

SEEM: Counting Down to Launch

Where We Started
Where We Stand
Who is Onboard?



Where We Started



Bi-lateral Market Evolution



- Lower rates for customers through improved production costs and fuel savings.
- Reduces market “friction”
- Eliminate “pancaked” rates
- Enhance ability to integrate VERs across the region
- Respect the regulators



Core Principles

-  Each utility/state maintains control of its generation & investment decisions.
-  Each Transmission Provider remains independent with its own tariff.
-  Each Balancing Authority remains independent.
-  Minimize bureaucracy while maximizing benefits to customers.
-  Participation must be voluntary.



Our objective is to create the most stable, affordable, reliable and cleanest region in the United States.

Where We Started

Cross-functional, Cross-organizational Teams working continuously

Feb 2020

COVID
Strikes!

May 2020

Dec 2020

Feb 2021

Initial in-person meeting to discuss the feasibility of a 15-minute market across the Southeast.

Cost/Benefit Evaluation completed using independent consultant and obtaining “ballpark estimates” from potential vendors.

Plan to create the Southeast Energy Exchange (SEEM) is announced.

Initial SEEM filing made at FERC.

Where We Started

Cross-functional, Cross-organizational Teams working continuously

Mar 2021

RFP issued for SEEM Platform.

Jun 2021

SEEM responds to “deficiencies” with revised FERC filing.

Oct 2021

FERC approves SEEM platform “by operation of law” on 2-2 vote.

Dec 2021

SEEM amends filing to further address any transparency concerns. SEEM also announces Platform Vendor.

Where We Started

Cross-functional, Cross-organizational Teams working continuously

Jan 2022

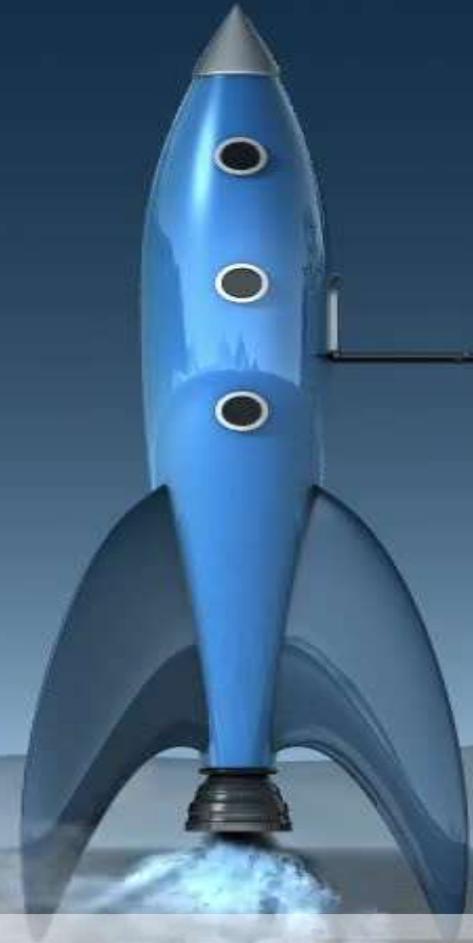
Platform development begins in earnest.

Spring 2022

Additional RFPs for Administrator and Auditor released. Public Workshops begin.

Testing
Market Trials

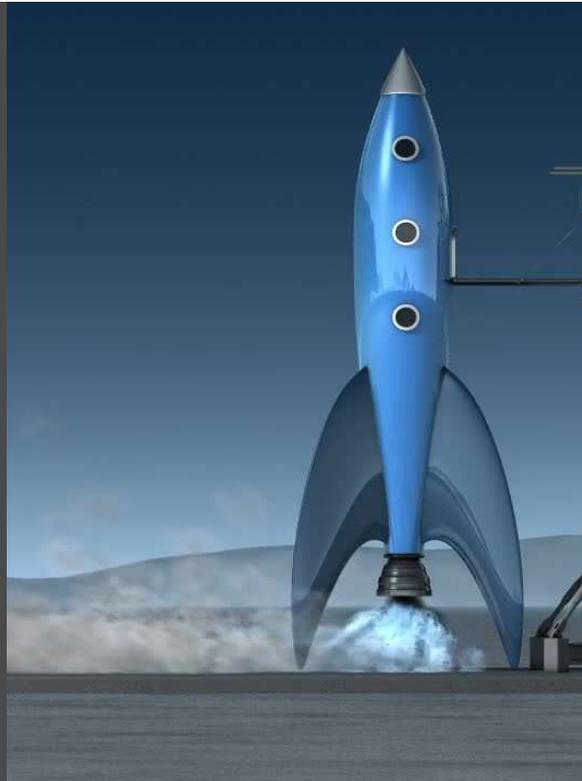
Work on all fronts continues towards a Q4 launch.



What is SEEM?

SEEM is...

- a region-wide, automated, intra-hour platform to match buyers and sellers with the goal of more efficient bilateral trading **utilizing unused transmission capacity** to achieve cost savings for customers (the “Platform.”)
- An overlay (**enhancement**) to the existing bi-lateral market.
- **Non-discriminatory**: Anyone that can physically transact in the wholesale market in the region can use the platform.



SEEM is *NOT*...

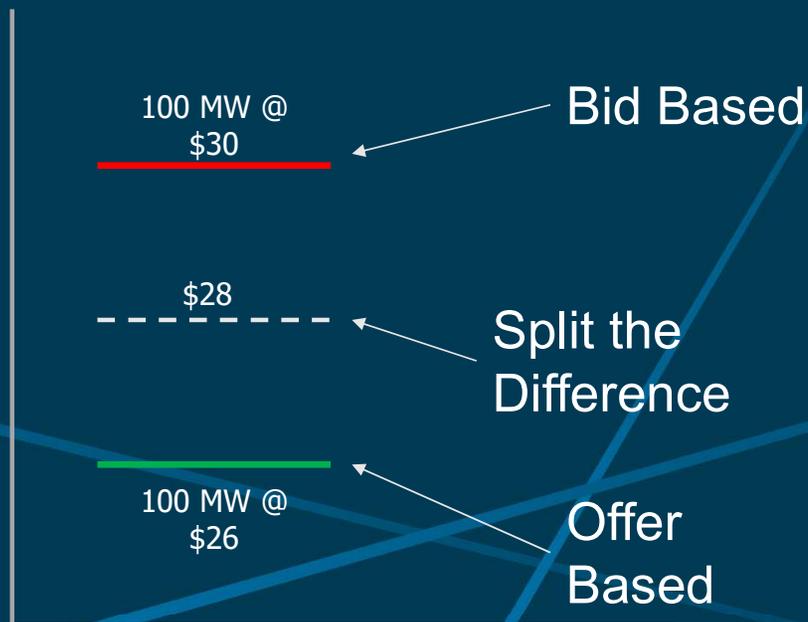
- an RTO/ISO.
- an EIM (Energy Imbalance Market.)
- a replacement for the existing bi-lateral market or for existing agreements.
 - No centralized dispatch!
 - Voluntary Participation!
 - Power sales will take place pursuant to bilateral contracts between participants under, where applicable, market-based rate authority.

Non-Firm Energy Exchange Transmission Service

- “NFEETS” fuels SEEM
- Provided under individual Member TSP’s OATT
- \$0/MWh rate
- 15-minute term
- E-tags submitted by SEEM platform
- No Schedule 1 or Schedule 2 charges
- Financial loss charges paid to TSPs
 - Established in individual OATTs
 - Split between buyer & seller through the platform



Match Price = Split the Savings



* Simplified example; does not include losses



- Bids and Offers
 - Megawatts, Price, Source/Sink
 - Source/Sink valid Web Registry point
 - 4 MW increments (due to integration)
- Matching Algorithm
 - No single clearing price
 - Split the Savings (Midpoint) pricing basis, incorporating transmission losses
 - The optimization engine matches the combination of Bids and Offers that creates the most market benefit during each market interval while adhering to all constraints

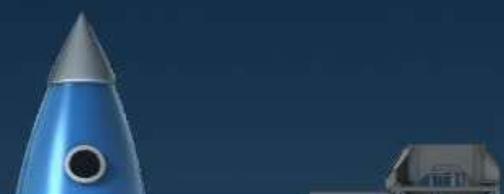


Is the Juice Worth the Squeeze?

Estimated Benefits: \$40M - \$50M per year (independent study)

Estimated Costs: < \$5M in start-up costs
< \$2M per year in on-going costs

Note: Only Members fund start-up & operations. There is no fee for participants.



PLUS:

- Creates new opportunities without disrupting a well-functioning regulatory framework
- Optimizes existing transmission and generation assets
- Supports the integration of future renewable & variable resources
- Leverages geographical diversity of the Southeast
 - Crosses two time zones
 - Over one thousand miles wide... and growing!
 - Connects wind & solar regions with large metropolitan sinks.
- Designed to respect Southeast jurisdictional diversity
 - Most members are not FERC jurisdictional



Current SEEM Footprint

> 160 GW of capacity serving > 640 TWh of energy for load

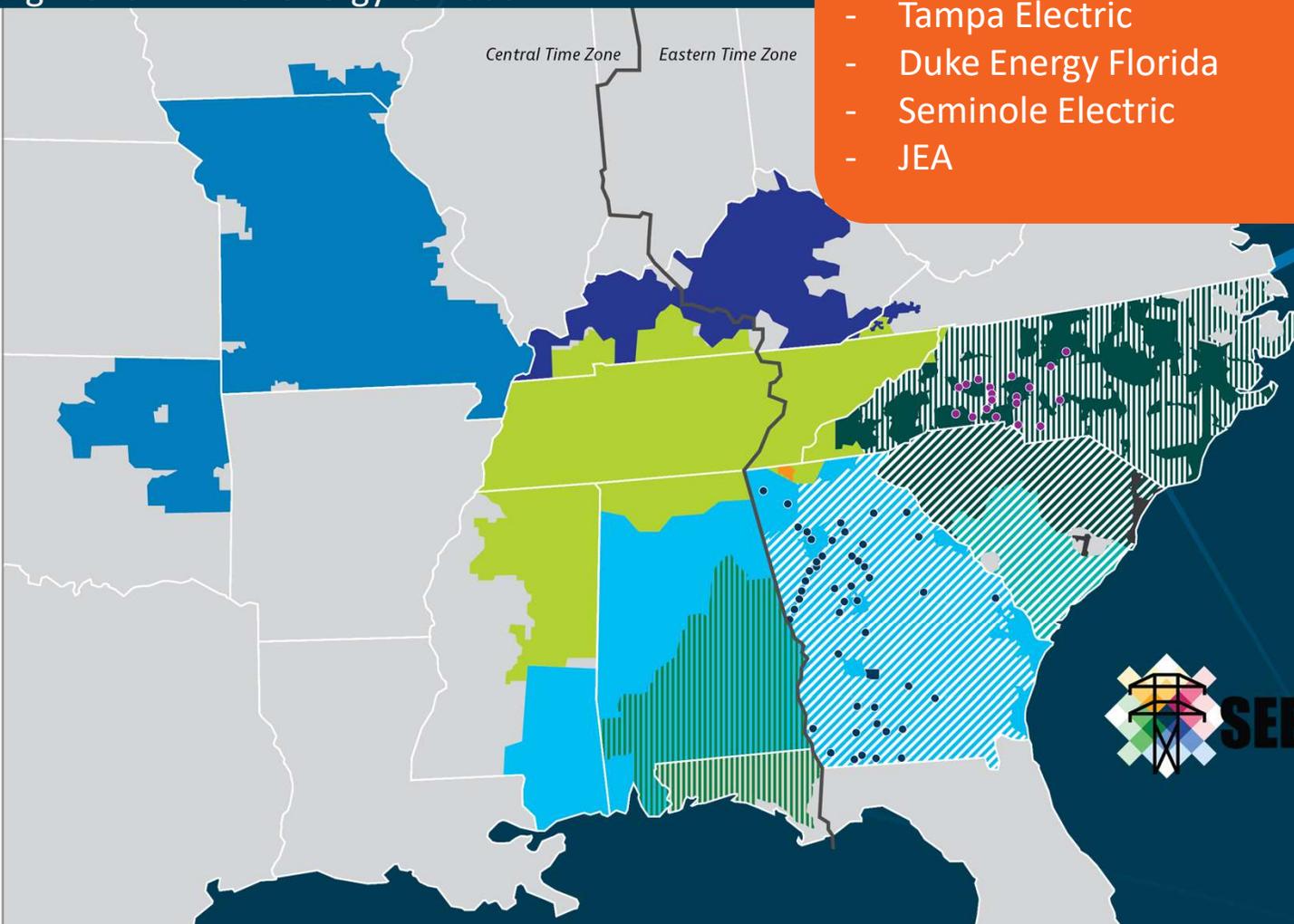
Footprint Expanding in 2023:

- Tampa Electric
- Duke Energy Florida
- Seminole Electric
- JEA

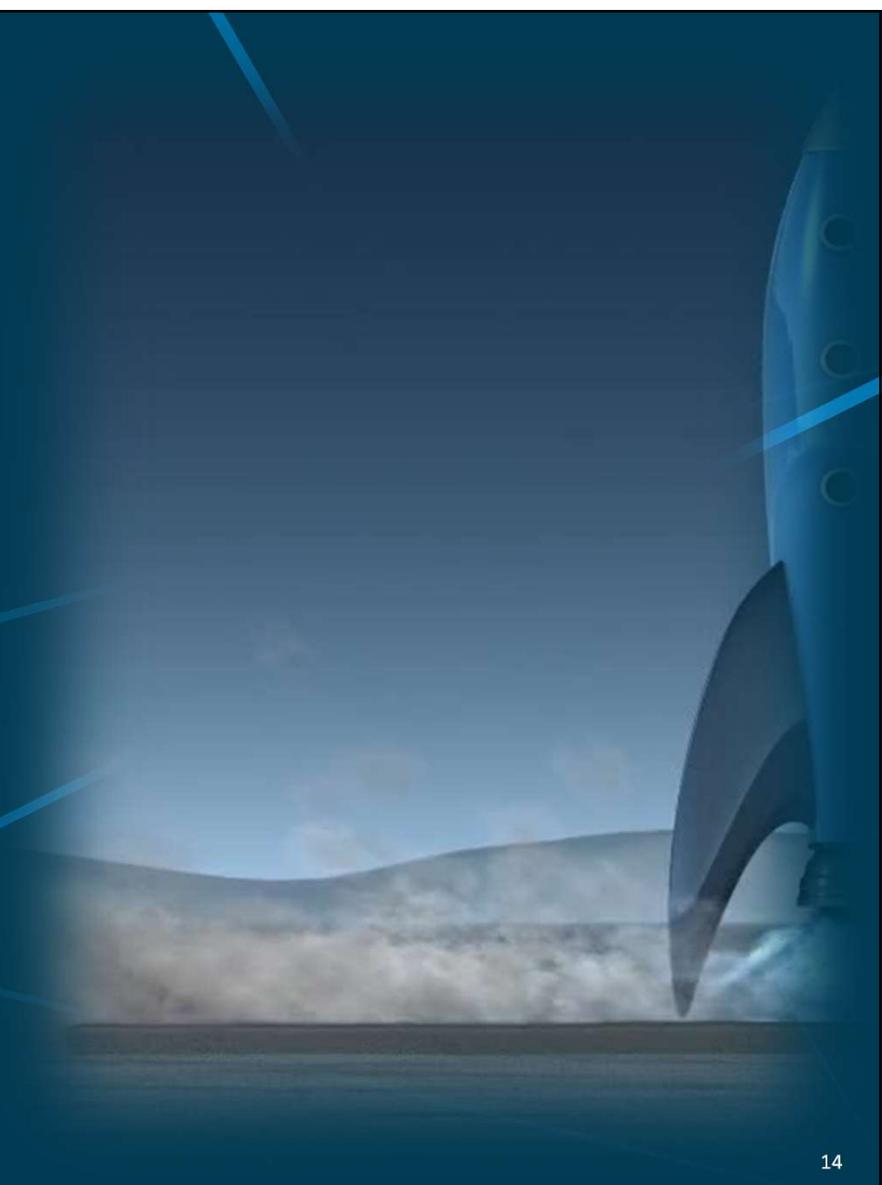
Electric Service Territory Map

- Southern Company
- Georgia Transmission*
- Oglethorpe Power Corp.*
- Dalton Utilities
- MEAG Power
- TVA
- Associated Electric Cooperative, Inc.
- LG&E and KU Energy LLC
- PowerSouth - Alabama
- PowerSouth - Florida
- North Carolina Municipal Power Agency No. 1
- Dominion Energy
- Duke Energy
- Santee Cooper
- Served by Dominion or South Carolina's electric cooperatives
- Served by Duke or South Carolina's electric cooperatives
- North Carolina EMCs

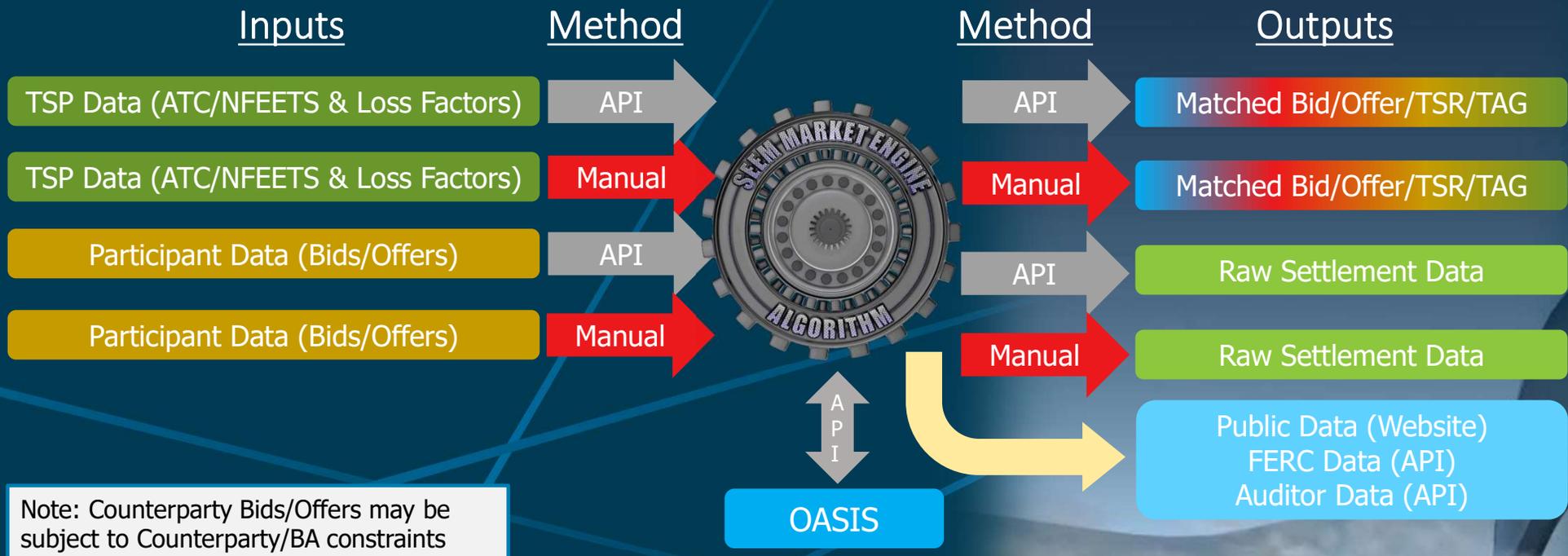
*Oglethorpe Power is a Georgia Transmission member and power supplier that serves the 38 member systems



Where We Stand



The SEEM Platform



Participants: Bids & Offers

https://prod.seemplatform.com/dataengine#ETAG/results/seemresults/rpt_ParticipantResultsETAGView

Admin Transmission Trading Results Reports Upgrade Notice: Every day 8:00pm EPT SEEM

SEEM ETAG SEEM Match Results SEEM Match Results Quick View

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Transmission Service Providers: ATC/NFEETS

← → ↻ <https://prod.seemplatform.com/SEEM#ETAG/TSPCapability/View>

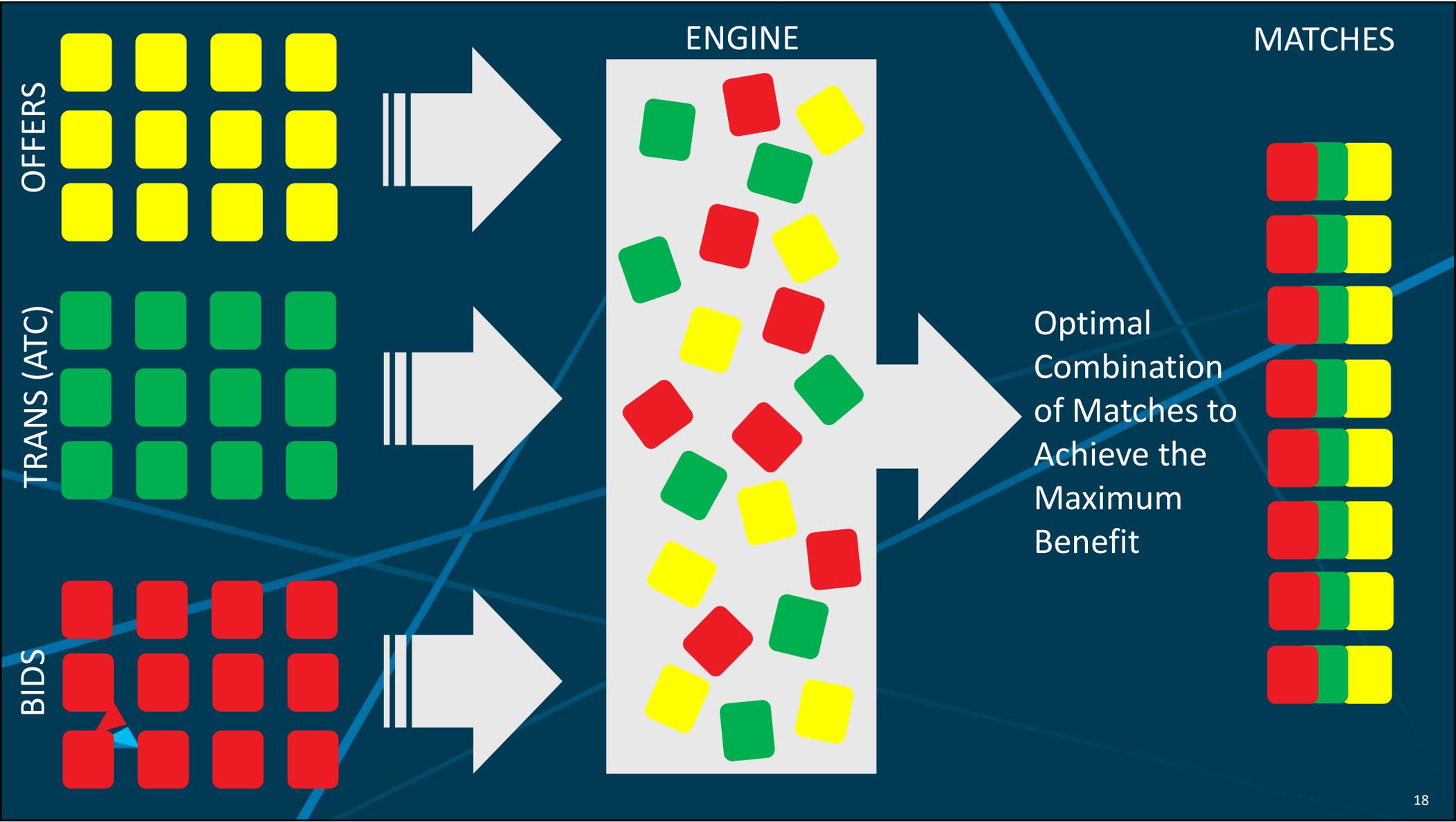
Admin Transmission Trading Results Reports Upgrade Notice: Every day 8:00pm EPT

SEEM ETAG TSP Capability Deadline 0:31 For Interval 10:00 - 10:15

Sorted By Refresh Totals Central Prevailing Time Add Delete

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<input type="checkbox"/>	SOCO	SS/SOCO/DUK-TVA/MU...	10/06/2022	10:00	10/06/2022	10:15	492		492			10/06/2022 09:42:37	jobmanager
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Match Results

https://prod.seemplatform.com/dataengine#ETAG/results/seemresults/rpt_ParticipantResultsETAGView

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Public Data

- Min, Max, Avg. Match Prices
- Amount of energy offered and sold (and bid & purchased) over time
- Amount of energy that flowed once matched
- Total amount of energy transacted
- Total number of transactions
- Total benefit
- Min, Max, and Avg. MW Match volume
- Matches made but not executed
- Avg. weighted match price

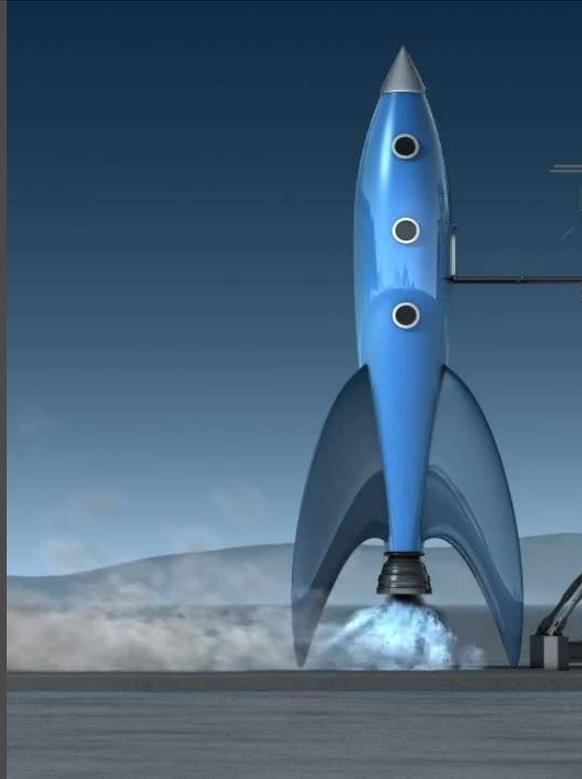


Transparency is Crucial

- Governance
Membership Board will hold an annual meeting **open to all stakeholders.**
- Price Reporting
Sales by FERC jurisdictional entities will be reported through EQR under applicable bi-lateral contracts.

Prelaunch Activities

- Complete Market Trials
- Finalize Flight Plan
 - Complete Legal Agreements
- Onboard SEEM Auditor
- Recruit New Participants



Verify Technical Setup

- Participant Configuration
- Hartigen – Software Developer
- Other Vendors
 - OATI
 - MCG
 - PCI

Enhance SEEM Website

Ramp up Auditor Function (Potomac Economics)

Test FERC Data Connections

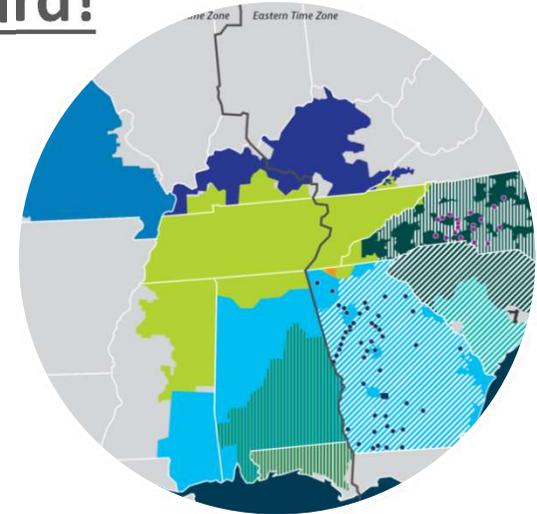
Who is Onboard?

...and when will you join us?



Your SE Neighbors & Counterparties Are Onboard!

AECI TVA
Dominion SC Santee LG&E/KU
 Cooper GTC
Southern Duke Energy - Carolina
Company MEAG



Participation is Free & Voluntary

What Do I Need to Do to Join?

SEEM Members

Potential Additional Members need to certify their eligibility and intent to join during the Annual Enrollment period (July 1 – September 30). Additional Members may sign a Joinder Agreement binding it to the terms of the SEEM Agreement. Members share the cost of operating the platform and have voting rights in the governance of SEEM.

SEEM Participants

Potential Participants must certify they meet the qualifications to participate and execute a Participation Agreement committing to follow the SEEM Market Rules. There is **no cost** associated with becoming a Participant. *Participants can join anytime!*



Participant Eligibility

SEEM Participant

- Own or control a **Source** within the SEEM footprint and/or;
- Be contractually **obligated to serve a Sink** within the SEEM footprint.
- Execute a **Participation Agreement**
- Demonstrate **NFEETS service** has been acquired with all the participating SEEM Transmission providers.
- Maintain **Enabling Agreements** with at least three other non-affiliated SEEM Participants

Participating Transmission Providers

- Certify that it has **amended its Tariff** (or equivalent) to include NFEETS service and has obtained acceptance from FERC or other jurisdictional agencies; and
- Certify the NFEETS service allows for a continuous Contract Path for Energy Exchanges.
- Work with Administrator & Platform Vendor to integrate service into Network Map and SEEM platform according to the SEEM Market rules.

I want to participate, but how do I sign up?

1) Let us know!

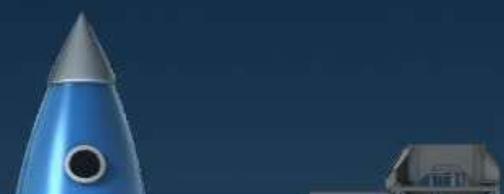
2) Complete the Participant Application Packet

- Confirm all NFEETs agreements are in place.
- Provide valid source/sink information.
- Warrant at least 3 enabling counterparty agreements are in place.
- Designate an Entity Security Administrator for the platform
- Identify any Affiliates or Notable Relationships

3) Execute the SEEM Agreement

- Agree to follow the SEEM Market Rules





Resources:

- SEEM Website: www.southeastenergymarket.com
- Interim Contact(s): Paul Hughes – phughes@southernco.com
Matt O'Neal – mboneal@southernco.com
Matt Pitcaithly – mapitcaithly@tva.com



Are

YOU

**SEEM launches
November 9th!**

On Board?

