

Market Outlook and Innovations in Wind and Solar Power

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Presented by:

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Company Background

- Utility-scale renewable energy developer headquartered in Edina, MN
- Geronimo has successfully developed and built three projects (19 MW, 20 MW, and 200 MW)
- Recently achieved COD on a 200 megawatt (MW) wind farm in southwestern MN with a Power Purchase Agreement (PPA) with Xcel Energy (NYSE:XEL), the largest buyer of wind energy in the US
- Strategic partnership with Enel Green Power

- The 2nd leading generator of renewable energy in the world.
- Over 600 plants in operation around the world with over 7,000 MW of capacity
- 2011 revenue of ~$3.1 billion
- EBIDTA of ~$2 billion
- Market capitalization of ~$8 billion
- A majority owned subsidiary of Enel SpA
    - Second largest utility in Europe
    - Investment grade credit rating

Geronimo's strategic partnership with EGP provides vast experience and financial capabilities

Introduction

- Now is a unique time to buy renewable energy
  - Costs of renewable energy are at all time lows
  - Signs point to rising power prices
  - Buying renewable energy can be done using a direct purchase or virtual purchase structure

Agenda

- **State of the Renewable Energy Industry**
  - Extension of the Production Tax Credit (PTC) for Wind
  - Current market for wind power
  - Current market for solar power
- **Impact of Natural Gas on Renewable Energy**
  - U.S. Natural Gas Demand
  - The impact of natural gas prices on the renewable energy market
- **Examples of Innovative Structures for Purchases of Renewable Energy**
  - Direct Purchases of Renewable Energy
  - The "Virtual Power Purchase Agreement"

State of the Renewable Energy Industry

Incentives Update

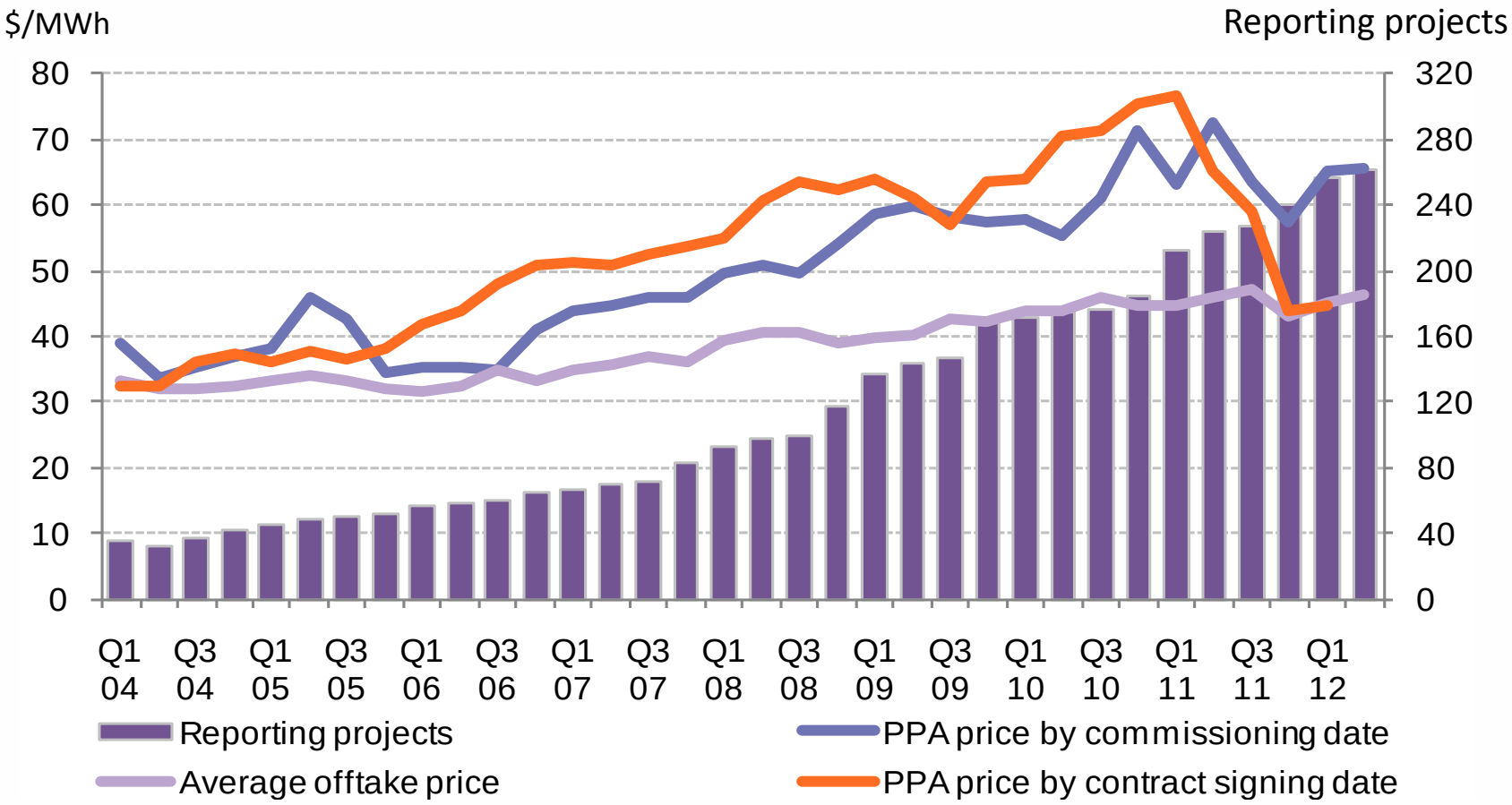
- The Investment Tax Credit for Solar isn't set to expire until 2016

- The Production Tax Credit (PTC) for Wind was set to expire at year end 2012, but was extended.

- The PTC for wind was extended through Dec 31, 2013 as part of the fiscal cliff legislation on Jan 3rd, 2013
  - Projects who begin construction in 2013 can also qualify for the PTC
  - Clarity as to the specific rules about "beginning construction" are expected from the IRS in March.
  - The industry currently expects a standard consistent with the prior 1603 treasury grant program
  - Time to act is now to utilize expiring incentives for wind power

State of the Renewable Energy Industry

Wind Power PPAs



- Note: 'Average offtake price' includes all projects commissioned before 2004 and merchant and banded sales. PPA prices do not include banded structures. Rolling averages are used on historical PPA prices to eliminate outliers.

Source: Bloomberg New Energy Finance, FERC

State of the Renewable Energy Industry

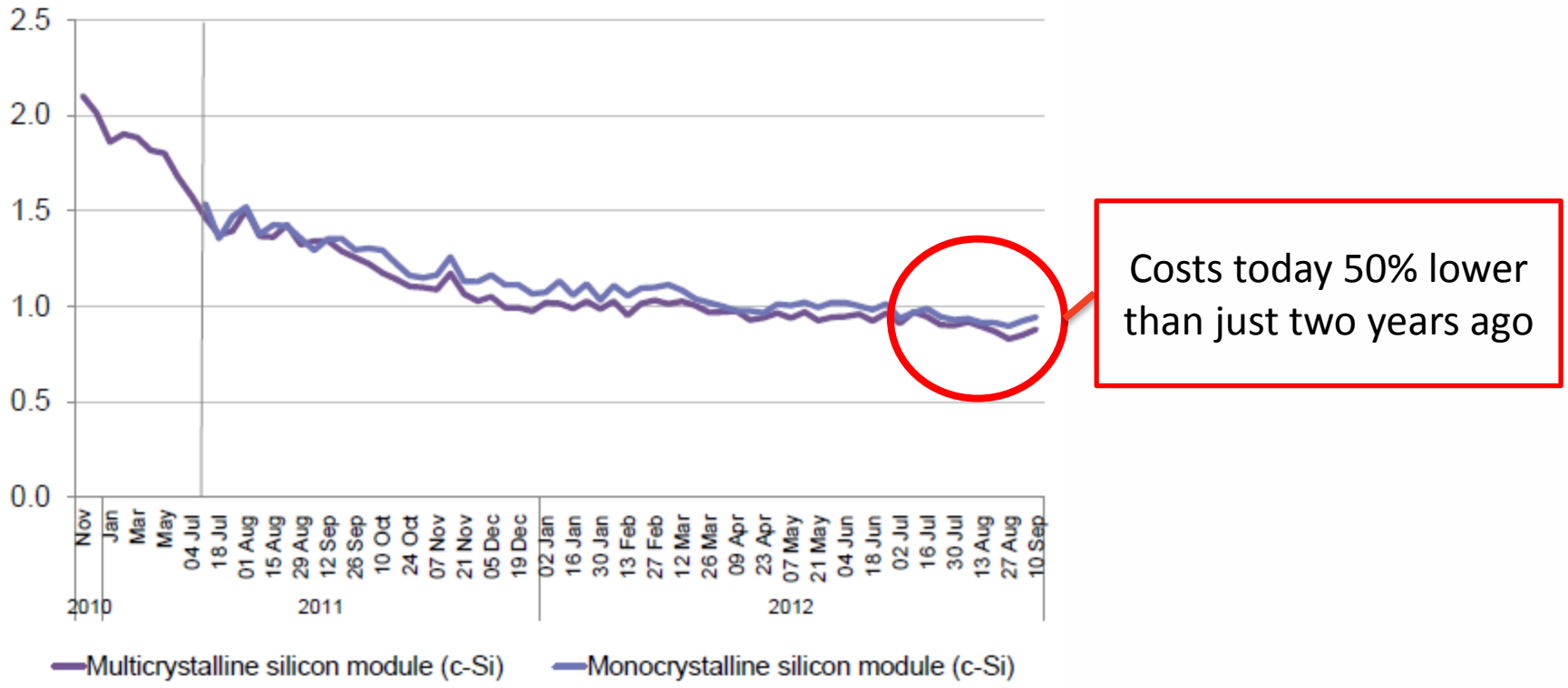
Wind Power Costs

- **Increased Efficiency**
  - Increased turbine height
  - Increased blade length
  - Software upgrades
- **Lower Installed Capital Costs**
  - Improvements in the supply chain
  - Greater competition
- **Other Advancements**
  - Preventive maintenance plans
  - Longer operating histories

State of the Renewable Energy Industry

Solar Power Costs

Solar Module Spot Prices November 2010 – September 2012

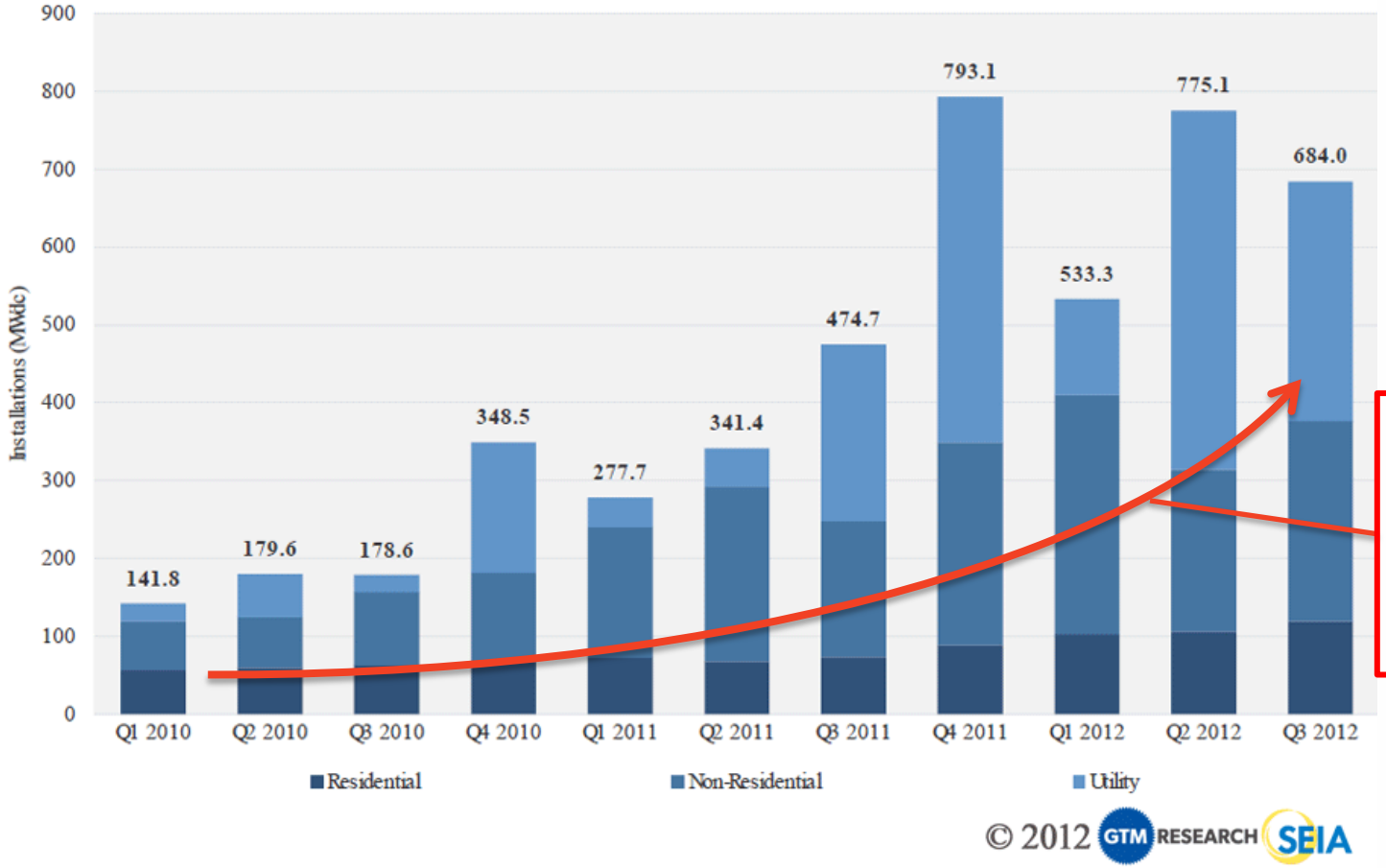


Source: Bloomberg New Energy Finance

State of the Renewable Energy Industry

Solar Power Market

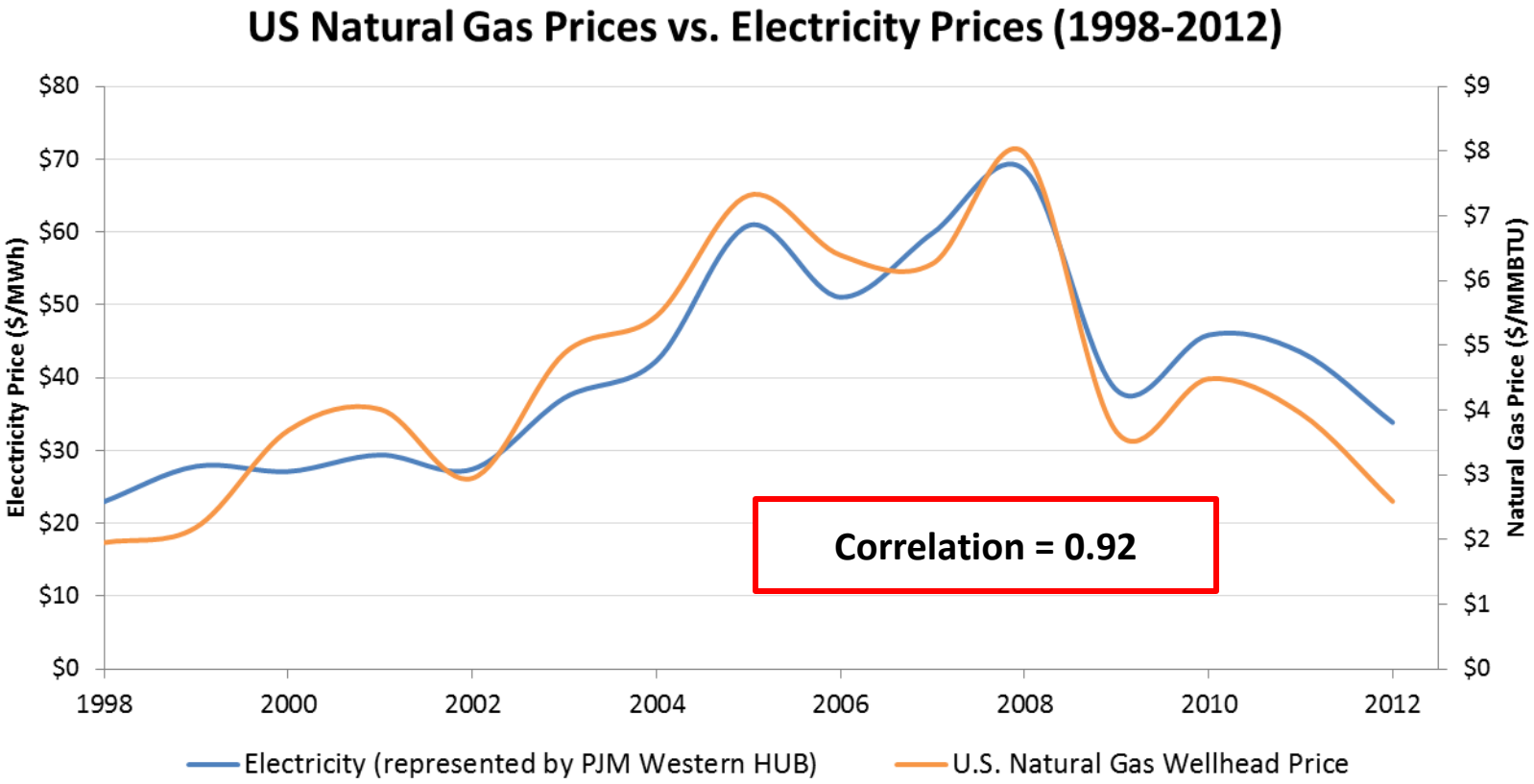
U.S. PV Installations by Market Segment, Q1 2010 to Q3 2012



As expected low prices, among other reasons, meant more installations

Impact of Natural Gas on Renewable Energy

Price Correlation to Wholesale Electricity

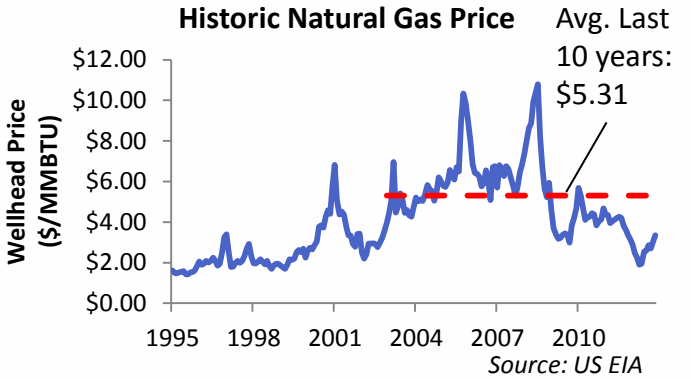


Source: U.S. EIA and Ventyx Velocity Suite

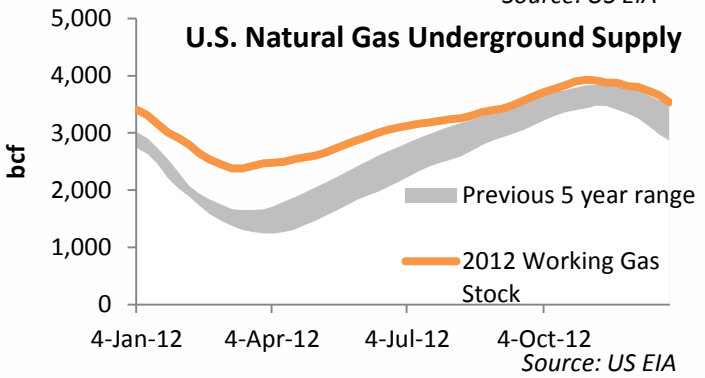
Impact of Natural Gas on Renewable Energy

Natural Gas Past, Present, Future

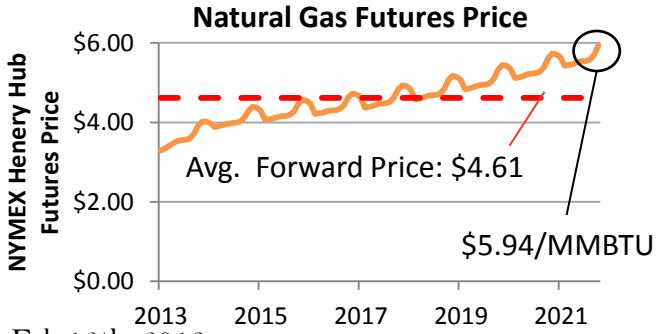
- **History**
  - Volatile / unpredictable
  - Correlates very strongly with Electricity Prices
    - Renewable Energy creates opportunity to hedge unpredictable price of natural gas
- **Recent**
  - 2012 was an anomaly year
    - Winter was fourth warmest in recorded history
    - Large over supply of natural gas led to tumbling prices
  - Production and storage pulled back as drilling slowed
- **Future**
  - Demand drivers point upward
    - Liquefied Natural Gas (LNG) exports
    - Coal plant retirements
    - Natural gas as a vehicle fuel
    - Decreased drilling due to economics



Source: US EIA



Source: US EIA

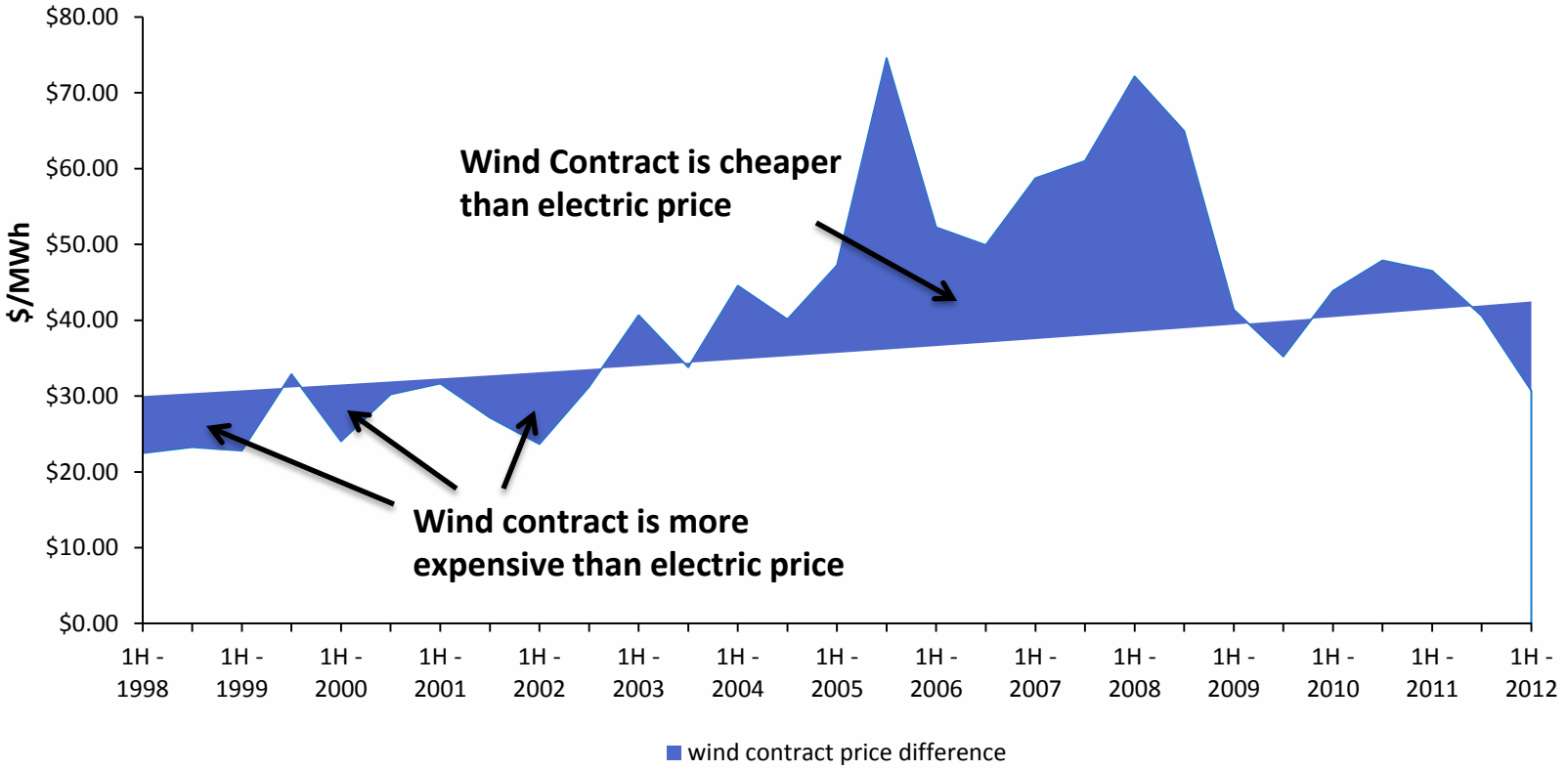


Source: NYMEX.com (2/7/2013)

Impact of Natural Gas on Renewable Energy

Natural Gas' History

What would have happened if you entered into a Wind Power Purchase Agreement (PPA) last time it was believed Natural Gas Prices would stay low forever?



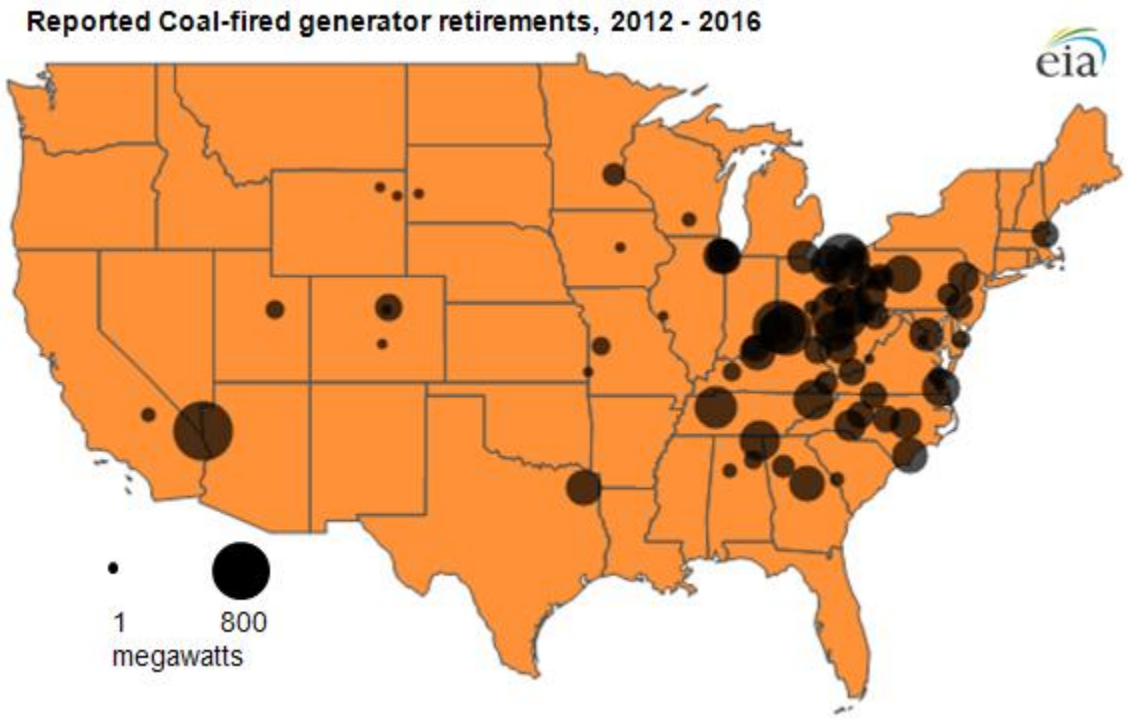
Note: Price is for PJM Western Hub

Source: Ventyx Velocity Suite, Geronimo Energy Analysis

Impact of Natural Gas on Renewable Energy

Coal Plants Announced to Retire

- EPA regulation issued in December 2011 requiring coal-fired power plants to reduce their emissions by 2014 of:
  - Mercury
  - Arsenic
  - Acid gas
  - Nickel
  - Cyanide
- Estimated that ~60% will be replaced by natural gas



Source: U.S. EIA

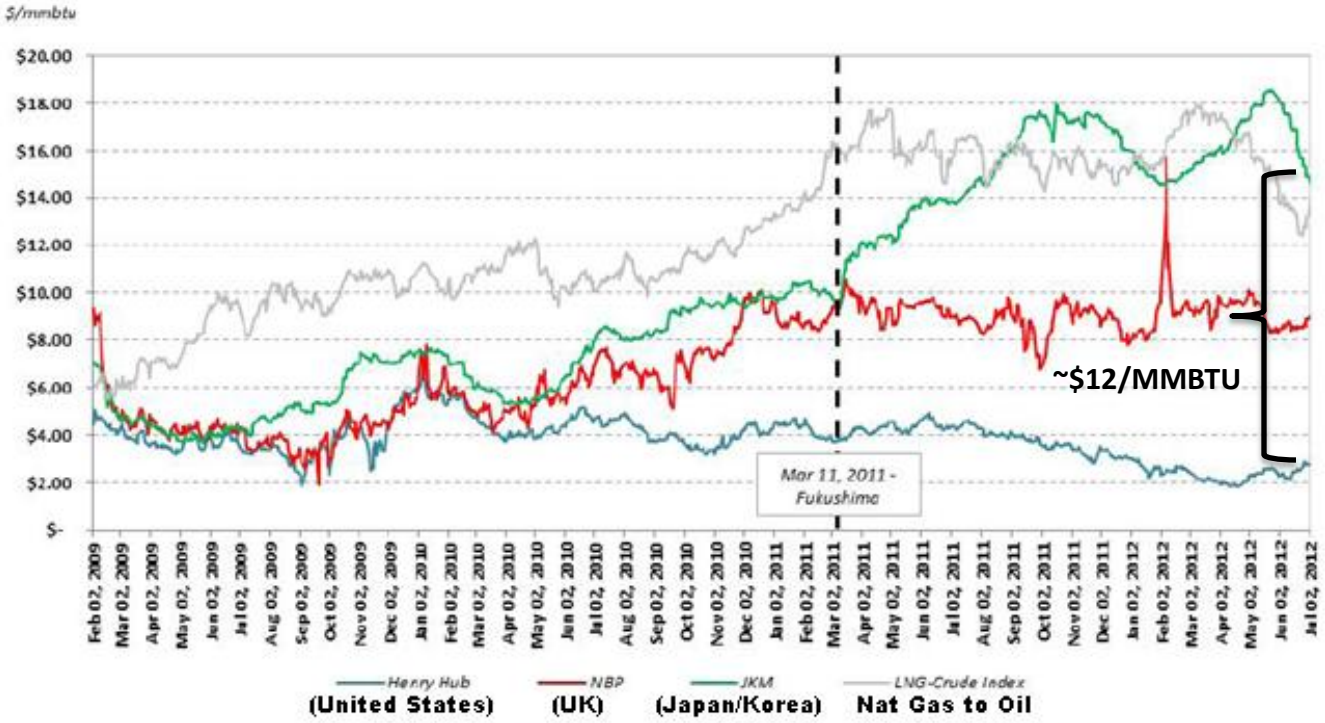
Impact of Natural Gas on Renewable Energy

LNG Exports

LNG Exports

- Global Spread in Natural Gas prices present opportunity for "Capitalism to fill the void"
- 16 U.S. LNG Export projects have begun permitting process
- 16 Projects represent 25.5 bcf/day or about 30% of current U.S. usage

International Natural Gas Prices are Diverging



Sources: Platts, U.S. Energy Information Administration.

Examples of Innovative Structures

Why it makes sense

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Direct Purchase

1. Additionality – a new renewable generator is added to the grid because of your actions
2. Hedge against cost increases
3. Opportunity to offset CO2 emissions
4. Purchase at a fixed price today when prices are low
5. Displace cost of "retail" power

"Virtual" Purchase

1. Additionality – a new renewable generator is added to the grid because of your actions
2. Hedge against cost increases
3. Opportunity to offset CO2 emissions
4. Purchase at a fixed price today when prices are low
5. Avoid dealing with transmission service and operational issues

Examples of Innovative Structures

Direct Purchase

Solar

Solar rooftop or Ground-mounted near facility

Positives:

- Offsets "retail" power
- Hedges electricity costs
- Highly visible impact

Negatives:

- In many regions solar needs local incentives to make financial sense

Wind

EXAMPLE: **Ohio State signed contract with Ohio Wind Farm and procured transmission service to their campus**

Positives:

- Offsets "retail" power
- Hedges electricity costs
- Highly visible impact

Negatives:

- Figuring out transmission service can be difficult and expensive
- Legal barriers can exist
- Need electric load in concentrated area

Examples of Innovative Structures

Virtual Power Purchase Agreement (VPPA)

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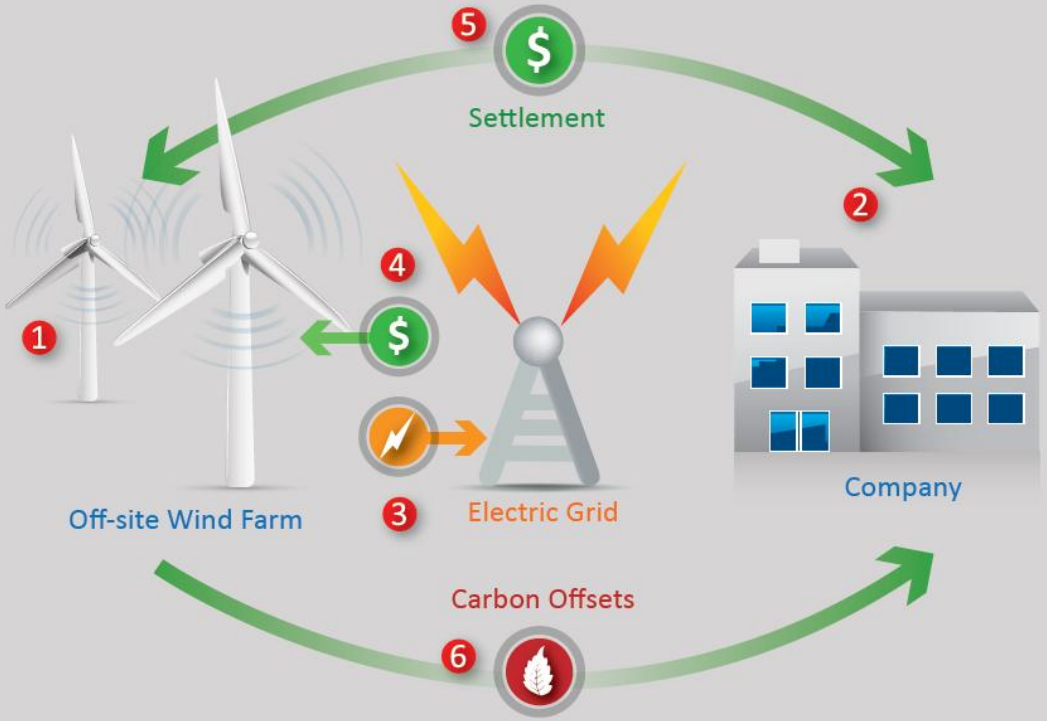
HOW THE VIRTUAL WIND PPA WORKS

The Virtual Wind PPA is a financial contract that simulates a wind power purchase, but **does not involve physical delivery of power.** The Virtual Wind PPA is delivered in the following manner:

1. Geronimo builds a wind farm in a suitable, efficient, and low cost location – not on your company's site
2. The commercial customer and Geronimo agree to a fixed price for the power and carbon offsets
3. Geronimo delivers the power to the grid
4. The grid operator pays Geronimo the market price for the power
5. Geronimo and the commercial customer settle the difference between the market price and the fixed price
6. Geronimo delivers the carbon offsets to the commercial customer



Pros – Simpler, Easier, typically no legal barriers, removes transmission service related issues
Cons – Doesn't make sense for solar, Does not offset "retail" priced power, needs power market

Examples of Innovative Structures

Pre-Paid PPAs

- **Structure:**
  - Can work for solar or wind energy, virtual or direct
  - Buyer prepays for ~60% of facility output at a ~50% discount to upfront price
  - Buyer still receives energy produced, future payments are trued up to actual production
  - Net cost is 25-30% lower than traditional PPA

- **Positives:**
  - Uses customer's lower cost of capital
  - Still able to efficiently use tax benefits

- **Negatives:**
  - More complex transaction
  - Can have high transaction costs

Summary

- **State of the Renewable Energy Industry**
  - Extension of the Production Tax Credit (PTC) for Wind
  - Cost of wind power at historic lows
  - Solar energy costs declining rapidly
- **Impact of Natural Gas on Renewable Energy**
  - Coal plant retirements and exports will increase demand for natural gas
  - Electricity's high correlation to natural gas presents an opportunity to hedge while also going green
- **Examples of Innovative Structures for Purchases of Renewable Energy**
  - Direct Purchases of Renewable Energy offset "retail" power costs
  - Virtual Wind Power Purchases offer a scalable and economic way to meet sustainability objectives

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