| **DOCKETED** |
|-----------------|----------------|
| **Docket Number:** & 16-OIR-04 |
| **Project Title:** & Integrated Resource Plans (Publicly Owned Utilities) |
| **TN #:** & 214844 |
| **Document Title:** & Presentation - Integrated Resource Planning: Imperial Irrigation District By: Scott Harding |
| **Description:** & December 13, 2016 |
| **Filer:** & Le-Huy Nguyen |
| **Organization:** & Imperial Irrigation District |
| **Submitter Role:** & Public |
| **Submission Date:** & 12/16/2016 3:15:20 PM |
| **Docketed Date:** & 12/16/2016 |
Integrated Resource Planning: Imperial Irrigation District

12-13-16
CEC IRP Workshop
Overview

• Objectives of the IRP
• IRP Development Process
• Key Drivers of IRP
• Adjusting to SB350 Requirements
  ▪ Questions addressed
• Current Status and Next steps
Objectives of the IRP

- Sustain IID’s overall mission to continue as a fiscally responsible public agency providing reliable, efficient and affordably priced energy services.
IRP Development Process

- Each section of the Energy Department works together in a collaborative team effort
- Key phases of IRP development

Gather Key Input/Assumptions
Identify Strategic Alternatives & Scenarios
Simulate and Study Alternatives
Present and Review Findings (re-evaluate if necessary)

Will require numerous scoping meetings (individually or collectively)
Key Drivers of IRP

- Preserve the IID BA
- Maintain System Reliability
- Provide Competitive Rates
- Meet Environmental and Regulatory Responsibility
- Meet Customer Needs
Adjusting to SB350 Requirements

• Expecting to be well above the 33% 2020 target
• Major Obstacles Integrating to a 50% Portfolio
  • IID will meet 50% target
  • Cost, Risk and Operations
  • Integration as a BA
  • 50% is 2,030,000 MWh in 2030 vs 50% as 1,700,000 MWh in 2020
  • Process & Timing
    – How will targets be administered
    – Emissions targets and RPS
    – Determining best mix that may change as conditions change
• Forecast Error
RPS Position

IID RPS Position

980 GWh Needed by 2030 to meet 50% RPS

Resources to be Procured

Approved Renewable Resources
RPS Position by Resource Type

California Renewable Portfolio Standards & IID Progress -

- Un-Procured (50%)
- Requirement % W/50% by 2030

- Geothermal
- Biomass
- Solar
- Small Hydro

Years: 2014 to 2030
Forecast Risks

RPS Position with Current Resources + Carry Over: Total Range of SEVERE/MILD Weather + HIGH/LOW Production

980 GWh Needed by 2030 to meet 50% RPS
Adjusting to SB350 Requirements (Cont.)

- **Role of Energy Storage in Meeting the 50% renewables goal**
  - Where flexibility is absent, quick response is critical
  - Degree of Role will depend on pricing and comparative alternatives at the time of decision
  - Can help integrate less stable resources
  - Common assumptions can be difficult to apply in the same manner for the many different types of utilities
  - Will learn from our recently installed battery

- **Information from CEC:**
  - Close coordination
  - Clear picture of compliance mechanisms
  - Public perception
Adjusting to SB350 Requirements (Cont.)

• **Role of DERs**
  - Evaluate each resource carefully
  - Behind the meter programs that allow greater understanding of DERs will help prevent loss of reliability control
  - Smart metering and smart grid
  - System upgrades are currently underway
Current Status and Next Steps

• Current IRP in draft form
  ▪ Assumptions used, but SB350 will provide:
    • Specific guidelines and metrics of:
      – How to meet 50% and emissions targets
      – Increase EE
      – Low income communities
      – Vehicle electrification
      – IRP development standards

• Will begin development of next IRP as guidelines are released
  ▪ Use current IRP as a starting point
  ▪ Obtain help and input where needed