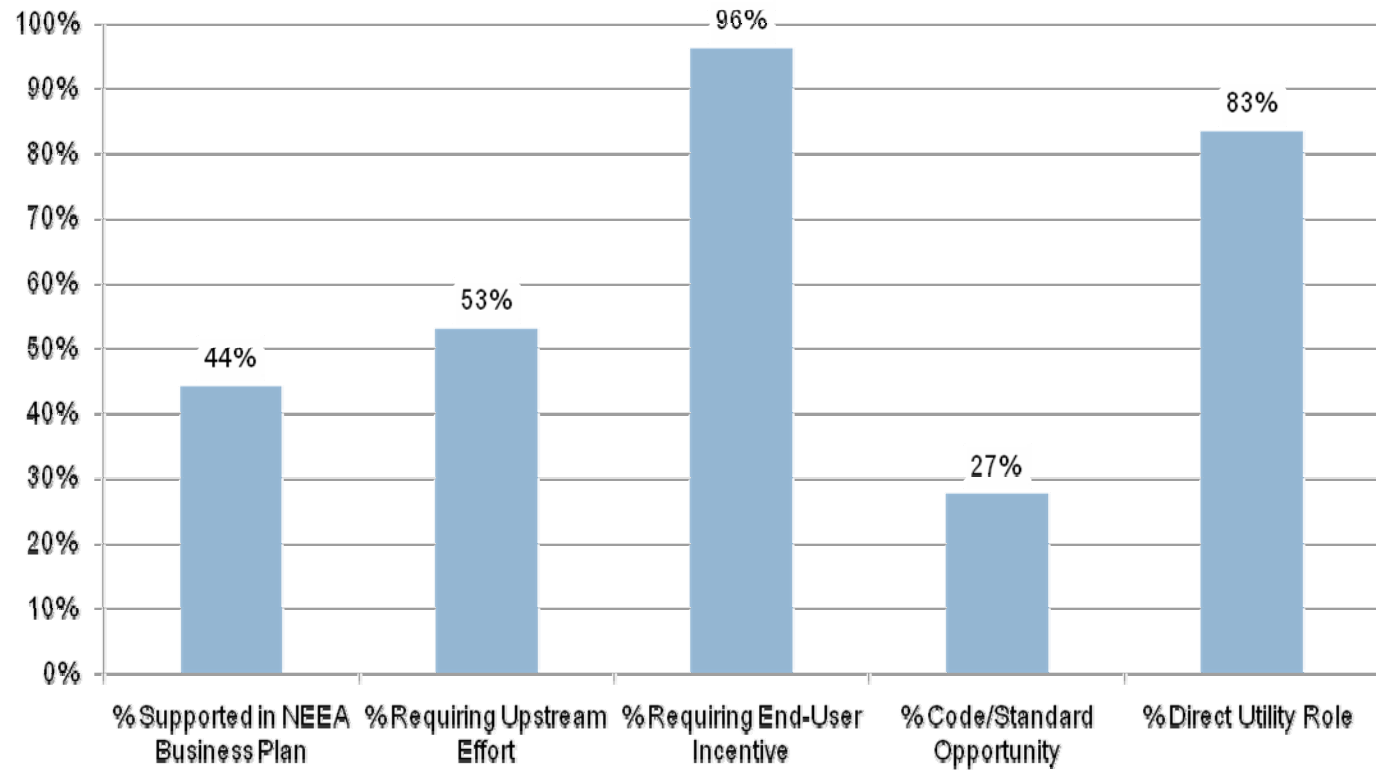
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- Ad hoc group assessed potential implementation paths
  - ▣ Inclusion in NEEA business plan
  - ▣ Upstream market efforts required
  - ▣ End-user requirements
  - ▣ Opportunity for building code or equipment standards
  - ▣ Lead and secondary implementation roles
- Work is not complete, requires much more effort with NEEA staff and broader regional group
- Primary finding from effort – there are not discrete “bins” of utility, NEEA, code/standard measures – for example
  - ▣ Heat Pump Hot Water Heaters: Will require upstream efforts with manufacturers and distributors; education of trade allies; utility incentives and work on Federal Standards

# Implementation Roles

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It takes all of us together to make it happen!

# Contacts

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- Jill Steiner  
Planning and Evaluation Manager  
Snohomish PUD  
[jesteiner@snopud.com](mailto:jesteiner@snopud.com)  
425.783.1845
- Lauren Gage  
Evaluation Lead  
Bonneville Power Administration  
[lsmgage@bpa.gov](mailto:lsmgage@bpa.gov)  
503.230.4961