



ENERGY IMBALANCE MARKET (EIM)

The costs and benefits of joining the EIM

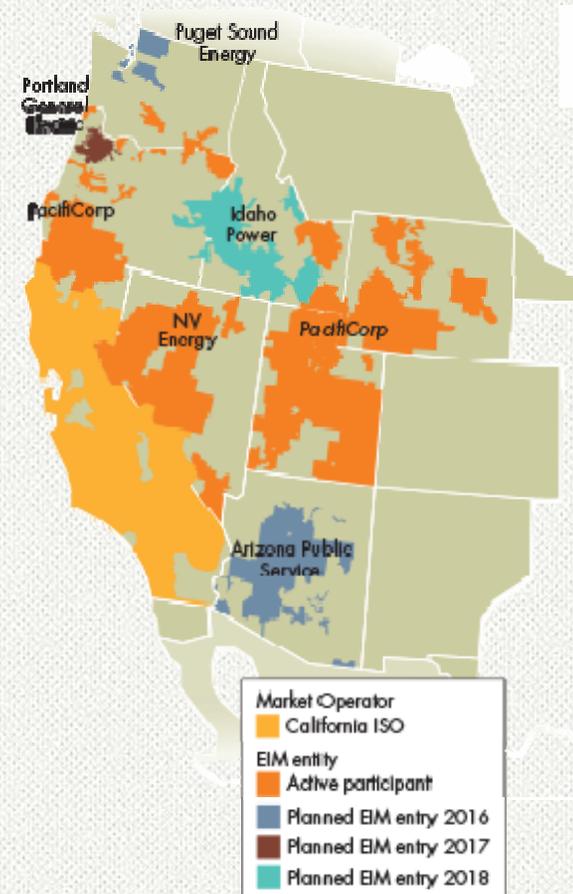
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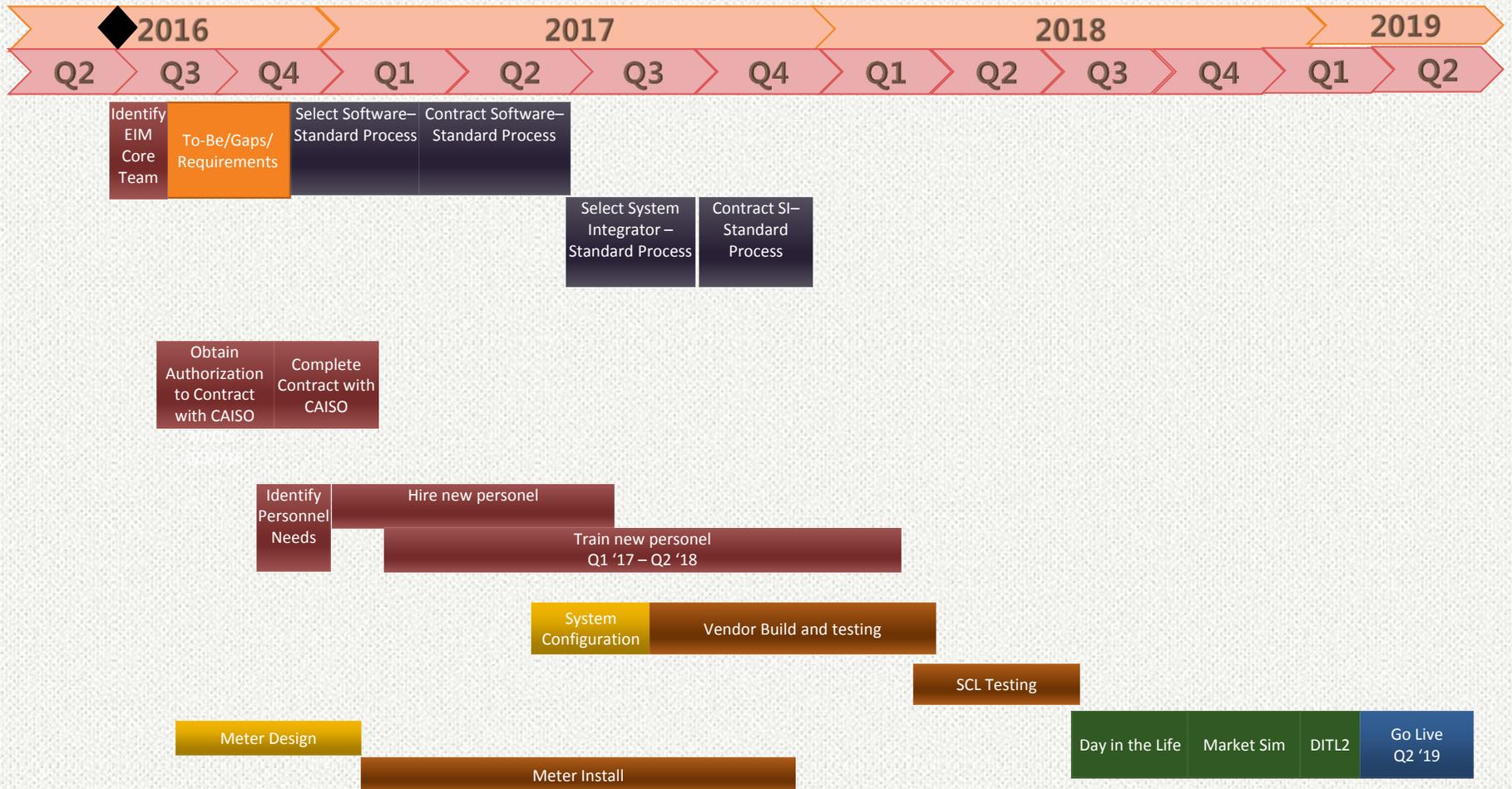
- Auction market for balancing supply and demand every 5 minutes
- Improves grid reliability, reduces energy supply cost and enhances integration of renewable resources
- Two Investor-Owned Utilities have commenced market operations with 4 more over next several years
- Seattle City Light, the Los Angeles Department of Water and Power and several other Consumer-Owned utilities are considering EIM participation



BUSINESS CASE SUMMARY

- City Light's flexible hydro generation portfolio is beneficial to the EIM
 - Improves ability to integrate renewable resources
 - Compensates City Light for providing needed grid flexibility
- E3 study - additional revenue of \$4-23 M/year over a range of conditions
- For the business case we have conservatively used \$4 M/year in incremental revenue, \$2.8 M/year in incremental cost with a \$8.8 M upfront capital investment
- Other potential benefits include:
 - Development of market for non-energy products
 - Reduction in reserve obligations
 - Reduction in cost of managing forecast uncertainty

APRIL 2019 TIMELINE





QUESTIONS?

