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<td><strong>Docket Number:</strong></td>
<td>20-IEPR-02</td>
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<td><strong>Project Title:</strong></td>
<td>Transportation</td>
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<td><strong>TN #:</strong></td>
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<td><strong>Document Title:</strong></td>
<td>Presentation - Zero Emission Bus Program</td>
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<tr>
<td><strong>Description:</strong></td>
<td>S1 2A. Joe Callaway, AC Transit</td>
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<td><strong>Filer:</strong></td>
<td>Raquel Kravitz</td>
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<td><strong>Organization:</strong></td>
<td>Energy Commission</td>
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Zero Emission Bus Programs

Joe Callaway
Director of Capital Projects
AC Transit
July 15, 2020
What We’ve Done...

20+ Years of ZEB Experience

H2 Strategies Employed

- Conversion from GH2 to LH2
- Increase LH2 Storage (15,000 gal)
- On-Site Electrolyzer from Solar (65kg/day)
- Self Generation:
  - Solar - (1.4 MW)
  - Solid Oxide Fuel Cell - (420 KW)
- Emergency Back-up (Diesel Generator)

Other Thoughts

- Funding to Mature H2 Supply Chain
- Mutual Aid Agreements (H2 Suppliers)
- Funding for Self Generation and Storage
- FCEB Bus as a Generator:
  - To Power H2 Stations
  - To Charge BEBs
AC Transit ZEB Future

➢ Transition to a 100% ZEB fleet
  ✓ Board Approved ZEB Roll Out Plan
  ✓ Plan for 2021
    ✓ Purchasing 20 FCEBs and 20 BEBs in 2021
    ✓ Constructing BEB Charging Infrastructure at Two Locations
  ✓ Maintain a “Technology Agnostic” Perspective
  ✓ Conduct Side by Side Study (5x5 and then 25x25)

➢ Challenges and Risk
  ✓ Funding Gap (Buses, Infrastructure, and Supply Chain Development)
  ✓ Resiliency and Sustainability
    ✓ Utilities – PSPS / Changes to the System, Capacity Availability
    ✓ Hydrogen Fuel Supply Chain (Policies that Demand Resiliency)
    ✓ Sustainable Maintenance Practices (Significant Training Required)