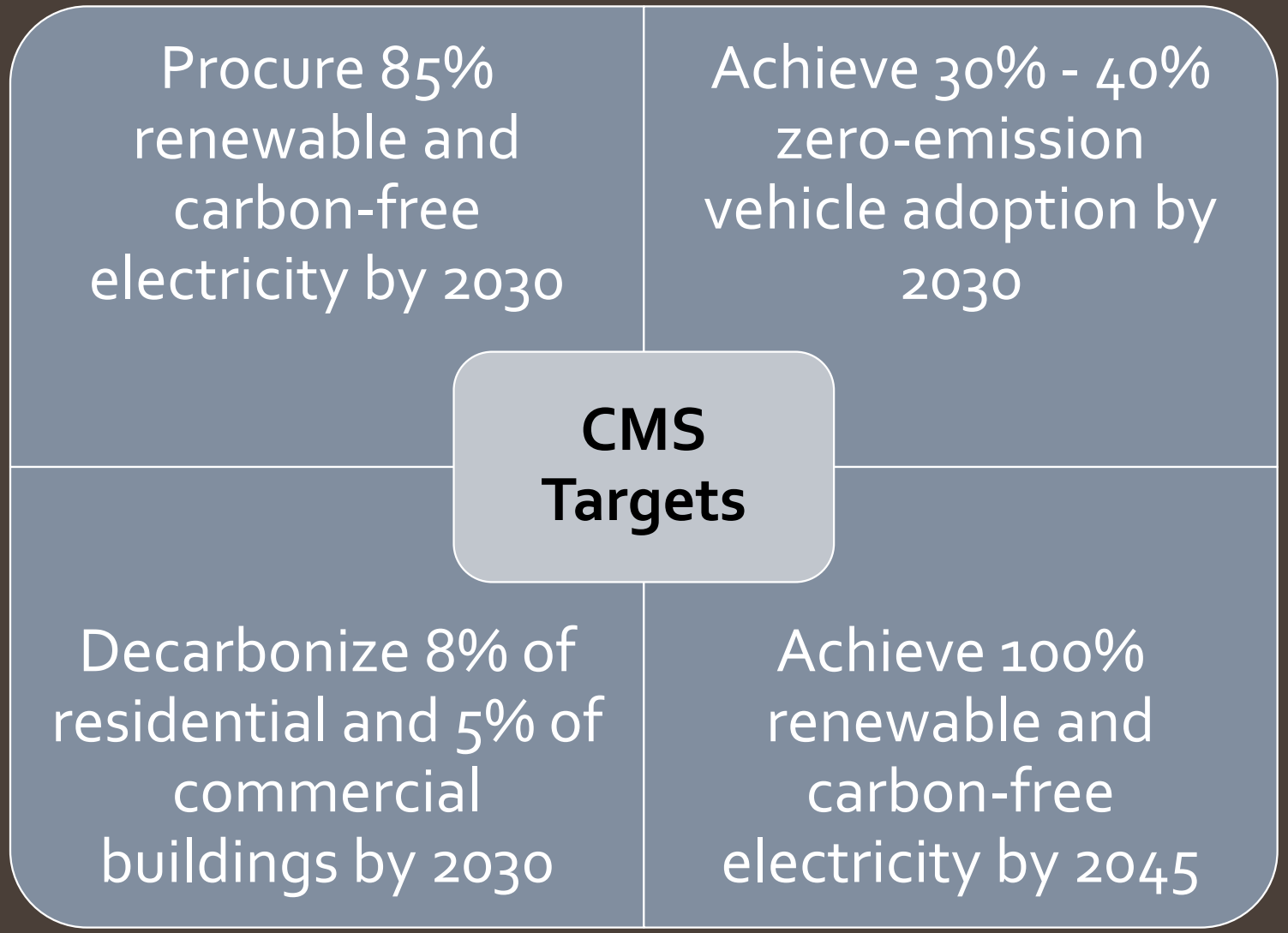
City of Healdsburg Energy Programs

Energy Demand Model & Climate Mobilization Strategy

Climate Action Healdsburg meeting

March 10, 2025

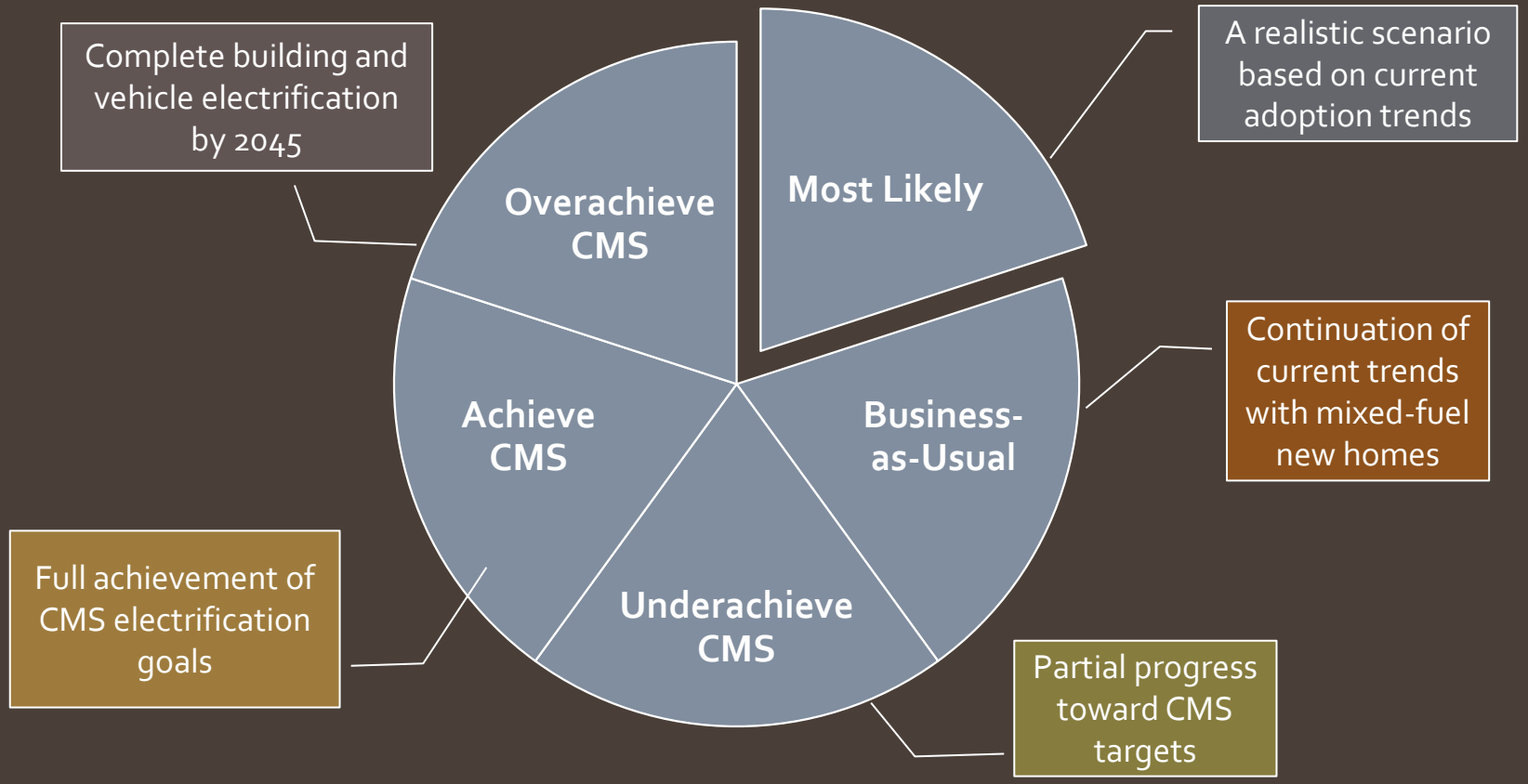
Healdsburg Electrification Drivers



Energy Demand Model

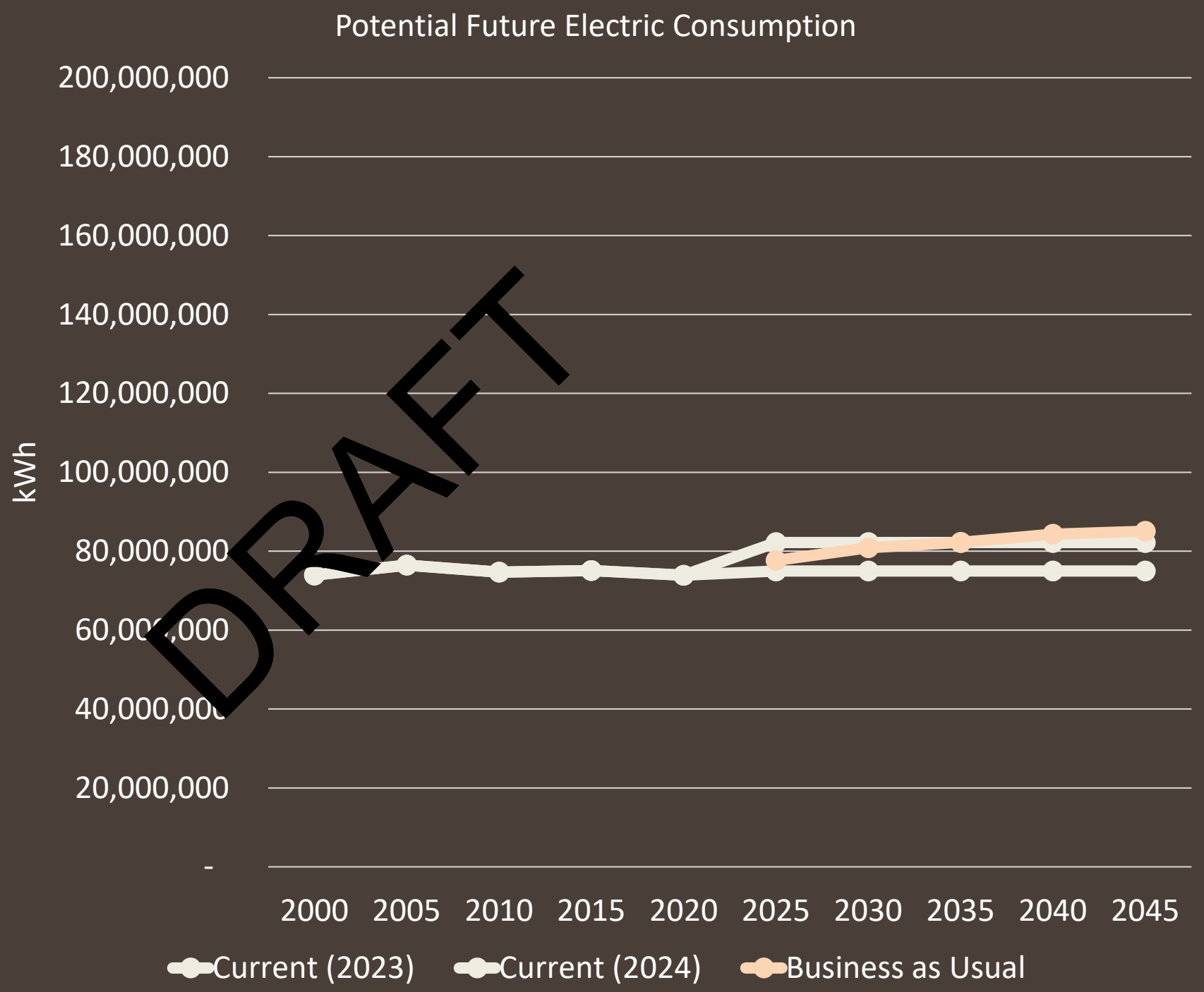
Development: Scenarios

- Scenarios developed to demonstrate future electricity load under different conditions
- Reflect the anticipated energy demand under different levels of CMS implementation
- Scenarios modeled for future electricity demand:



Energy Demand Model

Draft Results



Energy Demand Model

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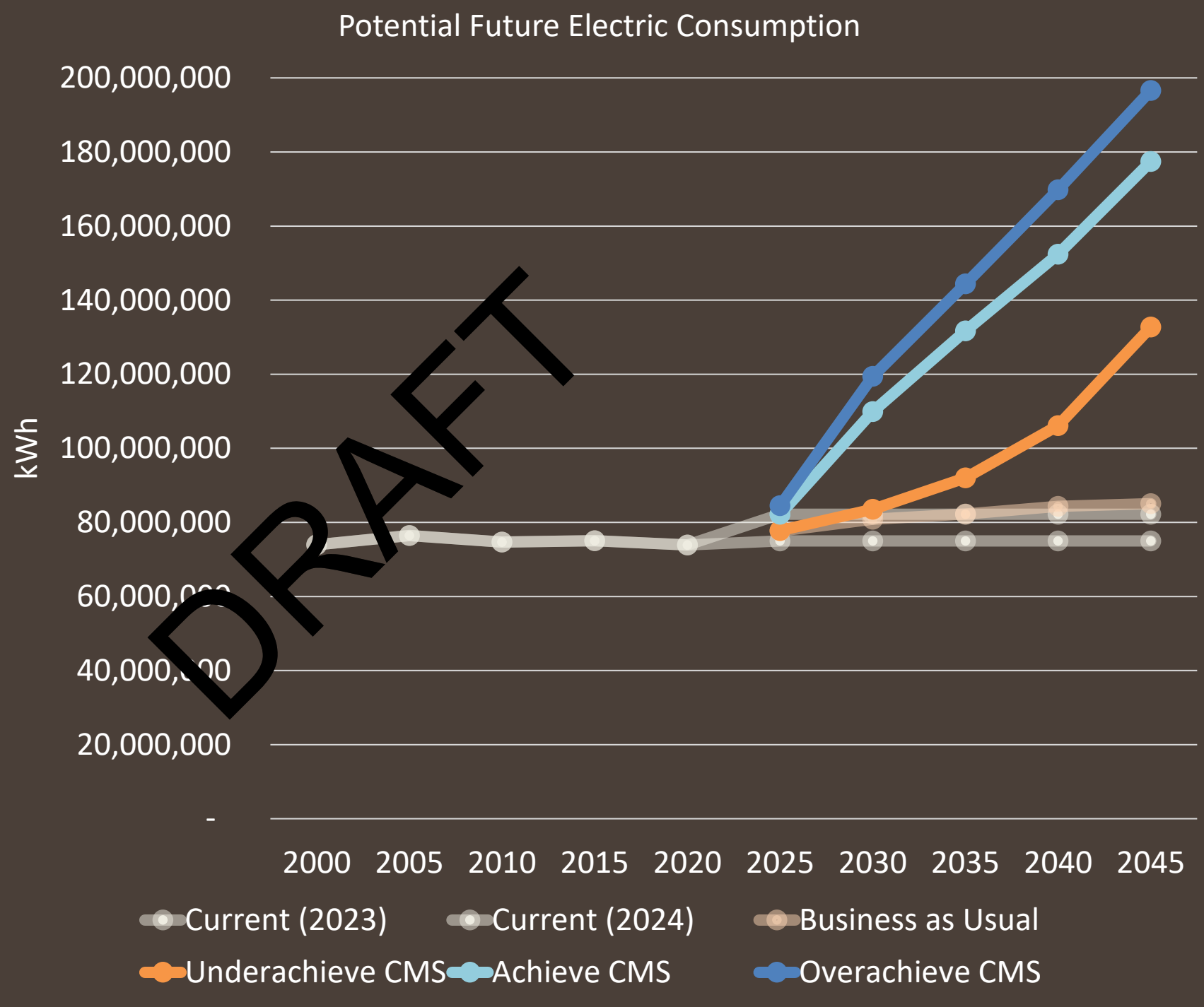
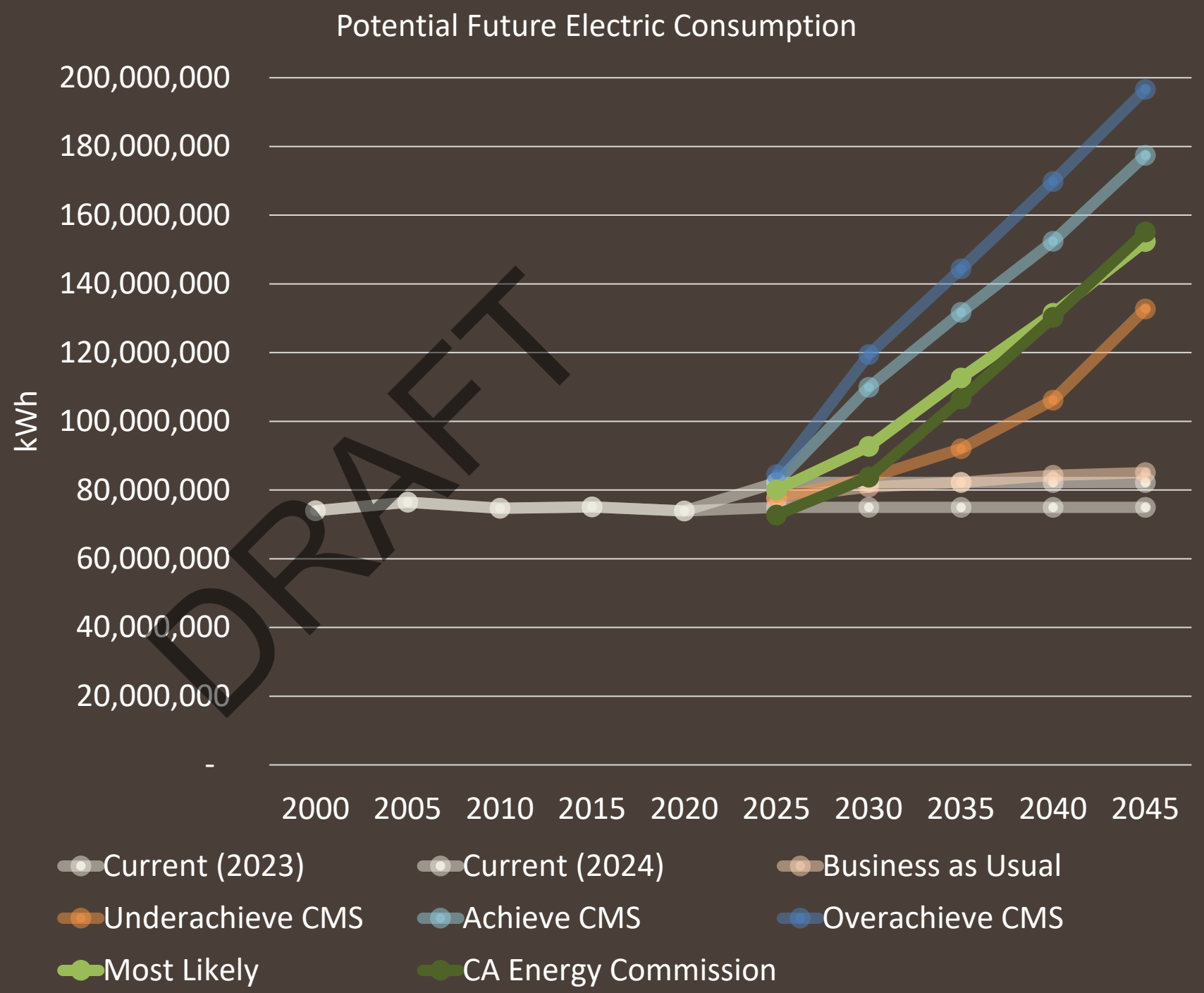
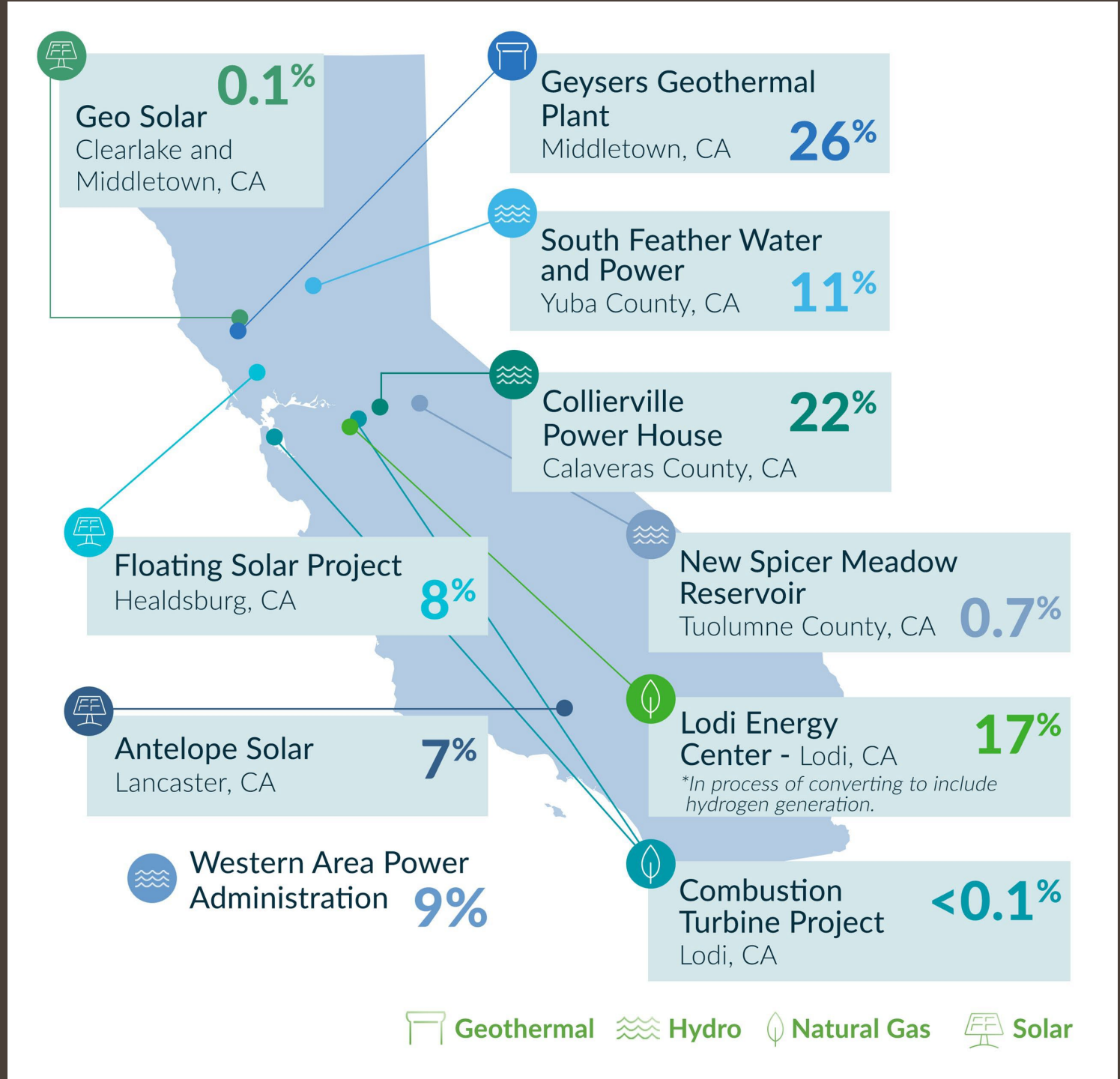


Energy Demand Model

Draft Results

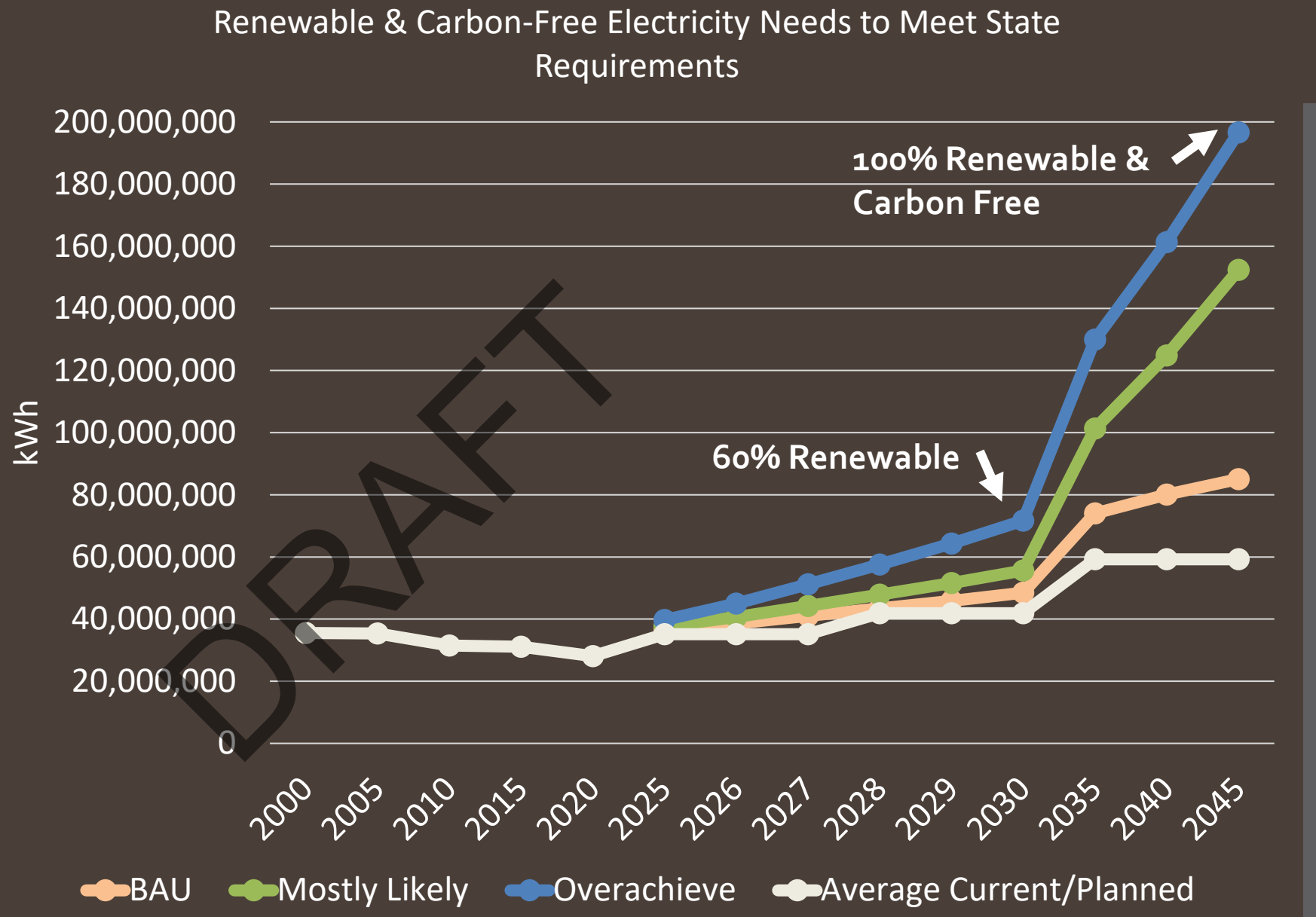


Where Does Our Electricity Come From? (2023)



Renewable Energy Needs

Draft Results



With increased electrification, more renewable generation is needed to meet the State-required percentages for renewable and carbon-free electricity.

(Chart shows eligible renewables only until 2030, then includes other carbon-free sources - such as large hydroelectric - out to 2045.)

Questions?

www.healdsburg.gov/cms
www.healdsburg.gov/powercontent

Energy Demand Model

Draft Insights

Importance of Energy Efficiency

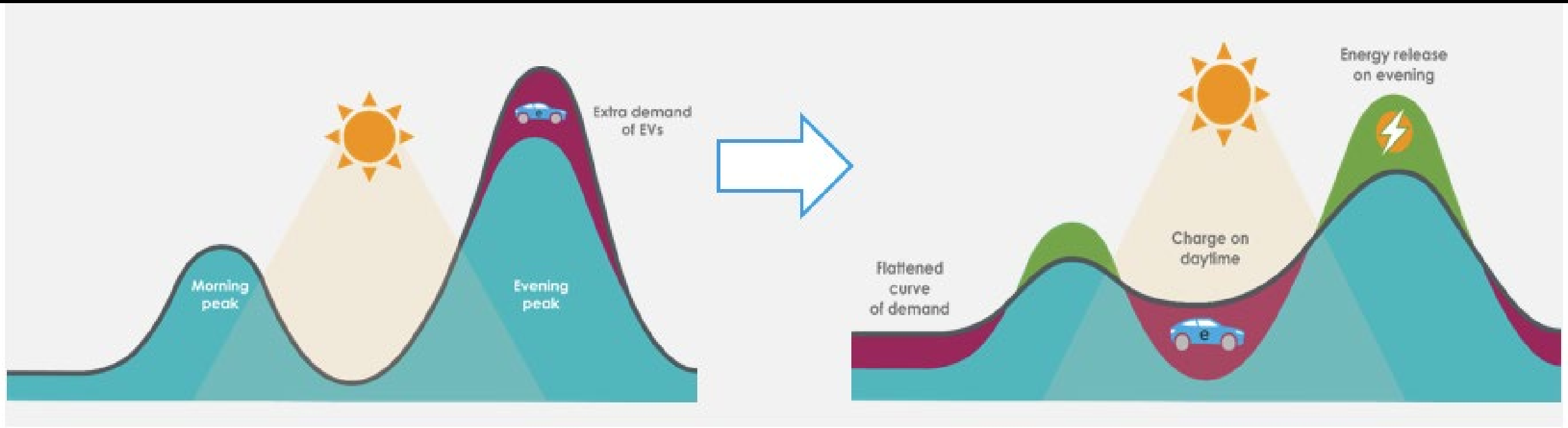
- Energy efficiency reduces electricity consumption, especially for heating and cooling.
- Transitioning to high-efficiency electric appliances can significantly lower annual energy consumption.

Impact of Solar

- Solar PV systems can offset electricity demand during daylight hours.
- When paired with battery storage, solar PV systems can be used to reduce peak demands.

EV Charging Behavior

- EV charging behavior significantly impacts peak electricity demand.



How Can We Reduce Grid Impacts?

Building Energy Efficiency

2024 Program Participation

- High efficiency HVAC compared to standard efficiency heat pump HVAC could save substantial amount of annual usage
- 2024 Results
  - 33 heat pump HVAC systems
    - Plus 3 commercial
  - 6 heat pump water heaters
  - 11 electric cooktops
- SmartLivingHealdsburg.org

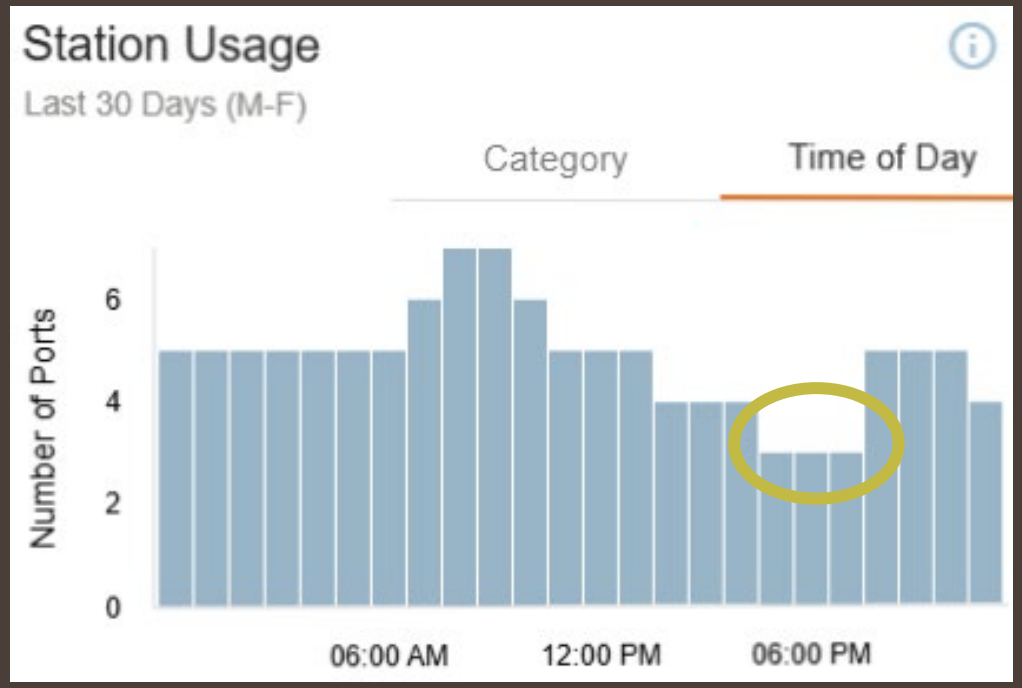
Income-Qualified Multi-Family Appliance Replacement Program

- 100% rebate for refrigerator and dishwasher replacement
- 8 income-qualified multi-family properties
- Corazon grant to provide local on-the-ground support to property managers and residents
- Additional programs
  - HEAP
  - LIWP

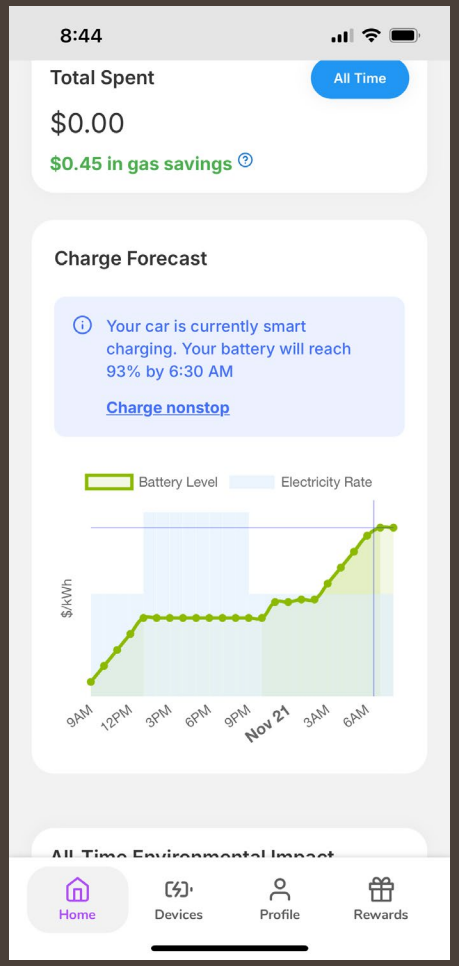
EV Managed Charging

Load Management Programs for EVs

Public Charging Stations



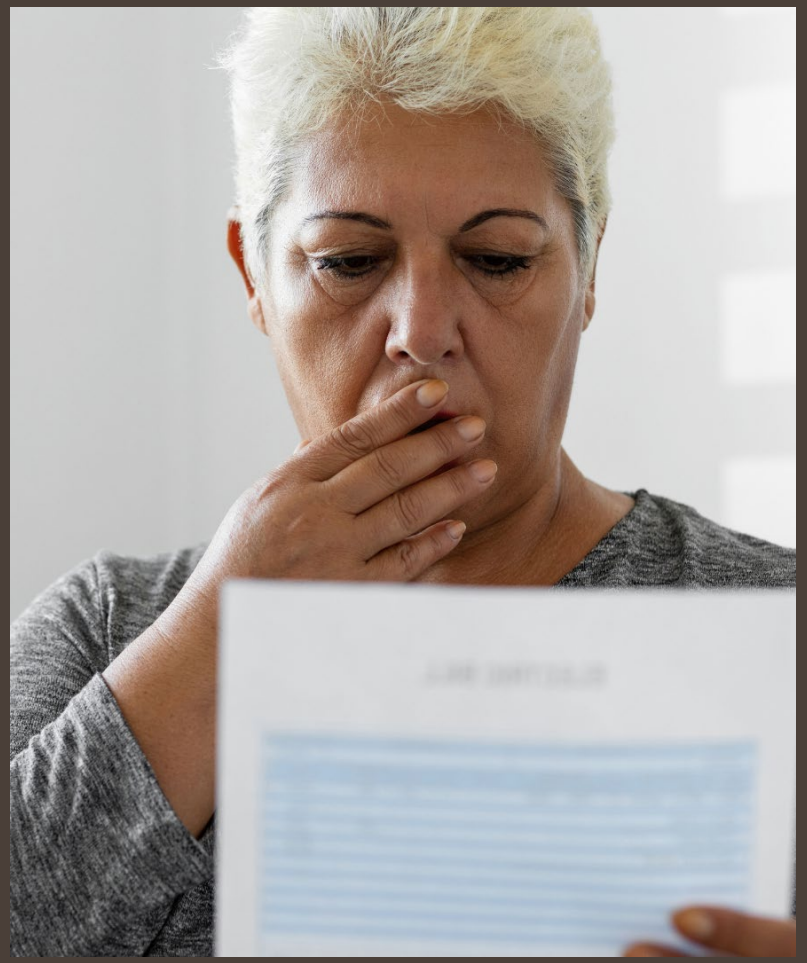
Home Charging



optiwatt

CARE Bill Discount Program

- 565 families
- 25% discount on electric bill
- 80% AMI to qualify
- $100,000+ of discounts in 2024
- Funded by Public Benefit surcharge on electric bills



Discussion / Q&A

Help us understand the 'Most Likely' scenario

surveymonkey.com/r/COHelectricsurvey

es.surveymonkey.com/r/COHencuestaelectrica

Thank you for your time!

conservation@healdsburg.gov
www.SmartLivingHealdsburg.org