



FINANCIAL IMPACT OF SUSTAINABLE ACTIONS FOR THE EDUCATION COMMUNITY

NJSBA'S
SPRING EDUCATION SYMPOSIUM

WELCOME TO THE WEBINAR!

GET TO KNOW THE PANELISTS



Dailey Tipton

Vice President, Sales and Marketing
Evolution Energy Partners

- 25+ years in Energy and Sustainability
- Leads the EEP Go-to-Market Team
- Master of Engineer by Training
- Fun Fact: Competitive sailor for 47 years!

WELCOME TO THE WEBINAR!

GET TO KNOW THE PANELISTS



Rob Holdsworth, MBB, CEM, CEA, CLMP, LEED AP O+M

Vice President Engineering - Evolution Energy Partners

- 25 Years of Energy Engineering Experience
- Hundreds of Successful Energy Efficiency Projects
- Extensive knowledge of:
 - Energy Engineering
 - Efficiency & Sustainability Approaches and Technologies
 - Efficiency Projects across all industries and verticals
 - Creative No Capital Funding Options
 - Multi-State and Multi-City Regulatory Drivers and Incentives

Efficiency + Engineering + Financial = Success

GET TO KNOW EEP

OUR PURPOSE AND MISSION

OUR MISSION

Evolution Energy Partners is a full-service energy management, engineering, and consulting firm offering best in class sustainability, energy efficiency, procurement, and analytical solutions.

Our mission is simple.... **“to advise, design, procure and build solutions** that provide measured value to our client’s sustainable footprint through effective energy management and increased efficiency, while maximizing savings to the organization.”

Evolution Energy Partners customers enjoy positive impact on the bottom line by leveraging a comprehensive suite of services that mitigate risk, enhance stakeholder value, and provide a foundation to increase corporate citizenship and sustainable practices.

THE CURRENT ENERGY MARKET

WHERE ARE WE AT TODAY

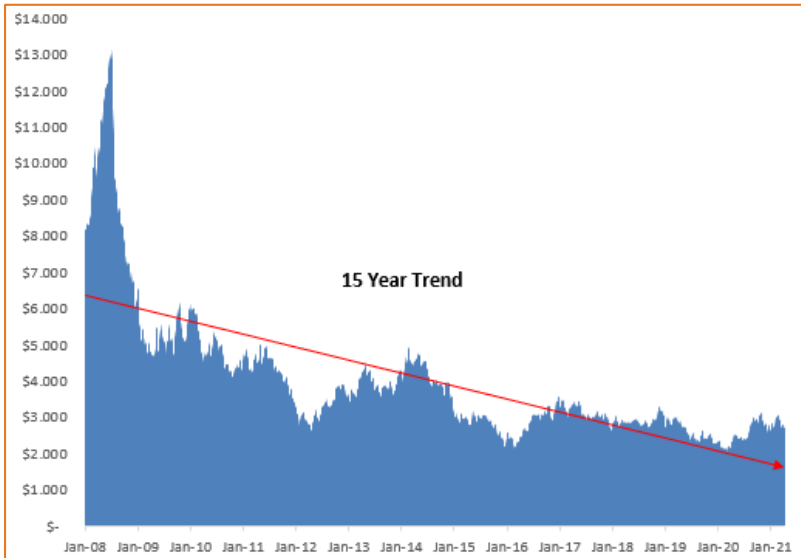
- Finding savings is critical!
- Recent prices at historic lows (electric and natural gas).
- Low prices are a result of a combination of historically warm winter months and the Coronavirus reducing both commercial and industrial demand for energy products.
- Leverage your position. You must consider:
 - Long-term contracts and renegotiate existing contracts.
 - If your organization is currently in a supply agreement that expires in 2020, 2021 or even 2022, suggest review to find new opportunities to extend contracts or to renegotiate existing supply prices.
- The opportunity and cost savings of low pricing will not last – like the Stock Market.

NATURAL GAS AND ENERGY MARKETS

THE CURRENT MARKET

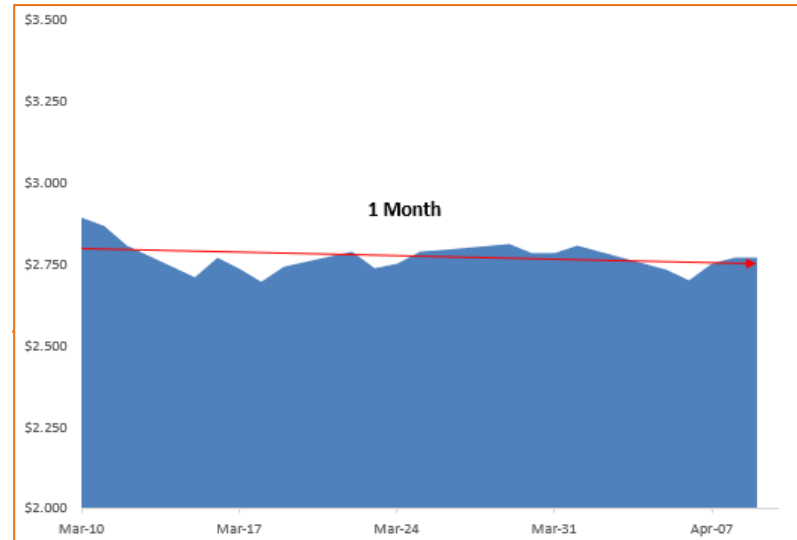
Natural Gas 15 Year Chart

Experienced record lows earlier in the year.



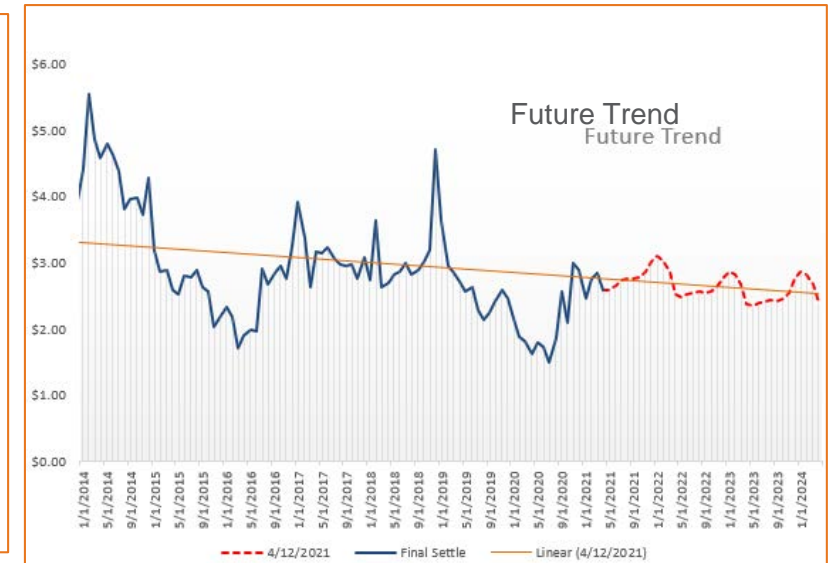
Natural Gas 1-month Chart

Gas prices have rebounded and will impact gas and energy pricing going forward.



Natural Gas-Futures

Natural Gas futures as predicted by Nymex



DECLINING COST OF GREEN ENERGY

CLEAN ENERGY OPTIONS

Renewable electricity costs have fallen sharply over the past decade, driven by improving technologies, economies of scale, increasingly competitive supply chains and growing developer experience.

Since 2010, the cost for utility-scale solar photovoltaics (PV) power has declined by 82%, followed by concentrating solar power (CSP) at 47%, onshore wind at 39% and offshore wind at 29%.

Costs for solar and wind power technologies also continued to fall year-on-year.

- Electricity costs:
 - Utility-scale solar PV fell 13% in 2019
 - Global average of 6.8 cents (USD 0.068) per kilowatt-hour (kWh).
- Onshore and offshore wind both declined about 9%
 - Onshore - USD 0.053/kWh
 - Offshore - USD 0.115/kWh.

PROJECTS THAT GAINED MOMENTUM C-19

CLEAN ENERGY OPTIONS

- 1. Spotsylvania (sPower): Virginia**
 - 620 MW Solar Array
 - Under Construction since late 2019
- 2. North Central Wind (AEP): Oklahoma**
 - 2GW Proposed – Slimmed down to 999MW
 - Largest Wind Farm ever built in US
- 3. Strata Solar's Ventura Battery (SCE): California**
 - 100 MW/400 MWH
 - Projected to be online early 2021
- 4. Sagamore Wind (Xcell Energy): New Mexico**
 - Utility Owned and Operated Farm
 - Xcel plans to increase in-house wind by end of 2021 by 4.5GW
- 5. Coastal VA Offshore Wind Pilot (Dominion)**
 - 12 MW Two Turbine Project – 36 miles offshore
 - Second Offshore wind to be built in America



GO GREEN, SAVE GREEN

CLEAN ENERGY OPTIONS

Evolution Energy Partners collaborated with Villanova University to create a customized green power procurement agreement that would supply up to 50% of the university's load requirements for many years to come.

50% of the approximately 52,000 MWh of power Villanova purchases will be sourced regionally from the Holtwood Hydroelectric Power Plant in Lancaster County, PA.

The agreement will power the University's Main Campus, West Campus and South Campus, as well as The Inn at Villanova University. This agreement is a reflection of Villanova's ongoing commitment to achieving carbon neutrality on its campus by 2050.



ON-SITE GENERATION

CLEAN ENERGY OPTIONS

- ✓ **Federal Solar Investment Tax Credit (Solar ITC)**
 - The Solar ITC is available to all businesses that pay federal taxes. A portion of the solar installation costs can be claimed on the business' tax return, reducing the amount owed to the IRS.
 - The credit is worth 26% of project costs in 2020, 22% in 2021 and 10% in 2022.
- ✓ **Solar Panel Incentives By State**
 - State and city-level programs available to encourage solar adoption on a local level.
 - May include Tax Credit, Rebates, Property tax deductions, Zero-interest/low-interest loans, etc.
 - State and local programs stack with the federal incentive.

- ✓ **SRECs (Solar Renewable Energy Certificates)**
 - Credits for solar power generated.
 - Sell credits to utility companies through a local marketplace.
 - Utility companies buy SRECs to satisfy Renewable Portfolio Standards (RPS).
 - Regulations which outline how much of a utility provider's electricity comes from renewable sources.
 - Don't generate enough renewable energy, purchase SRECs from independent producers to satisfy solar quota.
 - SREC - worth \$5-\$450 depending on supply and demand within a local marketplace, value fluctuate wildly depending on location.
- ✓ **Performance-Based Incentives (PBIs)** - incentive that awards a flat-rate payout for every kWh of solar energy generated. PBIs are governed by your net metering agreement with your utility company.

ON-SITE GENERATION

CLEAN ENERGY OPTIONS

Hurdles?

- ? Long lead time and interconnection fraught with issues.
- ? Interconnection standards define how a distributed generation system, such as solar photovoltaics (PVs), can connect to the grid. In some areas of the United States to connect to the grid.
- ? Interconnection process lacks consistent parameters for connecting to the grid or is very complex.
- ? Issues can drive up cost and create delays.

ON-SITE GENERATION – PROJECT EXAMPLE

CLEAN ENERGY OPTIONS

Commercial Warehouse Customer in Southern New Jersey. Solar development of rooftop that supports local industrial customers.

- 350,000 Square Feet of roof space
- Roof replacement (\$1M USD) at no cost to owner of building
- 15-year roof lease @ approximately \$200,000 annual rent for array
- Power generated is sold to “Off Takers” (local industrial) by management company of the solar array



ADDITIONAL ON-SITE PROGRAMS

CLEAN ENERGY OPTIONS

VPPA

- Virtual Power Purchase Agreement (VPPA), also known as a Synthetic PPA, or Contract for Differences, provides a financial hedge against future energy fluctuations.
- New Clean Energy to the grid on behalf off-takers.
- Off-takers agree to take renewable energy at a pre-agreed price.

Community Solar

- Allow members of a community the opportunity to share the benefits of solar power even if they cannot or prefer not to install solar panels on their property.
- Project participants benefit from the electricity generated by the community solar farm, which costs less than the price they would ordinarily pay to their utility.

GO GREEN, SAVE GREEN

ENERGY EFFICIENCY PROJECTS

“Define a repeatable sustainability process for ongoing projects for your organization.”

Creating a strategy that reduces your carbon footprint and increases energy efficiency is a multi-pronged approach that requires detailed planning and execution.

1. **Identify** – Benchmark energy usage across the organization and individual properties to determine the “current state” and prioritize “the energy hogs”.
2. **Reduce** – Audit the property and develop a list of engineered Energy Conservation Measures (ECM’s) that will cost-effectively impact the organization’s energy consumption.
3. **Finance** – Energy engineering can power the organization’s bottom line through creative financing and rebate options that eliminate the need for upfront capital while simultaneously increasing positive cash flow.

CURRENT STATE OF ENERGY EFFICIENCY

TOPICS TO BE DISCUSSED

Reduce
utility
spend by
up to 30%
a year.

During uncertain economic climates, some companies choose to halt projects to preserve critical capital.

- Not always the best path!
- Decrease operating expenses and improve net profit, without using capital, by implementing fast payback energy efficiency projects.
- Creative financing options: Off-balance sheet funding, equipment lease financing, on-bill financing, C-PACE financing, etc.
- Energy efficiency projects produce great ROI, reduce operating expenses, improve profitability, increase property value, improve occupant comfort, and reduce GHG emissions.

SEE THE SAVINGS

ENERGY EFFICIENCY



ENERGY EFFICIENCY EXAMPLE PROJECT

- **LED Lighting Upgrade:**
 - Annual Savings: \$103,531
 - Payback: 2.6 years
- **Mechanical Upgrade:** Upgrade main and west dust collection systems
 - Annual Savings: \$94,144
 - Payback: 3.5 years
- **Renewables:** Rooftop solar (photovoltaic)
 - No Cost – Power Purchase Agreement
 - Immediate payback
 - Annual estimated savings = \$12,000
- Total annual energy savings from the project exceed \$200,000.
- Implementing this project will reduce the facility's carbon footprint by approximately 3.5 million pounds of CO2 annually.

KEY TAKEAWAYS

WHAT YOU NEED TO KNOW

- ✓ **Markets are moving due to many factors:**
 - Seasonal (warm/cold winter)
 - Pandemic and industrial usage +/-
 - Storms on the Gulf Coast

- ✓ **Corporate contracting should maintain diligence**
 - Hedging vs. Fixed Costs
 - Risk tolerances should be defined

- ✓ **Green Power will become competitive with Brown Power**
 - Price variance will surely grow smaller
 - Future projects – on track
 - Customers can take advantage of the new Green Market
 - On-site generation is a very strong option

ANY QUESTIONS?

THANK YOU FOR HAVING US!



Additional Questions?

dtipton@evolutionep.com

484-947-9334

www.evolutionep.com