Exhibit to Agenda Item #1

Brief the Board on customer experience strategy, measurement, and priorities that support SMUD’s 2030 Zero Carbon Plan.

Board Strategic Development Committee and Special SMUD Board of Directors Meeting

Tuesday, September 6, 2022, scheduled to begin at 5:30 p.m.
Virtual Meeting (online)
2030 Zero Carbon Plan

Customer Programs - Status Update

September 6, 2022
Zero Carbon Customer Programs by Portfolio

**Building Electrification & Energy Efficiency**
Encourages customers to decarbonize their homes and workplaces by converting from gas to efficient electric equipment and optimize and manage their electricity use.

**Transportation Electrification**
Incentives, information, and special rates that make it more affordable to buy and power electric vehicles for homes or businesses.

**Load Flexibility & Battery Storage**
Programs and options for customers to participate in building our Virtual Power Plant to help shift and manage loads during times when energy is needed or when excess energy is available.

**Green Pricing**
Gives SMUD customers the ability to conveniently satisfy their desire to achieve and maintain a highly renewable or zero carbon power supply.
Building Electrification & Energy Efficiency
How do I electrify my HVAC or Hot Water System?

Building Electrification & Energy Efficiency

Customer searches for available rebates and participating contractors

Customer selects a participating contractor & requests cost estimate for HVAC or HW conversion

Contractor reserves qualifying rebates

Customer signs installation contract

Contractor completes installation & sends documentation to SMUD

SMUD reviews/approves project & pays rebate

RESIDENTIAL

www.smud.org/rebates

www.smudcontractornetwork.org

www.smudcontractornetwork.org
How do I decarbonize my home?

Building Electrification & Energy Efficiency Residential Programs

**Contractor Network**
- Seal and insulate
- Heat pump HVAC
- Heat pump water heaters
- Panel upgrade
- Circuit upgrade

**Rebates and Information**
- Induction cooktops
- SMUD Energy Store
  - Smart thermostats
- Informational Programs
  - Home Electricity Reports

**Retailer Partnerships**
- Washer & dryers
- Refrigerator & freezers
- Air cleaners
- Room air conditioners
- Smart thermostats
- Advanced power strip
- Refrigerator recycling
How do I decarbonize my business?

Building Electrification & Energy Efficiency Commercial Programs

Self-Service Approach
- Express Energy Solutions

Turnkey Approach
- Complete Energy Solutions

Property Owners / Managers
- Multifamily retrofit

Builders / Developers
- Commercial Integrated Design Solutions
- Residential Smart Homes

Specialized Approach
- Advanced Commercial Solutions

Board Strategic Development Committee and Special SMUD Board of Directors Meeting
Key Metrics & Milestones
Building Electrification & Energy Efficiency

<table>
<thead>
<tr>
<th></th>
<th>2021 Final</th>
<th>2022 July Actual</th>
<th>2022 EOY Forecast</th>
<th>2022 Goal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heat Pump HVAC Conversions</td>
<td>2,575</td>
<td>1,888</td>
<td>3,224</td>
<td>2,600</td>
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<tr>
<td>Heat Pump Water Heater Conversions</td>
<td>958</td>
<td>622</td>
<td>1,357</td>
<td>1,380</td>
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<tr>
<td>New Homes &amp; Multifamily Units Constructed</td>
<td>578</td>
<td>713</td>
<td>1,200</td>
<td>1,300</td>
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<tr>
<td>Cumulative Carbon Reduction (metric tons)</td>
<td>53,421</td>
<td>59,950</td>
<td>74,026</td>
<td>71,106</td>
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</table>

Future Activities
- Launch Home Electricity Reports
- Expand SMUD Contractor Network to Commercial Installers
- Integrate Community Impact Plan Offerings
## Future Activities and Program Expansions

### Residential

- Neighborhood focus: providing bundle offerings to increased # of customers
- Multifamily: increased incentives for affordable housing property managers

### Commercial

- Neighborhood approach for small/medium-sized businesses: providing energy bundles for Zero Carbon Plan programs
Transportation Electrification
How do I electrify my personal vehicle?
Transportation Electrification

1. Searches for EV info
   www.smud.org/DriveElectric

2. Test drives an EV
   CA Clean Fuel Reward Program
   Ride & Drive Events

3. Researches which EV and home charger is most appropriate
   PlugStar Online Tools
   SMUD EV Support Program

4. Visits a dealership
   Dealer Engagement

5. Makes EV purchase
   EV Rate Credit (Time-of-Day)
   Sacramento Clean Cars for All Partnerships

6. Purchases and installs a home charger
   SMUD Charge@Home Incentives
   Managed Charging

7. Wants to save money when charging at home
   SMUD Energy Store

8. Enrolls in Managed Charging program
   Sacramento Clean Cars for All Partnerships
How do I electrify my company fleet?

Transportation Electrification

1. Reviews EV Fleet options
   - www.smud.org/DriveElectricBusiness
   - Talk to Commercial EV Staff

2. Develops plan for fleet electrification
   - Commercial EV Program
   - SMUD eFuel AdvisorSM

3. Develops plan & install chargers
   - Commercial EV Program
   - SMUD eFuel SolutionsSM

4. Makes EV purchases
   - Commercial EV Program

5. Examines ways to reduce demand charge burden
   - Commercial EV Pilot Rate

COMMERCIAL
Residential and Commercial Programs

Residential (smud.org/DriveElectric)

- SMUD EV Support Program
- Ride & Drive Events
- Dealer Engagement
- PlugStar Online Tools
- SMUD Charge@Home Program
- Residential EV Rate Credit
- Community Partnerships
- Sacramento Clean Cars for All Partnership
- Managed Charging Pilot

Commercial (smud.org/DriveElectricBusiness)

- Commercial EV Program
  - Light, Medium, and Heavy-Duty vehicle incentives
  - Level 1, 2 and fast charger incentives
- SMUD eFuelSM Advisor
- SMUD eFuelSM Solutions
- Commercial EV Pilot Rate
- CALeVIP Partnership
Key Metrics & Milestones
Transportation Electrification

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<tr>
<td>Residential EV Charger Incentives</td>
<td>N/A</td>
<td>486</td>
<td>833</td>
<td>800</td>
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<tr>
<td>Commercial &amp; CALeVIP EV Charger Incentives</td>
<td>266</td>
<td>129</td>
<td>320</td>
<td>300</td>
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<tr>
<td>Cumulative Residential EV Rate Participants</td>
<td>12,176</td>
<td>15,156</td>
<td>16,500</td>
<td>16,376</td>
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<tr>
<td># of Light Duty EV's in Service Territory</td>
<td>23,421</td>
<td>24,816</td>
<td>27,385</td>
<td>25,879</td>
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</tbody>
</table>

Future Activities

- SMUD Contractor Network to install SMUD Charge@Home projects launching October 2022
- Expanded e-mobility incentives and EV home charger installations for EAPR and income qualified customers
- Add additional electric vehicle manufacturers to Managed Charging pilot
- SMUD eFuel Solutions™ program offering launch by year end
- In depth consultation services helping customers right size home EV charging solutions
- Investigating Universal Charging

9/6/2022 Board Strategic Development Committee and Special SMUD Board of Directors Meeting
Load Flexibility & Battery Storage
How do I enroll my thermostat in My Energy Optimizer™?

Load Flexibility & Battery Storage

1. Online search for qualifying smart thermostats
2. Purchases smart thermostat in My Energy Optimizer Partner
3. Enrolls smart thermostat in My Energy Optimizer Partner
4. Receives $50 enrollment rebate and Critical Peak Pricing information
5. Receives notifications around Peak Event Days
6. Home preconditioned during Peak Event Days
7. Receives $25 participation rebate at the end of season or Critical Peak Pricing bill savings

RESIDENTIAL
How can I help my community build a virtual power plant?

Load Flexibility & Battery Storage

**Rate Arbitrage**
- My Energy Optimizer Starter
  - Battery Storage
- Commercial Battery Storage

**Residential Summer Peak Days**
- My Energy Optimizer Partner
  - Thermostat
  - Battery Storage

**Residential Year Round**
- My Energy Optimizer Partner+
  - Battery Storage

**Summer Emergency Events**
- Peak Corps (Air Conditioner Load Management)

**Commercial Summer Peak Days**
- PowerDirect

**Research Pilots**
- EV Managed Charging
- PowerMinder Water Heaters
### Key Metrics & Milestones

#### Load Flexibility & Battery Storage

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<tr>
<td>My Energy Optimizer Smart Thermostats</td>
<td>NA</td>
<td>4529</td>
<td>6500</td>
<td>5600</td>
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<tr>
<td>My Energy Optimizer Battery Customers</td>
<td>NA</td>
<td>33</td>
<td>100</td>
<td>368</td>
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<tr>
<td>PowerDirect (MW)</td>
<td>15.6</td>
<td>17.9</td>
<td>18.0</td>
<td>17.7</td>
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<tr>
<td>Load Flexibility Portfolio (Total MW)</td>
<td>74</td>
<td>113</td>
<td>182</td>
<td>206</td>
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</tbody>
</table>

#### Future Activities

- Increase PowerDirect® Small-Medium Business Participation
- Grow My Energy Optimizer Partner Thermostat Participation
- Implement My Energy Optimizer Partner Battery and Partner+ Events
- Launch Next Gen Air Conditioning Load Management Offering
Green Pricing
How do I participate in Residential Greenergy™?

Green Pricing

Becomes aware of Greenergy

1. Social Media Campaign
2. Std. Media Advertising

Moves into home, finds Greenergy option via the start service interaction

3. smud.org/manage/MoveServices

Selects Greenergy participation level

Receives welcome letter with information about choice and impact

4. smud.org/manage/MoveServices

Receives 1st year thank you letter and information on upgrading to Greenergy Neighbor or Climate Advocate

5. Annual Power Content Label & Letter
Residential and Commercial Programs
Green Pricing

Residential Greenergy
Updated - January 2022
• Standard
• California Renewable
• Local Renewable

New options - June 2022
• Neighbor
• Climate Advocate

Sacramento Shade
• Up to 10 free trees for residential customers

Commercial Greenergy
• Partner Plus
• Custom Blend

Other Programs
• Neighborhood SolarShares
• Commercial StorageShares
## Metrics & Milestones

### Green Pricing

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<th>2022 Plan</th>
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</thead>
<tbody>
<tr>
<td>Residential Greenergy customers</td>
<td>68,000</td>
<td>66,000</td>
<td>67,000</td>
<td>71,000</td>
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<tr>
<td>Commercial Greenergy customers</td>
<td>2,128</td>
<td>1,215</td>
<td>1,700</td>
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<td># of trees distributed</td>
<td>11,628</td>
<td>6,047</td>
<td>12,250</td>
<td>12,250</td>
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<tr>
<td># of Neighborhood SolarShares homes enrolled</td>
<td>16</td>
<td>1809</td>
<td>2100</td>
<td>2500</td>
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### Future Activities

- **2022 - New Sacramento Shade Contract**
- **2023 - Planning and development of Commercial Greenergy California Renewable Offering**
- **2024 - Planning and development of Commercial Renewable Shares Offering**
Thank You