

LEGAL AND LICENCING

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KOSOVO -2011**

INCENTIVES FOR RENEWABLE GENERATION

OVERVIEW

- No federal approach to incentivize renewables in the form of RPS or feed-in-tariffs
- No federal climate change approach
- Some Federal incentives through:
 - PURPA qualifying facilities
 - Production tax credits
- State and regional approach to renewables

Regional Approach

PJM General Attribute Tracking System

- About PJM
- PJM Environmental Services Inc. (PJM EIS) owns and administers the regional general attributes tracking system (GATS)
- GATS creates and tracks certificates that reflect the environmental and emissions attributes of the a MW/h of electricity generation identified with a unique serial number
- These certificates can be traded separately from the electricity produced (unbundled model)

Regional Approach

PJM General Attribute Tracking System

- ◉ States determine the eligibility as well as the life-span of certificates to be used for compliance with the state renewables requirements
- ◉ The GATS' design is policy neutral and supports a variety of state policies and voluntary green markets in the PJM region
- ◉ All the users of GATS must enter into an agreement with PJM EIS and pay fees

Regional Approach

Regional Greenhouse Gas Initiative

- ⦿ 10 Northeastern States including New Jersey
- ⦿ Cap and Trade Program to reduce CO₂ emissions from fossil fuel-fired power plants with a capacity of 25 MW or greater
- ⦿ The Cap:
 - From 2009-2014 the cap is 122 million short tons of CO₂ per year across the region
 - Beginning in 2015, the cap will decrease by 2.5% per year
 - Total reduction goal of 10% by 2018
 - Burden sharing of the cap among participating states
- ⦿ The Trade: Quarterly regional CO₂ allowance auctions

State Approach

New Jersey Renewable Portfolio Standards

- ◉ Statutory mandate
- ◉ Renewable energy obligations placed on retail suppliers/ providers
- ◉ RPS requirements
 - Total 22.5% of retail supplies energy by energy year 2020-2021
 - Target of 22.5% = 2.12% Solar + 17.8% Class I + 2.5% Class II
- ◉ Renewable energy certificates under the New Jersey RPS
 - Solar energy – Solar REC
 - Class I renewables – Class I REC
 - Class II renewables – Class II REC

State Approach

New Jersey Renewable Portfolio Standards

⦿ Alternative compliance payments (ACP)

- Administratively set amounts – market cap
- Types: Solar ACP and Class I /II ACP
- Use monies from ACPs

⦿ Interconnection of renewable system

- To the PJM transmission system
- To the New Jersey distribution system
 - Net metering
 - PJM Wholesale Agreements

State Approach

New Jersey Renewable Portfolio Standards

- ◎ The role of the NJBPU in promoting renewables
 - The NJ Clean Energy Program
(<http://www.njcleanenergy.com>)
 - Other statutorily permitted programs
 - The RGGI Act
 - The Offshore-Wind Economic Development Act

Case Study

New Jersey SREC long-term contracting program

○ Utility supported program

- Combined capacity target
- Revenue requirements

○ Eligibility requirements

- Net metered
- Solar system size
- 10-15 year contract terms

○ Bidding process

- Independent solicitation manager
- Frequency of solicitations
- Board approval of recommendations

ENERGY SUPPLY AND MARKET MONITORING

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OVERVIEW

- ◎ Competing resources in wholesale markets:
 - Supply -generation
 - Demand – demand response
 - Other – transmission/ energy efficiency
- ◎ Competition in retail markets:
 - Retail market opening
 - Switching
 - Regulated supply – supplier of last resort

SUPPLY RESOURCES BUILDING GENERATION

Regional Approach

PJM Capacity Market

- ◎ The Reliability Pricing Model (RPM)
 - All “Existing Generation Resources” must offer
 - Forward capacity commitments
 - Basic residual auctions
 - Incremental auctions
 - Reliability backstop auction
 - Locational capacity pricing
 - Resource requirements
 - Variable resource requirements (VRR)
 - Fixed resource requirement alternative (FRR)

Regional Approach

Energy Markets and Market Monitoring

- ◎ PJM energy markets
 - Real time energy market
 - Day-ahead energy market
 - Ancillary services market
- ◎ Bilateral Transactions

State Approach

New Jersey Initiatives to build generation

- ⦿ Deregulation – Regulator's role in building generation
- ⦿ Long-Term Capacity Agreement Pilot Program (LCAPP)
 - Statutory mandate
 - LCAPP Agent
 - Standard Offer Capacity Agreements (SOCAs)
 - Eligible generators
 - Cost recovery



MARKET MONITORING AND RETAIL MARKET OPENING

Market Monitoring

- ◉ Market Monitoring - FERC Order 697
 - Market power screens
 - Mitigation methodologies to prevent abuse
 - Cross subsidization
 - Barriers to entry
- ◉ PJM Independent Market Monitor (IMM)

State Approach

Retail markets in New Jersey

- ⦿ Market opening
- ⦿ New Jersey Basic Generation Service
 - BGS-FP Auction
 - BGS-CIEP Auction
- ⦿ Switching
- ⦿ Retail energy price components

Discussion Points

- ◉ Long term PPAs in competitive markets
- ◉ The single buyer model
- ◉ Competition and market power control
 - Divestiture of incumbent generation assets (unbundling)
 - New entry – independent power producers
 - Geographic expansion of markets- new transmission
 - Demand side competition
 - Price caps, bidding restrictions, profit controls