



Delivering Renewable Power



Geothermal Power

**Requirements To Ensure
Sustained Base Load Renewable
Benefits**



Develops Geothermal Power in the Hottest/Most Prolific U.S. Resource

- **Formed 2006. Invested \$400M for 49 MW Hudson Ranch I. Commissioned in 2012; the first new geothermal plant in America's best field in 22 years. Directly enabled by Section 1603 Cash Grants.**
- **Hudson Ranch II, another 49 MW and \$400M, now under construction. Directly benefits from American Taxpayer Relief Act of 2012 Investment Tax Credit (ITC) extension.**
- **Imperial Wells, 85 MW and \$660M investment, now in development and accelerating due to potential benefits from American Taxpayer Relief Act of 2012 ITC extension.**



Geothermal is base load power – 24/7/365

- Plant capacity is 95% in the Salton Sea resource. Optimal renewable coal or nuclear power replacement.

Solar and wind are intermittent power

- Intermittent power capacity is 20-35%
Solar and wind deliver energy, not capacity.

Geothermal develops slower, costs more

- Must drill and prove resource before finance and construction.
- 50 MW geothermal exploration project takes 4-5 years and costs \$40-50 M, but creates substantial early-stage jobs.



- Best power generation employment and economic effects.
- Lowest land use/impacts among renewables; permitting is relatively non-controversial.





How Things Are In California

- 33% RPS drives the market. Coal power diminished by 2017 (without replacement) by new CARB regulations.
- Solar incentive advantages dominate utility RFQ bidding. Solar enjoys longest tax benefits – 30% ITC in place to 2016.
- Solar power pays no property taxes. Modular, quick construction, lower risk projects (but ~20% capacity factor).
- All “intermittents” need back-up power for reliability.
- Minimal employment after construction.

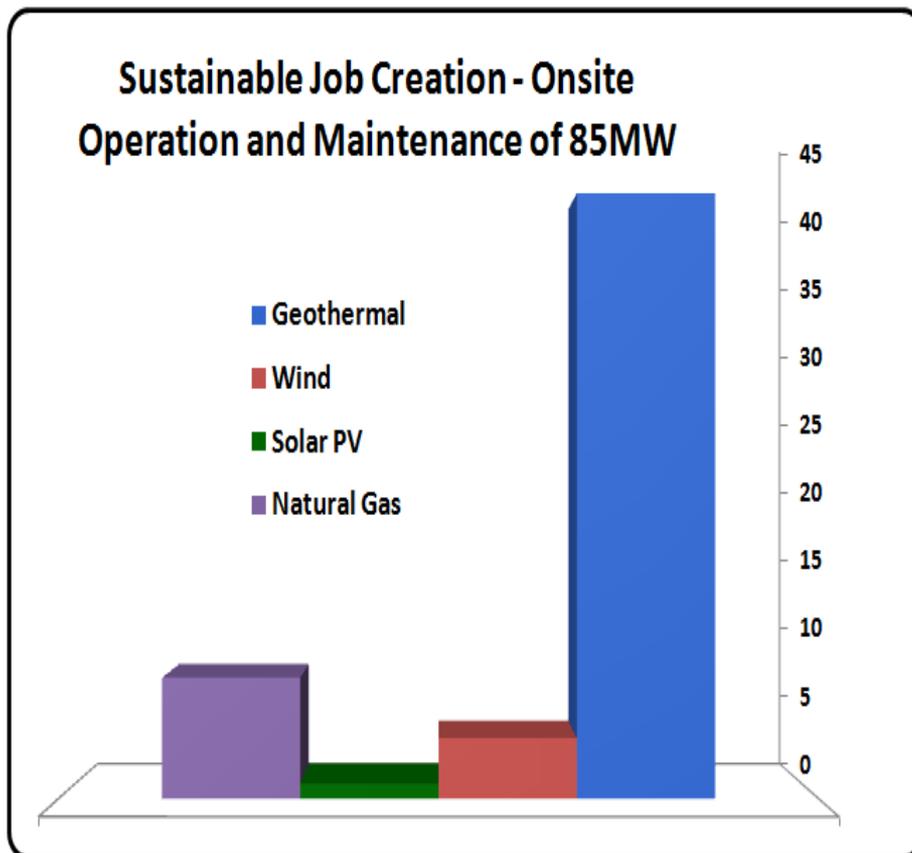
Economic Development

Is Spelled:

JOBS

At Hudson Ranch I, EnergySource created over 60 highly-paid, full time operation and management jobs in Imperial County, where unemployment exceeds 25%.

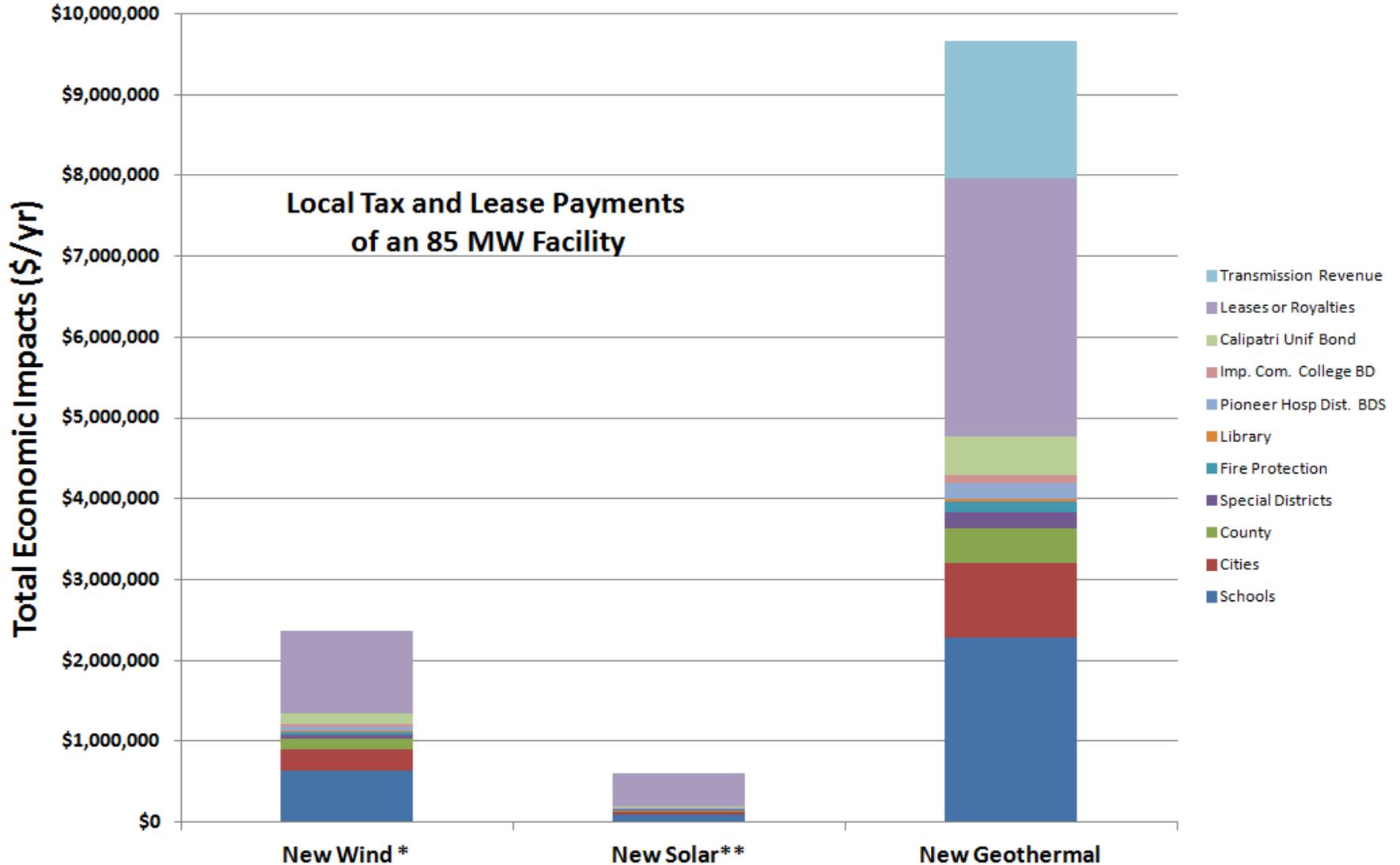
Created 200+ construction jobs over 18 months, with 290 jobs created during peak activities.



“The two projects [solar] Tenaska is working on are located near the U.S.-Mexico border and the township of Seeley...the projects [450MW] are anticipated to create **four or five permanent operational jobs**.”

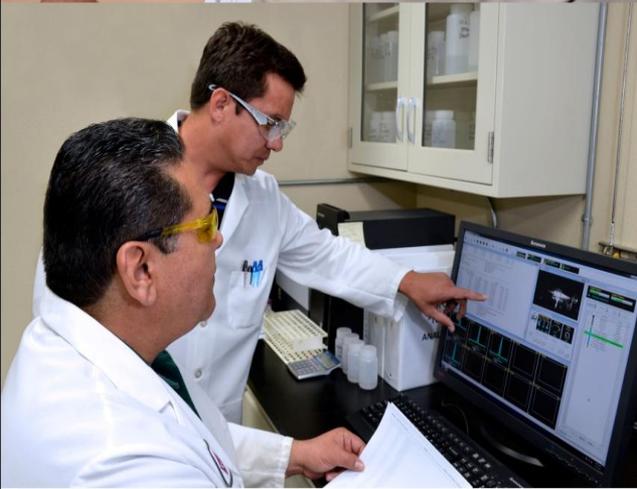
Tenaska Solar Press Release 1Feb2012

Local Payments



Geothermal Development is a lengthy and capital intensive venture.





Base-Load Power Requires Development Parity Plus Vision of a Technology Appropriate Incentive Sunset

- Title 26/31 Direct Payment 10-year ITC eligibility window, the same as Solar 30% ITC.
- 30% ITC/Section 1603 are proven successful project enablers creating wealth and new tax revenues. “Macroeconomic feedback scoring” helps geothermal incented project revenues help neutralize the OMB/CBO “score.”
- 10-year incentive eligibility window stabilizes policy, eliminates uncertainty and creates foundation for landmark private investment to fully develop our strategic, domestic geothermal resource.

Base-Load Power Requires Development Parity Plus Vision of a Technology Appropriate Incentive Sunset

- Section 1603 Cash Grant. Draws the finance cost of federal tax equity monetization away from intermediaries directly into projects. Tax dollars more effectively employed.
- Simple solution that aids all, including the longer geothermal development cycle, stimulates investment in exploration and drilling; retains existing jobs.
- Allows base load power market demand can “catch up” after 5 years of slow growth. Bridges the gap to scheduled coal power and nuclear plant retirements.





Thanks for your time and attention

If we can be of any future assistance or answer any questions feel free to call on us:

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