



Business and Investment Opportunities in PJM and Beyond

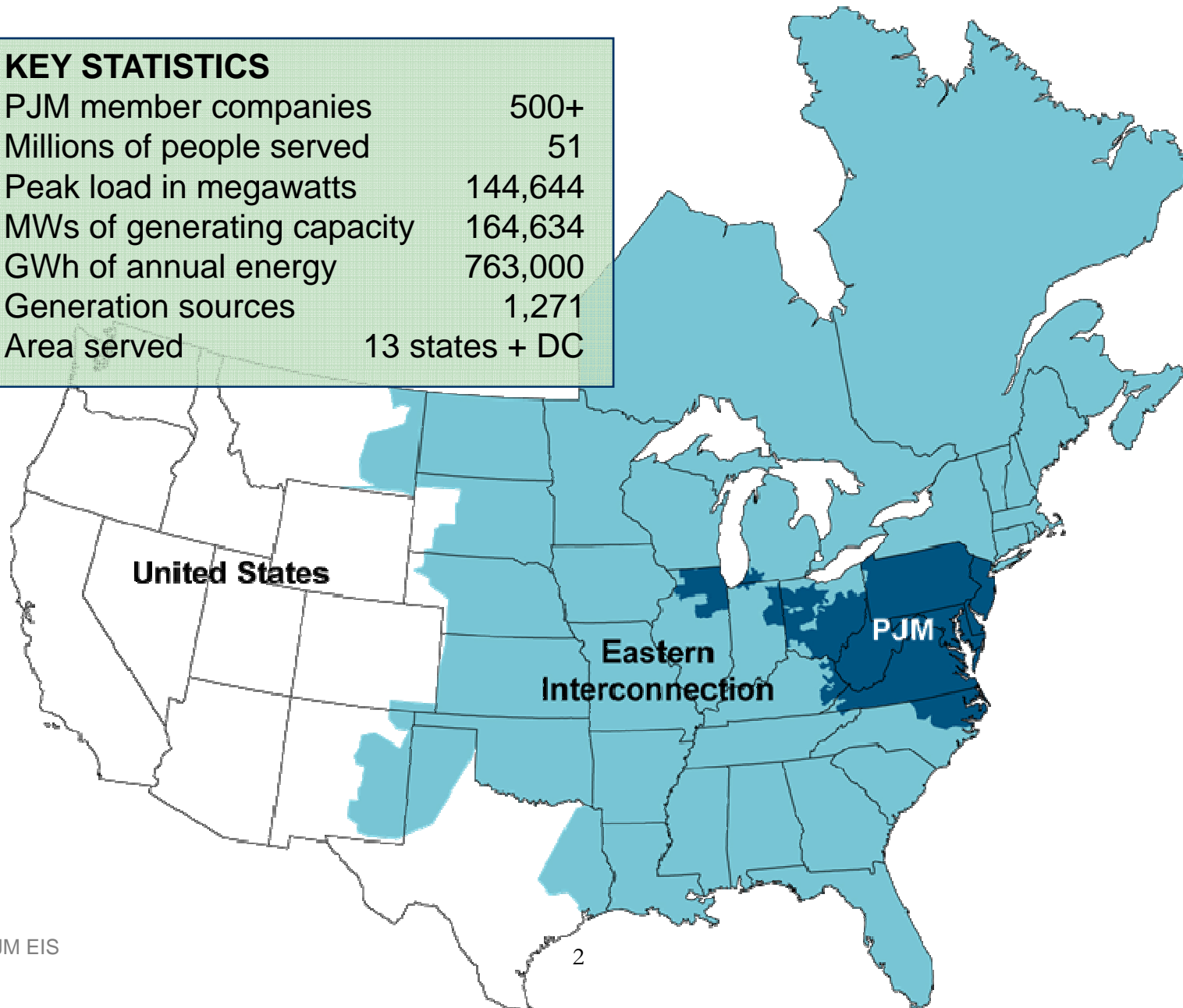
Andrew L. Ott

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PJM as Part of the Eastern Interconnection

KEY STATISTICS

PJM member companies	500+
Millions of people served	51
Peak load in megawatts	144,644
MWs of generating capacity	164,634
GWh of annual energy	763,000
Generation sources	1,271
Area served	13 states + DC



Fuel Type	Certificates	Percentage
Coal	416,675,593	55.9689
Oil	3,710,001	0.4983
Gas	53,952,005	7.2470
Nuclear	254,875,239	34.2355
Biomass	-	0.0000
Captured Methane	1,321,606	0.1775
Solar	-	0.0000
Solid Waste	4,442,832	0.5968
Water	6,631,288	0.8907
Wind	1,373,161	0.1844
Wood/Wood Waste	1,495,745	0.2009
Total:	744,477,470	100.0000
Renewables	15,264,632	2.0504

Emissions	lbs/MWh
Carbon Dioxide	1241.6602
Nitrogen Oxides	2.1456
Sulphur Dioxide	7.7665

Renewable Generator Registration by State

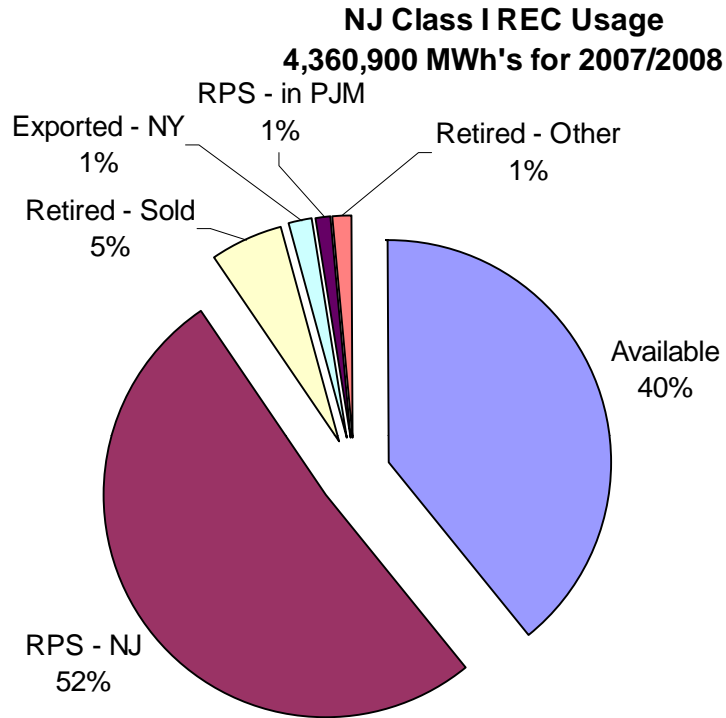
- ❖ DE – 118
- ❖ IA - 2
- ❖ IL – 39
- ❖ IN – 7
- ❖ MD – 30
- ❖ MI – 12
- ❖ MO – 3
- ❖ NC – 4
- ❖ NJ – 31
- ❖ NY – 10
- ❖ OH – 4
- ❖ PA – 116
- ❖ TN – 1
- ❖ VA – 55
- ❖ WV – 14

• GATS = Generation Attribute Tracking System

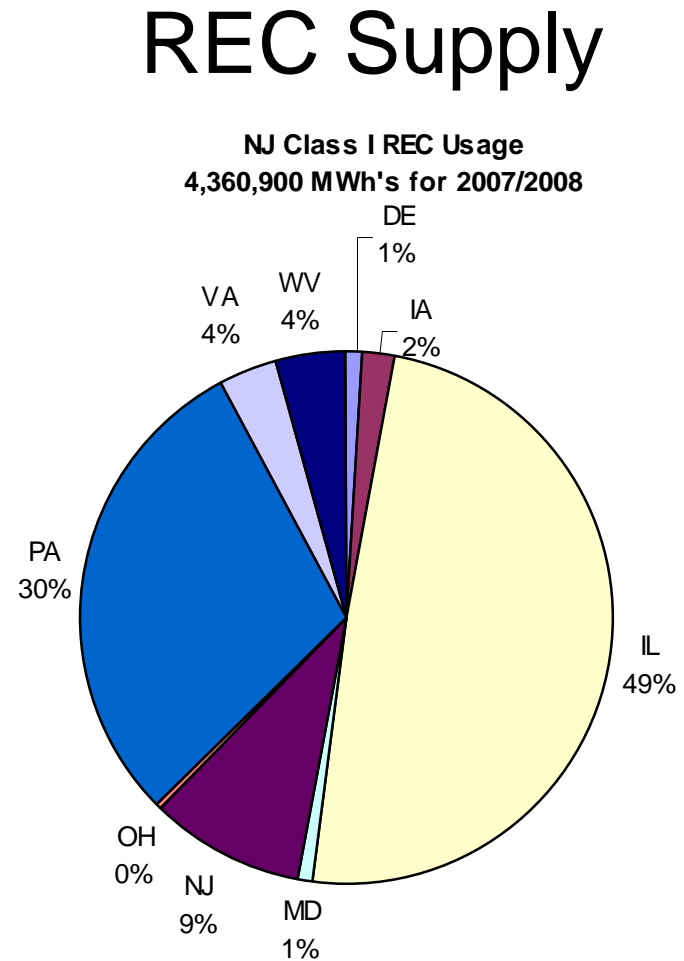
- GATS - a regional environmental registry and information system that tracks the environmental and fuel attributes of generation.
- The system:
 - assists LSEs in their compliance with applicable emissions and fuel disclosure requirements and with state-level Renewable Portfolio Standard (RPS) regulation or renewable policy
 - enables voluntary bilateral markets and marketing claims for renewables.
 - provides state agencies with reporting and verification
 - provides renewable generators with a means to monetize their renewable attributes and qualification

- All MWhs of PJM generation are tracked.
- A certificate market separate from energy is enabled for renewable generation.
 - Certificates (i.e., credits) traded separate from energy
 - Certificates can have different value depending on their attributes (e.g., fuel type, location, date of generation, etc).
- It is a *single regional information system* that will support a range of reporting, verification, and compliance requirements (e.g., disclosure, RPS, voluntary retail markets, etc).
- The system accommodates:
 - banking certificates to accommodate varying certificate life spans as determined by state policy or regulation
 - enabling varying state programs and their definitions of preferred attributes:
 - wind, solar, biomass, etc.
 - energy efficiency
 - waste coal
 - pumped storage generation
 - moving certificates to non-LSEs for bilateral voluntary markets, i.e. direct sales to retail entities
 - a bulletin board to facilitate bilateral trades

New Jersey Class I REC



REC Disposition



REC prices (Evolution Markets transactions)

- NJ Class I (2009 RY) - \$14.75
- NJ Class II (2009 RY) - \$1.15
- NJ Solar (2009 RY) - \$565.00
- PA Tier I (2008 RY) - \$8.50
- PA Tier II (2008 RY) - \$0.40
- PA Solar (2007 RY) - \$235.00

- DC Tier 1 (2008 RY) - \$1.15
- DC Tier 2 (2007 RY) - \$0.75
- DE Existing (2007 RY) - \$0.65
- DE New (2007 RY) - \$6.00
- DE Solar (2007 RY) - \$240.00
- MD Tier I (2008 RY) - \$1.10
- MD Tier II (2008 RY) - \$0.60

GATS Technical & Customer Service / Administrative Support



GATS Hotline:
Phone - (610) 666-2245
Fax - (610) 771-4114
GATSAdmin@pjm-eis.com

