

State of the Industry

Energy Investing in 2011 and Beyond

2011 Investment and M&A Opportunities in Energy

Dallas, TX June 6, 2011

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Contact Info



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Firm Overview

Energy Asset Advisors, LLC provides full-lifecycle financial advisory & project support solutions to Clients in the renewable & conventional energy industries.

Energy Asset Advisors, LLC Financial Advisory Project Support Structuring And Closing Debt & Origination, Structuring &

Closing Debt &
Equity For
Development And
Traditional M&A
Activity, Financial
Optimization &
Corporate
Consulting Services

Origination,
Structuring &
Negotiation of
Commercial
Agreements, Due
Diligence, Merger
Integration,
Government
Relations, Gov't
Grants, Incentive &
Financing and
Interim
Management
Solutions

Why EAA?

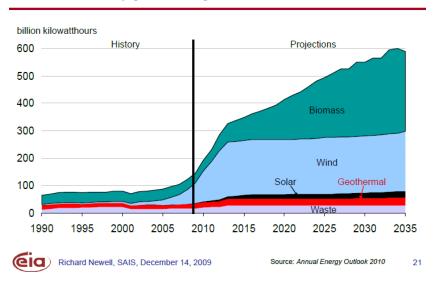
- Seasoned professionals that average 20 years of energy financial service experience
- Unique experience as members of middle-market and bulge bracket sell side firms as well as private equity investment firms
- Strong experience with conventional & renewable energy projects technologies
- Dedicated senior level professionals to ensure efficient execution
- Boutique firm that provides small and mid-cap companies with bulge-bracket service
- A local, national and international network of energy investors
- Strong sense of urgency: In a transactional world, timing and accuracy drive successful deal execution



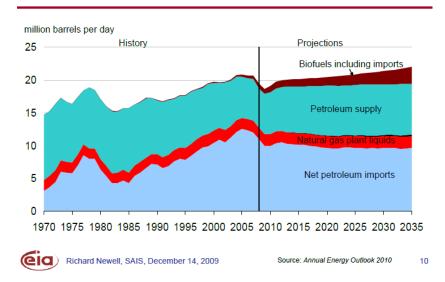
State of the Industry (Biomass)

Biomass power & Biofuels are an important and growing component of the broader energy industry

Nonhydropower renewable sources meet 41% of total electricity generation growth from 2008 to 2035



Biofuels meet most of the growth in liquid fuels supply





State of the Industry (Biomass)

Despite its importance for power & fuels, the domestic biomass industry as a whole is challenged

Cost / MWh

- Unlikely to be competitive w/natgas or coal w/o carbon / GHG legislation
- Wood Chips can competitive w/solar & wind
- Wood Pellets too pricey w/o carbon / GHG legislation

EPA

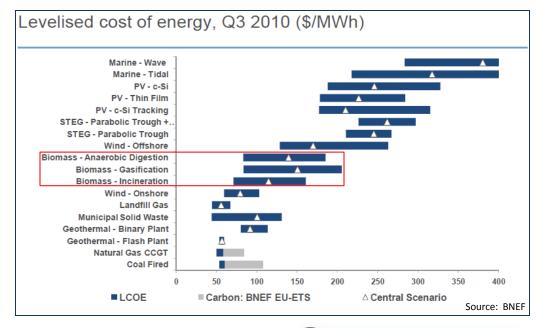
- Tailoring (3 yr breather)
- Boiler MACT & CISWI new rules being implemented
- Hostile legislative climate

• Environmentalists / Public Opinion

- Serious misunderstanding / mistrust of industry practices (esp. sustainability) and carbon-neutrality of biomass
 - "Nothing that burns can be good!"

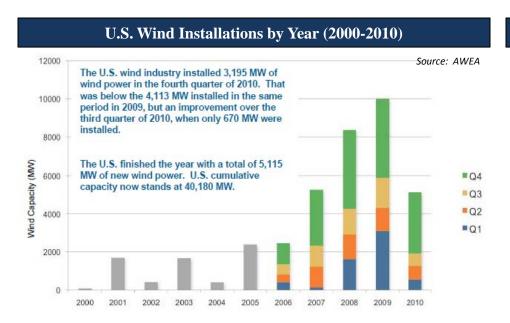
Rays of Hope

- State-level RPS
- BCAP (but partially defunded by budget compromise)
- Department of Defense

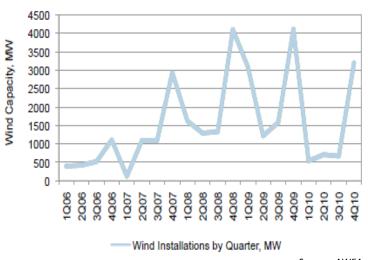




State of the Industry (Wind)



U.S. Wind Installations by Quarter (Q1'06-Q4'10)

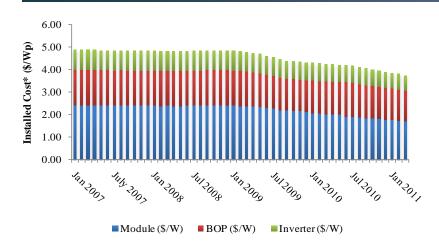


Source: AWEA

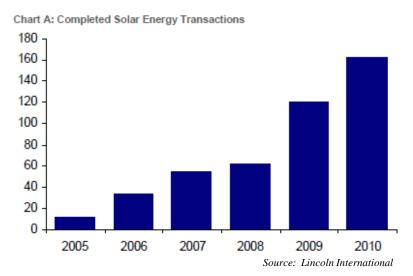
 2010 installed capacity was less than 2007 and was driven primarily by the fall-out in both the commodities markets (natural gas & electricity prices) and financial markets Q4 2010 installations significantly greater than Q1 – Q3 due to extensions of PTCs/ITCs/Grants and other federal incentives typically signed into law in Q3/Q4 of those years

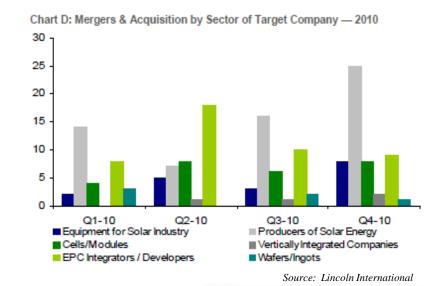


State of the Industry (Solar)



- Solar system costs have fallen precipitously since 2008
 - Recent fixed-tilt PV EPC bids well under \$3.50/watt
- Heightened M&A activity across the sector since 2008, especially with manufacturers targeting developers

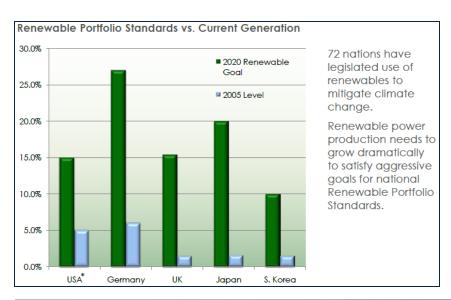




2011 & Beyond – Biomass

The biomass industry is becoming mature

- Entry of commodity markets, indices & trading firms
- Biomass is a supply chain game
 - He with the best supply chain (least cost, most sustainable & reliable) wins
- BTU's matter, but technology is irrelevant (assuming you can prove it works)
- New product offerings have disruptive potential
 - But will remain too costly for US generation consumption



US biomass demand for power

 Will be driven largely by coal plant fuel-switching, not pure-play biomass power plants

US biomass demand for fuels

- Will continue to be dominated by corn ethanol & biodiesel – not cellulosic – for the foreseeable future
- Solid deals strong management, clear economics & good plans – will continue to be funded
 - Likely sources will be European and other foreign investors
- US energy policy disconnects will not resolve in the near-term
 - Biomass power & fuel will continue to be a renewable energy "stepchild"



2011 & Beyond - Wind

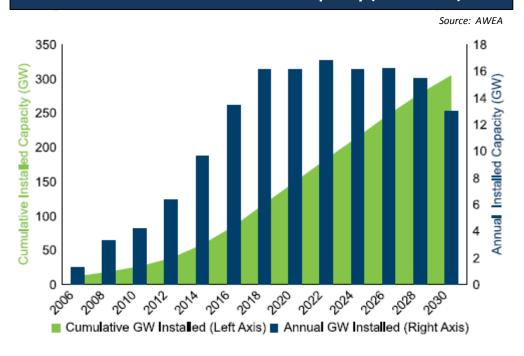
Potential Market Demand

- Chart shows required installations to meet 20% by 2030 of installed wind as a % of total installed U.S. generating capacity
- Capacity growth reflects a 13% CAGR
- Assuming average installed costs of \$2,000/kW, the industry would require about \$520 billion of investment over the next 20 years

Requirements to Meet Demand

- Consistent Federal/State renewable policy mandates
- Technology innovation (cost & production)
- Expanded liquidity in the financial markets for intermittent power generation resources (MLPs? Hedging?)

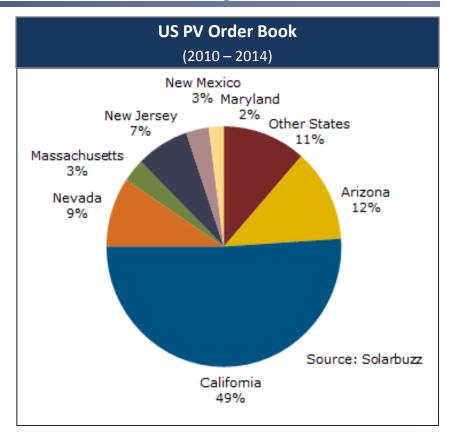
Annual & Cumulative Installed Capacity (2006-2030)





2011 & Beyond – Solar

- Solar will remain "hot" as an investment due to strong (largely regulatory) demand & continuing governmental incentives
- Continuing panel price declines and technological advances will lead to grid parity
 – eventually
- Utility-scale (20MW+) and distributed-gen (net-metered) solar will continue to dominate the development pipeline
- On current downward cost curve, solar will be a strong competitor to wind due to TOU benefits and ability to be installed as a DG resource
- Pace of M&A and vertical integration deals likely to guicken

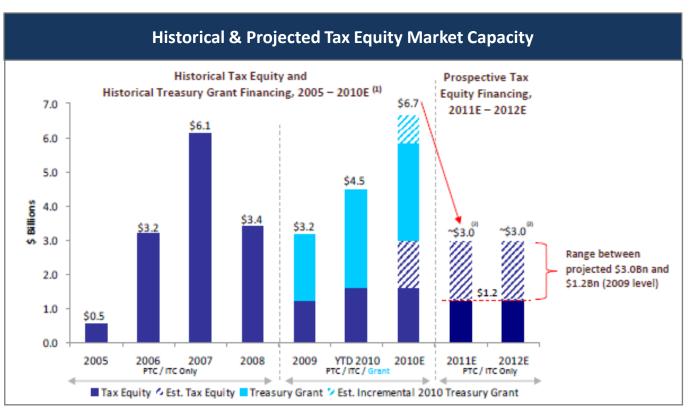




Financing Market Dynamics

(Tax Equity)

Traditional tax equity investment is likely to remain anemic as the uncertainty of renewal in federal stimulus programs (1603 Grant) and risks to future financial institutions' taxable incomes threaten investor appetites for renewables



Source: U.S. Partnership for Renewable Energy Finance



Continued Market Innovation

(Wind Production Hedging Strategy)

Structure Overview



Impacts: Case Study

Impact	Base Case	Hedged Case	
EBITDA / Gross Revenue Margin	70%	68%	Negative Impact to Margin Positive Impact to ROE
Pre-tax Unlevered IRR	8.7%	8.2%	
Leverage* (sized @ 1.0x P99 DSCR)	35%	43%	
Sponsor Return	Lower	Higher	



Macro-Environment / Future Challenges

- NatGas @ \$4/MMBtu
- Duration of Current Demand Slump
- Lack of Federal RPS / CES
- Lack of Certainty re: Financing / Incentives
- Transmission / Reliability / Storage
- Energy Efficiency / Demand Response as Alternative to "Steel in the Ground"
- Environmental / Public Perception Issues

Additional Content

Biomass

- For a macro-environment view of the US biomass market, visit our website at <u>http://www.energyassetadvisors.com/present-future-of-us-biomass/</u>
- For a project-specific view of the biomass pellet market, visit our website at http://www.energyassetadvisors.com/keys-to-financing-a-biomass-pe/

Wind

For our view of the issues surrounding US wind financing, visit our website at http://www.energyassetadvisors.com/financing-us-wind-projects/

US Energy Policy

 For our view of an integrated path-forward for US energy policy, see our presentation "Changing the Game for US Renewable Energy Policy" available on our website at http://www.energyassetadvisors.com/integrating-us-energy-policy/

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