
Imperial Valley's Growing Renewable Energy Resource Potential

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Latest Developments

- The Renewable Energy Transmission Initiative 2.0 (RETI 2.0)
 - Introduced in response to Governor Brown's Clean Energy and Pollution Reduction Act of 2015 (SB350)
 - Renewable Portfolio Standard requirement increased from 33% to 50% by 2025 to 100% by 2045
- Geothermal Development and Flexibility
 - *Ramping*
 - *Ancillary Services*
- Transmission Initiatives and Upgrades
 - Interconnection with Comision Federal de Electricidad (CFE)
 - Increased Maximum Import Capability (MIC)



RETI 2.0 Update

- IID participated in the RETI 2.0 process to promote transmission and generation development within IID's service area. Areas of progress from RETI 2.0 include:
 - *Transmission Assessment Focus Areas (TAFAs) – entire IID service area vs. Competitive Renewable Energy Zones (CREZ)*
 - *Clearly defined IID transmission export capabilities at Mirage and Imperial Valley substations; additional upgrades*
 - Path 42: 1,455 MW export potential
 - New FERN Substation: 1,200 MW export potential
 - *IID transmission projects that address regional constraints and provide benefits to the grid as a whole.*
 - Desert Southwest Transmission Project
 - Strategic Transmission Expansion Plan (STEP)
 - Hassayampa – North Gila 500 kV transmission line (HANG2)



Geothermal Benefits

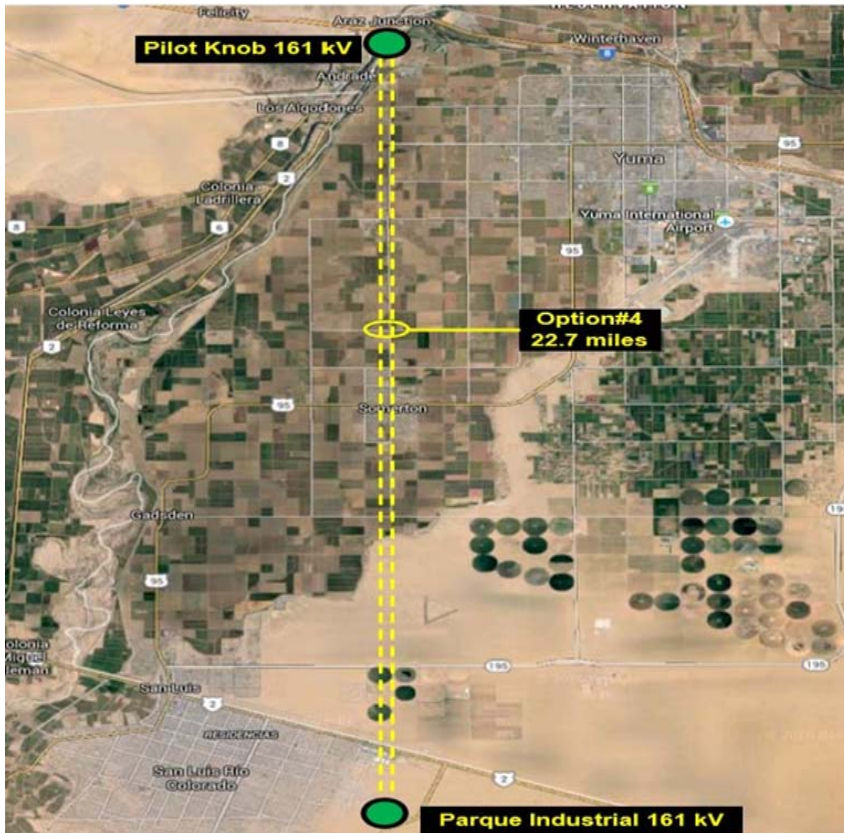
- Benefits of Imperial Valley-located Salton Sea geothermal
 - *Flexibility*
 - *Ramping*
 - *Dispatch*
 - *Locational attributes*
 - *Aids in achieving restoration goals*
 - *Economic Development*
 - *Employment Opportunities*
- Regional promotion including recognition of geothermal as a viable resource in the RETI 2.0 process

Intertie with Mexico

- IID and Centro Nacional de Control de Energía (CENACE) are working toward construction of a new transmission line interconnecting the two systems for energy import/export opportunities
- IID and CENACE completed a joint Feasibility Study to determine potential interconnection benefits
- Seven intertie point alternatives were analyzed and two were selected as potential projects
 - *Pilot Knob substation – Parque Industrail substation; 22 mile, 161 kV intertie*
 - *Gateway substation – Mexicali Oriente substation; 2.75 mile 230 kV intertie*
- Estimated in-service date of Q4 2019



IID – Mexico Interconnection Options



Transmission in Development

- IID canceled over \$100 million dollars in unnecessary transmission projects
- Cancellation was coordinated with neighboring utilities and the Western Electricity Coordinating Council
- Developed a strategic 10-year transmission plan
 - *Developing projects that bring local and regional benefits*
 - *Fern substation creates a new interconnection "hub" to the CAISO*
 - *Path 42 increases export to energy markets in California*
- Increased Maximum Import Capability value from zero to 702MW
- STEP, HANG2, and Desert Southwest benefit the region
- IID developing new generation (request for proposal) in Coachella Valley to meet load growth



Renewable Potential

Imperial Valley Additional Renewable Resources

RETI 2.0 Imperial Valley Potential

Resource	New Capacity (MW)
Solar	3500
Wind	500
Geothermal	1000

IID Interconnection Queue

Solar	1340
Biomass	50
Geothermal	506

