DOCKETED

Docket Number:	23-SB-100
Project Title:	SB 100 Joint Agency Report
TN #:	255714
Document Title:	Presentation - SB 100 NEBs Workshop
Description:	CBD Presentation for 2025 Senate Bill 100 Report Non-Energy Benefits Workshop April 16, 2024
Filer:	Xieng Saephan
Organization:	California Energy Commission
Submitter Role:	Commission Staff
Submission Date:	4/15/2024 4:01:49 PM
Docketed Date:	4/15/2024

SB 100 NEBs Workshop

Center for Biological Diversity

April 16, 2024

24-OIIP-03 Informational Proceeding on Non-Energy Benefits and Social Costs
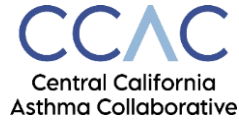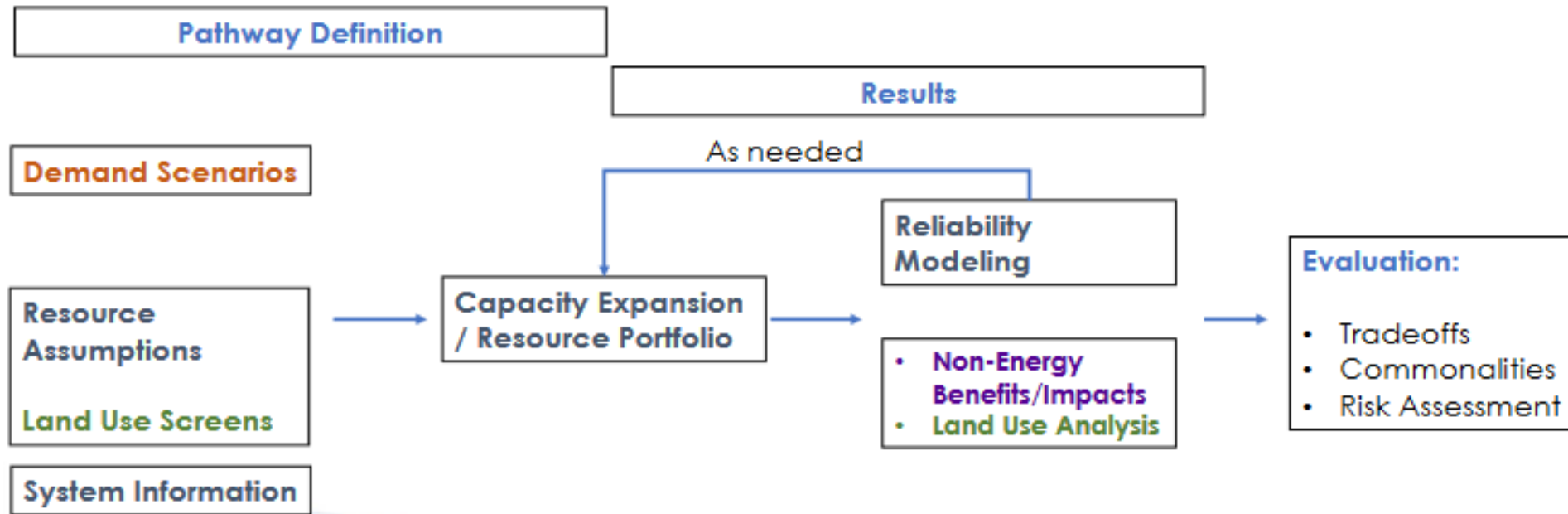
Statutory Authority to Consider NEBs in Decision-Making

- **Cal. Pub. Res. Code sec. 25000.1**
  - "resource planning and investment **shall** . . . minimize costs to society . . . improve environment . . . cost effectiveness . . . **shall** include a value for any costs and benefits to the environment."

- **SB 350**
  - Low-Income Barriers Study Part A:
    - "Establish common definitions of non-energy benefits, develop standards to measure them, and attempt to determine consistent values for use in *all energy programs*"

  - DAC Advisory Group recommendations:
    - e.g. "implement a cost-effectiveness test that can adequately consider NEBs."

- **SB 100**
  - "**full consideration** . . . economic and environmental costs and benefits"

We do not accept tradeoffs.

- Current SB 100 proposal:

Pathway Analysis

Pathway Definition

Results

As needed

Demand Scenarios

Reliability Modeling

Resource Assumptions

Land Use Screens

System Information

Capacity Expansion / Resource Portfolio

- Non-Energy Benefits/Impacts
- Land Use Analysis

Evaluation:
- Tradeoffs
- Commonalities
- Risk Assessment

Why status quo doesn't work

Harms

- "Since at least 2010, biomethane production associated with dairies and concentrated animal feeding operations ("CAFOs") has led to **thousands of water quality violations in DACs**."

- In the San Joaquin Valley, four out of five active biomass plants and four out of five idle biomass plants are **located in DACs** – each with **repeated air quality violations**.

    - IPCC: biofuels can have "adverse socio-economic and environmental impacts, including on biodiversity, food and water security, local livelihoods, and rights of Indigenous Peoples."

Benefits

- Regional Energy Network programs collectively contribute to "4,000 gigawatt-hours and 750 megawatts of electricity savings *over the next two years*, reducing the need for at least two large power plants."
    - Total Resource Cost Test score: **0.2**
    - Contrast: biofuel combustion with a large internal combustion engine scores at **8.31**
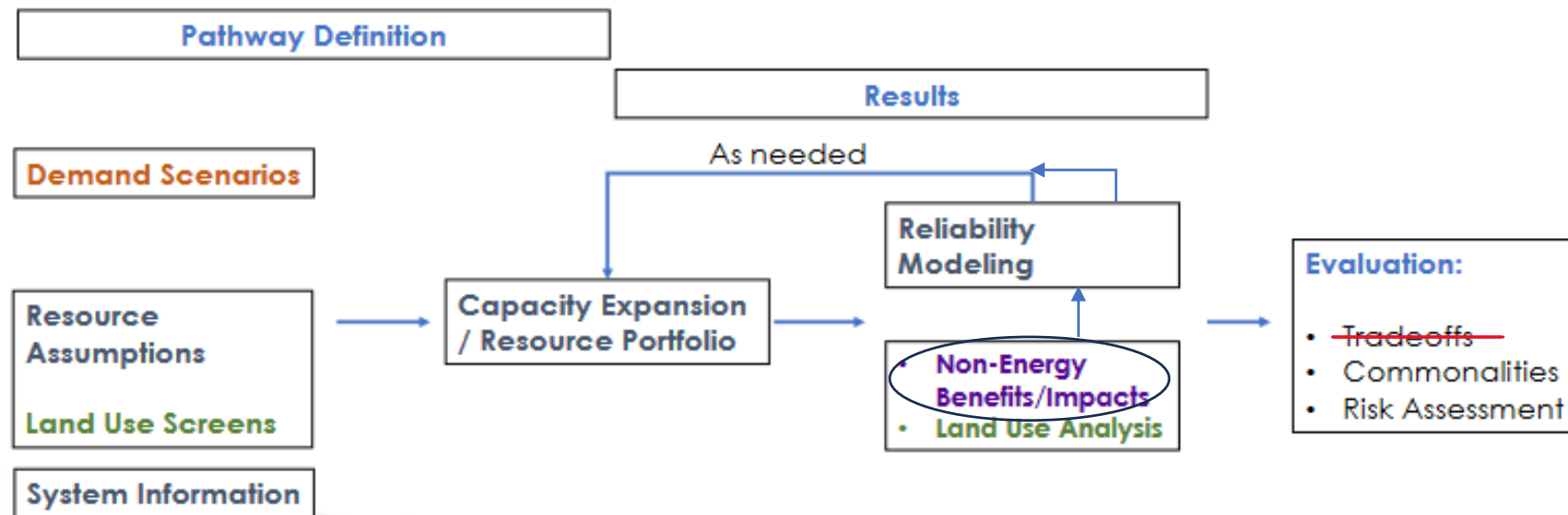
Alternative Methodology:

Pathway Analysis
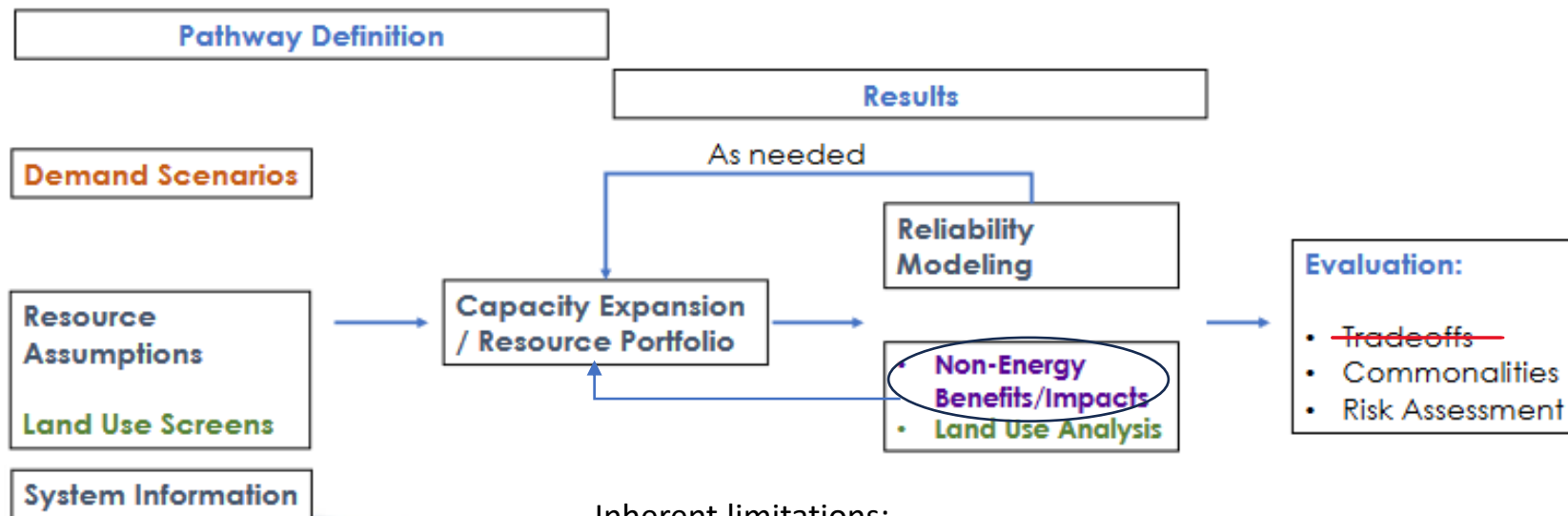
Inherent limitations:

- "As is the case generally for cost benefit consideration of renewable energy, there is cause for serious concern that **costs are systematically overvalued** while **benefits are systematically discounted**

- **No standard value** for human/wildlife

- e.g. CPUC Societal Cost Test

Another Alternative Methodology:

Pathway Analysis

Pathway Definition

Results

As needed

Demand Scenarios

Reliability Modeling

Resource Assumptions

Land Use Screens

Capacity Expansion / Resource Portfolio

Non-Energy Benefits/Impacts
- Land Use Analysis

System Information

Evaluation:
- ~~Tradeoffs~~
- Commonalities
- Risk Assessment

e.g. **Resiliency**: maintain "equitable access to essential services" or **Water Quantity** (just like GHG limit)
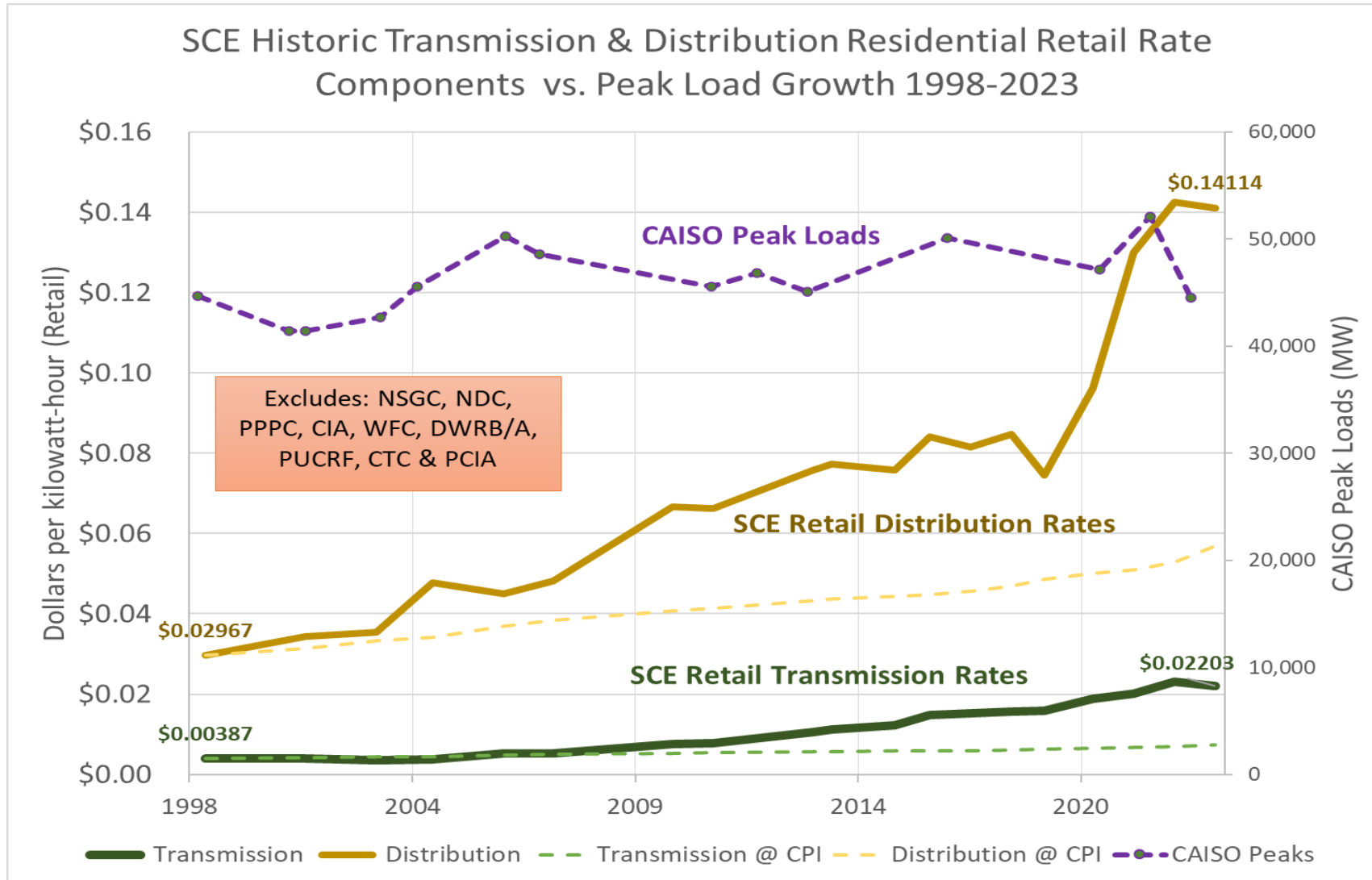
Next Steps

- How will **24-OIIP-03 inform SB 100?**
  - At minimum: work done now can be applied to that OIIP (move away from tradeoffs to informing decision-making).

- Basics
  - Constraints and goals establish the boundaries for solutions
    - Short term and long term
  - Consistent metrics or values (SB 350 Barriers Study)
  - Load modification should be treated like any other resource
    - *But* need to fix the tests first
  - Model/build the portfolio starting with existing contracted (and permitted/built) resources and then adding in resources to fill the need starting at the least cost (with NEBs and social costs included in some standard manner) until a constraint, and continue sequentially adding in the next least cost (again with NEBs and social costs) resource until the need is met.

  **The key here is to be able to reflect the actual total costs (not just the generation PPA price) and how those costs vary with the degree of demand for each resource.

Rates?

SCE Historic Transmission & Distribution Residential Retail Rate Components vs. Peak Load Growth 1998-2023

- Even without considering **public health** and **environmental costs** of combustion based/bulk system

(source: Richard McCann, M.Cubed)