• Roughly 15% of PGE’s generation comes from RPS-qualifying renewables like wind and solar

• By 2040, 50% of PGE’s generation must come from RPS-qualifying renewables

• Load & generation must balance at all times, so PGE must flex its resources to match renewables outputs
**PGE’s Journey to Self-Integration & EIM**

- **Starting in 2013**, PGE made incremental system improvements to prepare for EIM.

- The EIM project was a cross-functional effort resulting in improved communications and work flow processes.

### Generation Plants
- Improved Cycling Capabilities
- Automated Generation Control (AGC) Implemented
- Revenue Quality Metering
- Generation Excellence and Reliability Monitoring

### Power Operations
- Plant Optimization System
- Upgrades to Wind Forecasting Tools
- 15 Minute Scheduling & Wind Integration
- Outage Management Reporting System
- Market Interfaces

### Balancing Authority
- Reliability Based Control
- ACE Diversity Interchange
- BA Authorization Management System
- Plant Information (PI) Consolidation
- Wind Integration Tariff

### Market Participation
- Participant in the EIM Implementation & Policy Forum (IPF)
- Participant in CAISO Stakeholder Process
- NW vs. CAISO Cost Benefit Analysis
- Jim Piro Co-Chaired NWPP MC Initiative

![Diagram showing various initiatives and their status as in process or completed](image)
Nearly 400 employees received EIM training