



ENERGY AUCTION FORUM

November 5, 2015



Welcome



ENERGY AUCTION

Safety



Every day, every job, safely.™



ENERGY AUCTION

Why Are We Here?

- Provide an overview of the Energy Auction
- Explore enhancements that may increase activity in the Energy Auction, in terms of participation and bid/offer matches
- Ideas that may be pursued:
 - ✓ Cost-effective
 - ✓ Technologically feasible
 - ✓ Consistent with the over-arching philosophy and requirements of the Energy Auction



ENERGY AUCTION

Agenda

- Auction Overview
- Auction Mechanics
- Auction Software/Servers/Storage – OATI
- Auction Administration – TranServ
- Auction Direction
- Next Steps
- Closing Comments



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The Energy Auction

- A bid-based and offer-based auction of electrical energy for delivery into the Southern Balancing Authority Area (Southern BAA)
 - ✓ It is a supplement to, not a replacement of, the existing bilateral market mechanisms for conducting shorter-term trading activities
 - ✓ The Energy Auction is a matching system – not an electronic trading platform
 - Once a bid and offer are matched, the counterparties proceed to execute a bilateral transaction under normal trading practices
- Auctions
 - ✓ Two Day-Ahead energy auctions (recallable and Firm LD)
 - ✓ Hour-Ahead energy auctions
- Auction participants can bid/offer in any of the energy auctions



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Origin of the Energy Auction

- To resolve any concerns about Southern's potential generation dominance in the Southern BAA
 - ✓ Mitigates physical withholding by requiring Southern to offer all of its available capacity
 - ✓ Mitigates economic withholding by placing a cost-based price cap on Southern's mandatory offers
- These mitigation requirements only apply to Southern



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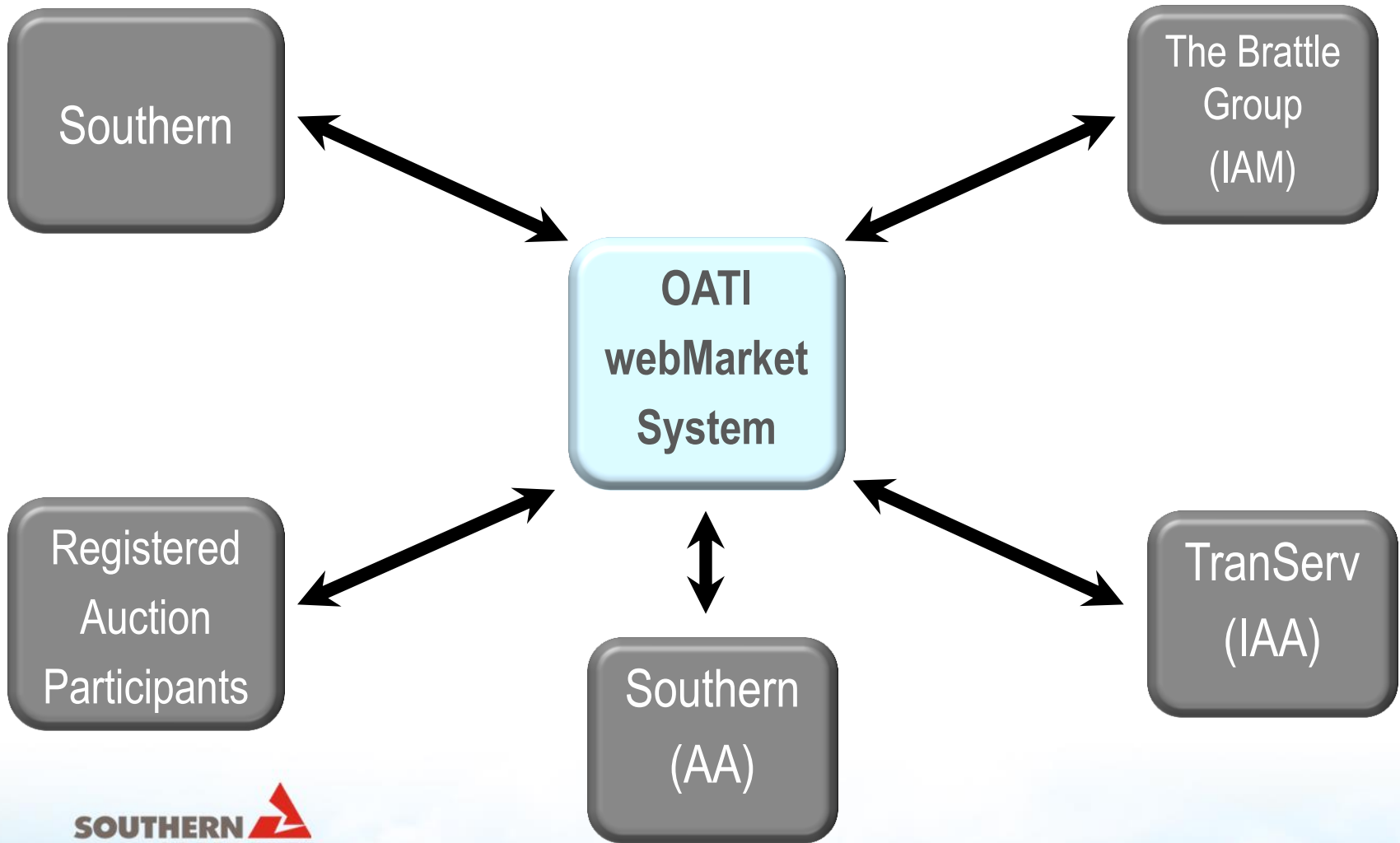
Participation Requirements

- Any company can participate in the Energy Auction if the following criteria are met:
 - ✓ The company is eligible to do business at market-based rates in the Southern BAA
 - ✓ The company signs an Energy Auction participant agreement
 - ✓ The company signs a confidentiality agreement with the Energy Auction software vendor (OATI)



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Energy Auction Overview



Auction Mechanics



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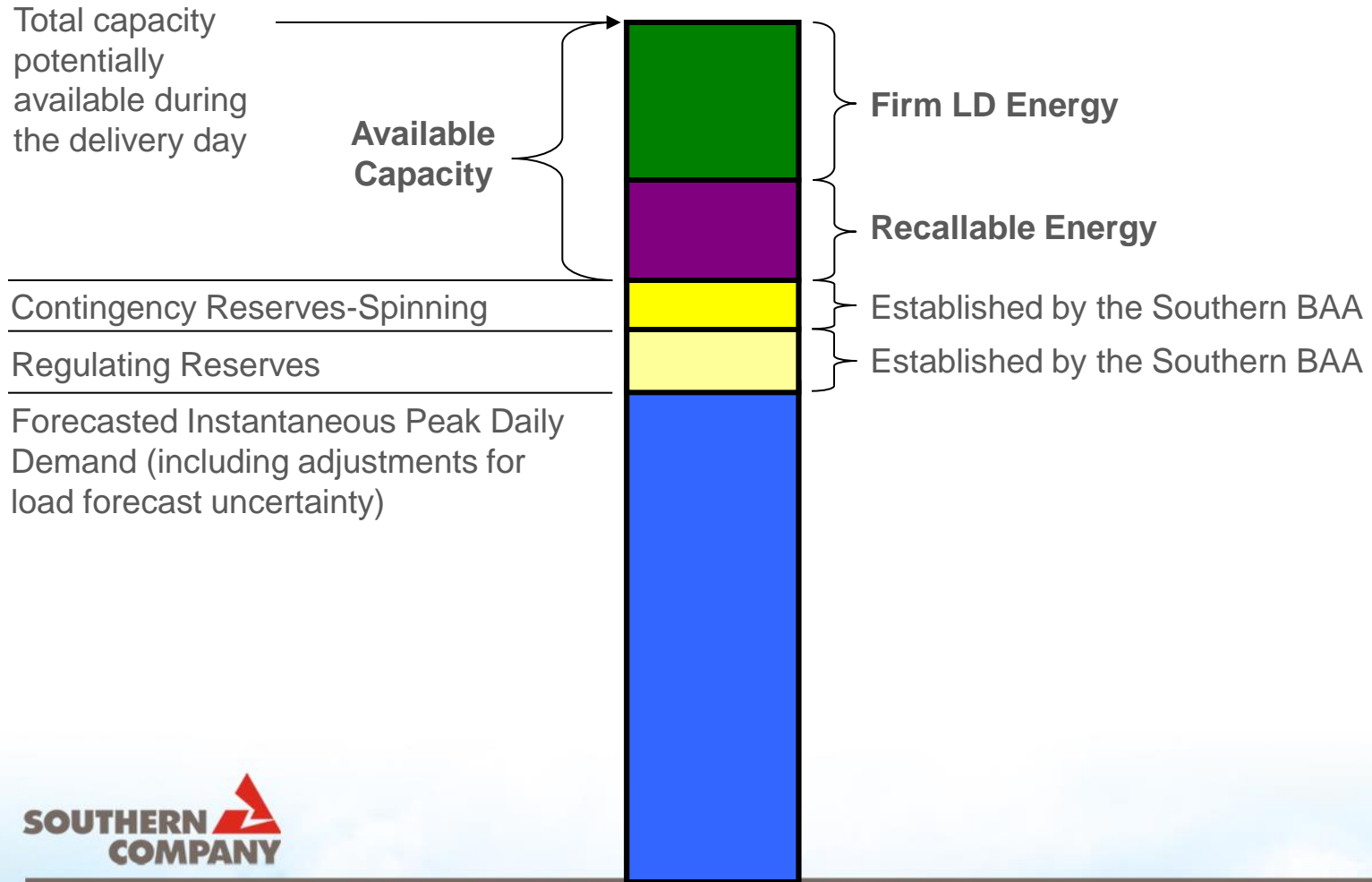
Southern's Participation

- Must-Offer Obligation (Offers)
 - ✓ Southern must offer all “Available Capacity” that can be committed and offered into the market after taking into account native load and third-party sales obligations, load forecast uncertainty, and reliability obligations
- Opportunity Purchases (Bids)
 - ✓ Southern may submit bids to purchase, but is not required to do so



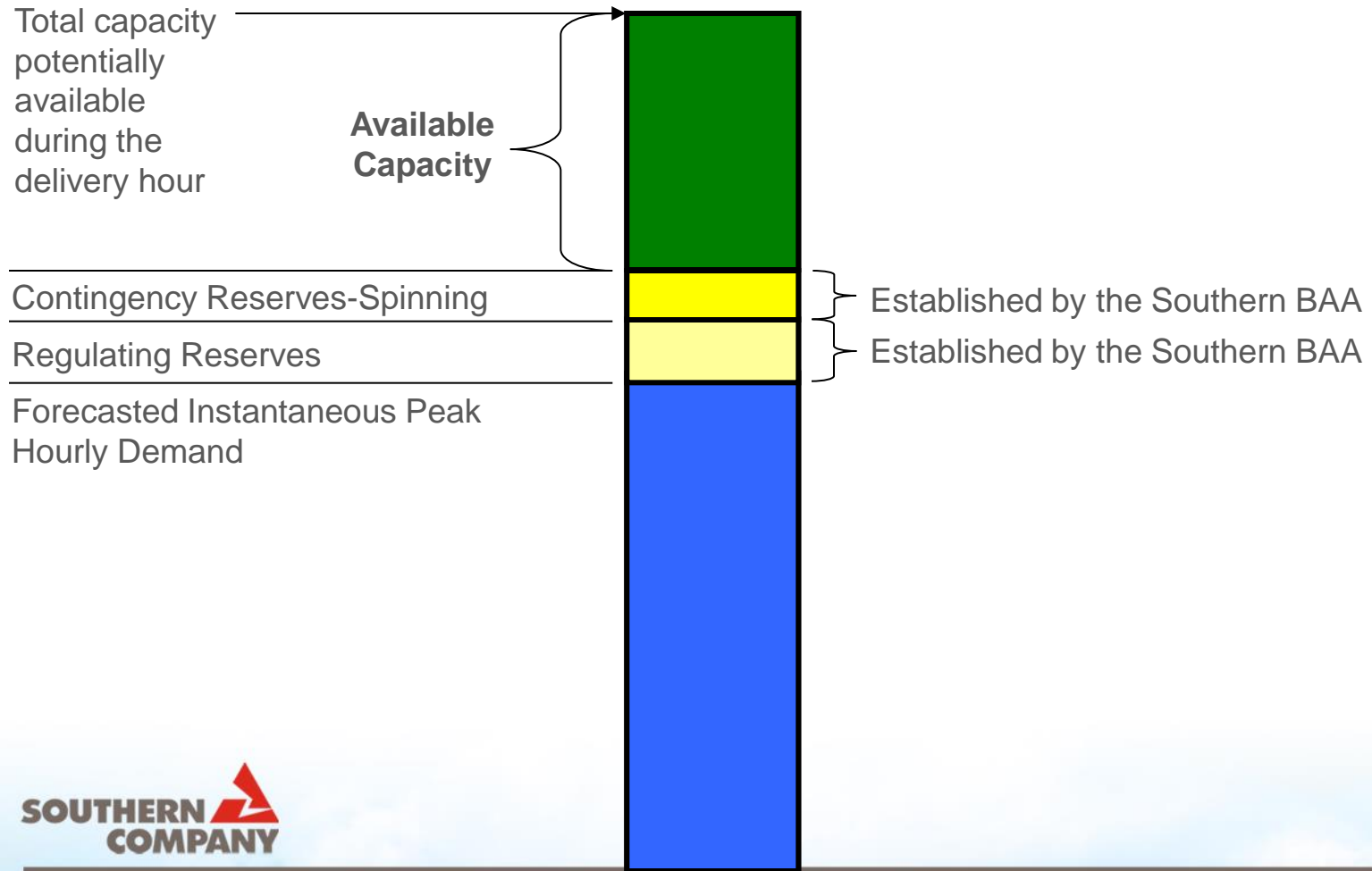
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Day-Ahead Available Capacity



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Hour-Ahead Available Capacity



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Southern's Seller Offer Price Cap

- Southern's offers cannot exceed specified cost-based price caps
 - ✓ Day-Ahead
 - Committed Capacity
 - 110% of the incremental cost of “Available Capacity”
 - A demand charge of \$21.43/MWH
 - Uncommitted Capacity
 - 110% of the expected average cost (including startup and no load costs)
 - A demand charge of \$21.43/MWH
 - ✓ Hour-Ahead
 - 110% of the expected incremental cost (including startup and no load costs for CTs) to serve the sale
 - A demand charge of \$21.43/MWH



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Auction Participation

- Mitigation Requirements
 - ✓ Only applicable to Southern
- Seller Administrative Considerations
 - ✓ Counterparty credit limits
 - ✓ Enabling contracts
 - ✓ Statutory limitations (if any)
- Transmission and Scheduling Considerations
 - ✓ Assumes physical delivery
 - Seller must identify point of receipt
 - Point of receipt must satisfy deliverability requirements consistent with the product sold
 - Buyer is responsible for all other transmission-related requirements



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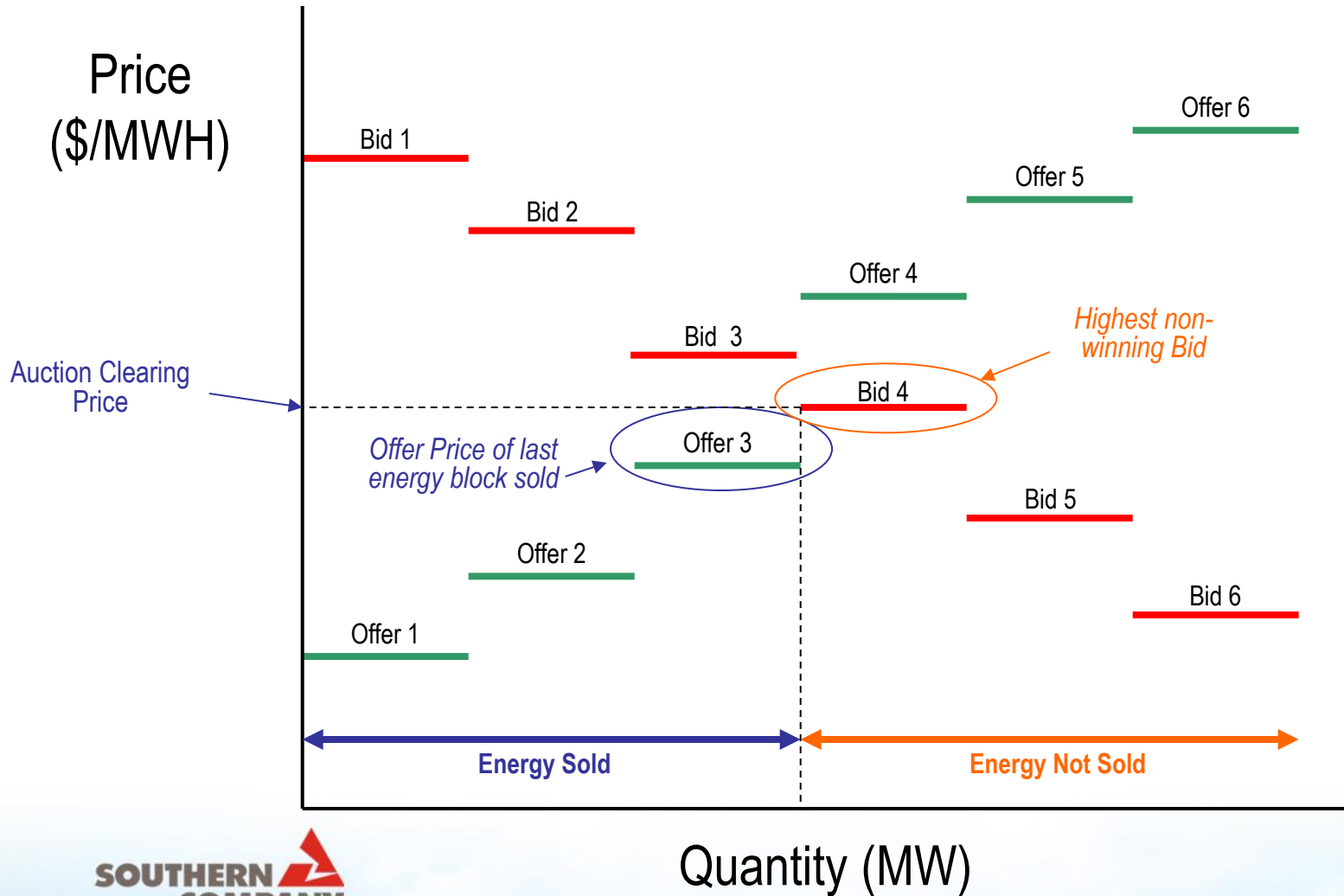
Auction Clearing Considerations

- Bids and offers from the same Participant cannot be matched
- Violation of credit limit for one Seller does not necessarily disqualify the bid for other Sellers
- Bid rejected if it violates credit limits for all possible Sellers
- Bid rejected at clearing if it violates credit limits for all Sellers who submitted offers



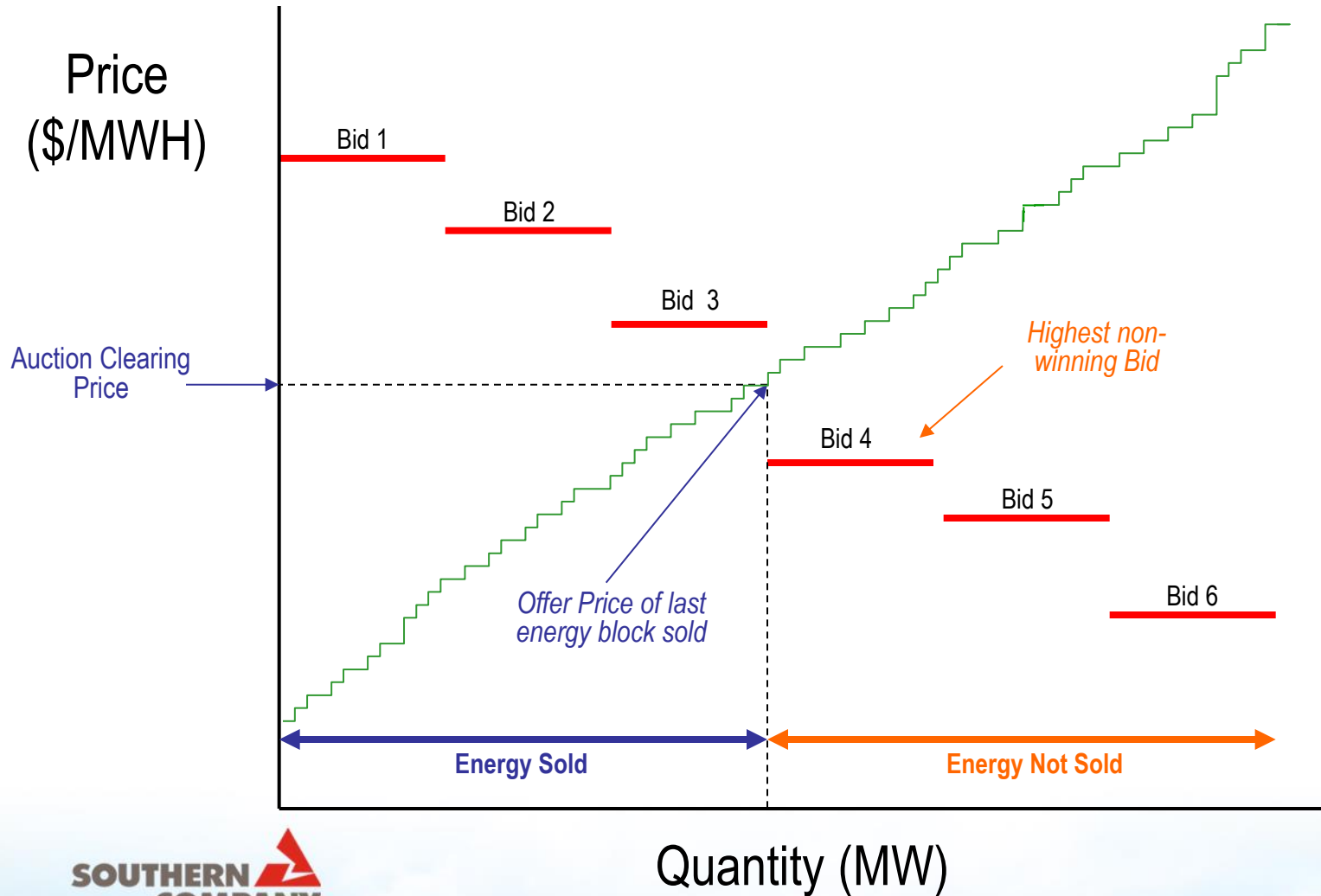
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Day-Ahead Auction Clearing



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Hour-Ahead Auction Clearing



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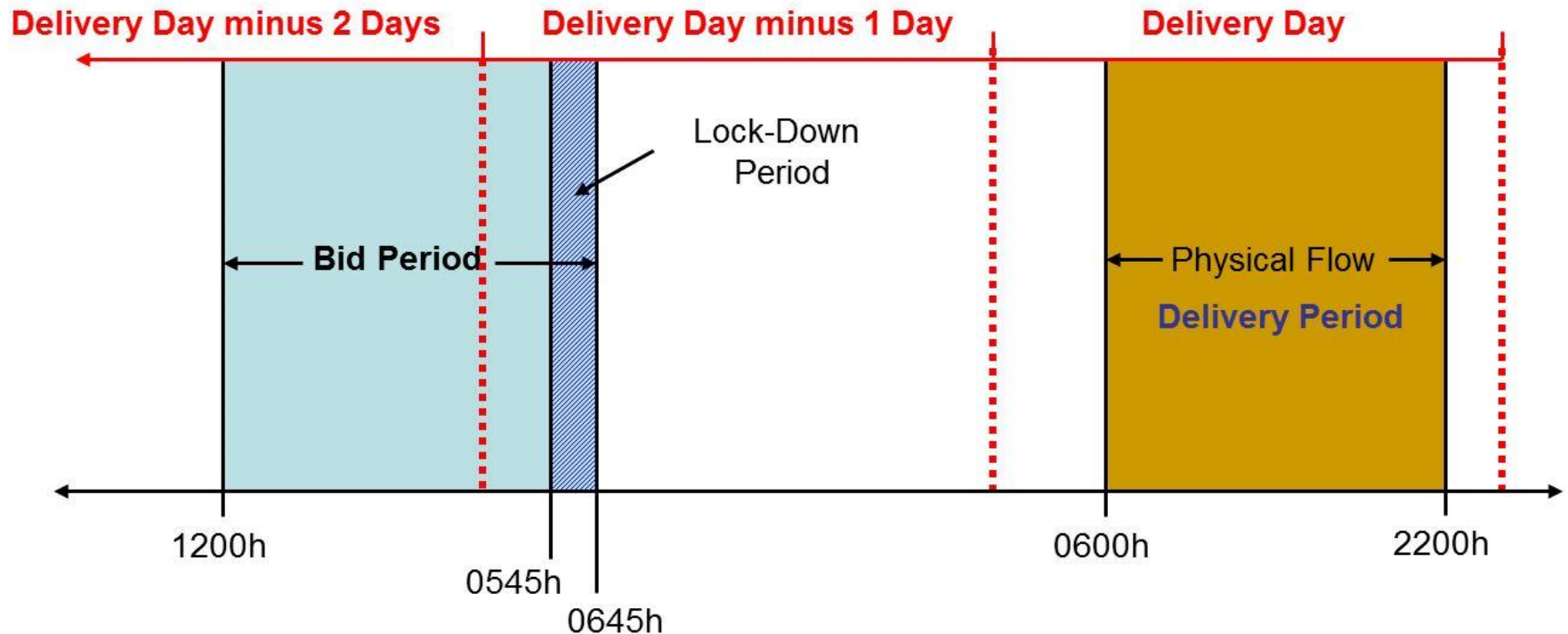
Day-Ahead Energy Auctions

- Administered every business day excluding weekends and NERC holidays
- Products include:
 - ✓ Day-Ahead Firm-LD Energy
 - ✓ Day-Ahead Recallable Energy
- Each Day-Ahead Auction consists of:
 - ✓ 50 MW block increments
 - ✓ Delivery “into Southern”
 - ✓ 16-hour period from 6 a.m. to 10 p.m.



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Day-Ahead Timeline



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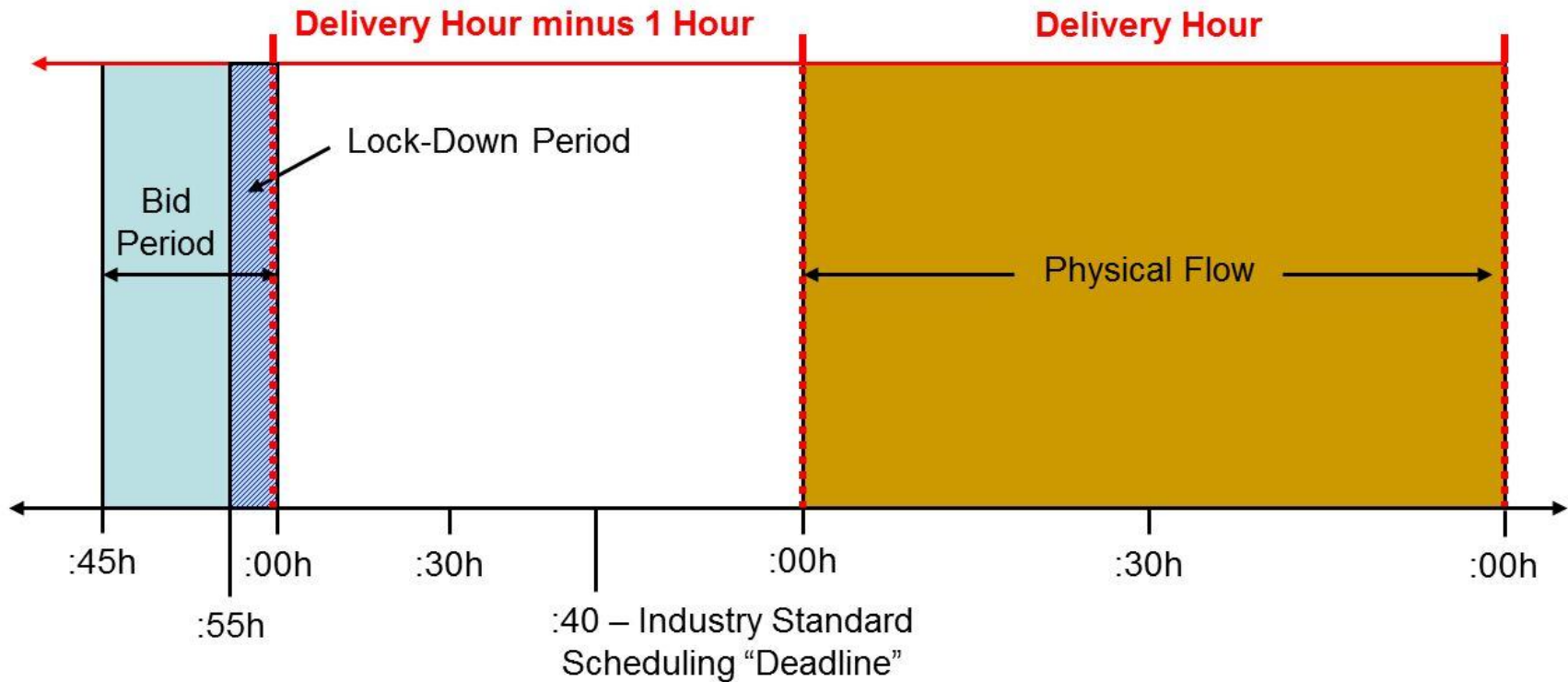
Hour-Ahead Energy Auctions

- Administered every hour of every day (365 days per year)
- Product is non-firm energy
- Each Day-Ahead Auction consists of:
 - ✓ 1 MW block increments
 - ✓ Delivery “into Southern”



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Hour-Ahead Timeline



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Recent Enhancements

- Queuing
 - ✓ Allows participants to “pre-enter” bids/offers up to 24 hours prior to the beginning of the bid period for any Hour-Ahead Auction
 - ✓ Participants can submit all entries for multiple Hour-Ahead Auctions without having to wait and submit each of them separately



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Recent Enhancements

- Multi-Hour Bid/Offer Entry
 - ✓ Allows participants to enter several bids/offers for multiple Hour-Ahead Auctions on the same screen, with a single click
 - ✓ Each bid/offer is assigned a unique ID and treated as a separate bid/offer in the webMarket system



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Recent Enhancements

- Auction Spread Tracking

- ✓ The “Auction Spread” is the absolute difference (in \$/MWH) between the highest bid and lowest offer
- ✓ Upon the clearing of an auction, an Auction Spread will be posted*
- ✓ A zero spread indicates that a price crossover event has occurred, resulting in a bid/offer match

** In the event an Auction Spread is not provided for a given auction, a reason code is posted.*



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Registered Auction Participants

Associated Electric Cooperative

ConocoPhillips

Rainbow Energy Marketing

ArcLight

Duke Energy Carolinas

South Carolina Electric & Gas

BNP Paribas

EDF Trading North America

Southern Company Services

Brookfield

JP Morgan Ventures

The Energy Authority

Calpine

Merrill Lynch

Tenaska Power Services

Cargill

Oglethorpe Power

Tennessee Valley Authority

Constellation

PPL EnergyPlus

Union Power Partners

Cooperative Energy

Progress Energy Carolinas

Westar Energy

Progress Energy Florida



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Energy Auction Software

- webMarket – an OATI product

✓ <https://www.socowmkt.oati.com/SOCOWMKT/sys-login.wml>



User Login

User Name

Password



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Auction Training Materials Available

- Phase II Training Tools: <http://www.southerncompany.com/about-us/our-business/energy-auction/training-tools.cshtml>
 - ✓ New Buyer and New Seller Instructions
 - ✓ Making a Bid in webMarket
 - ✓ Making an Offer in webMarket
 - ✓ Energy Auction Clearing Methodology
 - ✓ Queueing Documentation
 - ✓ Multi-Hour Bid/Offer Screen



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Southern Auction Administrator

- April Gurley
 - ✓ Phone: 205-257-2172
 - ✓ E-mail: algurley@southernco.com
- Tracy Autrey
 - ✓ Phone: 205-257-5755
 - ✓ E-mail: toautrey@southernco.com



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OATI and TranServ



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Auction Direction



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Southern's Commitments

- Actions Southern plans to take upon resolution of the pending FERC proceeding
 - ✓ File Tariff Revisions
 - Remove the demand charge component from Southern's price cap
 - Remove third-party bid/offer access rights for the Southern Auction Administrator
 - *Access rights can be temporarily restored if requested by the IAM*
 - *NOTE: Southern Auction Administrator is prohibited in all cases from sharing any such information with Southern's merchant function employees*
 - Require the IAM to file annual reports with the Commission



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Southern's Commitments

- Actions Southern plans to take upon resolution of the pending FERC proceeding (continued)
 - ✓ Additional Transparency
 - On a daily basis, post the average price of hour-ahead (spot) purchases and sales that Southern transacted “into SOCO”
 - Posting will be made on a Southern website



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Survey Review: Day-Ahead Timing

- The day-ahead energy auction consists of two simultaneous auctions
 - ✓ Firm-LD energy
 - ✓ Recallable energy
- Both involve 50-megawatt blocks of energy for delivery "into Southern" during the 16-hour period from 6 a.m. to 10 p.m.
- The bid period for these two auctions opens at 12:00 p.m., two days prior to the delivery day, and closes at 6:45 a.m., one day prior to the delivery day
- What changes, if any, would your company propose to the day-ahead energy auction from a timing standpoint?



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Survey Review: Hour-Ahead Timing

- The hour-ahead energy auction takes place each hour of the day, 24 hours a day, seven days a week, including NERC holidays
- This auction is for one-megawatt increments of non-firm energy for delivery "into Southern" for the upcoming hour
- The bid period opens at 75 minutes prior to the delivery hour and closes at 60 minutes prior to the delivery hour
- What changes, if any, would your company propose to the hour-ahead energy auction from a timing standpoint?



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Survey Review: Products

- The Southern Company Energy Auction offers
 - ✓ Day-Ahead Firm-LD Energy
 - ✓ Day-Ahead Recallable Energy
 - ✓ Hour-Ahead Non-Firm Energy
- The primary difference between the two day-ahead products is the right, but not the obligation, of the Seller to curtail Recallable Energy in the event of a supply-side disruption
- What other products, if any, would your company propose be offered in the Southern Company Energy Auction?



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Survey Review: Hubs

- The products offered in the Southern Company Energy Auction are for delivery “into Southern”
- What additional hubs, if any, would your company propose be available for products offered in the Southern Company Energy Auction?



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Survey Review: webMarket

- Do you find the webMarket auction software easy to use?



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Survey Review: Enhancements

- What enhancements, if any, would you propose to the Energy Auction process?
- Is there any additional feedback regarding the Energy Auction that we have not covered?



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Next Steps



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Closing Comments



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Adjourn

Wayne Moore
Phone: 205-257-6208
E-mail: dwmoores@southernco.com