

<b>DOCKETED</b>	
<b>Docket Number:</b>	23-SB-100
<b>Project Title:</b>	SB 100 Joint Agency Report
<b>TN #:</b>	255709
<b>Document Title:</b>	Presentation - Non-Energy Impacts Social Costs and Benefits
<b>Description:</b>	CPUC Presentation for 2025 Senate Bill 100 Report Non-Energy Benefits Workshop April 16, 2024
<b>Filer:</b>	Xieng Saephan
<b>Organization:</b>	California Energy Commission
<b>Submitter Role:</b>	Commission Staff
<b>Submission Date:</b>	4/15/2024 3:27:30 PM
<b>Docketed Date:</b>	4/15/2024

# Non-Energy Impacts: Social Costs and Benefits

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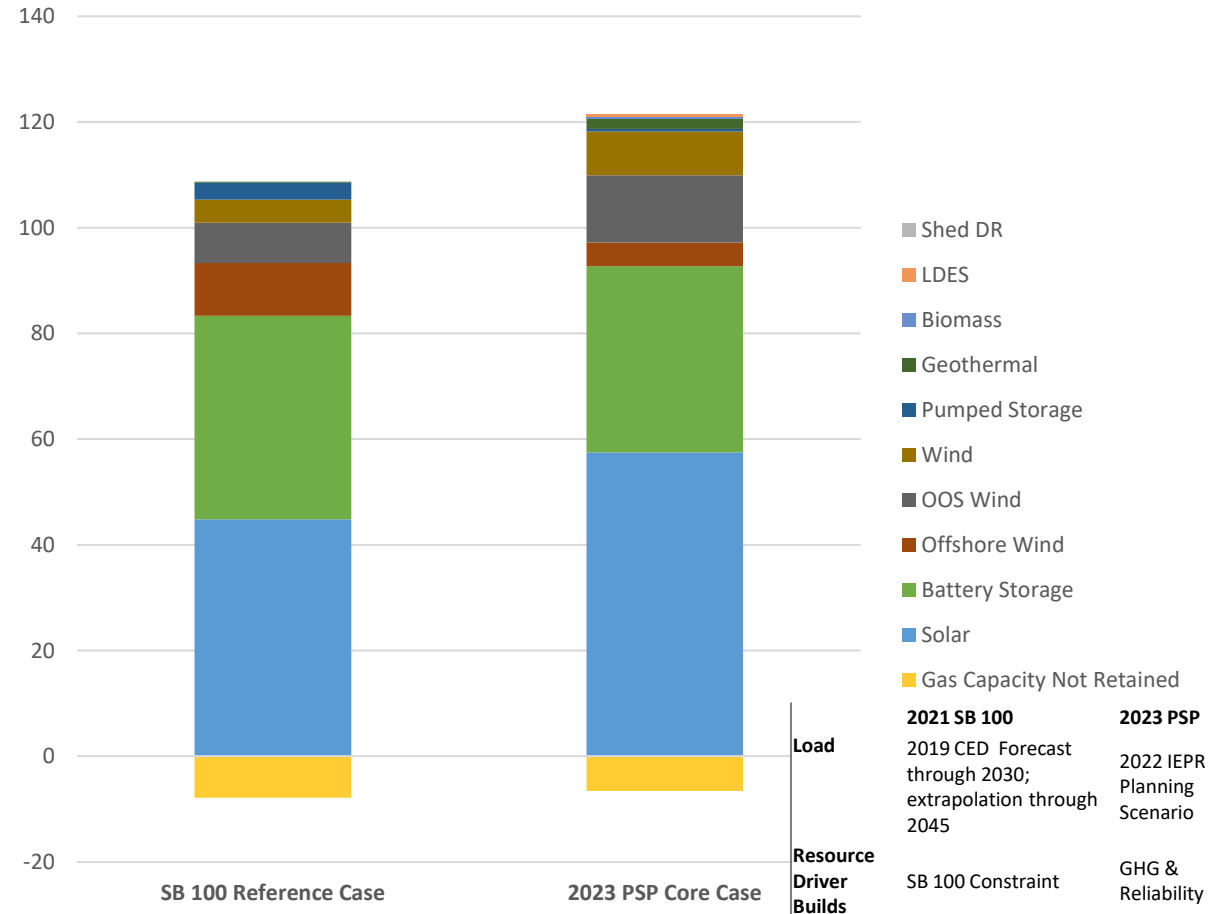
# Existing State Programs Such As CPUC's Integrated Resource Planning (IRP) Process Are Providing Societal Benefits

- IRP procurement decisions have ordered **“record-levels” of new clean energy procurement: 18,800 MW**
- **IRP portfolios transmitted to CAISO TPP** are driving transmission development to reach significant levels of electrification to reach CARB Scoping Plan and ZEV targets

Base Portfolio	TPP Cycle	Tx Projects
40 GW	2021-22	45
70 GW	2022-23	Results Pending

- Current PSP portfolio: **Use of gas plants** in the CAISO-system
  - Decreases 71% by 2035 (from 2024, the first modeled year)
  - Decreases 90% by 2039 (from 2024 modeled usage)
- **PU Code 454.52** requires CPUC-jurisdictional LSEs IRPs to demonstrate how they **minimize localized air pollutants, including in DACs**. CPUC has rejected LSEs plans for non-compliance and required resubmittal.

2045 Selected Capacity (GW) SB 100 Reference Case vs. 2023 PSP Proposed Portfolio



# Societal Cost Test (SCT) and Resource Planning

- D.19-05-019 authorized a Societal Cost Test (SCT) for testing in the IRP proceeding and directed Energy Division staff to, in 2021, evaluate results of the SCT testing and recommend the best use of the SCT in future decision-making. Key results:
  - Using a core SCT would not lead to any increases in renewable resource build or DER procurement in RESOLVE or any increases to the cost effectiveness for EE or DR programs - the societal cost adders are a similar magnitude to the costs we are already paying to meet our GHG abatement targets.
  - Results are sensitive to and do change with a higher social cost of carbon (SCC) value. At a higher SCC value, the RESOLVE model increases procurement of the least cost resources, which are grid-scale solar and grid-scale storage.
  - The DERs that would see the most significant increases to cost effectiveness using an SCT with high SCC are building electrification measures, which could lead to significant increases in electric rates.

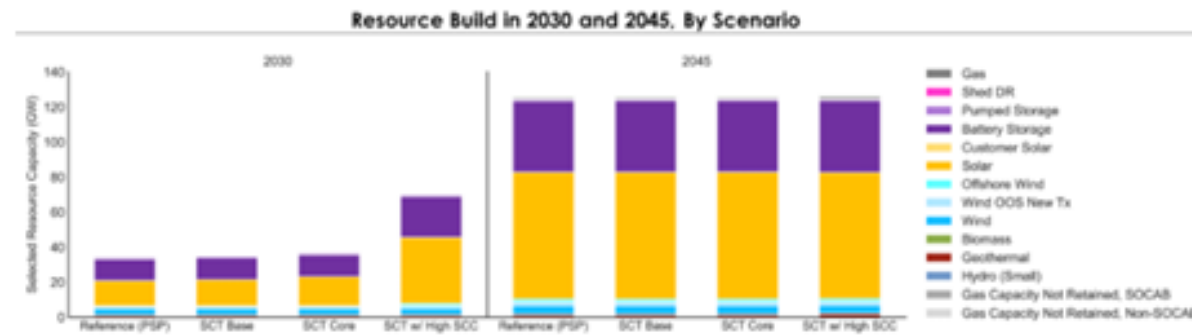
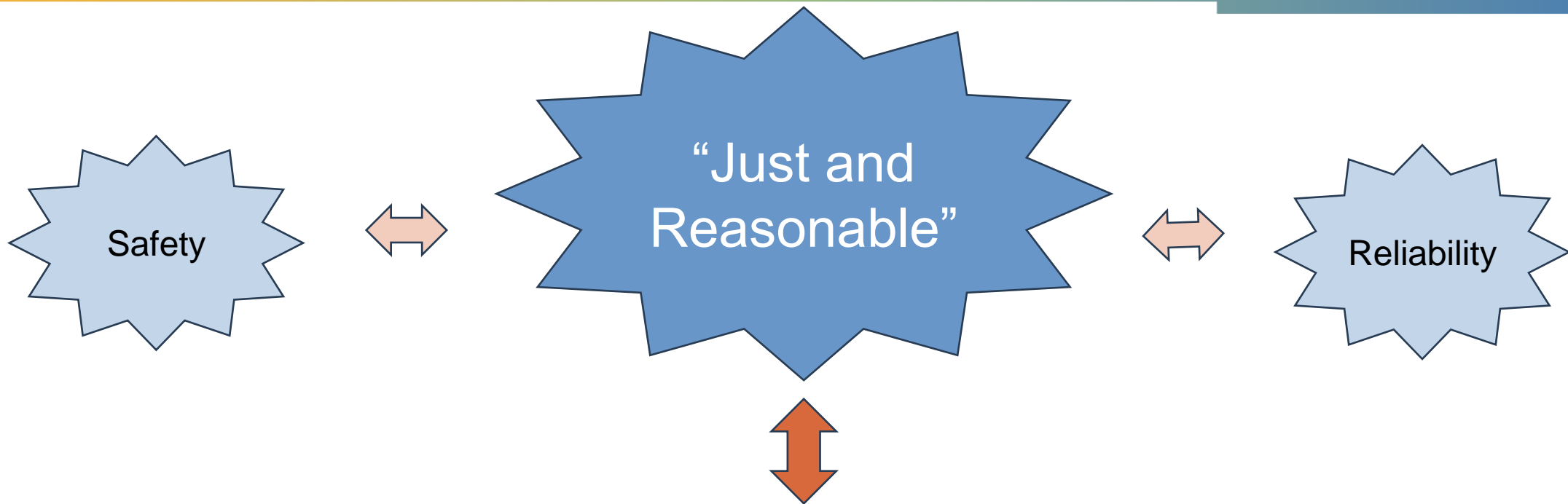


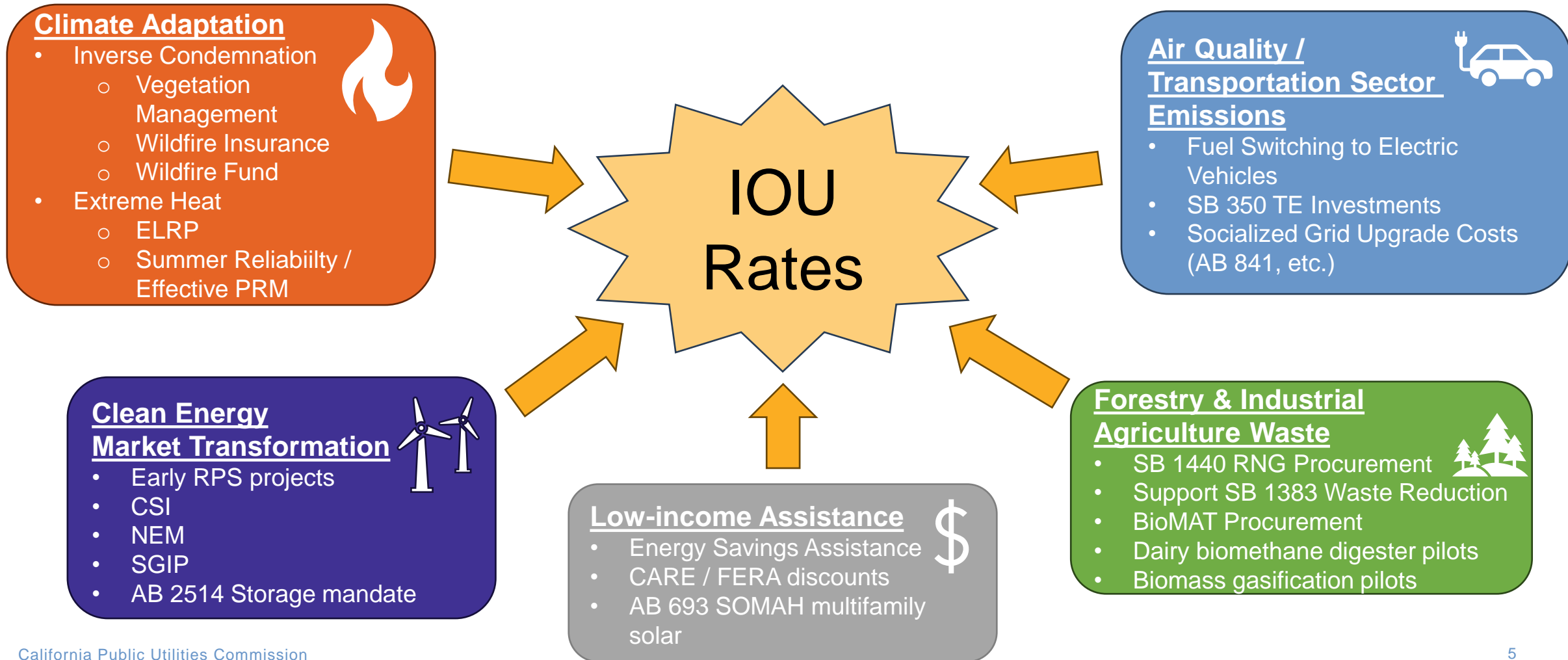
Figure 25. RESOLVE-selected new resource buildout relative to 2021 in 2030 and 2045 for the Reference and SCT scenarios.



## Other Statutory Mandates

SB 100, RPS, IRP	Low-income EE	Storage	Transportation Electrification
Energy Resource Cost-Effectiveness (701.1(c))	NEM / NBT	Microgrids	Building Electrification
Energy Efficiency	SOMAH	Biomass Procurement	San Joaquin Valley (783.5(c))
Demand Response	SGIP	Economic Development (740.4(b))	...+ Many Others

# Many societal benefits gained through ratepayer-funded programs, but they contribute to electricity rates

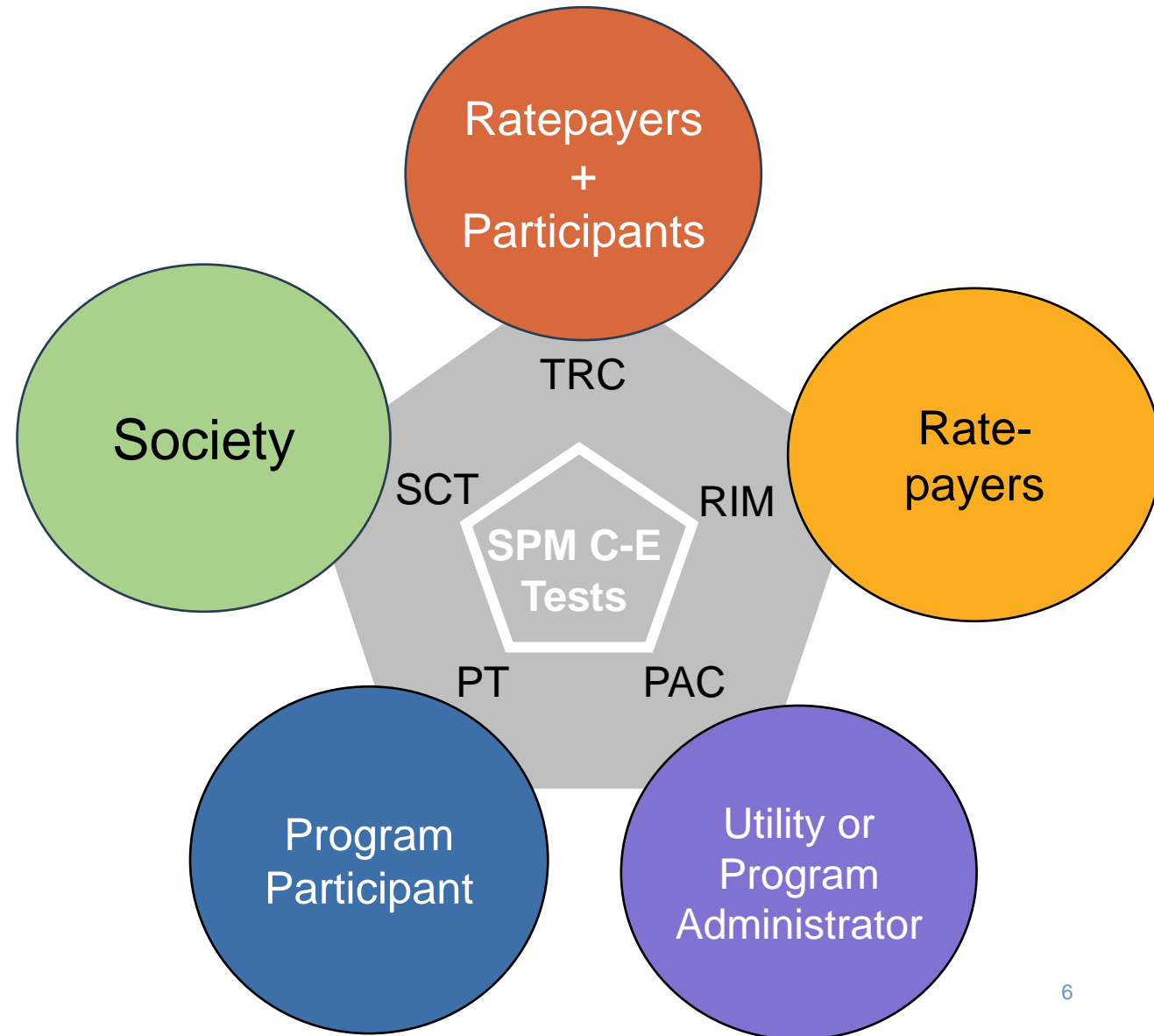


# Ratepayer Equity Principles

Who Benefits Pays

Cost Allocation Follows Cost Causation

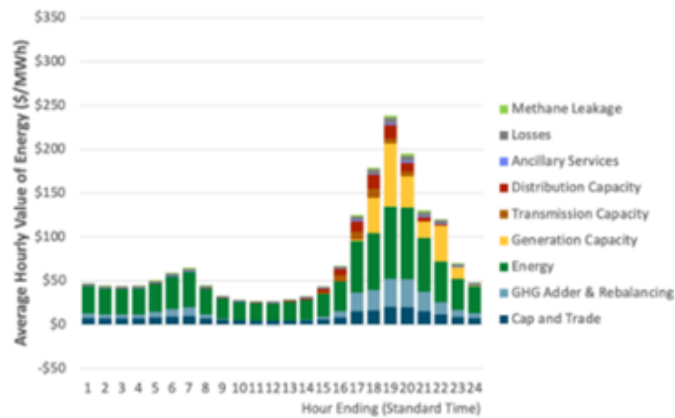
# Cost-Benefit Perspectives



# Societal Cost Test (SCT) Next Steps

- In February 2023, a ruling was issued requesting party comment on following questions (among others):
  - How should the SCT be adopted and, if adopted, how should it be implemented?
  - If implemented, what should the values be for:
    - Discount Rates
    - Air Quality Adder
    - Social Cost of Carbon
    - Methane Leakage

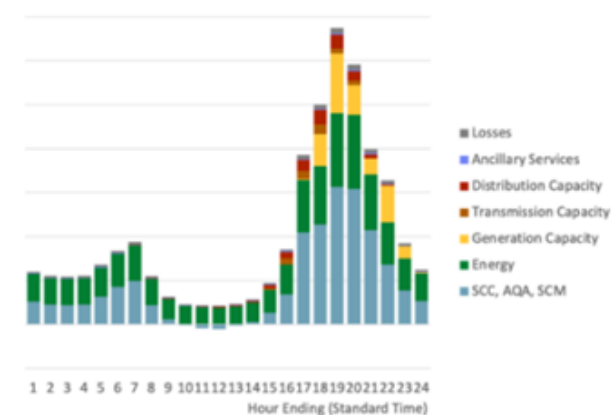
2021 ACC Hourly Average Avoided Costs



ACC Avoided Costs: SCT Core



ACC Avoided Costs: SCT High SCC





**Thank you!**