

Healthcare Facilities Management Society of NJ

Purchasing Energy in the Deregulated Marketplace

March 18, 2010

Overview of Presentation

- ❖ Birdsall Services Group and Premier Energy Group
- ❖ NJ's Deregulated Energy Market
- ❖ Natural Gas and Electric Systems Overview
- ❖ Current Market Conditions and Opportunities
- ❖ What Can We Expect Going Forward
- ❖ Factors to Consider
- ❖ Procurement Process
- ❖ PJM Demand Response Program

Birdsall Services Group

- ❖ BSG is a recognized leader in engineering and consulting with offices strategically located in NJ & NY
- ❖ BSG has provided energy procurement services to a number of clients since 2001 including Monmouth County, Ocean County, and Union County, as well as the NJ Sustainable Energy Joint Meeting, which currently consists of 113 government entities
- ❖ BSG & Premier Energy Group have been strategic partners since 2003
- ❖ Our services include:
 - Energy & Sustainability
 - Environmental & Geotechnical
 - Structural
 - Mechanical, Electrical, & Plumbing
 - Regulatory Compliance – JCAHO
 - Site Development
 - Traffic
 - Waste Management
 - Water Resources

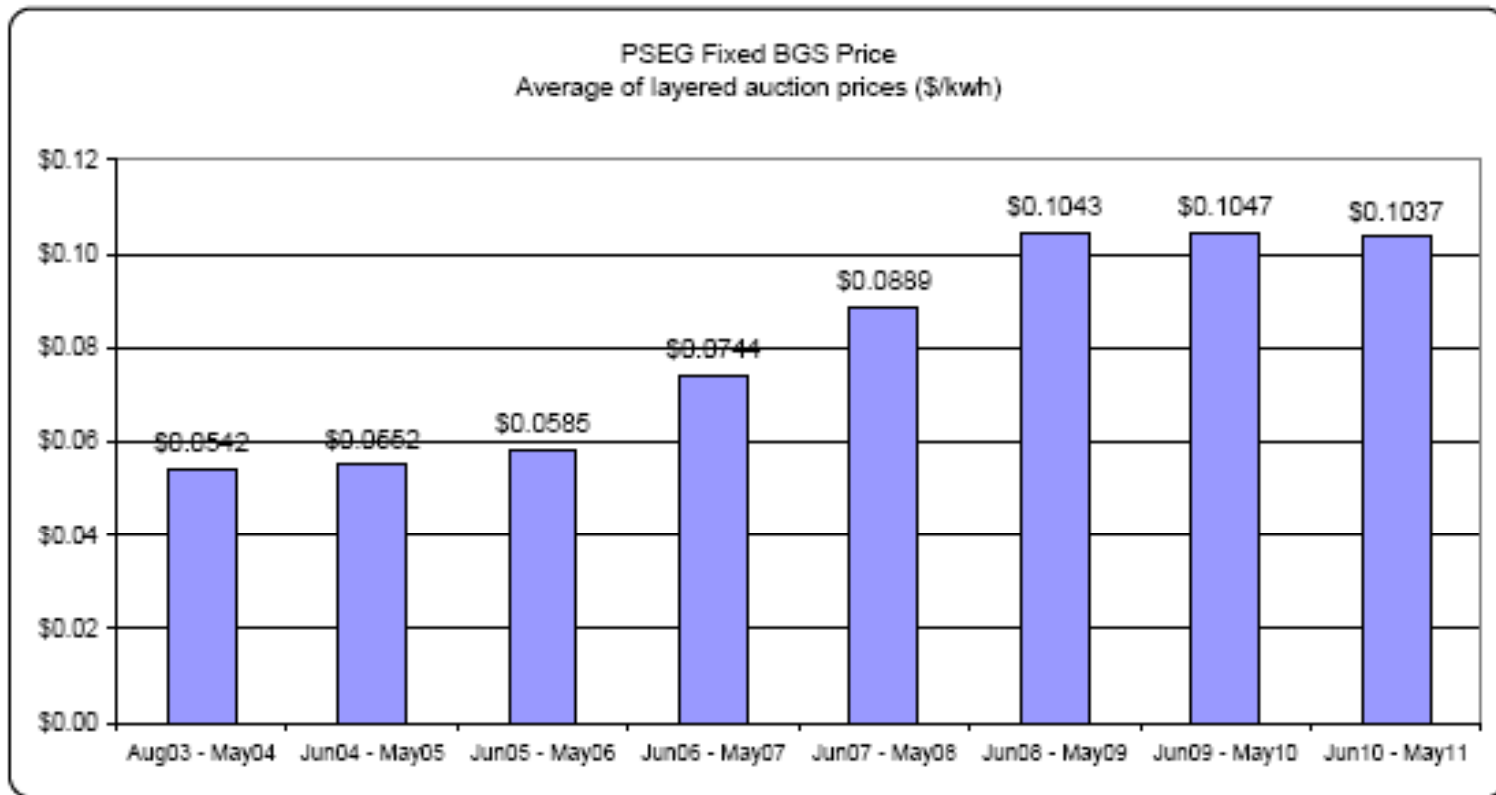
Premier Energy Group, LLC

- ❖ PEG is an energy consulting and brokering company with an office located in Middlesex, NJ
- ❖ PEG was formed in January 2002
- ❖ Primary focus in northeast and mid-atlantic regions
- ❖ 70+ years of industry experience
- ❖ Currently providing energy procurement consulting service to multiple healthcare entities throughout NJ including Solaris, St. Joseph's Health System, and Trinitas

NJ Deregulation Overview

- ❖ Electric Discount and Energy Competition Act of 1999 changed the 90-year monopoly structure of the electric and gas utility industries in NJ
 - Deregulated the generation portion of the electric bill and the commodity (NYMEX) portion of the natural gas bill
 - Initial requirement was that all customers received minimum 5% electric bill reduction (shopping credit) that remained in place until 8/1/03 when full deregulation began
 - BPU initiated BGS auction on February 5, 2003 for FP and CIEP customer rate classes for period 8/1/03 through 5/31/04
 - Retail margin adder (.005 per kWh) began 8/1/03 and forced larger CIEP customers to seek third party supply of electric
 - In 1998 electric rates averaged \$0.10 per kWh while natural gas rates averaged \$3.70 per Dth

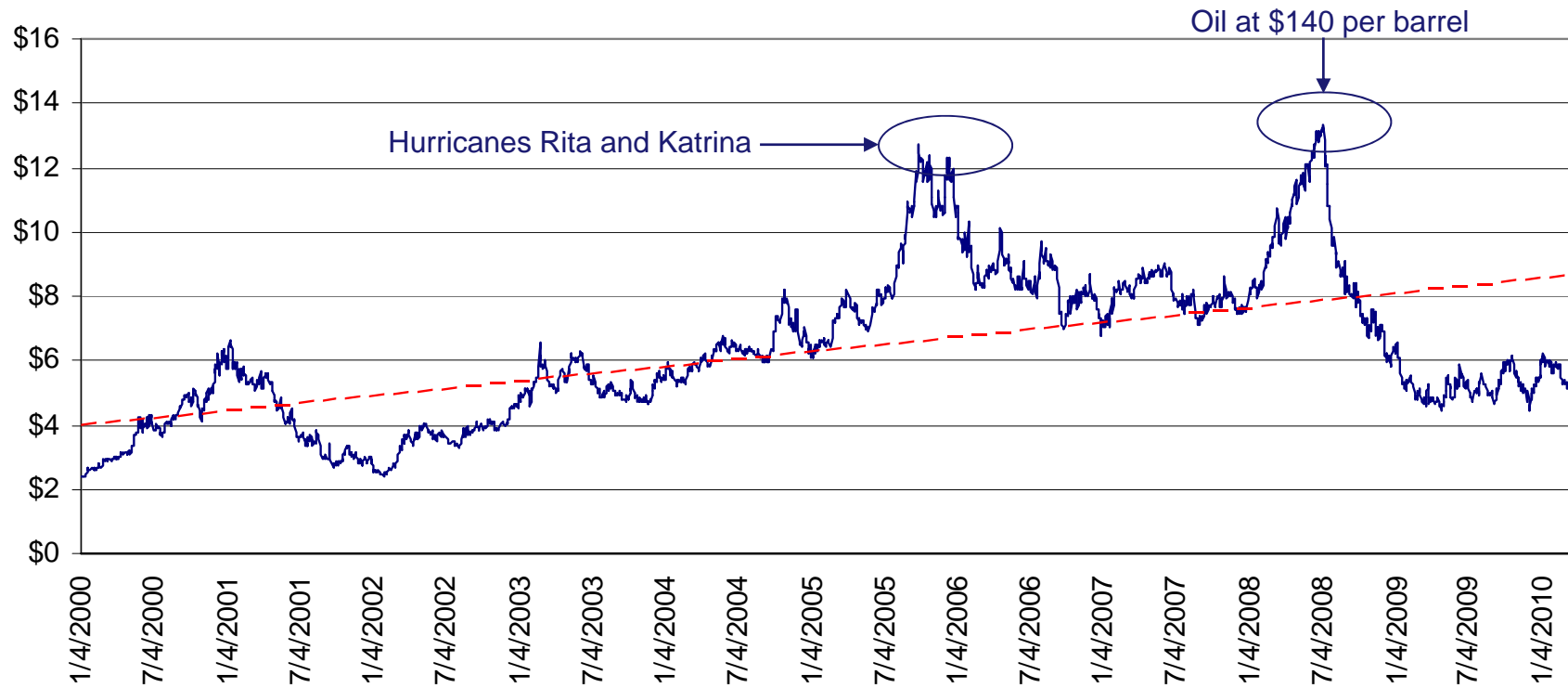
NJBPU Fixed Price Auction



- Notes : 1. Auction prices include energy, capacity, transmission and ancillary services but do not include sales tax and delivery charges
2. For billing purposes PSE&G itemizes the capacity and transmission components of pricing.
3. Fixed BGS auction prices apply to rate LPLS customers with a capacity peak load share less than 1,000 kw and all rate GLP customers.

Natural Gas Pricing

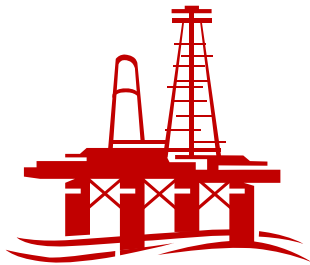
Natural Gas - NYMEX 12 month strip (2000 - present)



Natural Gas System

Components of Service

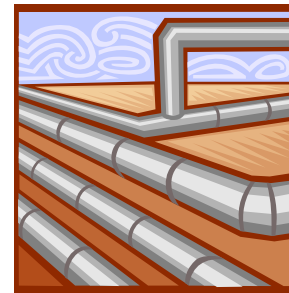
Wellhead (Gulf)



→ Interstate Pipeline



→ Local Distribution (LDC)



→ Plant



Natural Gas System

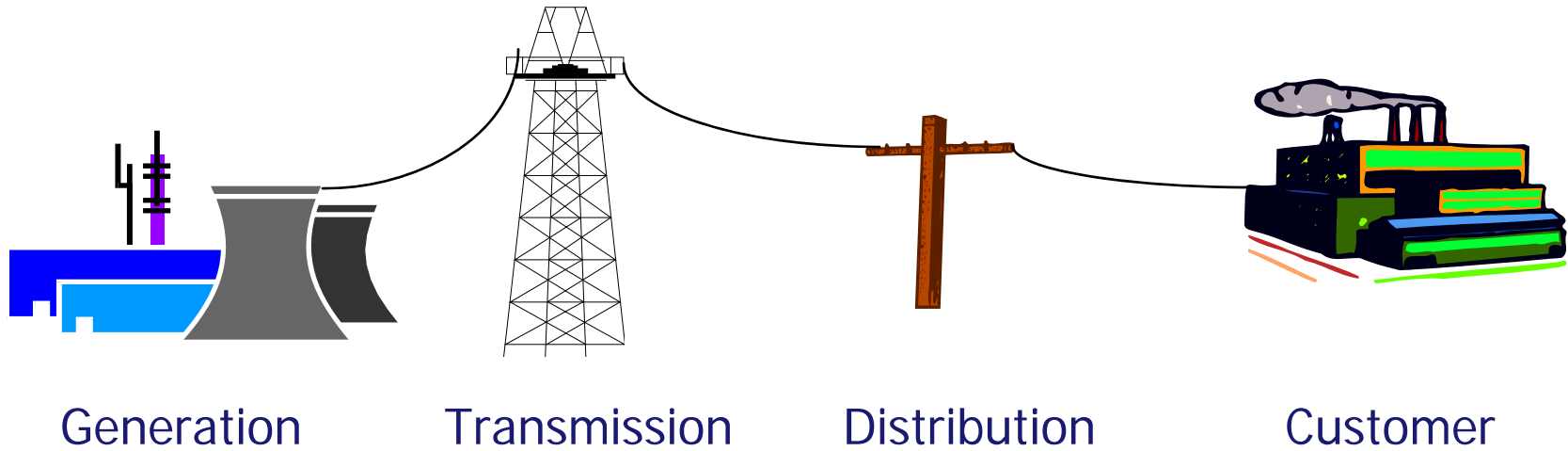
❖ 3 Main Components

- Commodity (i.e. NYMEX)
- Interstate transportation
- Distribution

❖ Deregulated Structure

- Commodity and interstate transportation made competitive
- Distribution system still regulated by public utility commission

Electric System



Electric System

❖ 3 main components

- Generation
- Transmission
- Distribution

❖ Deregulated structure

- Generation/transmission made competitive
 - Similar to commodity and interstate transportation on gas side
- Distribution system still regulated by public utility commission

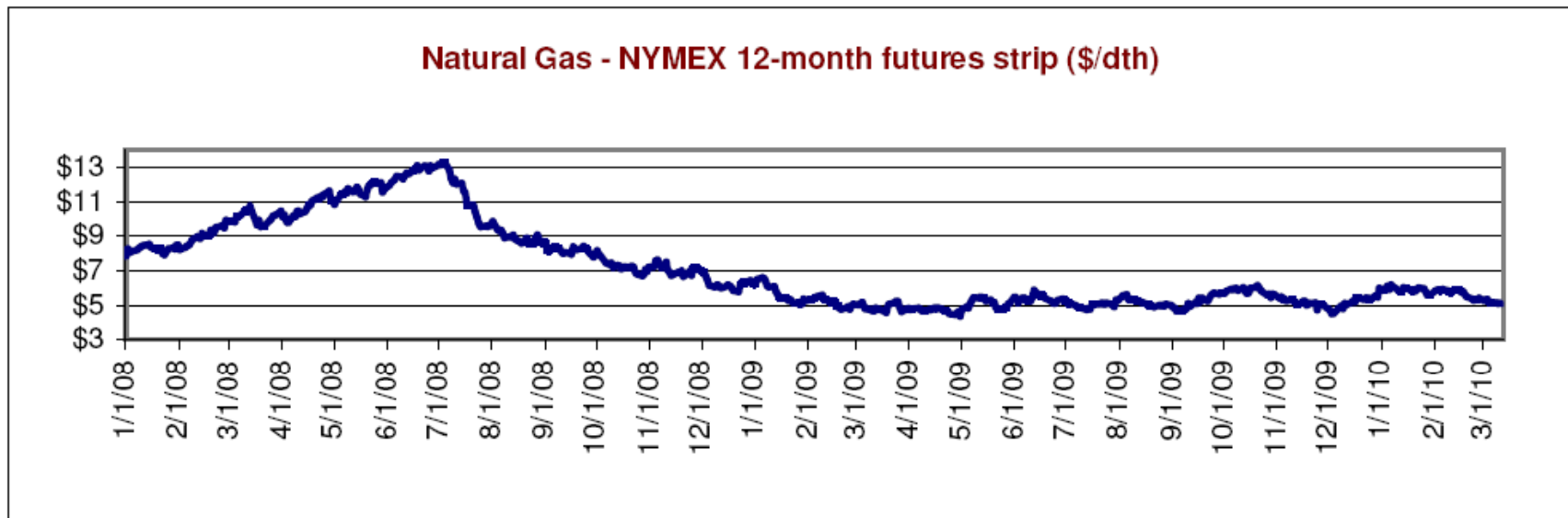
Current Market Conditions

- ❖ Energy prices have dropped significantly over the past 18 months
 - Led by “Perfect Storm” of market conditions
 - Drop in demand (recession)
 - High storage levels
 - Lack of severe weather

- ❖ 12 Month strip price for natural gas currently at approx. \$5.01/dth
 - Hit an all time high of approx. \$13.33/dth in July 2008

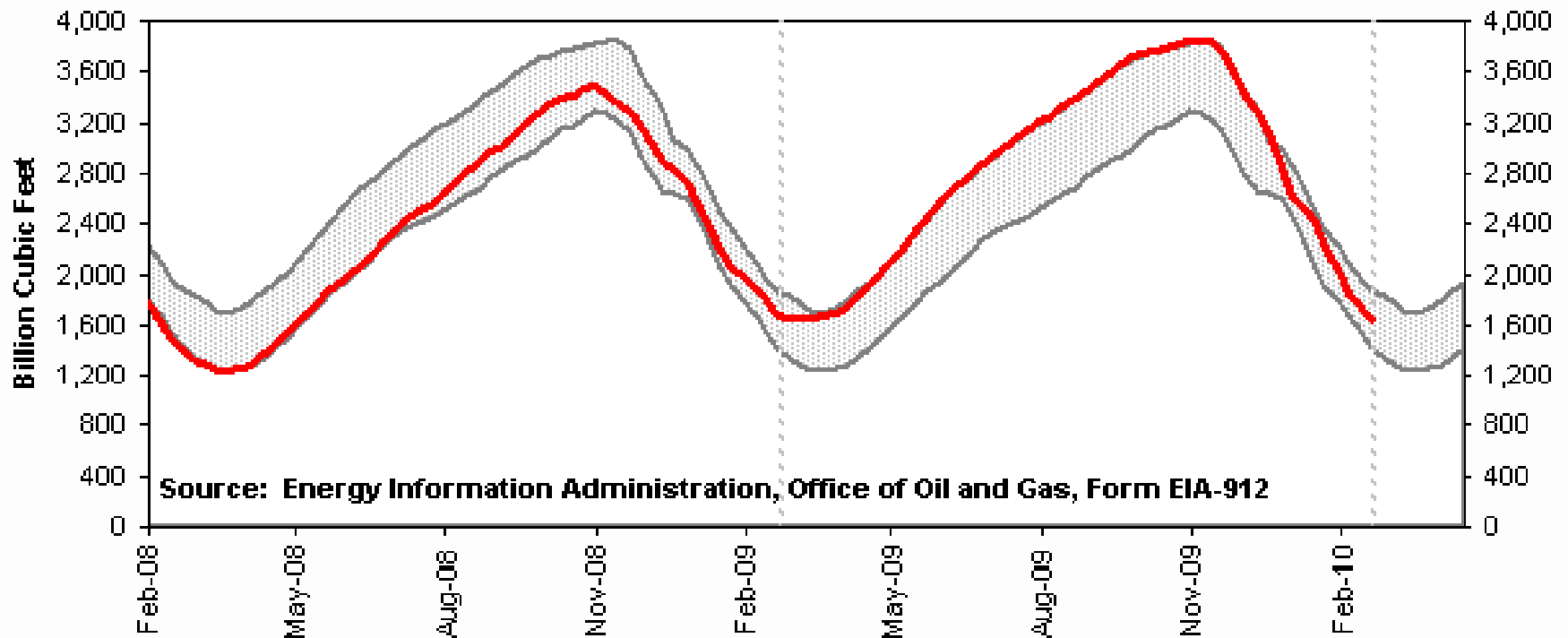
- ❖ Energy prices continue to be highly volatile

Natural Gas Pricing



Natural Gas (Working Gas In Storage)

Working Gas in Underground Storage Compared with 5-Year Range



Source: Energy Information Association

Storage Report on 3/11/10

Withdrawal 111 bcf

Total 1,626 bcf
(for week ending 3/5/10)

Total 1,697 bcf
(last year)

5 Year Average 1,607 bcf

Types of Natural Gas Supply Contracts

❖ Fixed Price

- Fixed price to city gate includes commodity, interstate transportation, sales tax

❖ Index Based Price (NYMEX + Fixed Adder)

- Fixed price for interstate transportation
- What happens to the commodity (NYMEX)?
 - Trigger at later date
 - Layered approach
 - Default to monthly NYMEX settle

Types of Electric Supply Contracts

- ❖ Fixed Price per kWh
- ❖ Index Pricing
 - Guaranteed discount
 - Hourly market price + fixed adder
- ❖ Block & Index
 - Financial block with index product

Energy Procurement Opportunities

❖ Natural Gas

- Prices are low!!!
- Many customers are locking in multi-year contracts now to taking advantage of this buying opportunity.

❖ Electric

- Most customers in N.J. can now save money on their fixed price (FP) accounts
 - Do not know how long this opportunity will last

Deregulated Electric Environment 2010

- ❖ Two (2) types of pricing structures depending on rate schedule/load
 - **Hourly Energy Price:** Customers with a peak load share $\geq 1,000\text{kW}$ or customers served at primary voltage or higher
 - Utility price = market price + $\$0.005/\text{kWh}$
 - **Fixed Price:** Customers served at a secondary voltage with a peak load share $< 1,000\text{kW}$
 - Utility price = 3 year average of auction prices (if peak load share is $\geq 750\text{kW}$ then retail adder of $\$0.005/\text{kWh}$ applies)

Fixed Priced Customers

❖ Fixed Price BGS (Basic Generation Service) Customers

- Have a fixed default rate that is layered in by utility auction using a three year rolling average
 - Auction held every February
 - Rate change takes effect every June
- Ability to buy from 3rd party suppliers since 2003 but economics did not make sense until about a year ago
 - Reason: We are in a rising market and the utility default price was purchased over a 3-year period.

NJ Electric Auction (PSE&G)

BGS Fixed Prices - 2010 NJ Electric Auction Public Service Electric & Gas Co (PSE&G)

	First 1/3 of price	Second 1/3 of price	Third 1/3 of price	Avg. Price (\$/kwh)	% Change from Prev. Year
Aug03 - May04	\$0.05386	\$0.05386	\$0.05479	\$0.05417	
Jun04 - May05	\$0.05560	\$0.05479	\$0.05515	\$0.05518	1.86%
Jun05 - May06	\$0.05479	\$0.05515	\$0.06541	\$0.05845	5.93%
Jun06 - May07	\$0.05515	\$0.06541	\$0.10251	\$0.07436	27.21%
Jun07 - May08	\$0.06541	\$0.10251	\$0.09888	\$0.08893	19.60%
Jun08 - May09	\$0.10251	\$0.09888	\$0.11150	\$0.10430	17.28%
Jun09 - May10	\$0.09888	\$0.11150	\$0.10372	\$0.10470	0.39%
Jun10 - May11	\$0.11150	\$0.10372	\$0.09577	\$0.10366	-0.99%
Jun11 - May12	\$0.10372	\$0.09577	T.B.D. - Feb11		
Jun12 - May13	\$0.09577	T.B.D. - Feb11	T.B.D. - Feb12		

Note: BGS prices shown above do not include NJ Sales and Use Tax and utility delivery charges.

What Can We Expect Going Forward?

- ❖ Volatility will prevail
- ❖ Short term drivers
 - Weather
 - Storage withdrawals/injections
 - Economic recovery
 - Value of the dollar
 - Oil prices
- ❖ Could be seeing the low point in the market

Factors to Consider

- ❖ Corporate Risk Philosophy
- ❖ Term of Contract
- ❖ Pricing Structure
- ❖ Consumption Risk
- ❖ Supplier Considerations
 - Financial strength
 - Past experience
 - Commitment to market
- ❖ Billing
- ❖ Contract Terms and Conditions
- ❖ Current Market Conditions

Procurement Process

- ❖ Analyze historical data and develop usage profile
- ❖ Establish procurement strategy
- ❖ Implement request for proposal (RFP) process
- ❖ Review and negotiate supply agreement
- ❖ Act as liaison with utility and supplier
- ❖ Provide periodic updates on current agreement
- ❖ Monitor energy markets and help identify future purchasing opportunities

This is a dynamic, ongoing, interactive process between the parties that continues after an agreement is reached with a TPS

PJM Demand Response Program

- ❖ Provides incentives for customers who can reduce usage/demand
- ❖ Potential strategies
 - Energy management systems
 - Lighting control systems
 - Cogeneration units
 - Back-up generation
 - Other load shedding resources
- ❖ Capacity program starts June 1
 - Need to enroll by mid-February

Why Partner with BSG & Premier?

- ❖ We have a team of professionals with extensive knowledge and experience in the energy industry. We also provide
 - Energy Efficiency Audits
 - Renewable Energy Engineering & Consulting (Solar PV, CHP, Geothermal)
 - GHG Evaluation & Planning
 - Commissioning & Retro-commissioning
 - LEED-HC Consulting
 - Demand Response
- ❖ We have worked together to successfully procure energy for numerous clients
 - Atlantic Health System
 - Meridian Health System
 - Passaic Valley Sewerage Commission
 - New Jersey Institute of Technology (NJIT)
 - Fairleigh Dickenson University
 - Saint Peter's University (DR)
 - 25 Housing Authorities
 - 8 Community Colleges

Why Partner with BSG & Premier?

- ❖ We have a strong understanding of the energy markets
 - Knowledge of LDC/EDC tariffs, rates and procedures
 - Knowledge of strengths and weaknesses of various electricity and natural gas suppliers
- ❖ We have third party supplier experience
- ❖ Current PJM, NJBPU, NJEDA, NJDEP, and Utility Programs (i.e. PSE&G Carbon Abatement – Hospital Auditing and Upgrades Program) knowledge and experience
- ❖ Experienced provider of engineering and consulting services to the healthcare industry

Any Questions?



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