PJM
Rationale in retrospect: Early bird gets the solar

OCTOBER 20, 2015
OUR MISSION

To connect people with cleaner energy on a massive scale.
Inputs & Assumptions
Methodological inputs and assumptions

**INPUTS**
- Data: BNEF, EIA, GATS, CRS
- Supply estimates + actual generation
- Capacity factor
- Multi-fuel facilities - % renewable
- Aggregated prices

**ASSUMPTIONS**
- Current regulatory structure
- IL supplied from outside PJM
- Eligibility starts with online date
- Multipliers suppressed
- Current regulatory structure
- Big changes impact output:
  - EPA Clean Power Plan early action
  - RPS changes
  - MISO imports
  - ITC/PTC expiration/extension
Upper Tier
Upper tier demand expected to grow 13% annually; PA, NJ, MD drive the market.
Prices generally reflect fundamentals

Price by Compliance Program

ACPs
DC 1: $50
NJ 1: $50
OH: $45+
PA 1: $45
MD 1: $40
DE New: $25-80
Solar
Market grows 15% annually moving forward; MD and NJ lead the way
Constrained markets and ACPs drive early growth
Maryland
35% growth rate is through 2020; ACP and prices
Banking can supplement new build

Banking Scenarios

- Supply - no build
- Demand
- Supply - no build optimal bank
Current build rate supplies market

MW Growth Scenarios

- Cumulative capacity - 2015 build rate
- Existing capacity + necessary new build
- Existing capacity - no growth
Current build rate creates banking opportunities and price ceiling

Demand vs. Supply - 2015 Rate

ACP vs Price
Summary

+ Market seems irrational in real-time, but when looking back often reflect fundamentals
+ Methodology and assumptions dramatically impact projections
+ New build in the next 14 months will drive pricing for the next 5 years in solar markets
Questions?
Optional Slides
800+ MW needed by 2020
Tier 1 Trades Far Below Price Ceiling

ACPs
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OH: $45+
PA 1: $45
MD 1: $40
DE New: $25-80
NJ Solar

ACP vs Price


NJ ACP  NJ $
OH Solar

ACP vs Price

- OH ACP
- OH $
PA Solar

ACP vs Price

- PA ACP
- PA $