

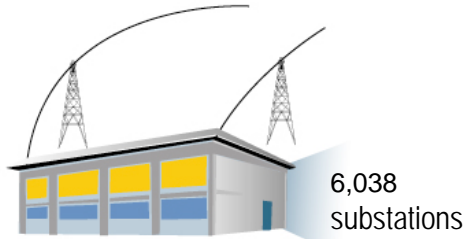


Monetizing **Green Energy** through Certificates

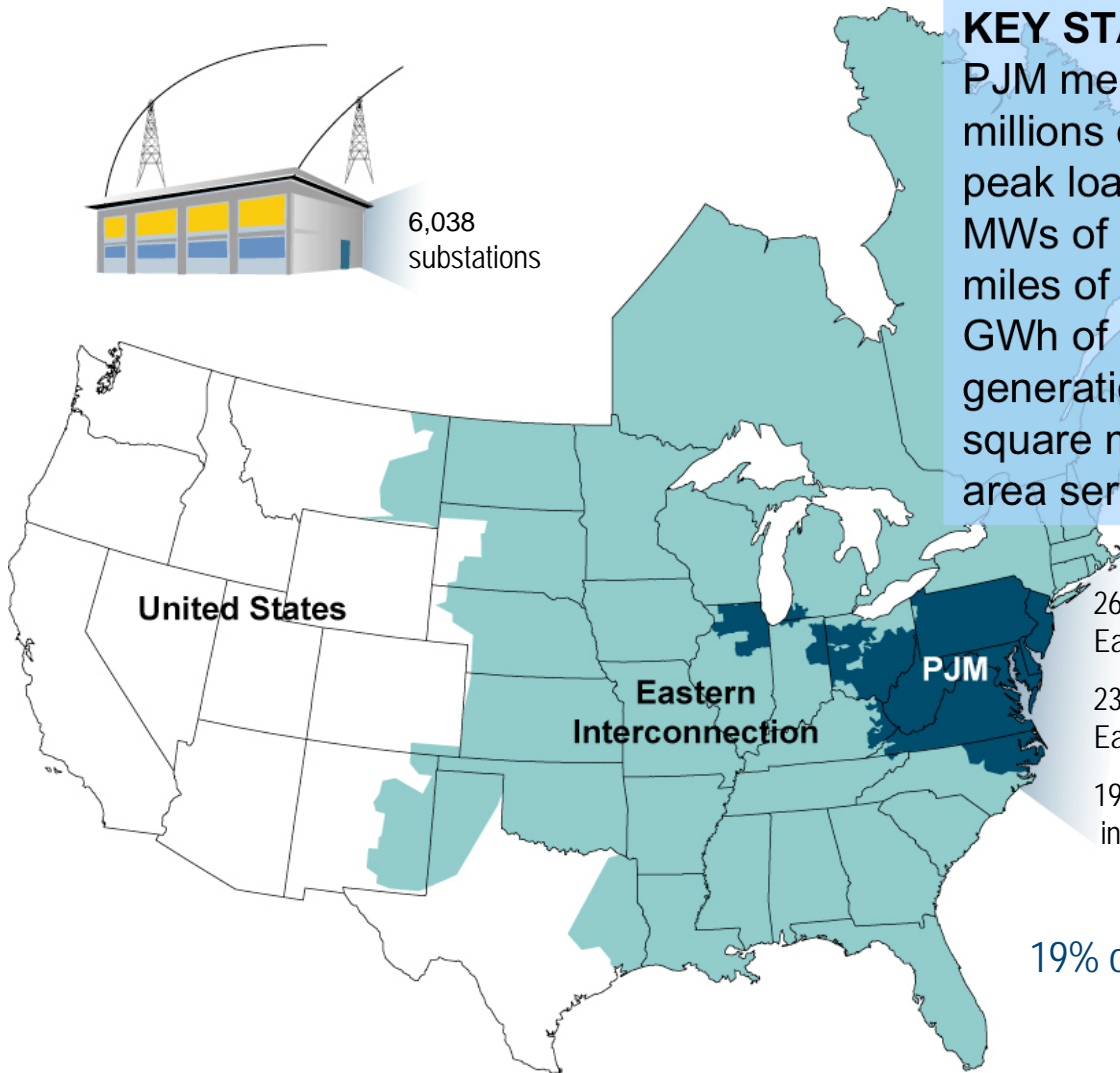
“Generation Attributes Tracking System”

2006 New Jersey
Clean Energy Conference
September 18, 2006
New Brunswick , NJ

PJM as Part of the Eastern Interconnection



KEY STATISTICS	
PJM member companies	400
millions of people served	51
peak load in megawatts	144,796
MWs of generating capacity	164,634
miles of transmission lines	56,070
GWh of annual energy generation sources	728,000
square miles of territory	164,260
area served	13 states + DC



26% of generation in Eastern Interconnection
 23% of load in Eastern Interconnection
 19% of transmission assets in Eastern Interconnection

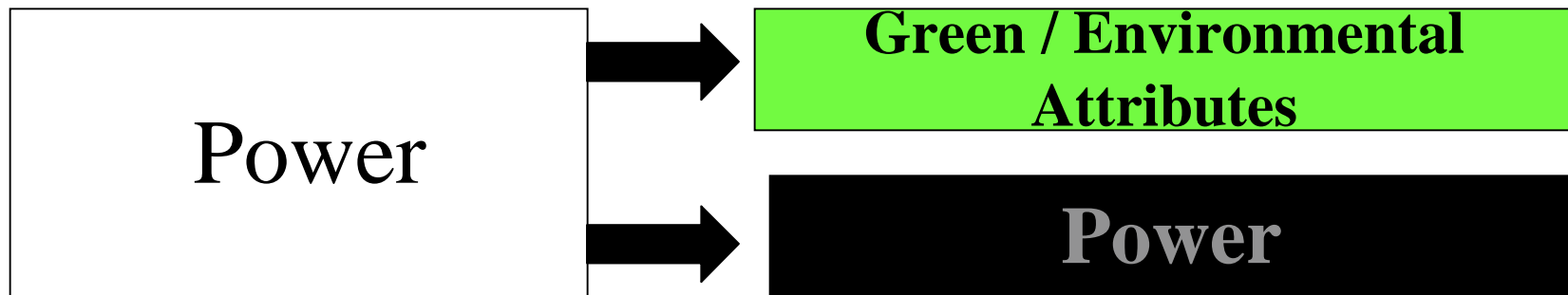
19% of U.S. GDP produced in PJM

2005 PJM SYSTEM MIX

Fuel Type	Certificates	Percentage
Coal	403,270,156	57.0853
Oil	10,609,825	1.5019
Gas	38,146,750	5.3999
Nuclear	240,125,042	33.9912
Biomass	16,438	0.0023
Captured Methane	1,103,532	0.1562
Solar	60	0.0000
Solid Waste	3,945,618	0.5585
Water	6,441,734	0.9119
Wind	507,820	0.0719
Wood/Wood Waste	2,266,868	0.3209
	706,433,843	100.0000
% Renewables	14,282,070	2.0217

Emissions	(lbs/MWh)
Carbon Dioxide	1289.6072
Nitrogen Oxides	2.5951
Sulphur Dioxide	8.4621

What is a Certificate?

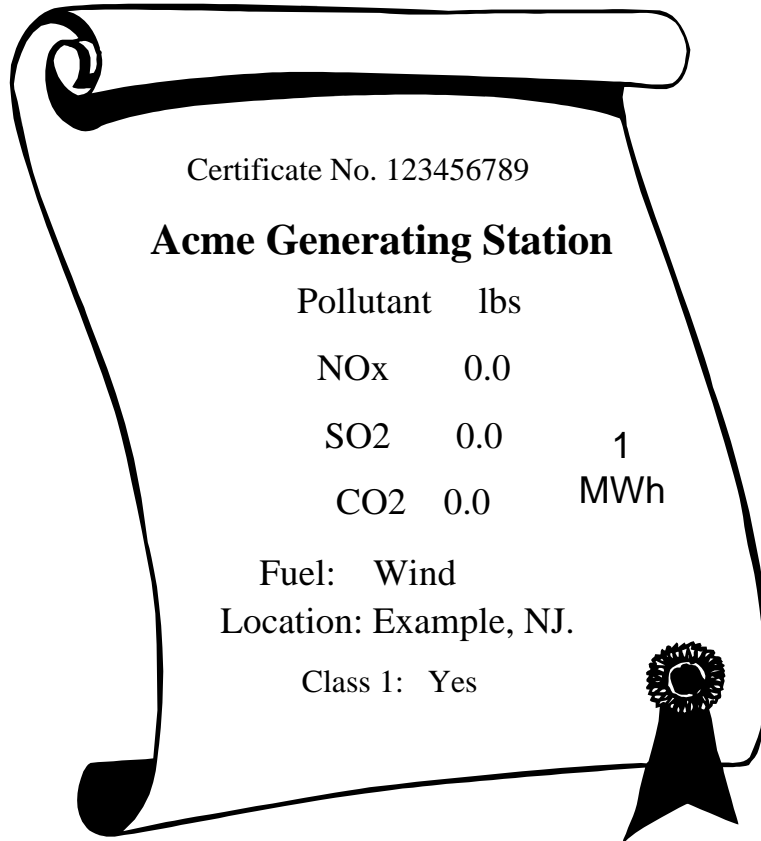


GATS = Generator Attribute Tracking System

- GATS - a regional environmental registry and information system that will track the environmental and fuel attributes of generation.
- The system :
 - provide renewable generators with a means to monetize their renewable attributes and qualification
 - enable bilateral sales and marketing claims for renewables, compliance and voluntary markets.
 - assist energy suppliers in their compliance with state-level Renewable Portfolio Standard (RPS) statutes or renewable policy, applicable emissions and fuel disclosure requirements and with
 - provide state agencies with reporting and verification

- PJM Environmental Information Services, Inc. (PJM EIS) owns and administers the Generation Attribute Tracking System (GATS).
- PJM EIS is a wholly-owned subsidiary of PJM LLC
- Use of GATS is on a voluntary basis, and through subscription
- State regulators at their discretion may require the use of GATS certificates as a means for compliance with portfolio standards.

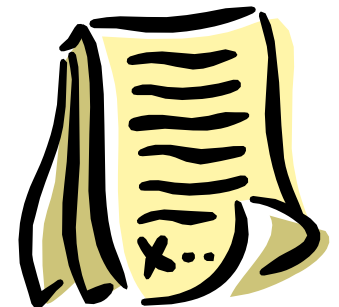
Each MWh is given a unique electronic certificate



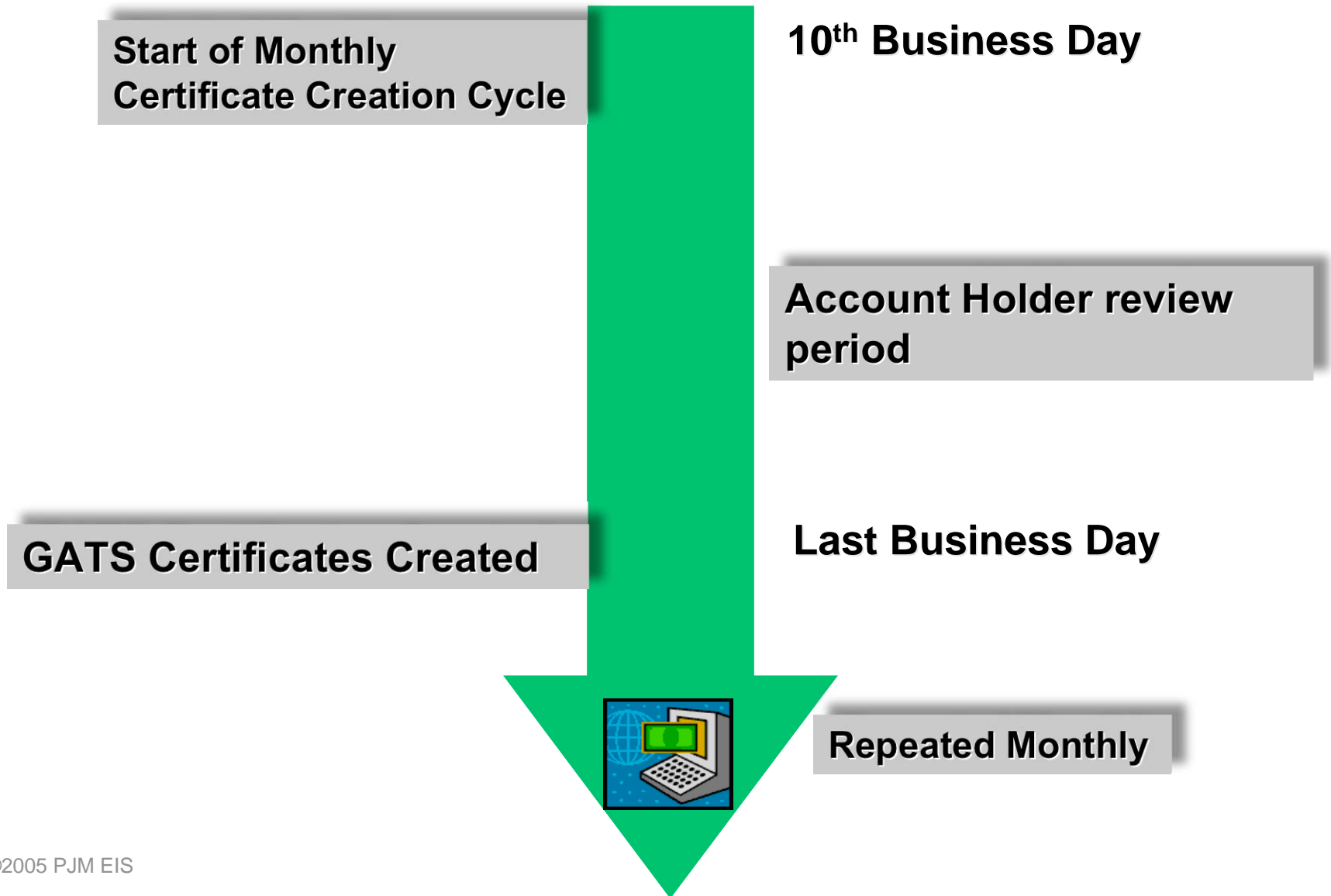
- Certificates' data will be compiled using market settlement and publicly available data from EPA and EIA.

Use of the GATS

- All GATS users (“Subscribers”) must enter into the GATS Terms of Use agreement to gain access to use the GATS.
- Subscribers will be charged an annual subscription fee and monthly volumetric fees for use of the system.
- Subscribers must also attest that any information they provide into the GATS database will be true and correct.
- Contractually commits all users to comply with all of the requirements of the GATS Operating Rules.



GATS Certificate Creation Cycle

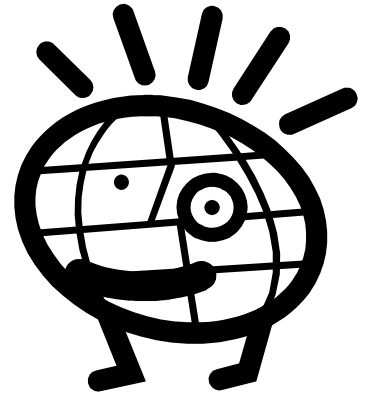


Needs of the PJM States / Market

- GATS initiated in response to state regulatory commission inquiries and effected stakeholders

- Renewable Portfolio Standards

- New Jersey: began in 2004.
- Maryland: requirements went into effect on January 1, 2006
- District of Columbia: requirements go into effect January 1, 2007
- Pennsylvania: requirements go into effect February 28, 2007
- Delaware: requirements go into effect June 1, 2007
- Illinois: voluntary program ???



Current Status of State RPS Programs

Renewable Portfolio Standards Adopted

- New Jersey - Regulation relies on GATS
- Maryland - Regulation, relies on GATS
- Pennsylvania – Regulation relies on GATS
- District of Columbia - Regulation relies on GATS
- Delaware – Regulation relies on GATS

Renewable Portfolio Standards Under Consideration

- Illinois – initially not certificate based?

Current Statistics (as of 8/31/06)

- 128 SUBSCRIBERS
- CERTIFICATES CREATED

	GATS Total	2006 to-date	2005
# Class I (New Jersey)	1,960,944	972,988	1,006,289
# Class II (New Jersey)	8,876,928	3,496,324	5,414,288
# Tier I (Maryland)	2,604,684	1,587,373	1,445,508
# Tier II (Maryland)	5,470,641	3,034,957	2,435,684
# Solar (Pennsylvania)	146	86	60
# Tier I (Pennsylvania)	2,386,143	1,026,577	1,359,566
# Tier II (Pennsylvania)	44,946,344	17,551,557	27,394,787
# Tier I (DC)		360,196	
# Tier II (DC)		314,476	

REC's created Jan 2006 through July 2006

NJ Class 1

95,298 - qualified in NJ only

877,690 - qualified in NJ and multiple states

NJ Class 2

298,536 - qualified in NJ only

3,197,788 - qualified in NJ and multiple states)



Current Certificate Pricing

- PJM REC Market Pricing:

NJ Class I : \$5 to \$7.75 / REC

NJ Class II : \$2 / REC

NJ Solar : \$230 - \$240 / REC

MD Tier I : \$1.50 / REC

MD Tier II : \$0.85 / REC

- Comparable Data

MA \$48.75 to \$52.25 / REC

ME \$0.25 / REC

Source: Evolution Markets report,
August 2006

Registered Renewable Generators by State Location (as of 9/6/2006):

DE - 10

IL - 12

IN - 6

MD - 7

MI - 10

NC - 3

NJ - 21

NY - 2

OH - 3

PA - 92

VA - 45

WV - 13

Total - 224

There are three types of reports that are available to GATS Account Holders:

Account Holder • State Agency • Public



Public Reports

There are eight different Public Reports available in GATS. These reports provide general GATS updates and statistics. These reports are also accessible from the GATS Login Page

The screenshot shows the GATS web application interface. The top navigation bar includes the PJM EIS logo, a 'logout' button, and links for 'My Account', 'Help', 'customize page', and 'Change Password'. The user is logged in as 'AH2106_2_1 - apatel'.

The main content area is divided into several sections:

- Public Reports** (highlighted with a green box and an arrow):
 - [New! GATS Account Holders](#)
 - [GATS Generators](#)
 - [PJM Residual Mix](#)
 - [Import System Mix](#)
 - [Bulletin Board](#)
 - GATS Certificates Statistics: [Quarterly](#)
 - Reserved Certificate Transfers: [Quarterly](#) [Annual](#)
 - PJM System Mix: [Quarterly](#)
- Account Information**:

Company Name:	AH2106_2_1
Account Administrator Email:	gats_testing@yahoo.com
Account Administrator Phone:	610-666-3446
- Inbox**:

From	Quantity	Status	Confirm	Reject
Obligation				
- Asset Management**:

Unit ID	Plant - Unit	PJM Generator	Status	Update Emission	Standing Orders
NON32675	Best Power - BP	No	Pending	JAN 2005	
IMP12345	Big Kahuna - #1	No	Approved	FEB 2005	2006 Q4
NON32663	P210622 - U210622	No	Approved	JAN 2005	
NON32665	P23021 - U23021	No	Approved	JAN 2005	
IMG23051	P23051 - U23051	No	Approved	JAN 2005	
IMG23052	P23052 - U23052	No	Approved	JAN 2005	
NON32668	P23061 - U23061	No	Approved	JAN 2005	2005 Q1
NON32662	P210621 - U210621	No	Inactive	JAN 2005	

[View All Standing Orders](#) | [Create Standing Orders](#) | [View Emission Entry History](#)
[Register BTM or External Generator](#) (New PJM Generators will appear above after registration in MSET.)
[Register Import Generator](#)
- Message Notification**:

Message Type	Message	Receive Date
My Messages	Email Test	6/23/2005 7:55:24 AM

Account Holder Reports

There are ten different Account Holder Reports available in GATS. These reports provide updates and the status of current account information as well as transaction History

The screenshot displays the GATS interface for account holder reports. At the top, there is a navigation bar with the PJM EIS logo and a 'logout' button. Below the navigation bar, there are links for 'My Account' and 'Help'. A 'customize page' button is visible, along with the user ID 'AH2106_2_1 - apatel' and a 'Change Password' link.

The main content area is divided into two primary sections: 'Account Holder Reports' and 'Account Status'.

Account Holder Reports (Left Panel):

- [My Event Log](#)
- [New! My Generation](#) (Monthly)
- [New! My Load](#) (Monthly)
- [New! My Imports](#) (Monthly)
- [New! My Exports](#) (Monthly)
- [New! My Emission](#) (Monthly)
- [New! Total Emission by Generator](#) (Monthly)
- [My Certificates Disposition](#) (Monthly)
- [My Obligations](#) (Monthly, Annual)
- [My Retail LSE Sub-Accounts](#) (Monthly)
- [My Standing Orders](#) (Monthly)
- [New! Transfer History](#) (Monthly)

Account Status (Right Panel):

Trading Period:

2005 - Open	2005 - Close	2006 - Open
3/1/2005 - 2/14/2006	2/14/2006 - 3/1/2006	3/1/2006 - 2/14/2007

Task:

Certificate Creation	Open Period	Acct Holder Review	Certificate Creation	Open Period
July 2005	07/20/2005	August 2005	August 2005	10/01/2005 to 10/14/2005
	07/21/2005 to 09/15/2005	09/15/2005 to 09/30/2005	09/30/2005	

Account Summary

MSET Data & Manual Generation Totals

Supply MWh		Demand MWh	
Generation	N/A	Load	N/A
Imports	N/A	Exports	N/A

Account Activity

Certificates		Obligations	
Active	150	Transferred In	0
CEPS	0	Transferred Out	0
On Bulletin Board	0		
Reserved	0		
In Retail LSE Sub-Accounts	0	In Retail LSE Sub-Accounts	0

State Agency Reports

- [New! GATS Generators](#)
- [New! Import Generators](#)
- Total Emissions by GATS Generator (Monthly, Annual)
- Units Reporting Emissions via an Approved Emissions (Monthly)

State Agency Reports

There are seventeen different State Agency Reports available in GATS. These reports provide updates and the status of current account information as well emissions reporting information

The screenshot displays the GATS user interface. At the top, there is a navigation bar with the PJM EIS logo and a 'logout' button. Below this, a user profile bar shows 'My Account' and 'Help' links, along with a 'customize page' button and the user ID 'AH2106_2_1 - apatel'. The main content area is divided into two columns. The left column contains the 'State Agency Reports' menu, which is highlighted with a callout box. The right column displays the 'Account Status' section, which includes a 'Trading Period' table and a 'Task' table. Below these are sections for 'Account Summary', 'MSET Data & Manual Generation Totals', and 'Account Activity'.

2005 - Open	2005 - Close	2006 - Open
3/1/2005 - 2/14/2006	2/14/2006 - 3/1/2006	3/1/2006 - 2/14/2007

Certificate Creation	Open Period	Acct Holder Review	Certificate Creation	Open Period
July 2005	07/21/2005 to 09/15/2005	August 2005	August 2005	10/01/2005 to 10/14/2005

Supply MWh		Demand MWh	
Generation	N/A	Load	N/A
Imports	N/A	Exports	N/A

Certificates		Obligations	
Active	150	Transferred In	0
CEPS	0	Transferred Out	0
On Bulletin Board	0		
Reserved	0		
In Retail LSE Sub-Accounts	0	In Retail LSE Sub-Accounts	0

If you have any questions... **Primary Contacts**

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If you have any questions...

For more information on GATS:

<http://www.pjm-eis.com/>