

Total System Benefit (TSB): CaITF Overview

Mar 23, 2023



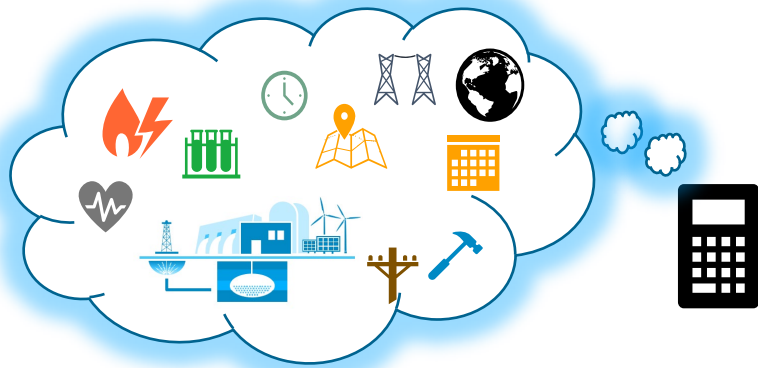


Agenda

- **Why Total System Benefit (TSB) | 5 min**
- **High-level explanation of TSB | 10 min**
- **Q&A | 15 min**

Why Total System Benefit (TSB)?

Total System Benefit Goals: Capturing EE's Full Value



- Now: goals in 1st year energy and demand savings
- Starting in 2024: goals in Total System Benefit (TSB)
 - ✓ Includes value of lifecycle energy savings
 - ✓ Present value (PV) calculation (“today” dollars)
 - ✓ Better captures value of EE to customers, electric and gas systems, & CA’s climate goals
 - ✓ Helps us pursue electrification and deep retrofits

What's Under the Hood

Avoided cost of...

- ✓ Energy
- ✓ Ancillary services
- ✓ Generation capacity
- ✓ Transmission & Distribution
- ✓ GHG emissions

Non-energy-specific benefits

- ✓ Avoided gas infrastructure cost
- ✓ Low-GWP refrigerant benefits

What about...

- ✓ Time
- ✓ Location
- ✓ Duration



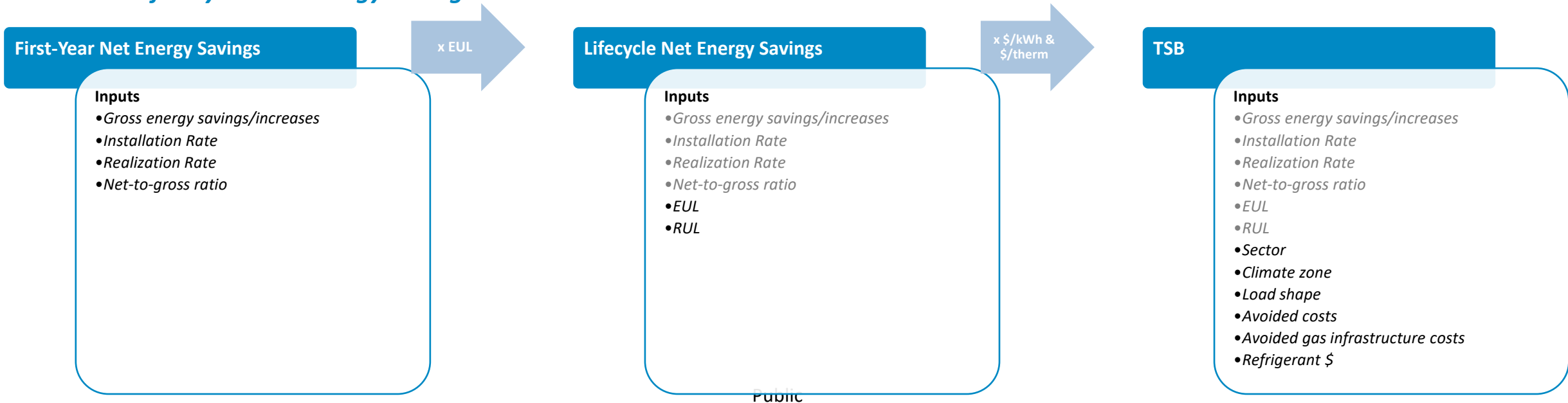
Different high-level explanations of TSB

- **2022-2032 goals decision (D.21-09-037):** TSB is the sum of the benefit that a measure provides to the electric and natural gas systems
- **TSB and segmentation decision (D.21-05-031):** is an expression, in dollar terms, of the lifecycle energy, capacity, and GHG benefits, expressed on an annual basis
- **Rob’s explanation:** TSB is the dollar value of EE measures to all customers, including benefits from energy savings as well as low-GWP refrigerants and costs from increases in energy use and refrigerant use.

• **CET equation:**

$$TSB = \text{Electric Benefits} + \text{Gas Benefits} + \text{Refrigerant Benefit} + \text{Avoided Gas Infrastructure Costs} - \text{Increased Supply Costs} - \text{Refrigerant Costs}$$

• **Relative to first-year net energy savings:**



Q&A

Resources

- [Intro to TSB course](#)
- [TSB Technical Guidance Document v1.2](#)
- [D.21-05-031 Decision introducing TSB](#)
- [D.21-09-037 EE goals decision for 2022 and beyond](#)

