

Exhibit to Agenda Item #1e

Board Strategic Development Committee Meeting and Special SMUD
Board of Directors Meeting

Tuesday, February 13, 2018, scheduled to begin at 5:30 p.m.

Customer Service Center, Rubicon Room

SMUD Autonomous Vehicles (AV) Considerations

- Sacramento is a likely area for early AV market penetration
 - California state capital and access to policy / governing agencies
 - Supportive local government and tech community
 - Transportation electrification leadership, low electricity rates
 - Proximity to the Bay Area development centers
- There is a strong likelihood that AVs will be electric given the timeframe, regulatory climate and financial benefits
 - Lower cost fuel
 - Lower maintenance costs
 - Lower fleet replacement costs / longer life drivetrains
- Overall energy usage of commercial passenger AVs will be 5 to 7 times higher than current single passenger EVs
 - 150 to 200 miles per day versus current 30 miles/day
 - Vehicle charging requirements will be different than current residential charging models
- Electrification of Goods Movement is also expected (Med / Heavy Duty Vehicles)
 - Will have even more electrification impacts

SMUD AV Support

- Areas of support given strong future potential for electrification
 - ATOS formation
 - Alliance to Save Energy 50 by 50, AV Subcommittee
 - Dialog with interested companies
- Energy usage and charging data are needed to evaluate business cases, grid impacts and service implications
- Rates: AV proponents are interested in low cost electricity and solutions to demand charge exposure which hampers high power EV charging (high demand loads with low energy use)