

Idaho Power EIM Implementation Update



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EIM Governing Body Meeting, March 2018

Idaho Power

- Established in 1916
- Engaged in Generation, Transmission, Distribution, sale and purchase of electric energy.
- 535,000 customers in Southern Idaho and Eastern Oregon
- Summer Peaking – Over 3,400MW



Idaho Power Company Owned Generation

- Nameplate Generation – 3,594MW



Hydro
1,709MW



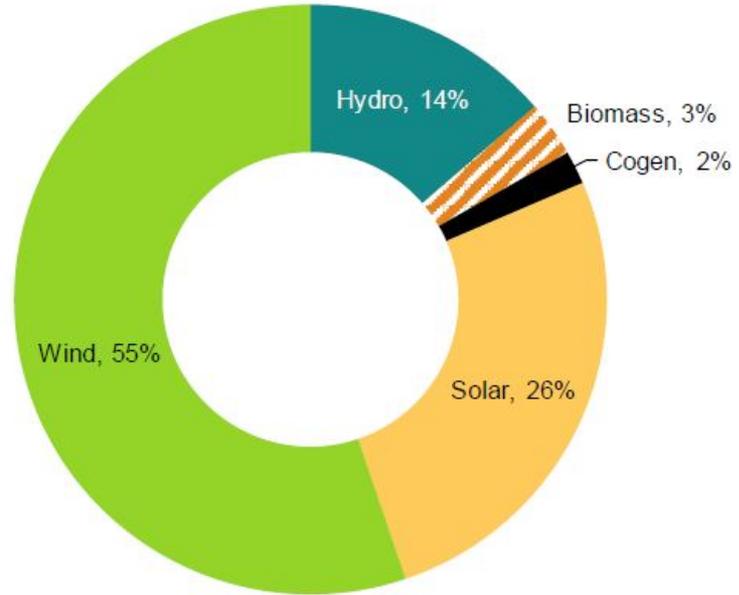
Coal
1,118MW



Natural
Gas/Diesel
767MW

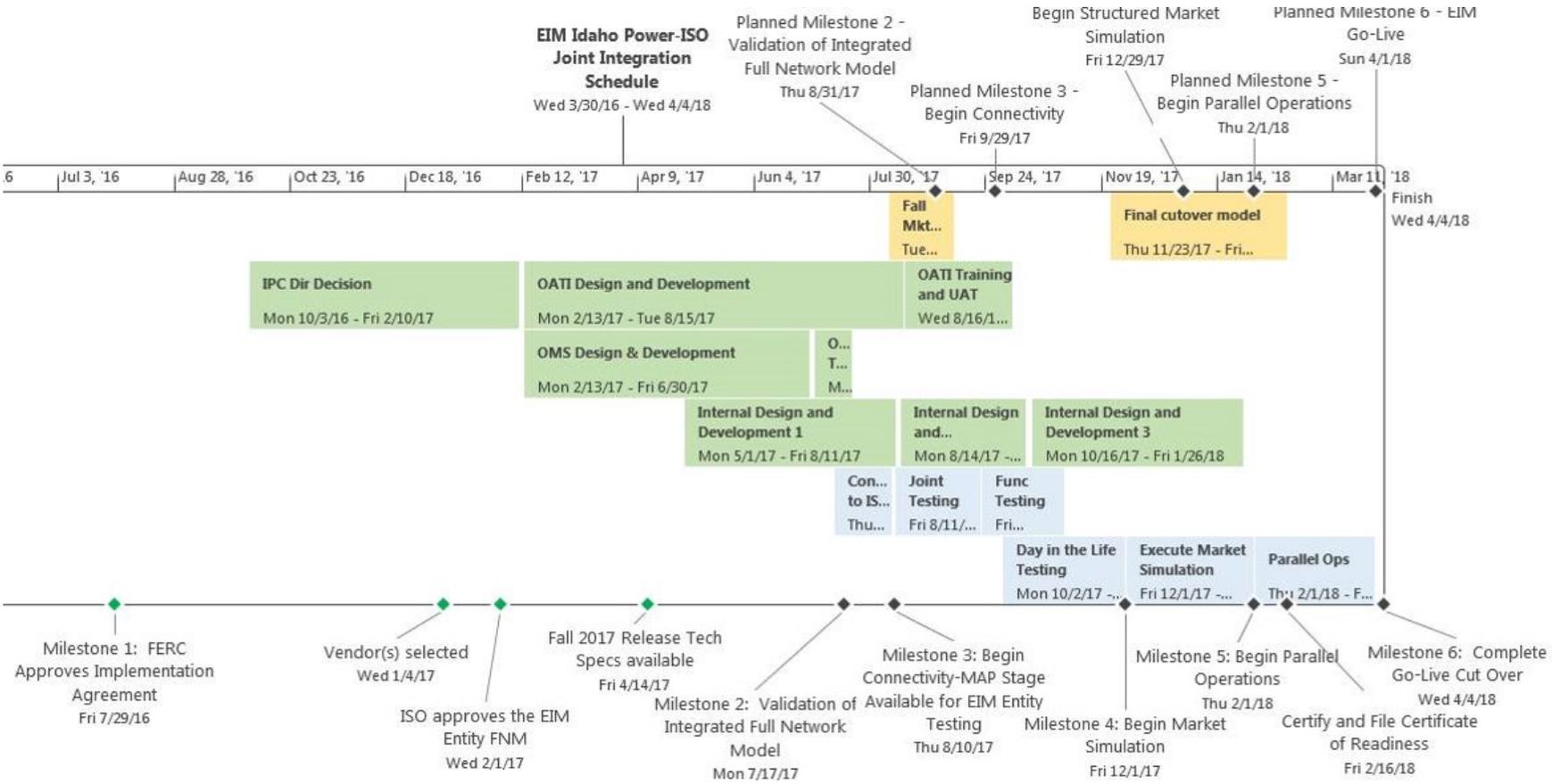
PURPA Generation

- April 2017 – 128 online PURPA contracts
- Approximately 1,115MW nameplate capacity



PURPA contracts by resource type

EIM Project Timeline



EIM Project Statistics – Participating Resources

- Hydro Generation
 - 3 Plants
 - 12 separate generating units
 - 1020MW Maximum Generation Capacity
- Coal Generation
 - 1 Plant (4 separate units)
 - 708MW Maximum Generation Capacity
- Natural Gas Generation
 - 2 Simple Cycle Generators
 - 1 Multi-Stage Generator
 - 758MW Maximum Generation Capacity

EIM Project Statistics - People

Project Staffing

- 2 Full time IPCO employees dedicated 100% to project
- Over 150 additional employees from multiple departments took EIM project implementation tasks on top of existing job duties
- External Contract Project staff: 3 full time and 3 as needed /part time



New Positions

- 6 new positions projected to hire directly related to EIM
- No new EIM desks added

Training

- Over 1,000 computer based training classes and over 300 new job task qualifications.

EIM Project Statistics- Technology

- New Bid to Bill Systems - EIM Entity and EIM PR Scheduling Coordinators
- New Outage Management System
- New in-house applications
- Upgrade/modifications of existing applications

New Integrations	15
New Internal Development Applications	12
Modified Integrations	1
New External Applications	5
Upgraded Existing Applications	2
Modified Existing Applications	5
Grand Total System Changes	40

Project Statics - Metering

- 46 generating units scoped for metering changes
 - Replaced 32 meters on NPRs and one PR
 - 14 new meters installed for PRs (left existing gross meter alone)
 - 6 installs required new Current Transformers
 - 7 installs required new Current and Potential Transformers
- 101 SQMD Forms completed and submitted to CAISO for approval for generation internal to Idaho Power BAA.
- New communications paths on all meter installs/upgrades

Project Challenges

- Project Staffing
- Network Modeling Challenges
 - Accurately Modeling Joint Owned Participating Units
 - Best way to model Hydro
- New systems/integrations
- 5-minute VER forecast
- Metering Upgrades
- Hydro conditions during Parallel and at go-live



Key Accomplishments

- Implemented technology changes
- Completed Market Simulation and functional testing of all EIM systems and interfaces
- CAISO completed on-site review of IPCO metering plan
- New metering equipment installed
- Obtained Market Based Rate Authorization for EIM and FERC Approval of New OATT
- Filed Readiness Criteria at FERC



Next Steps

GO LIVE!!!

April 4, 2018