Exhibit to Agenda Item #1a

Board Finance & Audit Committee and Special SMUD Board of Directors Meeting
Wednesday, November 9, 2022, scheduled to begin at 5:30 p.m.
Virtual Meeting (online)
Zero Carbon Energy Solutions
2023 Proposed Budget & Initiatives

Lora Anguay
Chief Zero Carbon Officer
<table>
<thead>
<tr>
<th>Customer &amp; Community Services</th>
<th>Energy Delivery &amp; Operations</th>
<th>Zero Carbon Energy Solutions</th>
<th>Enterprise Strategy</th>
<th>Information Technology</th>
<th>Workforce, Diversity &amp; Inclusion</th>
<th>Corporate / Enterprise</th>
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<tr>
<td>Customer Experience Delivery</td>
<td>Transmission Planning &amp; Ops</td>
<td>Power Generation</td>
<td>Resource Strategy</td>
<td>Applications</td>
<td>People Services &amp; Strategies</td>
<td>Governance</td>
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<td>Customer Operations</td>
<td>Distribution Planning &amp; Ops</td>
<td>Advanced Energy Solutions</td>
<td>Revenue Strategy</td>
<td>Infrastructure &amp; Operations</td>
<td>Diversity, Equity &amp; Inclusion</td>
<td>Finance</td>
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<td>Community Energy Services</td>
<td>Line Assets</td>
<td>Commodity, Procurement &amp; Sales</td>
<td>Customer &amp; Grid Strategy</td>
<td>Strategy &amp; Innovation</td>
<td>Sustainable Communities</td>
<td>Legal, Gov't Affairs &amp; Reliability Compliance</td>
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<td>Strategic Services &amp; PMO</td>
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<td>Cybersecurity</td>
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<td>Procurement, Warehouse &amp; Fleet</td>
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<td>Comms. Marketing &amp; Community Relations</td>
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<td>Enterprise Affairs</td>
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2023 Proposed Budget

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<td>O&amp;M</td>
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<tr>
<td>Public Good</td>
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<tr>
<td>Capital</td>
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<td>$340.2</td>
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Maintain existing assets

- Protect the reliability of our existing power generation facilities.
- Improve recreational facilities
  - Union Valley Bike Trail
  - Sunset and Fashoda campgrounds

Enable integration of grid and distributed energy resources

- Test advanced functionality of smart inverters to increase customer hosting capacity and reliability of solar and storage resources.
- Mitigate grid and customer infrastructure impacts of electrification through new technologies and customer programs
Pursue grant opportunities

- Complete grant concept papers
- Actively monitor and pursue
- Sustainable Communities as a foundational component

Natural gas generation repurposing

- Continue to support partnership for carbon capture technologies
- Pursue partnerships to further technology and access to the Renewable Natural Gas (RNG) and renewable hydrogen value chains
Proven clean technologies

- Solano 4 Wind Project (91 MW)
- Country Acres Project (344 MW Solar + 172 MW Storage)
- Continue planning, evaluation and deployment of additional proven clean technology resources
New technologies and business models

- Accelerate research in customer load flexibility to allow for the growth of our Virtual Power Plant (VPP) and transition of SMUD’s thermal fleet, thereby increasing the integration of intermittent renewable resources

- Implement a Long Duration Energy Storage (LDES) flow battery project in partnership with ESS

- Research the potential to create natural habitats through pollinators and planting native species to reduce operational costs of vegetation management and erosion control
Zero carbon customer programs

Energy efficiency and building electrification
- Support the region’s efforts to decarbonize through building electrification programs
- Reduce overall cost through energy efficiency programs

Load flexibility
- Continue to expand and build our Virtual Power Plant to provide additional resources and manage grid impacts
- Support adoption of rooftop solar with battery storage incentives

Green pricing and solar offerings
- Facilitate options for renewable energy through pricing programs

Electric vehicles
- Support customer adoption
- Minimize Grid Impacts
Infrastructure Investment
Alignment to Strategic Direction: SD-5  SD-13  SD-15

Community Impact
November 9, 2022 Board Finance & Audit Committee and Special SMUD Board of Directors Meeting

Leverage the energy transition to create local jobs and improve the economic outlook of the Sacramento region
- ESS Partnership
- My Energy Optimizer, Partner+

Ensure equitable access to programs and services
- Design and execute Community Impact Strategy Programs and Services
- Launch comprehensive regional workforce development
2023 Proposed Budget

O&M
$163.6M

Capital
$340.2M

Public Good
$62.5M

Major Budget Items

• Utility Scale Renewable Projects: $258.7M
  ▪ Solano 4 Wind Project
  ▪ Country Acres Solar and Storage Project

• Power Generation Asset Management and Compliance: $151.1M

• Customer Programs: $83.3M

• Community Impact Plan (SMUD): $13.6M
  ▪ ZCES: $7.7M

• Long Duration Energy Storage Projects: $11.0M
  ▪ ESS Iron Flow

• Vehicle to Grid: $3.7M
  ▪ General Motors V2G
  ▪ Light Duty V2X Pilot
  ▪ Twin Rivers Electric School Busses
Questions?