

“Direct Payment 10-Year Investment Tax Credit For Renewable Energy”

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For

United States House of Representatives Committee on Ways & Means, Energy Working Group

By

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This whitepaper and the attached power-point document discusses renewable energy tax incentive futures, equitable tax treatment for all renewable power generation technologies, helps define (relative to tax policy) distinct development and technical requirements and differences that distinguish base-load renewable generation like geothermal and biomass from intermittent sources like solar and wind and requests implementation of “macro-economic” scoring by the Joint Committee on Taxation and/or the Congressional Budget Office (CBO) to incorporate and reflect the significant, nationally beneficial “out year” dynamic economic contributions from base-load energy manufacturers like EnergySource LLC.

This EnergySource LLC white paper developed by EnergySource LLC Board of Directors, Chair, Jeff Eckel, President, Hannon Armstrong Inc., a national/international energy project investment bank; Eric Spomer, President Catalyst Renewables LLC/CatalystGeothermal, an EnergySource part-owner and EnergySource LLC Board of Directors director; David Watson, President, Energy Source LLC and Michael Brower, Senior Federal Policy Director, Mosaic Federal Affairs LLC, representing EnergySource LLC, and an American Council on Renewable Energy (ACORE) Board of Directors director. The author acknowledges the insight, suggestions and advice of Vice Admiral Denny McGinn (USN-retired), President, ACORE, which is the spokesperson for Energy Fact Check.org providers of non-biased verified energy ground-truth in technology and policy discussions. Nevertheless, everything contained herein represents only the views of the author and EnergySource LLC alone.

EnergySource LLC is the developer-operator of the John L. Featherstone-Hudson Ranch I power plant, a 49.9 megawatt (MW) net capacity, three-stage flash geothermal power generating facility in the Salton Sea geothermal resource in Imperial County, California. The plant was commission in Spring 2012. All power is sold to Salt River Project (SRP) in Tempe, Arizona, pursuant to a 30-year Power Purchase Agreement (PPA). Water supply, interconnection and transmission services are provided by Imperial Irrigation District (IID) under long term agreements. Hudson Ranch II, EnergySource’s, nearly identical second geothermal power plant is presently under construction pursuant to a similar PPA with SRP. The company’s third project, Imperial Wells Power, is larger at 85 MW net capacity; this project is presently in development and negotiating their PPA with several regional utilities. Imperial Wells Power aims to commence construction before the end of 2013.

Geothermal power is different than other renewable energy technologies. Geothermal plants deliver “base load” electricity at very high plant capacity factor averaging 95%. As such, they are the best renewable energy solution available to replace aging coal and nuclear power plants

like the side-lined 2000MW San Onofre Plant just north of San Diego, California. The development, permitting, construction and commissioning process for new geothermal plants totals up to seven years, which is considerably longer than more modular, and intermittent, renewable power generation technologies. Regardless, geothermal power plant construction and operations also yield significantly higher economic benefits, due to being large, field-based construction projects and employing larger numbers of specialized construction workers and highly-skilled plant operators. Once commissioned, each plant's base-load capacity is forecast to be 40-60 years with the power-producing geothermal resource essentially paid for up-front. Geothermal is 100% CO₂-neutral renewable baseload power that delivers steady-state power 7/24/365 with zero carbon emissions.

John L. Featherstone-Hudson Ranch I, commissioned last Spring, is the largest greenfield flash geothermal power plant built in the past 22 years. The plant is located in the Salton Sea Known Geothermal Resource Area, the most prolific geothermal resources in the world, estimated to have an economically productive capacity of up to 1,600-2,000 MW. Presently, EnergySource LLC plans use only 9-11% of this extraordinary, proven high-temperature geothermal resource. More plants could be built. Fact is; all EnergySource LLC project development, construction and commissioning is enabled by renewable energy tax incentives; either the Section 1603 Cash Grant in lieu of tax credits or 30% ITC's approved in the American Taxpayer Relief Act of 2012 ITCs. For EnergySource LLC, the 30% direct payment ITC is, by far, the optimum incentive for all our future geothermal project development. In our opinion, direct payment ITCs are the most equitable and effective incentive mechanism for all renewable power. Looking forward, direct payment ITCs can benefit both the national tax payer, who is able to enjoy at least 40-60 years of clean, CO₂ neutral, base-load power and the government, which equally benefits from the dynamic, steady-state tax revenue from more plants and all their employees.

Historically, steam flash is the most recognized geothermal power generation technology. Hot geothermal fluid (600 degrees F + in the Salton Sea geothermal resource) is extracted from wells under pressure and piped to large tanks, or flash vessels, where some of the fluid vaporizes in the vessels. The steam flows through a steam turbine, which drives a generator. The steam typically exits the turbine into a condenser that condenses the steam back to water, all of which is re-injected back into the reservoir.

EnergySource LLC projects have a positive impact on the environment, including air, water, wildlife and land use in the Imperial Valley of California, and by extension the nation overall. The company's latest generation of geothermal power plants directly reduce the United States dependency on foreign sources of energy and fossil fuels while concurrently reducing by 6-10 fold greenhouse gas emissions from fossil fuel electrical energy production. EnergySource LLC plants are designed, built and are being built to implement the best available control technology to minimize air emissions.

Water is an essential consideration in power production and EnergySource LLC minimizes water use in its plants, which operate in a desert environment. Plant design and construction ensures efficient water use. Most of power plant cooling water will be provided by geothermal steam using condensate generated by condensing the flashed geothermal production fluid in the steam turbine condensers.

EnergySource LLC is committed to job creation and economic vitality. During construction of the \$400 million John L. Featherstone-Hudson Ranch I, employment averaged 200 skilled tradesmen per month. Upon completion and commencement of power generation activities, the company hired 35 plant operators, which are highly skilled positions that require a significant and ongoing training commitment. As a developer of projects, EnergySource itself has expanded from a team of just 5 in 2010 to 25 today, covering all aspects of plant development – permitting, land use, design, construction, operations and administration. Most of the company’s total 60 employees live and work in Imperial County, which has one of the highest rates of unemployment nationally at approx. 25%. For its first John L. Featherstone-Hudson Ranch I project, labor cost is estimated to be \$125 million over the PPA contract, which will generate community benefit impact of \$375 million (a 3X multiplier effect). These effects will be replicated as EnergySource completes development of its Hudson Ranch II, Imperial Wells Power and future plants.

John L. Featherstone-Hudson Ranch I was the first utility-scale United States geothermal construction financing to close with commercial bank lenders after the financial crisis. The project was awarded Project Finance Magazine’s “2010 North American Geothermal Deal of the Year” and the Power Engineering’s “Project of the Year for 2012.”.

Committed to the geothermal community, EnergySource LLC has actively engaged to advance the best interests of the industry, particularly in regard to technology-sensitive renewable energy tax benefits that enable all renewable energy technologies. **To maximize competitiveness with other, more vocal generating technologies and create a fair and level playing field, EnergySource LLC requests a U.S.Code Title 26/31 Direct Payment 30% Investment Tax Credit (ITC), implementation for at least a 10-year term prior to sunset, on a non-telescoping basis and implementation of “macro-economic” scoring by the Joint Committee on Taxation and the Congressional Budget Office to reflect the most significant, nationally beneficial “out year” dynamic economic contributions from major energy manufacturers like EnergySource LLC .**

For an exceptionally informative explanation of John L. Featherstone-Hudson Ranch I and geothermal power please control/click to view the short video clip at <http://www.youtube.com/watch?v=QQxRTMUxR00&feature=youtu.be> .

Equally, please see the attached Energy Source LLC Power Point briefing document shared with many of the members and staff of the Ways & Means Committee.

Thank you for your attention and consideration in this matter.

EnergySource LLC