SJCE IRP
July 16, 2018
Clean Energy Community Advisory Committee

FLYNN RCI

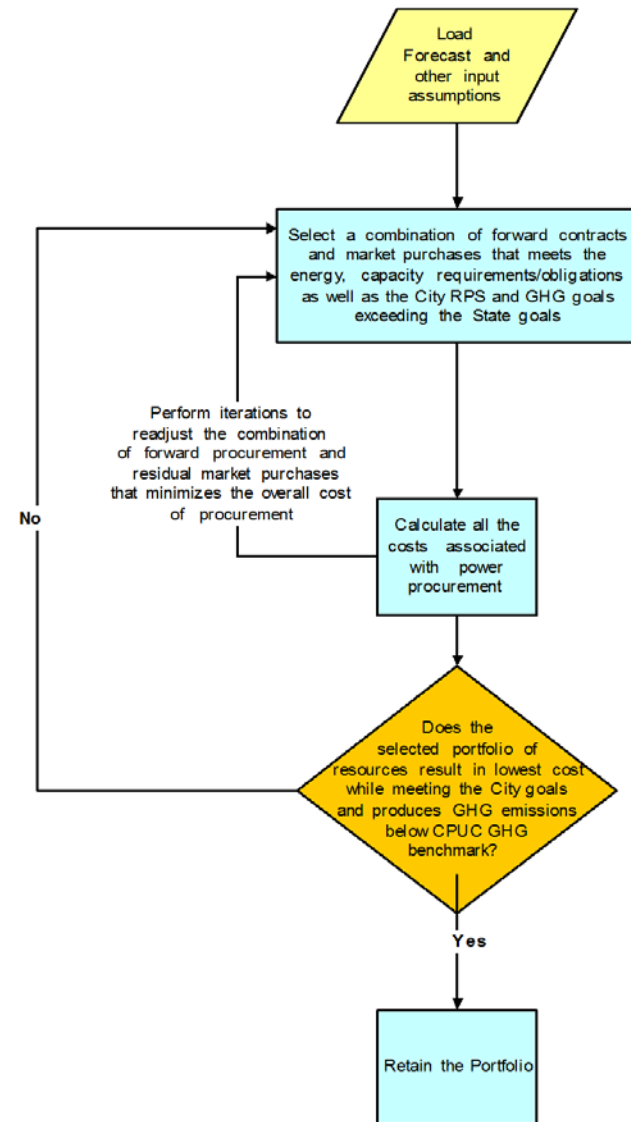Flynn Resource Consultants Inc.

SJCE IRP Objectives and Metrics

❑ SJCE IRP model includes metrics to ensure that the selected resource mix satisfies the City's short and long-term renewable and other goals, and complies with the GHG benchmark. SJCE's objectives include,

– 10% more renewables than the state RPS requirements in each year of the planning horizon.

• For example, by 2030, SJCE will have 60% RPS.

– By 2021 all SJCE customers will have a base power mix that is 100% carbon free.

❑ SJCE's metrics include:

– Percentage of retail load served by RPS-eligible resources

– Percentage of retail load served by GHG-free resources

– Annual and Net Present Value (NPV) of portfolio costs

❑ SJCE's IRP is primarily prospective until SJCE's completes its' RFP process and additional procurement is authorized by City Council.
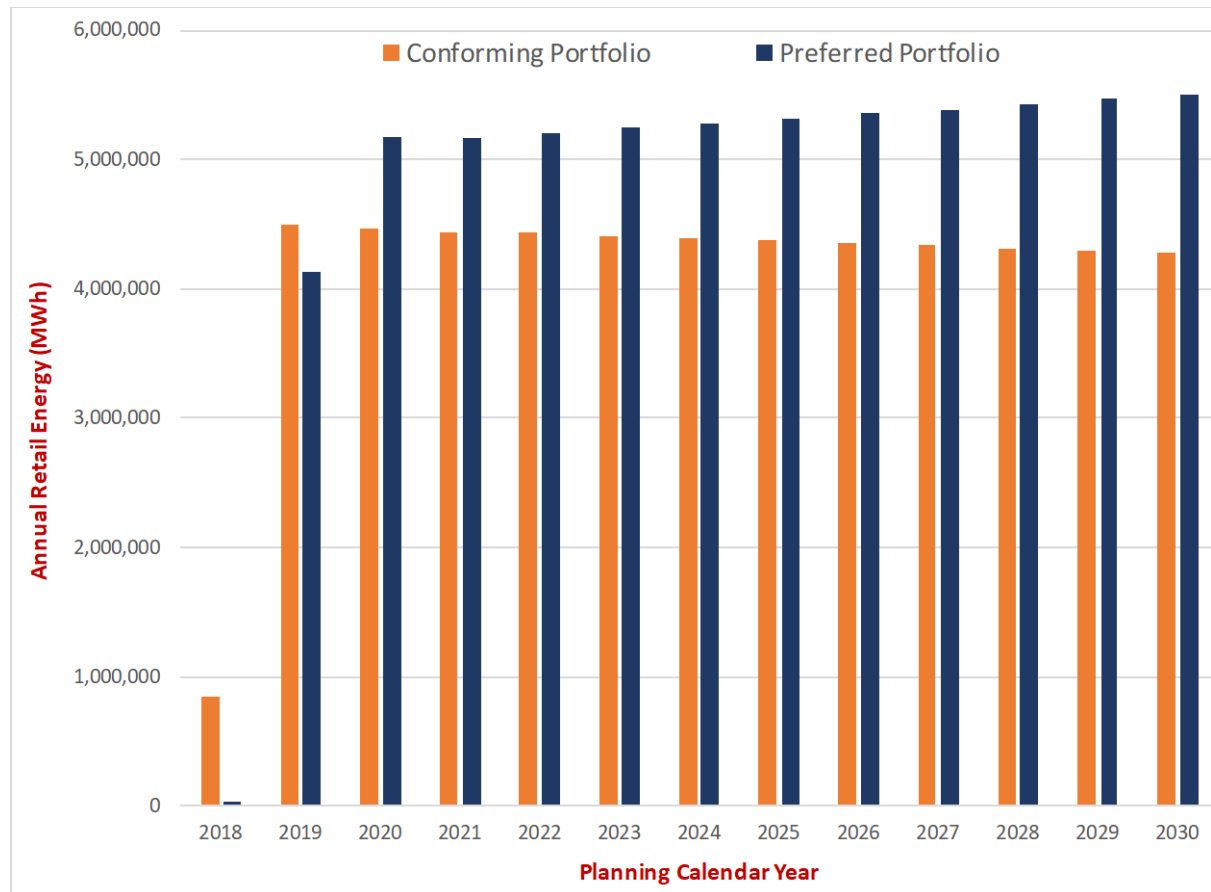
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SJCE IRP Modeling Approach

❑ SJCE IRP model allows user to select a combination of forward contracts and market purchases to meet the projected SJCE energy over the planning horizon.

❑ A number of iterations ensure that the selected resource mix results in the lowest overall cost of procurement including the energy, resource adequacy capacity, renewable energy credits and CAISO-related costs.


Load Forecast and other input assumptions

Select a combination of forward contracts and market purchases that meets the energy, capacity requirements/obligations as well as the City RPS and GHG goals exceeding the State goals

Perform iterations to readjust the combination of forward procurement and residual market purchases that minimizes the overall cost of procurement

No

Calculate all the costs associated with power procurement

Does the selected portfolio of resources result in lowest cost while meeting the City goals and produces GHG emissions below CPUC GHG benchmark?

Yes

Retain the Portfolio

RCI

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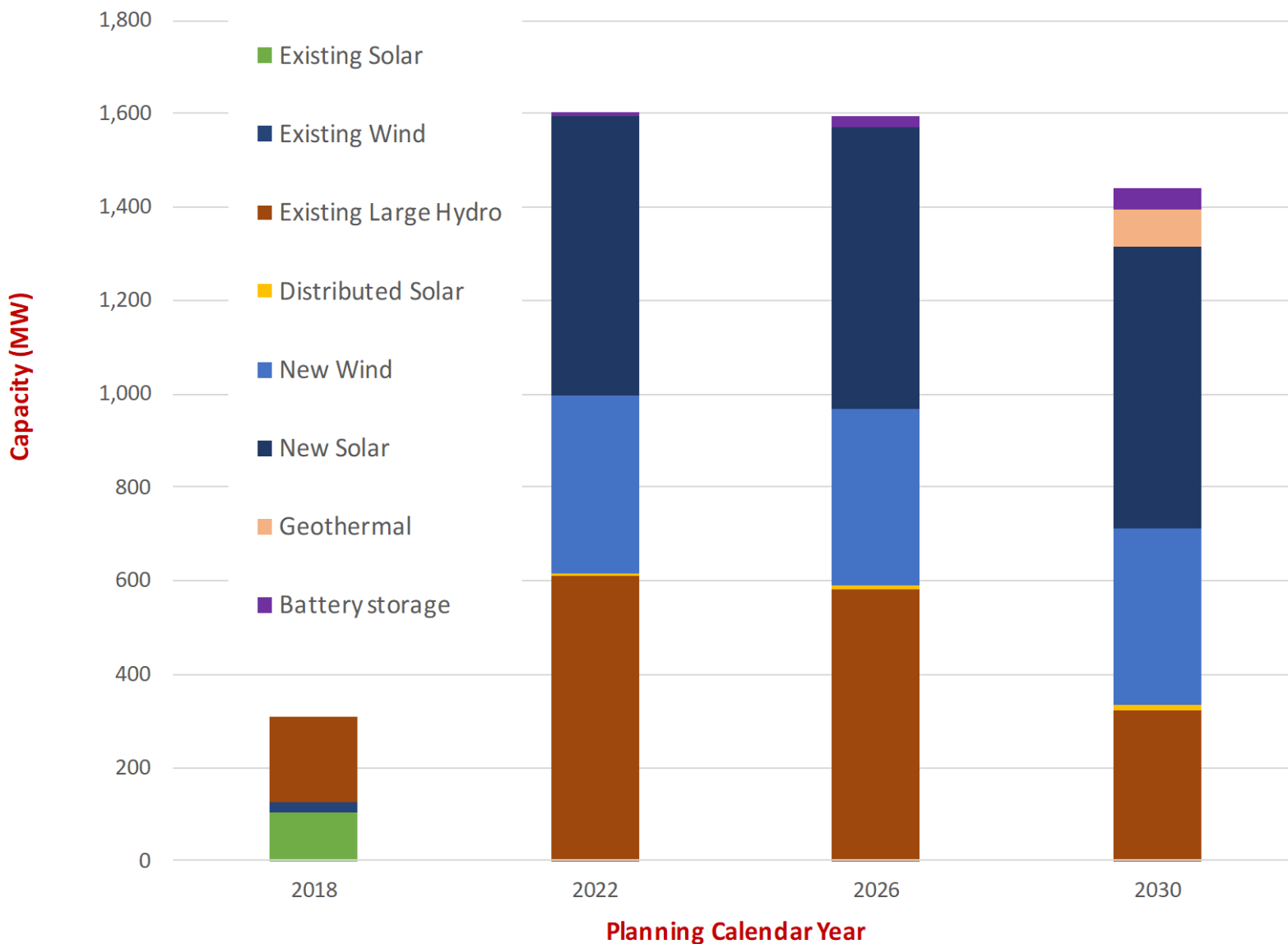
Two SJCE IRP Portfolios

- ❑ **"Conforming" IRP Portfolio":** Based on the load forecast used in the California Energy Commission's (CEC) adopted 2017 Integrated Energy Policy Report (IEPR).

- ❑ **Alternative "Preferred" IRP Portfolio:** Based on SJCE's Updated load acquisition, with higher load beginning 2021.
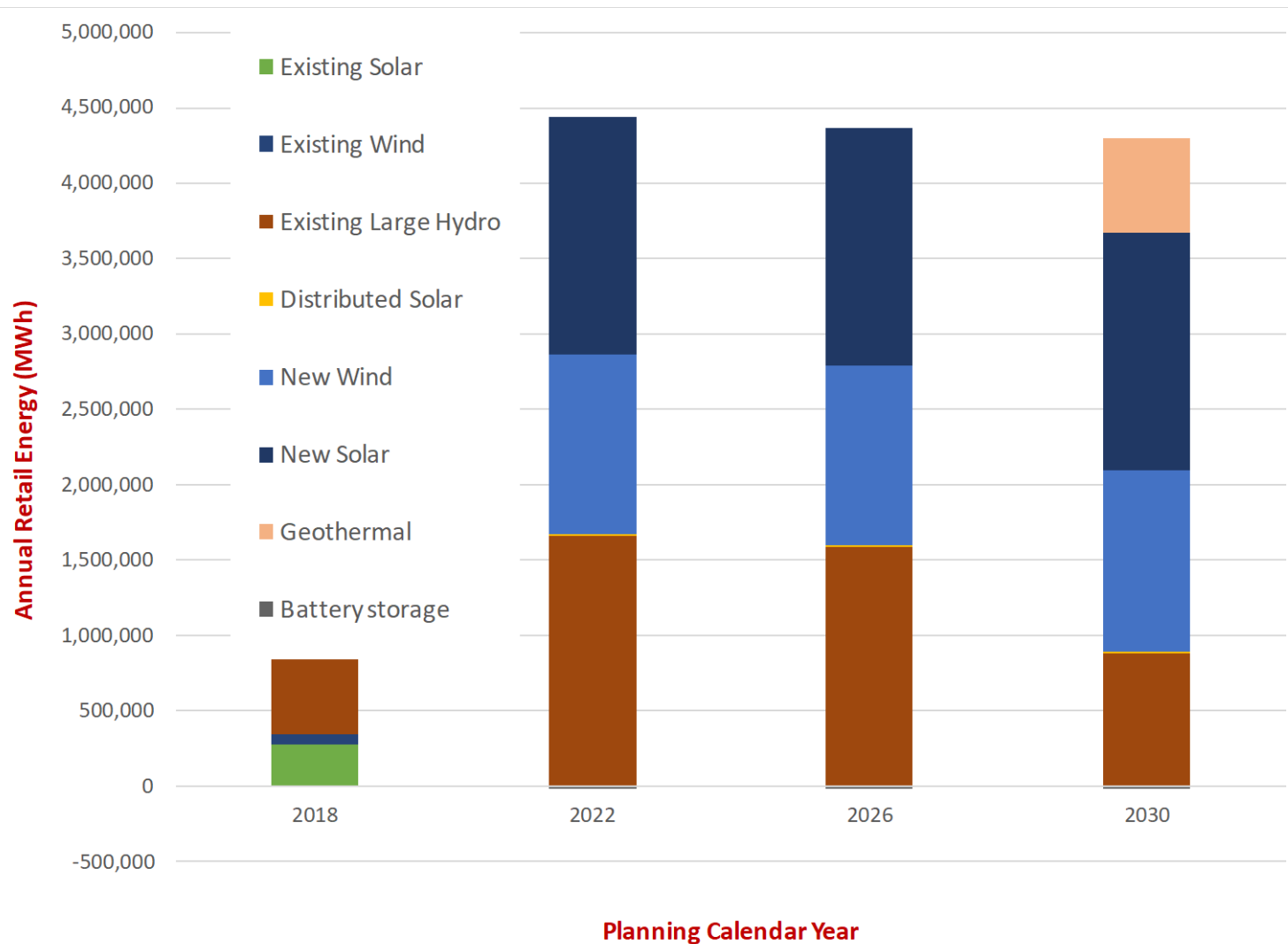
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Resource Types Selected in <u>Conforming</u> IRP Portfolio: <u>Energy (MWh)</u>

Resource Types Selected in <u>Conforming</u> IRP Portfolio: <u>Capacity (MW)</u>

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Resource Types Selected in <u>Preferred</u> IRP Portfolio: <u>Energy (MWh)</u>

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Resource types Selected in <u>Preferred</u> IRP Portfolio: <u>Capacity (MW)</u>

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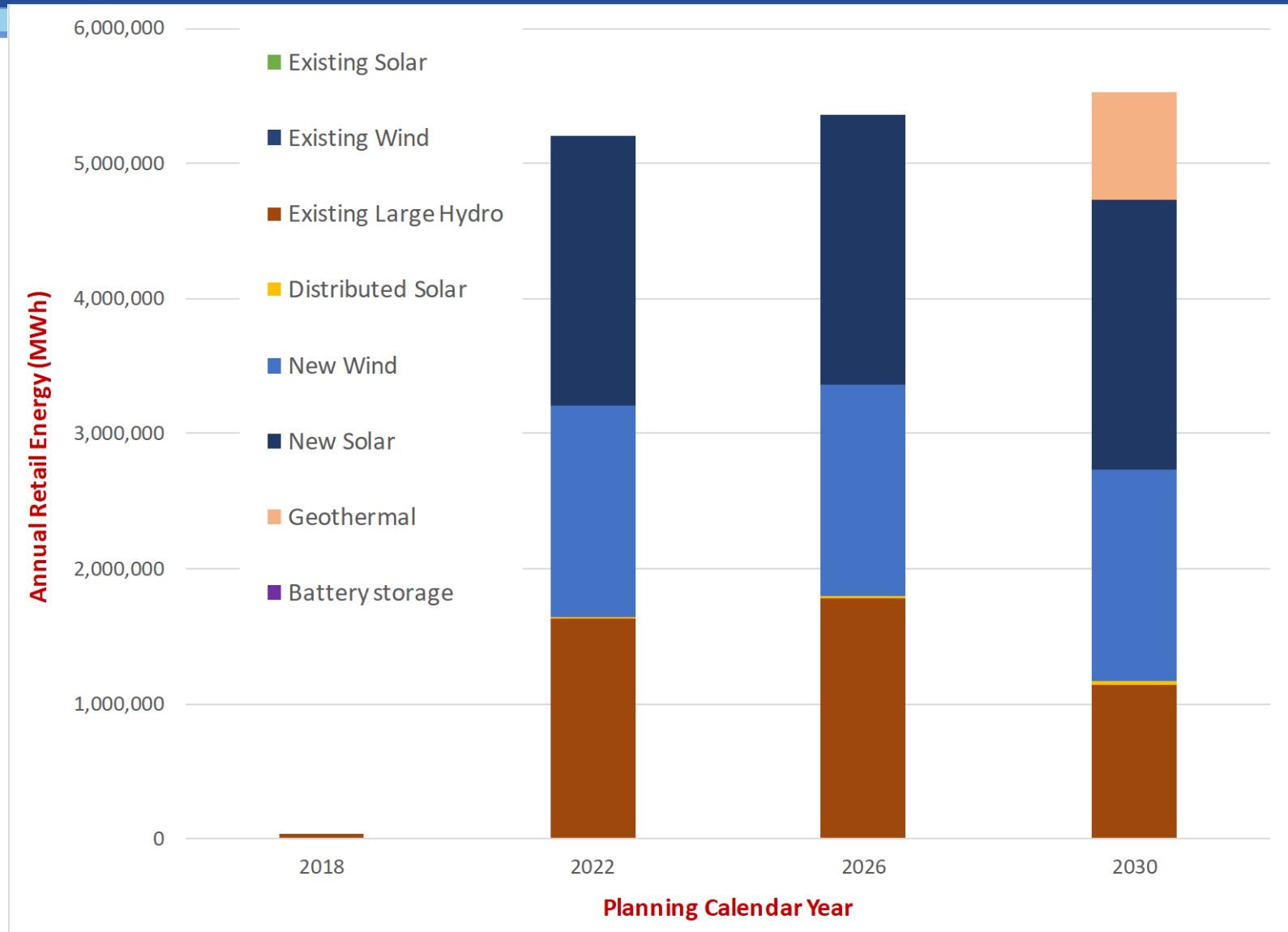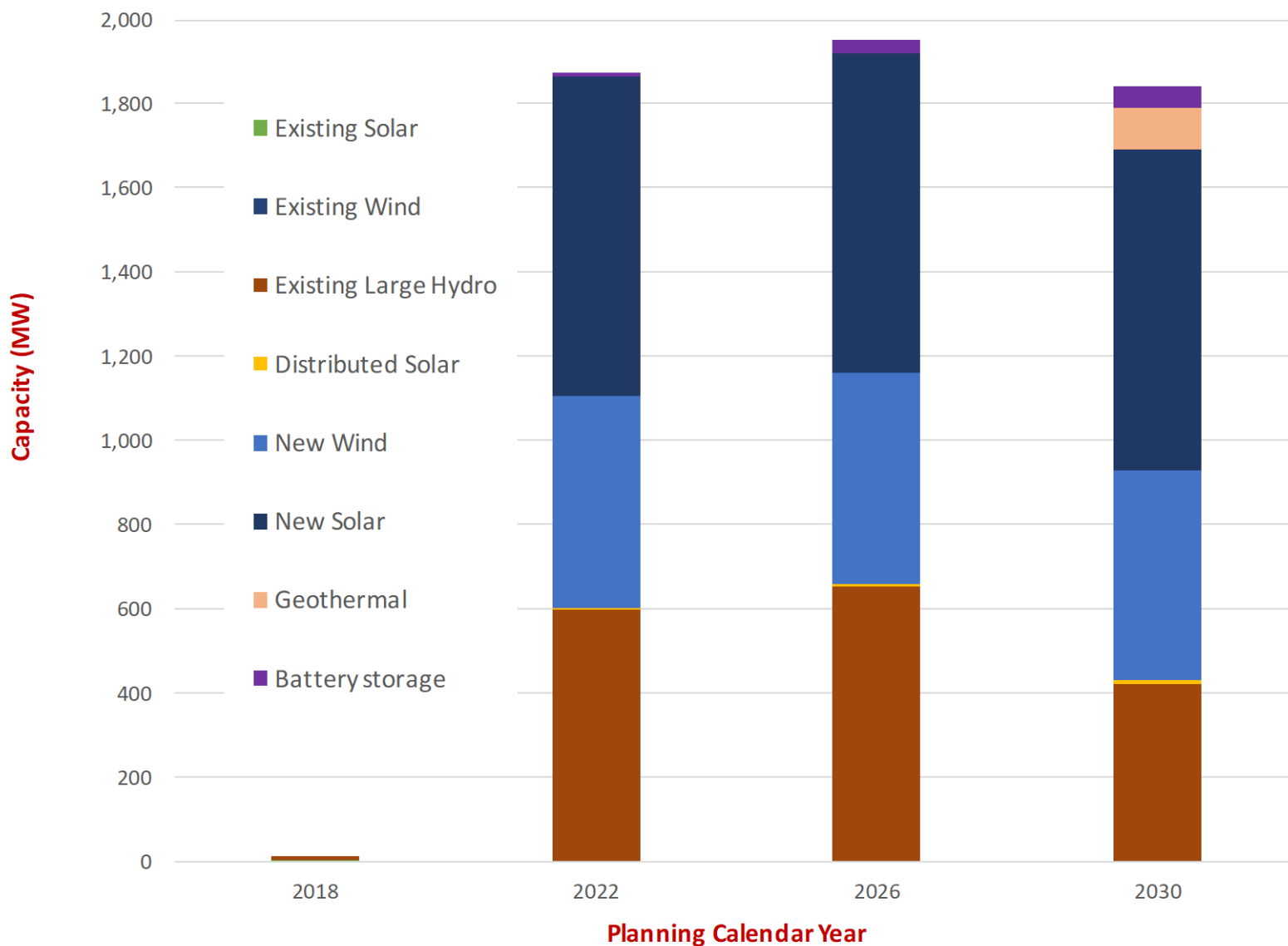
SJCE's Projected Emissions Well Below CPUC GHG Benchmarks

Annual GHG Emissions (MMtCO2): Conforming vs. Preferred