SFPUC Power CAC

CleanPowerSF Integrated Resource Plan & Community Power Update

July 7th, 2020
Now powering CleanPowerSF:
The San Pablo Raceway Solar Project
Program Goals and Progress to Date

50% RPS-eligible renewable by 2020; 100% renewable by 2030
New Renewable Energy Projects

Solar

☀️ San Pablo Raceway (100 MW)
☀️ Blythe Solar IV (62.5 MW)
☀️ Maverick Solar 6 (100 MW)

Wind

💨 Voyager IV (50.1 MW)
💨 Oasis (60.3 MW)

= 372.9 MW of clean energy development!

Planned

☀️ Northern California Solar (70 MW)
 authService=22 | Battery Storage (120 MW)
Examine local renewable energy development opportunities:
- In City, City-owned sites
- Regional, City-owned sites
- Other opportunities in and near San Francisco

Sites ranked on suitability by:
- Energy production potential
- Cost ($/MWh)
- Development timeframe (5-10 year target)
- Other site-specific characteristics
## Cost Comparison of Local Renewable Energy Development

<table>
<thead>
<tr>
<th>Technology</th>
<th>Utility Scale</th>
<th>9 County Bay Area Local</th>
<th>In-City Local</th>
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<tbody>
<tr>
<td>Solar PV (100 MW)</td>
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<tr>
<td>Solar PV+Storage (100/50 MW)</td>
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<td>Wind (100 MW)</td>
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<td>Offshore Wind (100 MW)</td>
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<tr>
<td>Solar PV (40 MW)</td>
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<td>Solar PV+Storage (40 MW)</td>
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<td>Solar PV (5 MW)</td>
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<td>Solar PV+Storage (5 MW)</td>
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<td>Solar PV (1 MW)</td>
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<td>Solar PV (2 MW Canopy)</td>
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<td>School Pv</td>
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<tr>
<td>Solar PV (&lt; 1 MW)</td>
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<tr>
<td>Local In-Conduit Hydro</td>
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Average CleanPowerSF Supply Cost ($55/MWh)
Energy Opportunities in San Francisco

City-owned Sites within San Francisco

- 132 sites reviewed, 14 identified as Medium to High Suitability
- 9.3 MW High Suitability, 16.6 MW Medium Suitability
- Projected costs: $79/MWh to $151/MWh
Regional Energy Opportunities

Regional City-owned Sites

● 6 sites reviewed, 3 identified as Medium to High Suitability
● 40 MW of High Suitability, 4 MW of Medium Suitability
● Projected costs: $42/MWh to $104/MWh
Near-Term Next Steps

High Suitability Sites (49 MW solar + 20 MW batteries)

- Analyze ratepayer impacts in Integrated Resource Plan (IRP)
- Conduct additional site-specific feasibility analysis
- Include highest suitability sites in 10-year capital plan

Medium Suitability Sites and Other Opportunities

- Monitor and conduct additional analysis as needed
Integrated Resource Planning

- State law requires utilities to submit an Integrated Resource Plan (IRP) every two years.
  - Next IRP due in September 2020
  - Submitted to California Public Utilities Commission (CPUC)

- Identify portfolio options that balance our core program goals:
  - Environment: 100% renewable electricity by 2030
  - Affordability: Maintain affordable and stable rates
  - Local Investment: Invest in local resources and jobs
CleanPowerSF IRP Modeling:
Four Portfolios

CleanPowerSF Goals by 2030
✓ 100% renewable by 2030
✓ Local resource prioritization

CleanPowerSF Goals by 2025
✓ 100% renewable by 2025
✓ Local resource prioritization

CleanPowerSF Goals and Time Coincidence by 2030
✓ 100% renewable by 2030
✓ Resource generation meets customer usage in real time
✓ Local resource prioritization

CPUC 46 MMT Case
✓ Portfolio that meets the CPUC’s assigned emissions benchmark (Required)
CleanPowerSF IRP Modeling: Sensitivities

**Increased Electric Vehicle (EV) Adoption**

What if 100% of new vehicle registrations in 2030 are EVs?

**Increased Building Decarbonization**

What if all new construction is 100% electric?
CleanPowerSF Preferred Portfolio

Local Renewables Analysis

Sensitivity Analysis

San Francisco & CleanPowerSF Policy Goals

CleanPowerSF’s Preferred Portfolio
## Next Steps

<table>
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<th>Event</th>
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<tr>
<td>Local Agency Formation Commission (LAFCo)</td>
<td>July 17, 2020</td>
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<td>SFPUC Commission Meeting</td>
<td>July 28, 2020</td>
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<td>Written Comment Period on Draft IRP</td>
<td>August 7 - 17, 2020</td>
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<td>SFPUC Commission Approval</td>
<td>August 25, 2020</td>
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<td>IRP Submitted to CPUC</td>
<td>September 1, 2020</td>
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CleanPowerSF Community Power Updates

Peter Gallotta and Karaline Bridgeford
Virtual Community Power Updates

Overview
✓ 19 attendees from 13 organizations
✓ Included two question periods and a breakout room session
✓ 30+ questions received via the “chat”

Topics covered
✓ Marketing & outreach
✓ COVID-19 response
✓ Policy & public power
✓ Draft Local Renewables Report
✓ Integrated resource planning
IRP Feedback & Questions

IRP questions received by topic
✓ 5 local energy development
✓ 4 electrification / decarbonization
✓ 3 local jobs / workforce development
✓ 3 resource planning

Next steps for community engagement
✓ Written public comment period August 7 - 17th, 2020
✓ Public meetings (LAFCo, SFPUC Commission)
✓ Future Community Power Update meetings
Questions?