



Preparing for the Midwest Renewable Energy Tracking System (M-RETS)

July 19, 2007

Agenda

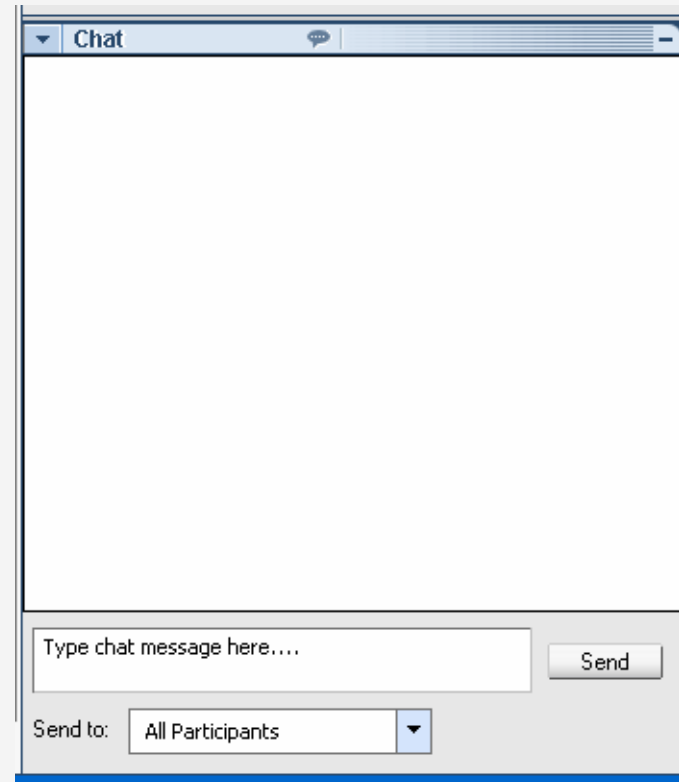


- Logistics
- Panelist Introductions
- Overview of M-RETS
 - Functionality
 - Participation in M-RETS
 - Governance
 - Fees and subscriber agreement
- Updates from States on policy and rulemaking
- M-RETS Status Update
- Upcoming events
- Q&A



- All attendees are muted until the Q&A session
- All attendees will receive a copy of the presentation after the event.

- To submit questions, type in your question in the “chat” window on the right.

A screenshot of a web-based chat window. The window has a title bar that says "Chat" with a speech bubble icon and a close button. The main area is a large, empty white rectangle. At the bottom, there is a text input field with the placeholder text "Type chat message here...." and a "Send" button to its right. Below the input field is a "Send to:" label followed by a dropdown menu currently set to "All Participants".

Today's Panelists



- Paul Helgeson- Public Service Commission of Wisconsin
- Kate O'Connell - Minnesota Department of Commerce
- Devon Walton (M-RETS Administrator) - APX



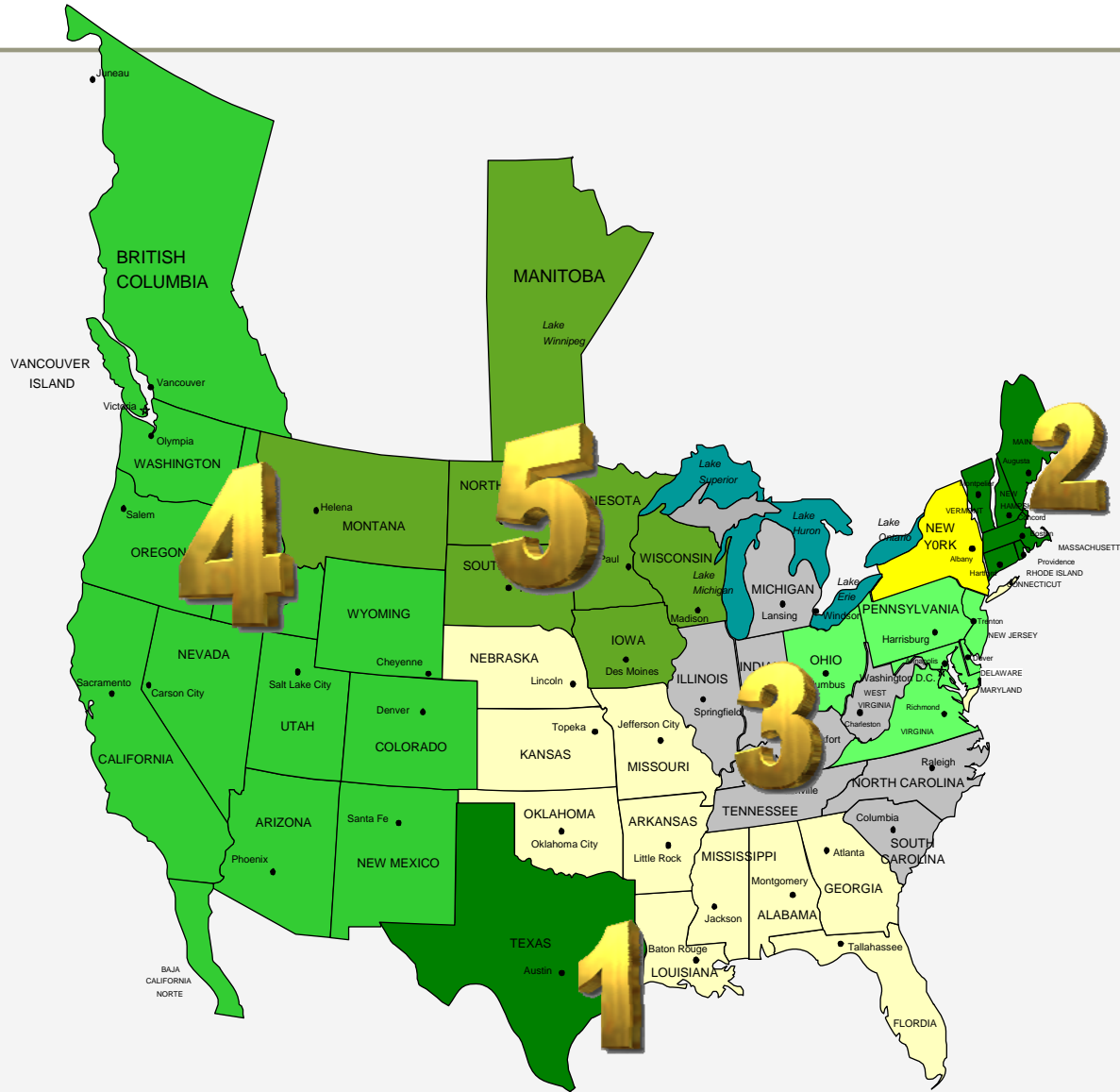


M-RETS Functional Overview

Tracking Systems Fundamentals
M-RETS Functional Overview
M-RETS Data Sources
M-RETS Account Structure
Certificate Creation Process & Timeline
Imports & Exports

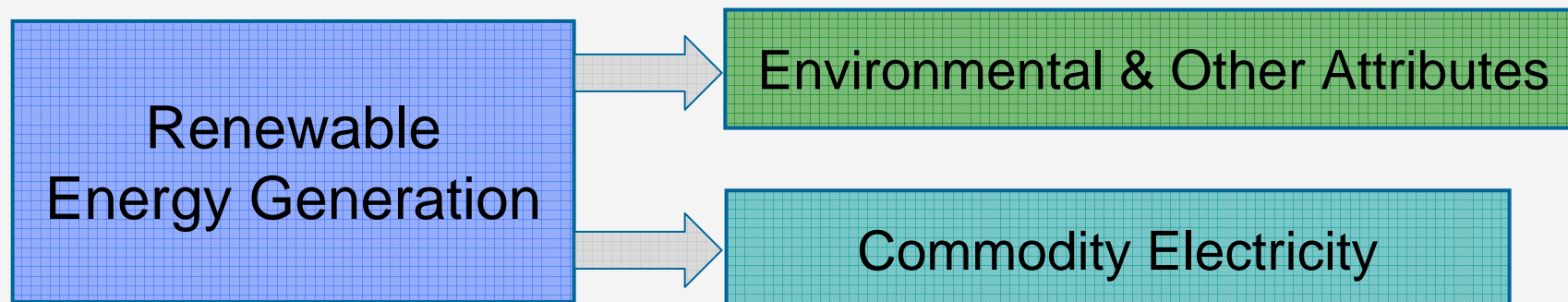


Regional Tracking Systems in the US



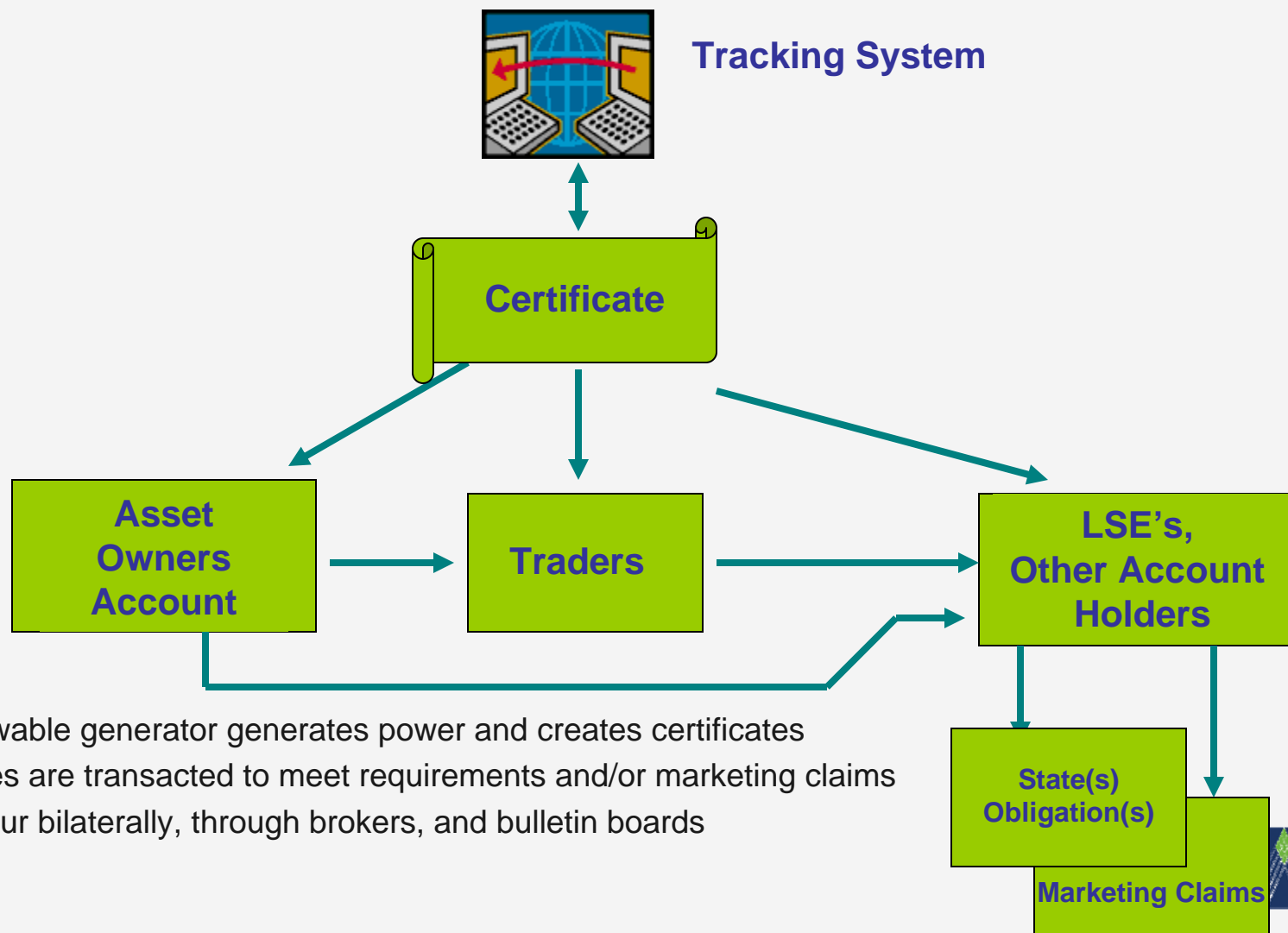
Region	Launch
1: ERCOT	2001
2: NEPOOL GIS	2002
3: PJM GATS	2005
4: WREGIS	6/2007
5: M-RETS	7/2007





- Certificates represent the right to claim environmental and other attributes associated with electricity generated from a renewable energy facility
- Two tradeable commodities now exist: **Renewable Energy Credits (REC)** and **Commodity Electricity** (each priced separately)
- RECs represent the environmental attributes associated with 1 MWh of renewable energy

REC Tracking System Overview - Trading/Settlements



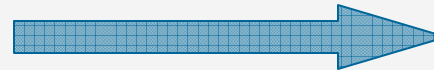
- 1) The renewable generator generates power and creates certificates
- 2) Certificates are transacted to meet requirements and/or marketing claims
- 3) Deals occur bilaterally, through brokers, and bulletin boards

REC Tracking Systems – Process Flow



Account Registration (3 User Types)

- Account Holder (Generator Owner, LSE, Marketer, Broker, etc)
- Qualified Reporting Entity (QRE)
- State/Provincial/Voluntary Program Administrator



Generator Registration

- Plant location, capacity
- Fuel Type/Fuel Source
- RPS/Voluntary/Other Program Eligibility



Certificates (M-RETS/RRC) Created and Assigned

- One certificate for each MWh of renewable generation reported by a QRE
- One converted RRC upon request (including fractional) for each qualifying M-RETS Certificate (in an Active Sub-Account from the previous year)
- Sub-Accounts for Active transactions and Retirement (including RRC and Export)



Certificate Management

- Certificate transfers to other Active Sub-Accounts, M-RETS Account Holders, Retirement, Export, Bulletin Board, Forward Certificate Transfers and Standing Orders



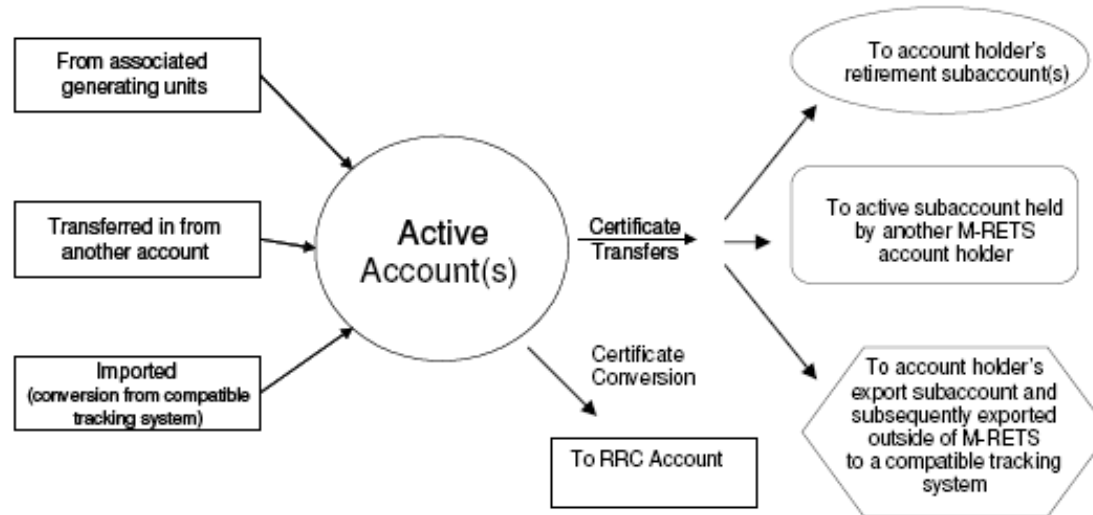
Compliance Reporting/Monitoring

- Account Holders submit reports for RPS, disclosure, EPS, etc
- Program Administrators monitor compliance in their respective programs



- Basic M-RETS Account types contain:
 - An Active Sub-Account
 - A Retirement Sub-Account
 - An Export Sub-Account
- RRC Sub-Account for WI Electric Providers
- Certificates initially deposited into Active Sub-Account – can be transferred to other Sub-Accounts and/or M-RETS Account Holders

Certificate Transfers



- Standing Orders
- Forward Certificate Transfers



M-RETS Data Sources



Data	Source	Comment
Generator Output (MWh)	<ul style="list-style-type: none">• Midwest ISO Settlement• Qualified Reporting Entity (QRE)• Self-reporting	QRE and self-reporting are options if MISO data not available
Fuel Sources / Generator Characteristics	Generator Entered – M-RETS Admin Verified	Information such as fuel type(s), vintage, capacity, location etc
RPS Eligibility (by State/Province)	Generator Entered – Regulator Verified	State certification number required



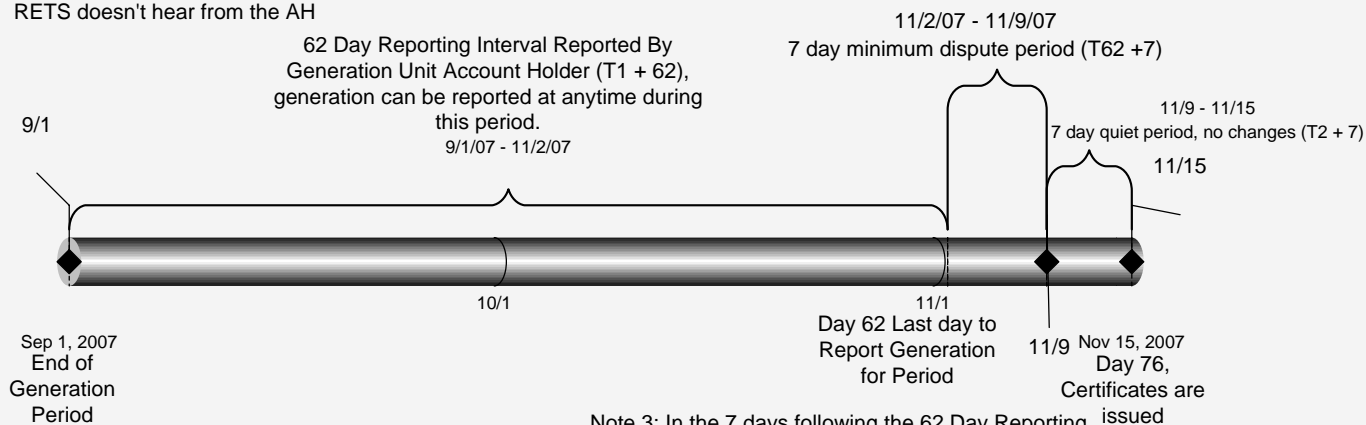
M-RETS Certificate Creation Timeline



Current Period Certificate Creation Time Line

One Condition must be met for Certificate Creation:

- 1) Posted Generation must be accepted by the Account holder, or
- 2) Generation is auto-accepted if M-RETS doesn't hear from the AH



Note 1: Once Generation is reported by the reporting entity, M-RETS posts the generation. At that point, the Account Holder will accept or dispute the results, or the system will auto-accept (Day 69) if no action is taken.

Note 2: During the 7 day quiet period, disputes may not be logged.

Note 3: In the 7 days following the 62 Day Reporting interval, (Day 62 - Day 69 Period), only disputed data can be resolved by reporting entities or the WREGIS Administrator through posting of the resolved data. As specified in Note 2, after day 69 (Day 69 - Day 76), no disputes will be allowed and no dispute resolution posting will be allowed. All unresolved disputes will have to be handled as prior-period adjustments.



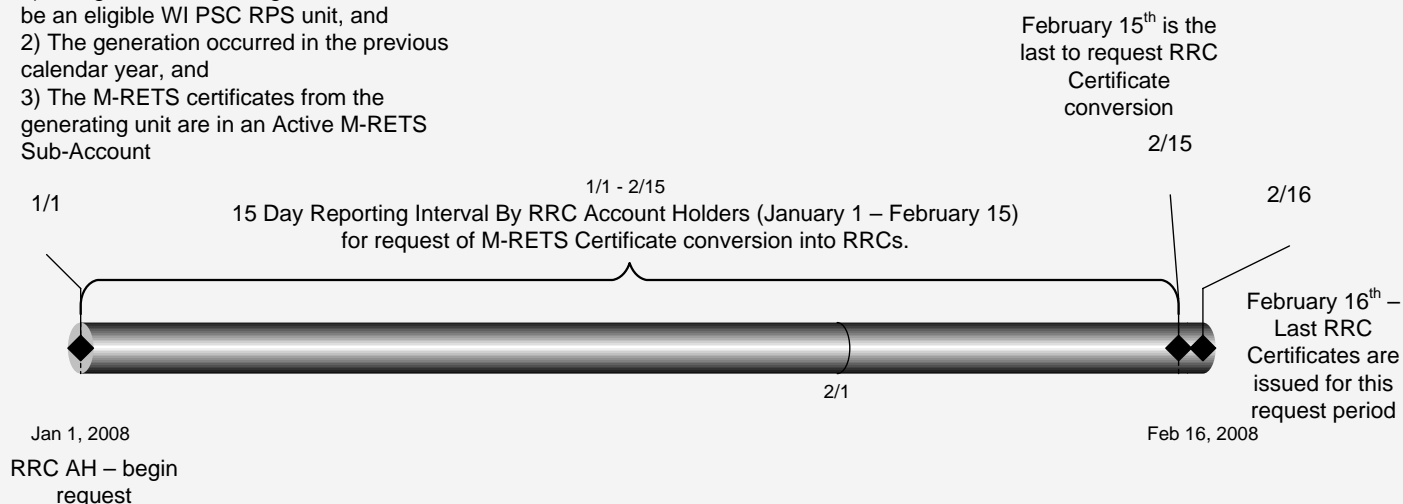
WI RRC Certificate Creation Timeline



RRC Certificate Creation Time Line (including fractional RRCs)

The following minimum conditions must be met for RRC Certificate Creation/ Conversion:

- 1) The generator sourcing the RRC must be an eligible WI PSC RPS unit, and
- 2) The generation occurred in the previous calendar year, and
- 3) The M-RETS certificates from the generating unit are in an Active M-RETS Sub-Account



Note 1: Between January 1st and February 15th, M-RETS RRC Account Holders can request RRC Certificate conversion for their (Active) M-RETS Certificates created in the previous calendar year.

Note 2: Once requested, the conversion will take place as a batch process each evening for the previous days' request. For example – if an RRC conversion request is made and validated on January 1st – the RRC Certificates will be created on January 2nd.

Note 3: February 16th – the last batch process of RRC conversion will execute for RRC conversion requests that occurred on February 15th.



- M-RETS Operating Procedures allow certificate transfers with other compatible tracking systems
- M-RETS must establish protocol with Administrators of other tracking systems
- Process will involve retiring the certificate in the Exporting System.
- All attributes will remain



Participating in M-RETS

Benefits of participating in M-RETS
Who should participate
Registration Requirements
Fees and Billing process

Who can participate in M-RETS



- Generator Owners
 - Generators, aggregators all the way down to Home Owners – everyone can have an account and generate Certificates
- Load Serving Entities
 - If you serve load in the M-RETS states, the M-RETS system will assist in reporting RPS and voluntary compliance
- Traders
 - M-RETS serves as a Certificate accounting mechanism for the physical transfer of the Certificates
- Regulators
 - Provides access to account information and data for purposes of tracking State RPS Compliance reporting
- Public
 - Provides access to various data elements related to the purpose of M-RETS
 - Certificate statistics, and generation.
- System Administrator
 - Responsible for all of the day-to-day operations of the system

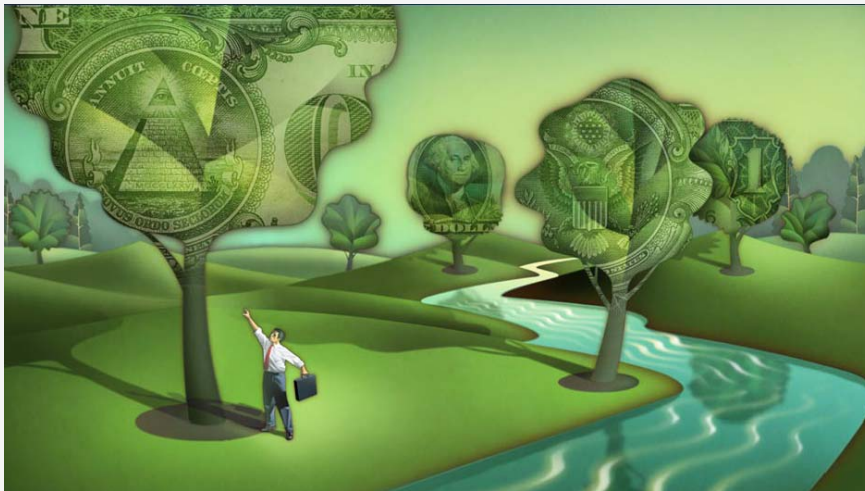


Benefits to M-RETS participants



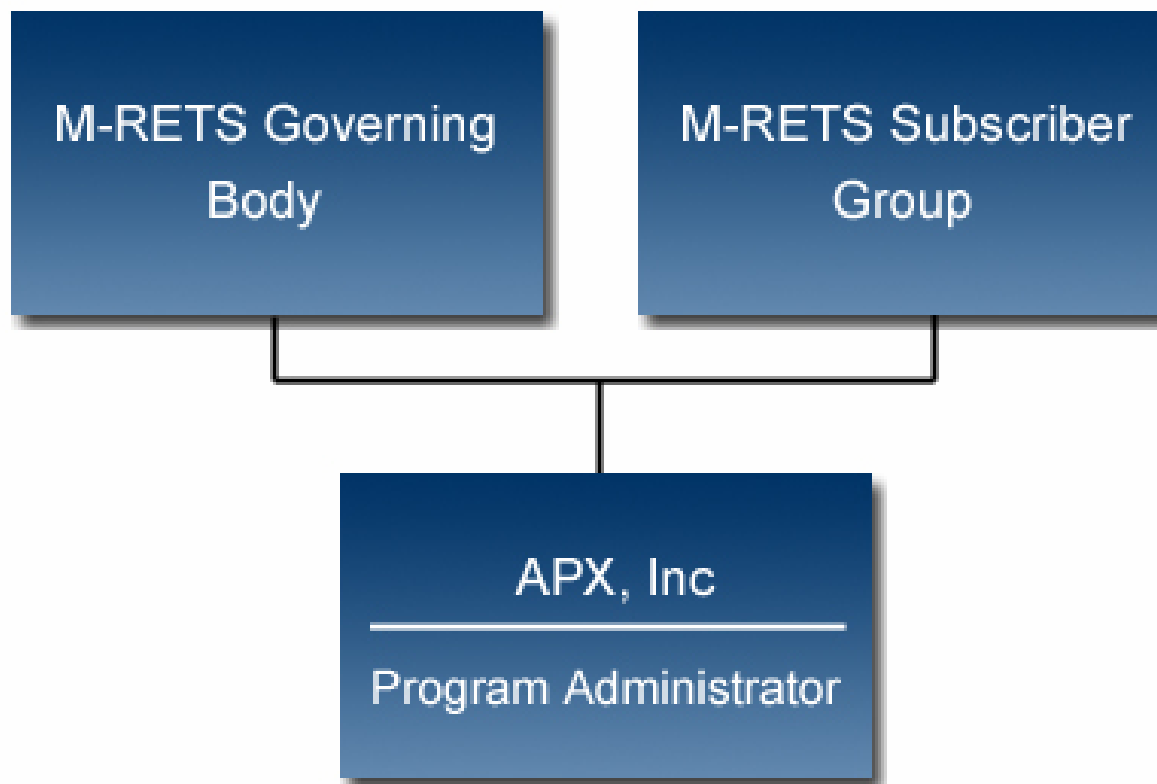
- Overall Benefits:
 - Facilitates clean/green power and green tag markets
 - Reduces transaction costs for generators and suppliers
 - Introduces administrative and cost efficiencies
 - Unbiased third-party verification
 - Addresses data confidentiality concerns
- Benefits for Generator Owners
 - The key challenge for clean and green generators is capturing their environmental value. Certificate trading:
 - Creates a platform that places a dollar value on environmental benefits
 - Allows clean and green generators to access an additional revenue stream or “green” premium
 - Ensures more liquid commodity pricing
- Load Serving Entities
 - Assist in reporting RPS and voluntary compliance
- Traders
 - Increased market liquidity
- Regulators
 - Verify compliance with RPS, EPS, state purchase requirements, etc.
 - Provide data for environmental disclosure labels
 - Verify product claims





M-RETS Governance

M-RETS Governance





M-RETS Fees and Subscriber Agreement

M-RETS Subscriber Agreement
Midwest ISO Release Form
M-RETS Fees Structure
M-RETS Billing Process

Registration Requirements



- All Account Holders must sign Terms of Use agreement prior to opening an account
- Generators reporting data through Midwest ISO must sign release form
- Visit www.m-rets.com for details. Forms are now available for download.



- M-RETS will be incorporated in the future. APX provides services to M-RETS in running the program on a day-to-day basis, and owns the system
- The agreement defines the Terms of Use, Business Rules and M-RETS fees
- M-RETS Subscribers must enter into a user agreement with APX to use the system

- Subscriber will have non-exclusive rights to use the M-RETS system
- Subscribers attest the accuracy of information, and compliance with M-RETS Operating Procedures
- Agreement is perpetual, unless terminated by one of the parties. Reasons of termination are described in the Terms of Use
- The Terms of Use also describe a dispute resolution process, and limitation of liability

- Form needs to be signed by M-RETS generator owners that will have their monthly production data reported by the Midwest ISO
- Form can be downloaded from M-RETS website www.m-rets.com
- Signed form must be sent to M-RETS Program Administrator who will provide to MISO

M-RETS Fees



1) One-time Registration fees	Large Generator (>10 MW)	\$	750
	Medium Generator (1-10 MW)	\$	350
	Small Generator (<1 MW)	\$	100
	"Micro" Generator (<40KW)	\$	50
	Large LSE (>1,000,000)	\$	750
	Medium LSE	\$	350
	Small LSE (<100,000)	\$	50
	Marketers	\$	750
2) Subscription Fees (annual)	Large Generator (>10 MW)	\$	1,500
	Medium Generator (1-10 MW)	\$	750
	Small Generator (<1 MW)	\$	250
	"Micro" Generator (<40KW)	\$	100
	Large LSE (>1,000,000)	\$	1,500
	Medium LSE	\$	750
	Small LSE (<100,000)	\$	50
	Marketers	\$	3,000
3) Volumetric fees	\$/MWh on total Load (LSE's pay)	\$	0.0018
	Secondary transfer Fee	\$	0.005



- Registration/subscription fee based on Nameplate capacity
- For volumetric fee, retail load sales from previous year will be used.
- Example: Assume a state load of 60,000,000 MWh. LSE A has 20,000,000 sales, LSE B 30,000,000, LSE C 10,000,000
 - Total volumetric fees: $60,000,000 \times \$0.0018 = \$108,000$
 - LSE A fees: \$36,000 – LSE B fees: \$54,000 – LSE C fees: \$18,000
- No fees for REC creation, transfer or retirement.
- No fees for State Regulators and Reporting Entities
- What's a Secondary transfer fee

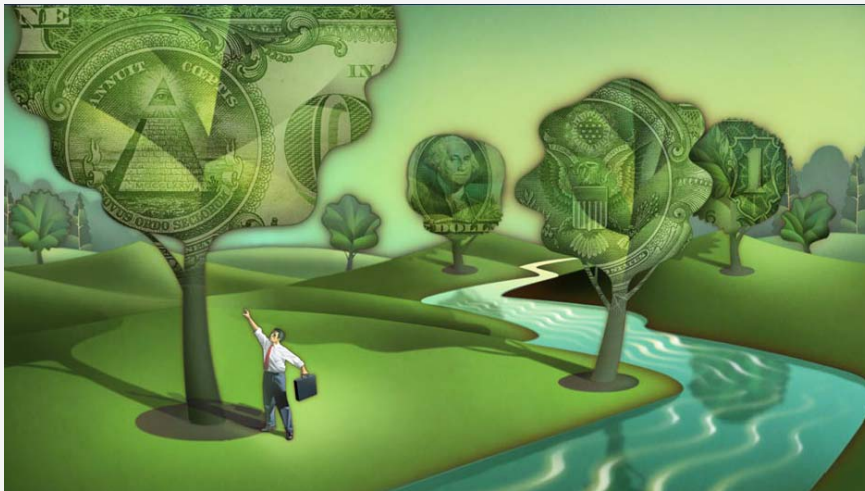
- APX will bill Account Holders directly
- LSE and Generator aggregations will be billed based on their aggregate size
- Volumetric fees billed quarterly
- 2007 subscription fees will be prorated. Full subscription fees for 2008, billed Jan. '08
- Seller pays secondary transfer fees
- Invoices will be sent via email. Users will be able to view & download invoice via an M-RETS webpage
- Wire payments – due 30 days from invoice date

Comparison to other Programs' Fees



	PJM GATS	WREGIS	NEPOOL GIS
Volume fee	<ul style="list-style-type: none"> LSEs fee of \$0.008/MWh determined against net load served in states in which the LSE uses GATS. Fee of \$0.25/MWh for certificates transferred into a reserve sub-account, unless it is used for compliance with a PJM-state RPS. 	\$0.03 per MWh (\$0.01 Retirement fee, \$0.005 issuance fee, \$0.005 transfer fee)	2002: \$0.0176 per MWh 2003: \$0.0173 2004: \$0.0123 2005: \$0.0098 2006: \$0.0074 2007: \$0.0070 (APX fees paid by LSE's in RPS states)
Usage fee	<ul style="list-style-type: none"> \$2,000/year fee for PJM LSEs \$1,000/year for non-LSEs, brokers, traders and renewable generators (No annual fee for renewable generators with aggregate generation under 10 MW) 	<ul style="list-style-type: none"> Annual Account Fee: \$1,500 for LSE, Marketers, Generators (Large). \$850 for Generators (Med), \$250 Generators (Small), \$200 Generators (Micro) 	None



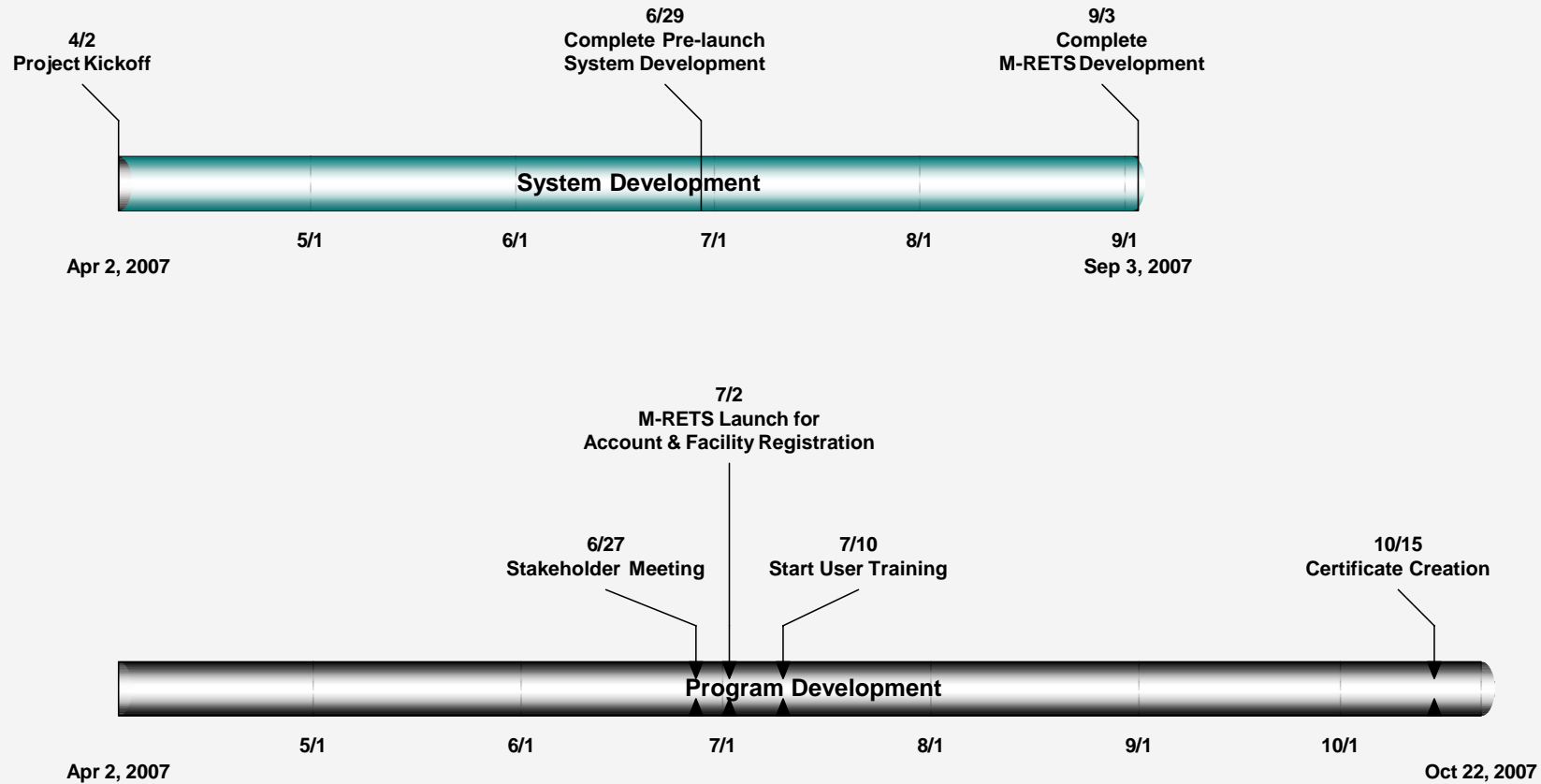


Updates from M-RETS States



M-RETS Status Update

M-RETS Timeline



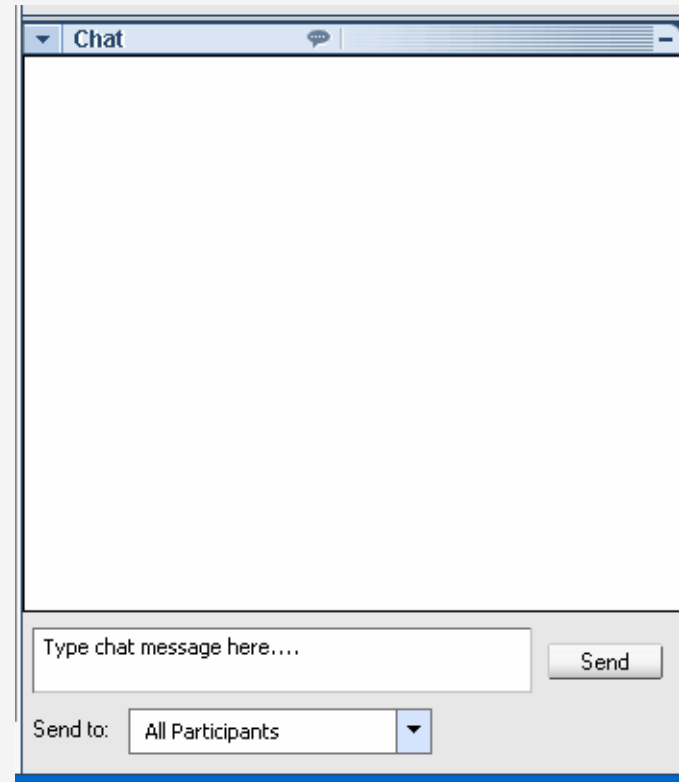
Upcoming Events



- Additional Webinars
- Stakeholder's Meeting: August 15 (1-4PM, Minnesota Department of Commerce – St. Paul, MN)
- User Training: September TBA
- Visit www.m-rets.com for all updates and sign up for the M-RETS newsletter



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Thank you for your time today.



- For more information visit www.m-rets.com

