Exhibit to Agenda Item #1

Provide the Board with external and internal presentations followed by a panel discussion on Green Hydrogen and Biofuels programs.

Board Strategic Development Committee and Special SMUD Board of Directors Meeting

Tuesday, June 7, 2022, scheduled to begin at 5:30 p.m.

Virtual Meeting (online)
About the American Biogas Council

The voice of the biogas industry in the US

All sectors represented

- Producers/users/marketers
- Project developers/owners
- Equipment retailers and dealers
- Waste management companies
- Waste water companies
- Farms
- Utilities
- Municipalities
- Consultants and EPCs
- Financiers, accountants, lawyers and engineers
- Non-profits, universities and government agencies

320+ organizations
3,500+ individuals
The US Biogas Market

**Current**
- 317 on Farm (+21% in 2021)
- 1,269 Wastewater
- 66 Food Scrap
- 645 at Landfills

**Potential**
- 8,300 on Farm
- 4,000 Wastewater
- 1,000 Food Scrap
- 440 at Landfills

- 230 Operational RNG Projects (+47% in 2021)
- 2,300 Operational Biogas Systems
- 15,000+ Potential New Biogas Systems
RNG Drivers:

1. The Federal Renewable Fuel Standard (RFS)
   And
2. The California Low Carbon Fuel Standard (LCFS)

Natural Gas: $3/MMBTU
Biogas→RNG: $9-90+/MMBTU

Other State Clean Fuel Programs (OR, WA + NY? NM? MN? NE?)

Voluntary RNG purchases for corporate sustainability (ESG)

Food waste recycling policies
Biogas Potential in CA

California ranks 1st out of 50 states for its biogas production potential. We estimate up to 116.22 billion cubic feet of renewable methane from biogas could be produced each year for energy, fuel, heat, and more!

Current Systems
- Food Waste: 30
- Manure: 28
- Wastewater: 156
- Landfill: 77

Potential Systems
- Food Waste: 246
- Landfill: 27
- Wastewater: 120
- Manure: 931

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<thead>
<tr>
<th>Source:</th>
<th><a href="https://americanbiogascouncil.org/resources/state-profiles/">https://americanbiogascouncil.org/resources/state-profiles/</a></th>
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<table>
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<tr>
<th>Manure (total)</th>
<th>44.8 million tons/yr</th>
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<tbody>
<tr>
<td>Broiler</td>
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<tr>
<td>Dairy</td>
<td>44.2 million tons/yr</td>
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<tr>
<td>Swine</td>
<td>175000 tons/yr</td>
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<td>Turkey</td>
<td>407000 tons/yr</td>
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<tr>
<th>Food Waste</th>
<th>12.3 million tons/yr</th>
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<tr>
<td>Landfill</td>
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| Wastewater Facility* | 3235 million gallons/day |

Total Number: 301
Total Number: 1294
Growth of the RNG market
Growth of the US RNG market WITH eRINs

RFS Cellulosic Fuel Generation and RVO by Year

- eRINs
- Cellulosic Fuel Generation
- Cellulosic RVO

Billion Gallons
How much could eRINs be worth?

501 million eRINs

D3 RIN: $3.50
D5 RIN: $1.75

22.6 kWh = 1 eRIN

D3 eRINs: $1.75 Billion
D5 eRINs: $877 Million

D3 eRINs: 5 cents/mile
D5 eRINs: 2.5 cents/mile (Revenue)

The International Council on Clean Transportation notified EPA in 2015 that 22.6 kWh of electricity would drive the typical new EV about 70 miles, displacing 4.3 gallons of gasoline.