

From Efficient to Smart Buildings

SHAPING ENERGY EFFICIENCY FOR ITS NEXT LIFE



Who are we?

▶ NEEC

- ▶ Non-profit Business Association
- ▶ EE business membership
- ▶ 20+ years
- ▶ Advocating for energy efficiency

▶ SBCEP

- ▶ Non-profit charitable Organization
- ▶ Partnered with Industry
- ▶ 5 years
- ▶ Accelerating smart buildings adoption through education and demonstration

SERVICES OFFERED

- Seattle Energy Benchmarking
- Building Tune-Ups Services
- Building Automation Systems Products & Services
- Carbon/Net Zero Energy Planning
- Code Compliance
- Commercial/industrial HVAC products/services
- Commercial/industrial lighting products/services
- Computer-Aided Design and Detailing
- Controls contracting/service
- Design and construction
- Education/information
- Electrical contracting/service
- Energy audit
- Energy benchmarking
- Energy planning/consulting
- ENERGY STAR® certification services
- ENERGY STAR® certification services
- Engineering
- Evaluation services
- Facility management services
- Financing
- HVAC and Plumbing Systems Products/Services
- HVAC/controls optimization
- Industrial energy management products/services
- Insulation

BUILDING TYPES SERVED

- Agricultural
- Commercial
- Education
- Government & Military
- Healthcare
- Industrial
- Multifamily
- Residential
- Retail

BUSINESS TYPES

- Bank/Credit Union
- Construction
- Consulting
- Design
- Education
- Energy service company (ESCO)
- Engineering
- General contracting
- Not for profit
- Product sales
- Professional Services





- ▶ Train the workforce for the future
 - ▶ Building Operator Certification (BOC)
 - ▶ Website Resources
 - ▶ Technical Webinars
 - ▶ Training Videos
- ▶ Demonstrate smart technologies and practices
 - ▶ Tool Lending Library
 - ▶ Building Tours
 - ▶ Curation of SBC
- ▶ Convene the industry through hosting and participating in events
 - ▶ Gathering Space
 - ▶ Why Smart Buildings
 - ▶ Smart Buildings Exchange

Transformation

The world has changed. I feel it in the water. I feel it in the Earth. I smell it in the air. Much that once was is lost.

The Fellowship of the Ring: Part 1

What is changing

Old World: Require all cost-effective EE to avoid long term power plan investments

WA State Energy Strategy forecasts load growth as:

- 13-20% above 2020 levels by 2030
- 92% by 2050

Measure level cost effectiveness is declining due to changes to avoided costs and baselines

Regional planning model sees less opportunity for energy efficiency as supply-side renewable costs decline

Yet, state forecasts demonstrate a need for more EE with substantial projected load growth

Building EUIs have largely not declined

New approaches offer opportunity, but their value proposition doesn't fit into the existing planning framework

Grid is decentralizing with more customer sited renewables, grid interactive equipment, EVs

What's next?

Building performance standards

Grid-interactive efficient buildings

CA Market Access

- ▶ Whole building, outcome-based efficiency (meter-based, P4P, EUI)
- ▶ Efficiency is measure-agnostic, whole building, valued at that time and location
- ▶ End users can benefit from their own efficiency (avoiding penalties, earning performance incentives)
- ▶ End users can plug into and out of the grid, leveraging onsite renewables, batteries
- ▶ Efficiency market competition e.g. CA



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