Integrated Resource Planning

• CleanPowerSF is required under state law to develop an **Integrated Resource Plan (IRP)** every two years that evaluates electricity supply and demand and identifies energy resource options that can deliver reliable and cost-effective energy to customers.

• CleanPowerSF’s next IRP is due November 1, 2022.
Key Terms

• **Portfolio**: collection of generation resources used to serve electricity demand.

**Conforming Portfolio**: the specific mix of electric generation resources that meet CPUC requirements.

• **Scenario**: variations on a future state or objective that may influence the resources included in a portfolio.

• **Sensitivity Analysis**: an analysis that involves changing one assumption to understand its influence on the portfolio.
Accelerated CleanPowerSF’s renewable energy goals by 5 years → 100% renewable by 2025
Objectives of the 2022 IRP

1. Identify a Realistic Path to Achieving 100% Renewable Energy Goal
2. Update Local Supply-Side Investment
3. Plan for Electrification
4. Deliver Affordable Service
5. Ensure Reliability
| Portfolio Name                                                                 | Criteria                                                                 |
|=================================================================================|--------------------------------------------------------------------------|
| 1. Current CleanPowerSF Supply Portfolio Goals (“CleanPowerSF Goals”)           | ✓ 100% renewable by 2025  
✓ Local resource prioritization                                                   |
| 2. CleanPowerSF Goals & No Unspecified Grid Purchases Between 5-10 pm           | ✓ 100% renewable by 2025  
✓ Local resource prioritization  
✓ Resource generation meets customer usage during peak periods                  |
| 3. CleanPowerSF Goals & 100% Time Coincidence by 2035                          | ✓ 100% renewable by 2025  
✓ Local resource prioritization  
✓ Resource generation meets customer usage in real time                        |
## CleanPowerSF IRP Modeling Portfolios

<table>
<thead>
<tr>
<th>Portfolio Name</th>
<th>Criteria</th>
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</thead>
</table>
| 4. CleanPowerSF Goals & Mayor’s EV and Building Electrification Targets Met   | ✓ 100% renewable by 2025  
✓ Local resource prioritization  
✓ Emission-free trips originating in, ending in, or passing through San Francisco by 2040  
✓ Decarbonization of existing buildings by 2040 |
| 5. CleanPowerSF Goals & 50% of Mayor’s EV and Building Electrification Targets | ✓ Same as above, but slower pace of electrification                       |
| 6. CPUC’s 30 million metric tons (MMT) of Carbon Dioxide Equivalents (CO2e) Case | ✓ Portfolio that meets the CPUC’s assigned emissions benchmark (Required)  |
CleanPowerSF IRP Modeling: Sensitivities

Electric Vehicle Adoption
- Accelerated electric vehicle purchases
- Increased share of electricity-supplied travel in San Francisco

Building Decarbonization
- Electrification growth
- Adoption rates

Future Climate Scenarios
- Extreme weather
- Resiliency
CleanPowerSF’s Preferred Portfolio

CleanPowerSF Goals

Scenario/Sensitivity Development

Building and Transportation Decarbonization Analysis

Local Renewable Resource Analysis

Statewide Resource Cost and Availability

IRP Preferred Portfolio
Community Engagement

• Community input is a critical component in the IRP development process to align resource planning with community priorities

• Upcoming engagement opportunities:

  1. Online survey open until July 1st

  2. Community Workshops:
     Tuesday, June 21, 10am-12pm
     Thursday, June 23, 5pm-7pm

  3. Stay updated!
     Visit: www.cleanpowersf.org/resourceplan
     Email: cleanpowersf@sfwater.org

June-July  Input on Energy Planning
• Digital Survey
• Virtual Workshops
• Presentations

Aug-Oct  IRP Scenario Feedback
• Public Comment Period
• Virtual Feedback Sessions
• Presentations

November  Final 2022 IRP
• Approved by SFPUC Commission
• Submitted to the CPUC
<table>
<thead>
<tr>
<th>Activities</th>
<th>Timing</th>
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<tbody>
<tr>
<td>Modeling of CleanPowerSF’s IRP portfolios</td>
<td>June 2022 – August 2022</td>
</tr>
<tr>
<td>Solicit comments from public on results and recommendations and prepare report with staff recommendation identifying preferred portfolio</td>
<td>August 2022 – September 2022</td>
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<tr>
<td>Commission approval of a preferred portfolio and plan on October 25 for submission to CPUC by November 1</td>
<td>October 2022</td>
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