The Dilemma

- Present rates for DC fast chargers create a chicken and egg dilemma

Diagram:
- EV penetration is low
- DC fast charging stations are not well utilized
- High average energy cost for station
- DC fast charging stations don’t get built
- Range anxiety
Non-Residential Rates

- For smaller non-residential (> 30 kW) customers, there is no demand charge for the first 15 kW
- Larger non-residential rates have demand charges that range from $6 to $8 per kW
- DC fast chargers are often 50 kW of load (at least 19kW) and are currently utilized about 2% of the time or less
Demand Charges

- Demand charges are cost based
- About 40% of mid-size non-residential cost is related to demand

Mid-size Non-Residential Cost for Each Aspect of Service

- Generation - Demand-Related: 18%
- Distribution - Customer-Related: 7%
- Transmission - Energy-Related: 2%
- Transmission - Demand-Related: 9%
- Generation - Energy-Related: 50%
DC Fast Charger Bills

• For a typical 50 kW DC fast charger
  – 2% utilization
  – $427 monthly bill
  – 58¢ per kWh

• Average commercial rate is 9¢ per kWh (40% utilization)

• Challenging business case for new charging stations

• Existing stations shutting down or limiting demand/speed of charging
The Solution

• Transitional rate with an alternate rate structure
  – Apply discount to demand charges; balance with on-peak energy charges
  – Slowly move back to standard rates over a multi-year period
  – Limit applicability to stations with high demand that are available for anyone to use
    • Broadly available to the general public
    • At least one DC fast charger
    • Only charging stations on meter
    • Less than 1 MW
Schedule 45

• Filed Schedule 45 on December 27, 2016
• Responsive to customer feedback and SB 1547
• Final rate schedule incorporated feedback from Commission staff
• Commission approved and rate became effective June 1, 2017
• 90% discount to demand charges reducing annually over a nine year glide path back to standard rates
• First year: $173 monthly bill instead of a $427 monthly bill
The Future

• Annual reports sharing statistics for the new rate
• Revisit rates every three years – Possible actions
  • Slow down transition back to standard rates
  • Examine if there is a cost basis for treating this type of customer differently
  • Readjust rates and/or time-of-use periods
• Opportunity for station operators to be part of the solution – Encourage station use in off-peak periods with off-peak pricing
  • Saves you money by avoiding on-peak energy charge
  • Helps us manage our loads to reduce over-all costs