

LG&E and KU Participation in the Energy Exchange Market (SEEM)

Southeast

**KIUC 2021 “Virtual” Annual Energy Conference
March 19, 2021**

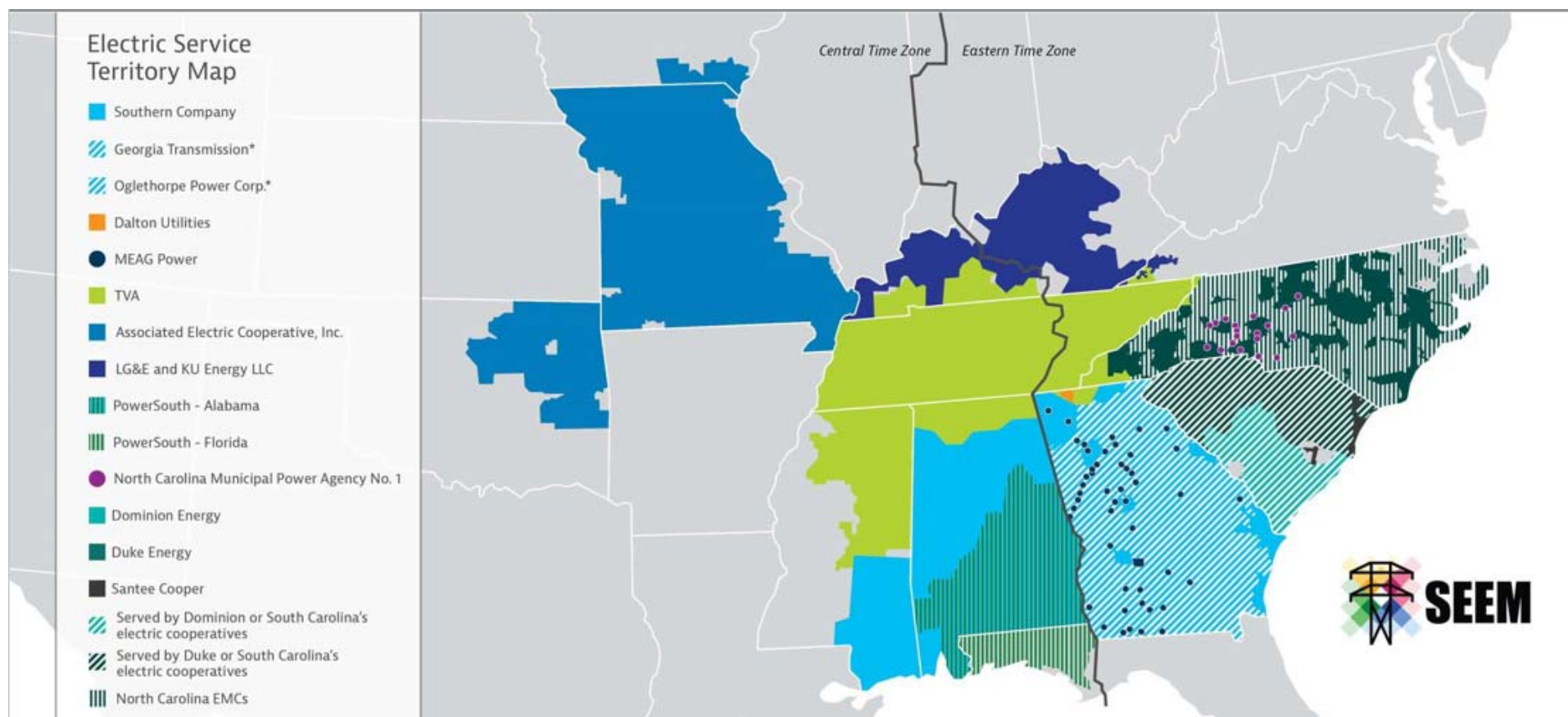


What is SEEM

- A region-wide, automated, intra-hour platform to match buyers and sellers on a split-the-savings basis with the goal of more efficient bilateral trading utilizing unused transmission capacity to achieve cost savings for customers
- Improvement/overlay on the *Existing* Bilateral Market
- Two small but significant changes to bilateral market:
 - ↳ Elimination of rate pancakes for intra-hour transmission
 - ↳ Software – the “Platform” – will eliminate friction associated with finding counterparties
- Both changes expected to allow more sellers to connect with more buyers
- Non-discriminatory: Members will fund development and have voting rights, but anyone that can physically transact in the wholesale market in the region can use the Platform

SEEM Footprint:

> 160 GW of Capacity Serving > 640 TWh of Energy for Load



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

SEEM Core Principles

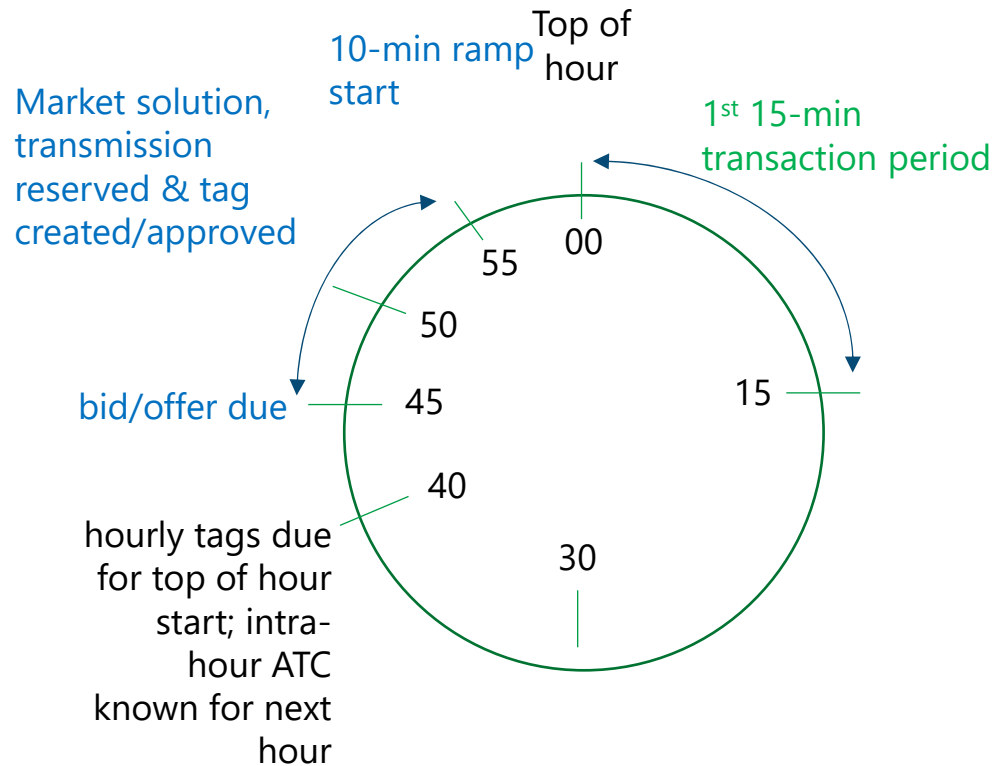
- Each utility/state maintains control of generation and transmission investment decisions
- Each Transmission Provider remains independent with its own transmission tariff
- Each Balancing Authority remains independent
- Minimize bureaucracy while maximizing benefits to customers
- Participation is voluntary
- Market benefits to exceed cost, collectively and for each market participant
- Ensure transparency in best governance and best operations while maintaining member confidentiality

What SEEM is Not

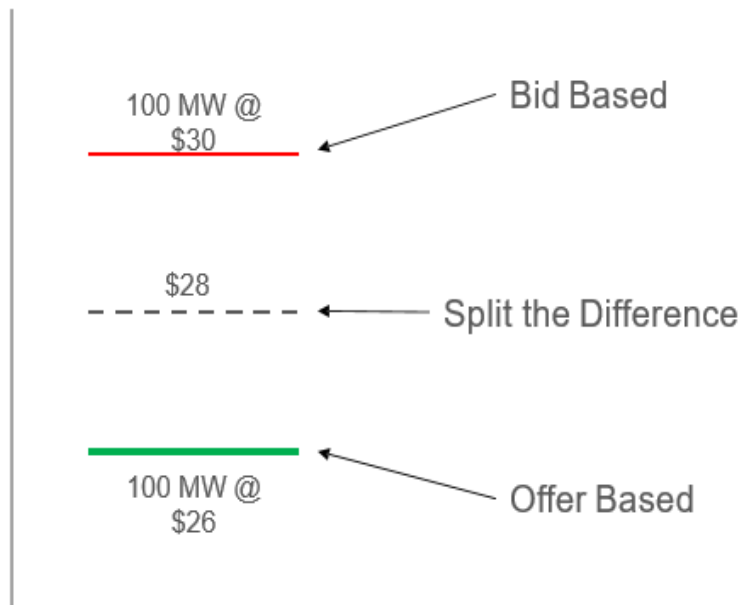
- Does not replace bilateral market or existing agreements
 - ↳ Power sales will take place pursuant to bilateral contracts between participants under, where applicable, market-based rate authority
 - ↳ No centralized dispatch
 - ↳ Participation is voluntary (no must-offer, no use of non-participating transmission)
- Does not replace or change existing Balancing Authority or Transmission Provider reliability requirements
- Is not an energy imbalance market or RTO

Market Structure

- 15 Minute Bilateral Market (Phase 1)
 - ⇒ Four 15-minute intra-hour increments
 - ⇒ Standard (“normal”) electronic tags
 - ⇒ Standard 10-min “across the top” ramping
 - ⇒ Deadline for bid/offer submission is 15 minutes prior to schedule start
 - ⇒ Change e-tag deadline from 20-minutes ahead to 10-minutes ahead



Match Pricing –Split the Savings



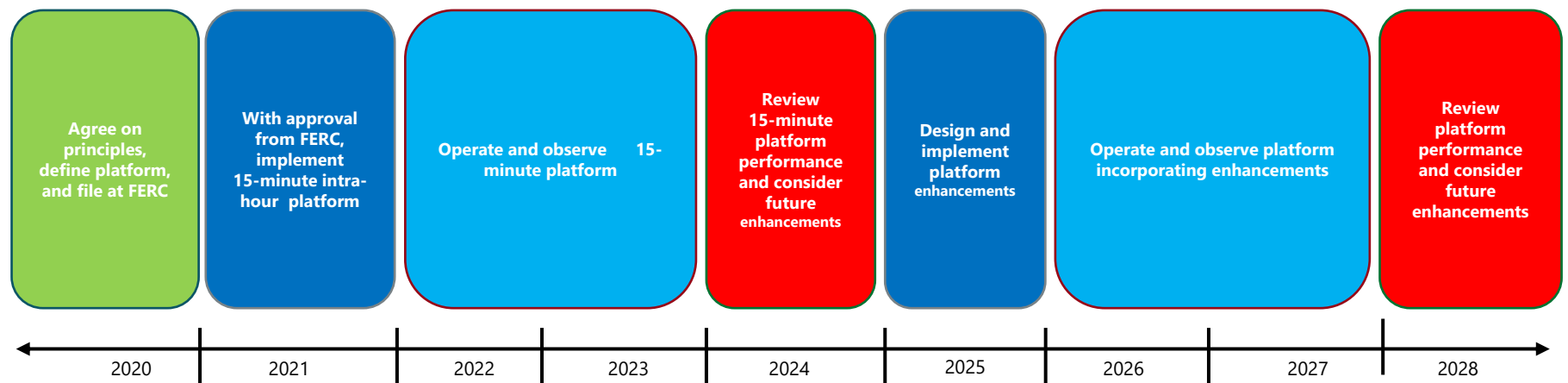
* Simplified example; does not include losses

- 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 matches the combination of Bids and Offers that creates the most market benefit during each market interval while adhering to all constraints

SEEM Roles

SEEM Members	Will fund initial development of Platform and costs; will have voting rights; may also be SEEM Participants
SEEM Participants	Will be able to participate in the market; SEEM Participants that are not also SEEM Members will not have funding obligations or voting rights
SEEM Membership Board	Will be the governing body comprised of representatives from all SEEM Members
SEEM Agent	Will act as single point of contact for the Platform Administrator and signatory to agreement with Platform Administrator; will be one of the SEEM Members
SEEM Auditor	Will report to SEEM Membership Board; tasked with ensuring proper functioning and accuracy of Platform and adherence of the market to the Platform Rules; will not be a SEEM Member, SEEM Participant, or SEEM Agent
Platform Administrator	Will be contracted to operate the Platform; will not be a SEEM Member, SEEM Participant, or SEEM Agent

SEEM Long Term Plan



SEEM Status & Next Steps

- FERC Filings Completed on February 12, 2021
 - ⇒ SEEM Platform Agreement
 - ⇒ Transmission Tariff Amendment to Allow for Non-Firm Energy Exchange Transmission Service
- FERC Interventions & Protests Due March 15, 2021
- FERC Order Expected Mid-May (90 days from filing)
- FERC Rehearing Requests Following Order, if Applicable
- Vendor RFP to Develop Platform Sent in February
- Drafting RFPs for Administrator & Auditor Roles
- Developing a SEEM Website
- Expected Go-Live is Early 2022 (Q1 or Q2)

Questions?