

## **Rules of the Bid-Based Energy Auction**

### **1.0 Establishment**

1.1 Seller shall cause the establishment and operation of an Energy Auction, as fully described herein, for a period of three (3) years from the effective date of such auction.

1.2 Nothing contained herein shall be construed as affecting in any way the right of Seller to unilaterally make application to the Commission for a change in rates under section 205 of the Federal Power Act and pursuant to the Commission's Rules and Regulations promulgated thereunder to amend these Rules of the Bid-Based Energy Auction; provided, however, that no such filing may have the effect of terminating both the DAE Auction and the HAE Auction during the initial three (3) year period of their operation.

### **2.0 Definitions**

These definitions shall apply to these Rules of the Bid-Based Energy Auction as well as Appendices DA-1, DA-2, HA-1, and HA-2, thereto.

2.1 Auction Administrator: Those persons administering the Energy Auction consistent with the provisions set forth herein.

2.2 Available Capacity: *See* Section 1.3 of Appendix DA-1 and Section 1.3 of Appendix HA-1.

2.3 Bidder: A Customer (as defined in Section 1.2 of the General Tariff Provisions, above) participating in the Energy Auction for the purpose of buying Energy that: (a) has executed a service agreement with Seller that references this Tariff; (b) is in good standing under such service agreement, including having met all credit requirements thereunder; and (c) has registered with the Auction Administrator (such registration to include the provision of contact and related information to the Auction Administrator ).

2.4 Bid Information: The prices, terms, and conditions under which a Bidder offers to purchase Energy through the DAE Auction or HAE Auction.

2.5 Business Day: Each weekday, Monday through Friday, excluding NERC holidays.

2.6 CPT: Central Prevailing Time.

2.7 Commission: The Federal Energy Regulatory Commission.

2.8 Commitment Cost: The cost to start or change operating modes of a generating unit, as specified in Appendices DA-2 and HA-2.

2.9 Controlled Capacity: Capacity controlled by Seller through ownership or contractual arrangement. Capacity shall only be considered "controlled" if Seller has included such capacity in its unit commitment process as a dispatchable resource.

2.10 DAE Auction: That auction, administered in accordance herewith, for the sale of DAE Blocks.

2.11 DAE Bid: A bid by a Bidder to purchase a DAE Block, expressed as an implied heat rate in MMBtu/MWh.

2.12 DAE Bid Period: The period beginning 12:00 Noon CPT two Business Days prior to the Delivery Day and ending at 6:30 am CPT one Business Day prior to the Delivery Day.

2.13 DAE Block: A 50 MW block of Energy offered or sold in the DAE Auction for delivery beginning at 6 am CPT and ending at 10 pm CPT on the Delivery Day.

2.14 DAE Buyer: A Bidder who has been awarded the purchase of a DAE Block.

2.15 DAE Market Clearing Price: *See* Section 5.4.3.

2.16 DAE Market Clearing Heat Rate: *See* Section 5.4.3.

2.17 Delivery Day: The calendar day in which the DAE Block sold through the DAE Auction will be delivered.

2.18 Delivery Day Gas Price: As regards a particular Delivery Day, the Gas Index Price for the 24-hour gas flow period most closely correlated to the Delivery Day.

2.19 Delivery Hour: The clock hour in which Energy sold through the HAE Auction will be delivered.

2.20 Energy: Electric energy delivered as three-phase alternating current.

2.21 Energy Auction: As the context may indicate, the DAE Auction and HAE Auction collectively, or the DAE Auction or the HAE Auction individually.

2.22 Firm LD: Energy sold whereby a party shall be relieved of its obligations to sell and deliver or to purchase and receive without liability only to the extent that, and for the period during which, such performance is prevented by Force Majeure.

2.23 Force Majeure: Any act of God, labor disturbance, act of the public enemy, war, insurrection, riot, fire, storm or flood, explosion, breakage or accident to machinery or equipment (including computer systems), order, regulation or restriction imposed by governmental military or lawfully established civilian authorities, or any other cause beyond a party's control.

2.24 Gas Index Price: Henry Hub Midpoint gas price (in \$/MMBtu) published by Platts Megawatt Daily. The Gas Index Price is based on a gas delivery day from 9:00 am CPT on the Delivery Day to 9:00 am CPT on the following day.

2.25 HAE Auction: That auction, administered in accordance herewith, for the sale of HAE Power.

2.26 HAE Bid: A bid by a Bidder to purchase Energy through the HAE Auction, submitted in the form of a MW quantity, denominated in one (1) MW increments with a minimum of one (1) MW, and a maximum price Bidder is willing to pay (in \$/MWh).

2.27 HAE Bid Period: The period beginning 60 minutes prior to the beginning of the Delivery Hour and ending 45 minutes prior to the beginning of the Delivery Hour.

2.28 HAE Buyer: A Bidder who has been awarded the purchase of HAE Power.

2.29 HAE Market Clearing Price: *See* Section 6.4.1.6.

2.30 HAE Power: Non-Firm Energy offered or sold by Seller through the HAE Auction.

2.31 IIC: The “Southern Company System Intercompany Interchange Contract” as filed pursuant to 119 FERC ¶ 61,065 (2007) and designated as Southern Company Services, Inc., Second Revised Rate Schedule FERC Number 138, as amended from time to time

2.32 IIC Manual: That “Allocation Methodology and Periodic Rate Computation Manual” established pursuant to the IIC.

2.33 Independent Auction Monitor: An independent entity engaged by Seller, subject to Commission approval, to monitor and periodically review the DAE Auction and HAE Auction and be responsible for responding to questions from Bidders and/or regulators regarding the integrity of the auction process.

2.34 Into Southern: For purposes of sales through the DAE Auction and the HAE Auction, the term “Into Southern” means that the energy shall be scheduled and delivered to an interconnection or interface either (i) on Seller’s transmission system border or (ii) within the Southern BAA if the Energy is from a source of generation in the Southern BAA, which interface, in either case, the Southern Transmission Provider identifies as available for delivery of the Energy in or into the Southern BAA.

2.35 Lock-Down Period: As regards the DAE Auction, the one (1) hour prior to the close of the DAE Bid Period. As regards the HAE Auction, the five (5) minutes prior to the close of the HAE Bid Period.

2.36 MMBtu: Million British Thermal Units.

2.37 MW: Megawatt or megawatts.

2.38 MWh: Megawatt-hour or megawatt-hours.

2.39 NERC: The North American Electric Reliability Corporation or its successor.

2.40 Non-Firm: Energy sold whereby delivery by Seller may be interrupted for any reason or for no reason, without liability on the part of Seller.

2.41 OASIS: The Open Access Same Time Information System implemented by Southern Companies in accordance with FERC Orders 888, 889, and 890.

2.42 Recallable: Energy sold whereby Seller, upon experiencing a supply side disruption, has the right, but not the obligation, to curtail the delivery of such Energy without liability on the part of Seller.

2.43 Seller Offer Price: In the case of the DAE Auction, the minimum price at which Seller will sell a DAE Block, expressed as an implied heat rate in MMBtu/MWh. In the case of the HAE Auction, the minimum price at which Seller will sell HAE Power, expressed in dollars per MWh (\$/MWh).

2.44 SERC: The SERC Reliability Corporation or its successor.

2.45 Southern BAA: The Southern Balancing Authority Area, as that term is defined and used by NERC.

### **3.0 Establishment and Administration**

3.1 The Auction Administrator will establish an auction via the Internet to facilitate: (a) the bilateral sale of DAE Blocks by Seller on a Business Day-ahead basis through the DAE Auction; and (b) the bilateral sale of Energy by Seller on an hour-ahead basis through the HAE Auction.

3.2 The DAE Auction shall take place every Business Day so long as Seller has Available Capacity to sell on a Business Day-ahead basis. The HAE Auction shall take place every hour of every day, including Business Days, weekends, and NERC holidays, provided that Seller has Available Capacity to sell on an hour-ahead basis.

3.3 The Auction Administrator will administer a DAE Auction for DAE Blocks to be delivered on weekend days and NERC holidays at the direction of Seller.

3.3.1 In the event Seller directs the Auction Administrator to operate a weekend DAE Auction for a particular weekend, the delivery term shall be for 16 hours on both Saturday and Sunday (*i.e.*, a 2x16 strip) beginning at 6 am CPT and ending at 10 pm CPT each day.

3.3.2 In the event Seller directs the Auction Administrator to operate a weekend DAE Auction for a NERC holiday, the delivery term shall be for 16 hours on such NERC holiday beginning at 6 am CPT and ending at 10 pm CPT such day.

3.3.3 In the event Seller chooses to run a weekend or NERC holiday auction, the applicable Bid Period shall open two (2) Business Days prior to the Delivery Day and close one (1) Business Day prior to the Delivery Day concurrently with the open and closing times for the DAE Auction for the next Business Day.

3.4 The only employees of Seller permitted to serve as Auction Administrator shall be Seller's "support employees," as that term is used in 18 C.F.R. § 358.4(a)(4), or employees performing similar "back office" or administrative functions.

3.5 All Bid Information submitted to the Auction Administrator shall be used by the Auction Administrator only for auction administration and audit purposes.

3.6 Those employees of Seller directly engaged in wholesale electricity marketing and trading shall not have access to Bid Information for any purpose (except to the extent such information is made available to auction participants pursuant to Section 4.2.4).

3.7 In order to ensure that Bid Information is maintained in a manner consistent with the foregoing paragraphs, Seller shall impose internal data control restrictions consistent with those used for Standards of Conduct compliance.

#### **4.0 General Provisions**

##### **4.1 Sales of Energy Outside the Energy Auction**

4.1.1 During the Bid Period of a DAE Auction for a Delivery Day that is not a weekend day or NERC holiday, Seller shall not make, other than through such DAE Auction, any Energy sale of 16 hours in duration and 50 MW or more in quantity to be delivered at a point in the Southern BAA (other than a delivery point located at a metered boundary with a balancing authority area adjacent to the Southern BAA) from 6 am CPT until 10 pm CPT on the Delivery Day applicable to such Bid Period.

4.1.2 During the Bid Period of a HAE Auction, Seller shall not make, other than through such HAE Auction, any Energy sale to be delivered at a point in the Southern BAA (other than a delivery point located at a metered boundary with a balancing authority adjacent to the Southern BAA) for delivery during the Delivery Hour applicable to such Bid Period.

##### **4.2 Transparency; Confidentiality**

4.2.1 Subject to a determination by the Commission that doing so would qualify for safe harbor protection, Seller will report the quantities and prices of sales made via the Energy Auction to either a reputable index developer or a data hub.

4.2.2 Market-clearing prices of the DAE Auction and HAE Auction shall be made available to Bidders by the Auction Administrator on the following schedule:

4.2.2.1 DAE Market Clearing Heat Rate – Within one (1) hour of the close of the applicable DAE Bid Period.

4.2.2.2 DAE Market Clearing Price – No later than the end of the applicable Delivery Day.

4.2.2.3 HAE Market Clearing Price – Within forty-five (45) minutes of the close of the applicable HAE Bid Period.

4.2.3 Subject to a determination by the Commission that doing so would qualify for safe harbor protection, Seller shall make the information described in Section 4.2.2 publicly available (via posting on its website) on the same timeline as such information is made available to Bidders.

4.2.4 No earlier than six (6) months after a particular Energy Auction, the Auction Administrator will make available on a per-request basis all bid information for such particular Energy Auction, subject to the protection of Bidder identities in accordance with the confidentiality provisions set forth herein.

4.2.5 The identity of all Bidders shall be kept confidential from all third party entities, other than the Commission and the Independent Auction Monitor, except to the extent it is required as a result of price reporting, EQR reporting, or auction monitoring/auditing.

#### 4.3 Auditing; Market Monitoring

4.3.1 Seller will engage the Independent Auction Monitor to confirm that the Energy Auction is being properly administered in accordance with these Rules of the Bid-Based Energy Auction.

4.3.2 The Auction Administrator will ensure that all pertinent documentation associated with auction decisions shall be made available as required to the Independent Auction Monitor and the Commission.

4.3.3 The Independent Auction Monitor and Auction Administrator may share information related to the Energy Auction on a confidential and reciprocal basis.

4.3.4 The Independent Auction Monitor shall file reports with the Commission every twelve months for the first three years of operation of the Energy Auction. Such reports shall include, at a minimum, the following: (a) the clearing price for each Energy Auction; (b) the amount of Energy offered and sold by each seller (identified by name) in each Energy Auction; and (c) the amount of Energy bid on and purchased by each buyer in each Energy Auction; and (d) any instances where Auction Monitor was unable to verify Southern Companies' Available Capacity calculations and inputs, or where issues arose involving availability or the terms of transmission service needed to accommodate an Energy Auction purchase.

4.3.5 The Independent Auction Monitor shall report to FERC any complaints relating to the Energy Auctions or other serious matters as soon as possible (rather than waiting for the next report).

4.3.4 The Independent Auction Monitor is authorized to: (i) verify Seller's available capacity calculations, including inputs into those calculations; and (ii) confirm that any transmission service necessary to accommodate a purchase under the Energy Auctions is not unreasonably withheld.

4.3.7 The Independent Auction Monitor Auction Monitor has independent authority to prepare and submit all such reports described herein without any prior review or approval by Seller or any other outside sources.

## **5.0 DAE Auction**

### **5.1 Products Sold**

5.1.1 All DAE Blocks auctioned in the DAE Auction shall be one of two products: (a) Firm LD Energy for a term of 16 hours beginning 6:00 am CPT on the Delivery Day and ending 10:00 pm CPT on the Delivery Day, or (b) Recallable Energy for a term of 16 hours beginning 6:00 am CPT on the Delivery Day and ending 10:00 pm CPT on the Delivery Day.

5.1.2 Blocks of Firm LD Energy and Recallable Energy (all referred to as "DAE Blocks") shall be offered simultaneously, but via separate auctions.

5.1.3 All DAE Blocks shall be considered delivered "Into Southern."

### **5.2 Submission by Seller of DAE Blocks and Seller Offer Prices**

#### **5.2.1 DAE Blocks**

5.2.1.1 Prior to the opening of a DAE Bid Period, Seller shall submit to the Auction Administrator the number of DAE Blocks of each type it has available to sell, such figures calculated in accordance with Appendix DA-1.

5.2.1.2 At any time after the provision of such information to the Auction Administrator pursuant to Section 5.2.1.1 but before the Lock-Down Period applicable to such DAE Auction, Seller may notify the Auction Administrator of a change in the number of DAE Blocks available, provided that such change is the direct result of one or more of the following occurring after Seller's initial notification of DAE Blocks to the Auction Administrator: (a) a non-discretionary event affecting one of the primary inputs to Seller's calculation of Available Capacity or (b) Seller entering into one or more sales of Energy outside of the Energy Auction.

5.2.1.3 To the extent that: (a) the sale of any particular DAE Block(s) is linked to the sale of any other DAE Block(s) (such that none of the linked blocks can be sold unless all linked blocks are sold) or (b) the sale of any particular DAE Block(s) is contingent upon the sale of other DAE Block(s) (such that one or more dependent blocks cannot be sold unless one or more parent blocks are sold first), these shall be indicated at the time of submission to the Auction Administrator pursuant to Section 5.2.1.1 and/or 5.2.1.2.

#### 5.2.2 Seller Offer Prices

5.2.2.1 Prior to the Lock-Down Period for a given DAE Auction, Seller shall notify the Auction Administrator of the Seller Offer Prices for the DAE Blocks offered into such DAE Auction.

5.2.2.2 Determination of the Seller Offer Prices for the DAE Auction shall be in accordance with the formulas and processes described in Appendix DA-2.

#### 5.3 Submission of DAE Bids by Bidders

5.3.1 During the DAE Bid Period, Bidders shall be allowed to submit DAE Bids to purchase one or more of the posted DAE Blocks.

5.3.2 Buyers shall submit DAE Bids for Firm LD DAE Blocks independently from DAE Bids for the Recallable DAE Blocks.

5.3.3 A Bidder may modify or withdraw a DAE Bid at any time during the DAE Bid Period.

5.3.4 A Bidder may submit multiple DAE Bids, but each separate bid will be considered independently.

#### 5.4 Auction Evaluation



5.4.1 DAE Bids for Firm LD DAE Blocks and Recallable DAE Blocks shall be evaluated independently by the Auction Administrator.

5.4.2 Upon close of the DAE Bid Period, DAE Blocks shall be awarded as follows.

5.4.2.1 All DAE Bids will be sorted in descending order (highest to lowest implied heat rate) to simulate an economic demand curve.

5.4.2.2 All Seller Offer Prices will be sorted in ascending order (lowest to highest implied heat rate) to simulate an economic supply curve.

5.4.2.3 The intersection of the simulated supply and demand curves shall be determined by locating the quantity on the supply and demand curves where the next highest DAE Bid is less than the next lowest Seller Offer Price.

5.4.2.4 All DAE Bids not exceeding this quantity on the demand curve shall be granted their bid-for DAE Blocks, unless such DAE Blocks are linked with one or more DAE Blocks with higher Seller Offer Prices that exceed this intersection point.

5.4.2.5 In the event two or more DAE Bids specify the same offer price, a bid submitted earlier in time shall receive a higher priority of award than a bid submitted later in time.

5.4.2.6 If there are no DAE Bids that exceed the lowest Seller Offer Price, no DAE Blocks shall be sold.

5.4.3 All DAE Buyers shall pay a price for DAE Blocks awarded based upon the market clearing price ("DAE Market Clearing Price"), calculated as (a) the greater of the highest non-winning DAE Bid or the Seller Offer Price of the last DAE Block sold in the DAE Auction ("DAE Market Clearing Heat Rate") multiplied by (b) the Delivery Day Gas Price.

#### 5.5 Notification, Confirmation, and Delivery

5.5.1 As soon as possible after the close of the DAE Bid Period: (a) the Auction Administrator shall notify Seller and all Bidders that submitted DAE Bids during such DAE Bid Period of their respective awarded DAE Blocks; and (b) the Auction Administrator shall notify Seller of the appropriate curtailment priority for all Recallable DAE Blocks.

5.5.2 Buyer shall specify on any transmission tag for such DAE Blocks the transaction or contract identification number provided by Seller.

5.5.3 Upon notification of being awarded a DAE Block, DAE Buyer shall be responsible for taking delivery from the delivery point, including all transmission reservations and scheduling (*i.e.*, NERC e-tagging) requirements.

## 5.6 Recallable DAE Blocks

5.6.1 Seller shall have the right, but not the obligation, to curtail delivery of Energy sold as Recallable DAE Blocks in the event Seller experiences a supply side disruption (*e.g.*, an unplanned outage or derate) affecting the Available Capacity offered into the DAE Auction.

5.6.2 In the event Seller experiences such a supply disruption and determines that it must curtail a portion or all of the Recallable DAE Blocks, it shall do so in the priority order established by the Auction Administrator, determined as follows:

5.6.2.1 Sales of DAE Blocks based on lower DAE Bids shall be curtailed before sales of DAE Blocks based on higher DAE Bids.

5.6.2.2 In the event that two or more DAE Buyers had the same bid, a DAE Block based on a bid submitted later in time shall be curtailed prior to a DAE Block based on a bid submitted earlier in time.

5.6.3 A curtailed DAE Buyer may request continuity of service (*i.e.*, to not be curtailed) at a price equal to the HAE Auction market clearing price applicable to each hour for which such continuity of service occurs. Seller will honor such request if able to do so without adversely impacting system reliability.

## 5.7 Non Performance

5.7.1 Any attempt by DAE Buyer to schedule delivery from a location other than that location specifically identified as the delivery point for the applicable DAE Block shall be considered non-performance by DAE Buyer and Seller shall have the right to deny the schedule without consequence to itself.

5.7.2 In the case of a Recallable DAE Block, in the event DAE Buyer fails to properly take delivery of the Recallable DAE Block, Seller shall buy back the Energy at 90 percent of the applicable market clearing price and DAE Buyer shall be financially responsible for the difference.

## 6.0 HAE Auction

### 6.1 Products Sold

6.1.1 All HAE Power shall be for delivery beginning the upcoming Delivery Hour and for duration of one (1) clock hour.

6.1.2 All HAE Power shall be considered delivered "Into Southern."

### 6.2 Seller's Submission of HAE Power Supply Curve and Seller Offer Prices

6.2.1 Prior to the opening of a Bid Period, Seller shall submit to the Auction Administrator a supply curve representing the amount of HAE Power it has available to

sell for the next Delivery Hour and associated Seller Offer Prices, the amount of HAE Power and Seller Offer Prices calculated in accordance with Appendices HA-1 and HA-2, respectively.

6.2.2 Such supply curve can be submitted in one (1) MW increments or in blocks of Energy at Seller's discretion.

6.2.3 Seller may submit a revised supply curve to the Auction Administrator at any time prior to the Lock-Down Period applicable to such HAE Auction.

### 6.3 Submission of HAE Bids by Bidders

6.3.1 During the HAE Bid Period, Bidders shall be allowed to submit HAE Bids to purchase HAE Power.

6.3.2 A Bidder may modify or withdraw an HAE Bid at any time during the HAE Bid Period.

6.3.3 A Bidder may submit multiple HAE Bids, but each separate bid will be considered independently.

### 6.4 Auction Evaluation

6.4.1 Upon close of the HAE Bid Period, HAE Power shall be awarded as follows.

6.4.1.1 All HAE Bids will be sorted in descending order (highest to lowest bid price) to simulate an economic demand curve.

6.4.1.2 The intersection of the simulated demand curve and Seller's supply curve for HAE Power shall be determined by locating the quantity on the supply and demand curves where the next highest HAE Bid is less than the next lowest Seller Offer Price.

6.4.1.3 All HAE Bids not exceeding this quantity on the demand curve shall be granted their bid-for HAE Power, unless any such HAE Power is linked with HAE Power with higher Seller Offer Prices that exceed this intersection point.

6.4.1.4 If an HAE Bid directly intersects the Seller's supply curve (i.e., the marginal HAE Bid) and such Bidder indicates a willingness to accept an award of HAE Power for a quantity less than the full amount in the HAE Bid, the Auction Administrator will accept that HAE Bid to the extent such lesser quantity is available and offered at a price less than or equal to such marginal HAE Bid; otherwise such marginal bid will be rejected.

6.4.1.5 If there are no HAE Bids that exceed the lowest Seller Offer Price, no HAE Power shall be sold for such Delivery Hour.

6.4.1.6 In the event two or more HAE Bids specify the same offer price, a bid submitted earlier in time shall receive a higher priority of award than a bid submitted later in time.

6.4.2 All HAE Buyers shall pay a price for HAE Power awarded based upon the market clearing price (in \$/MWh), calculated as the greater of the highest non-winning HAE Bid and Seller Offer Price of the last MW sold in the HAE Auction for such Delivery Hour (“HAE Market Clearing Price”).

#### 6.5 Notification, Confirmation, and Delivery

6.5.1 As soon as possible after the close of the HAE Bid Period: (a) the Auction Administrator shall notify Seller and all Bidders that submitted HAE Bids during such HAE Bid Period of their respective awarded HAE Power; and (b) the Auction Administrator shall notify Seller of the appropriate curtailment priority for all awarded HAE Power.

6.5.2 Buyer shall specify on any transmission tag for such HAE Power the transaction or contract identification number provided by Seller.

6.5.3 Upon notification of being awarded HAE Power, HAE Buyer shall be responsible for taking delivery from the delivery point, including all transmission reservations and scheduling (*i.e.*, “tagging”) requirements.

#### 6.6 Curtailment

6.6.1 Sales of HAE Power based on lower HAE Bids shall be curtailed before sales of HAE Power based on higher HAE Bids.

6.6.2 In the event that two or more HAE Buyers had the same bid, HAE Power based on a bid submitted later in time shall be curtailed prior to HAE Power based on a bid submitted earlier in time.

#### 6.7 Non Performance

6.7.1 In the event HAE Buyer fails to properly take delivery of the awarded HAE Power, Seller shall buy back the Energy at 90 percent of the applicable market clearing price and HAE Buyer shall be financially responsible for the difference.

### 7.0 Force Majeure

7.1 Seller, Auction Administrator, and Independent Auction Monitor shall be excused from non-compliance with these Rules of the Bid-Based Energy Auction, and associated Appendices, to the extent such non-compliance is the result of an event of Force Majeure or otherwise necessary to maintain system reliability.

**Appendix DA-1**  
**Determination of Available Capacity**  
**for DAE Auction**

Seller is not required to offer into the DAE Auction any Energy: (a) in excess of its total Controlled Capacity or (b) that it reasonably deems necessary to serve its Total Obligations (as defined below). To this end, this Appendix DA-1 sets forth the process for the determination of the quantity of DAE Blocks that Seller will offer into a given DAE Auction.

**1.0 Determine Seller's Available Capacity**

1.1 Determine Seller's Supply Curve

1.1.1 Start with Seller's total Controlled Capacity sorted in ascending merit order (i.e., into a "Supply Curve").

1.1.1.1 Such capacity shall include: (a) all steam, combined cycle, and combustion turbine resources dispatched pursuant to the IIC, (b) the portion of hydroelectric resources scheduled by Seller for the Delivery Day, and (c) third-party purchases.

1.1.1.2 The following resources will be placed at the bottom of the supply curve for purposes of determining Available Capacity: (a) nuclear resources, (b) the portion of hydroelectric resources scheduled by Seller for the Delivery Day, (c) third-party purchases, and (d) generating units classified as "must run" for either transmission or generation purposes.

1.1.2 Subtract capacity: (a) that is unavailable for dispatch due to existing or planned outages, de-rates, or operational constraints, (b) that cannot be committed to supply DAE Blocks for the Delivery Day, or (c) uncommitted resources not located in the Southern BAA.

1.2 Determine Seller's Total Obligations

1.2.1 Start with Seller's native load and contractual obligations pursuant to the IIC for the Delivery Day based on (a) Seller's load forecast for retail and wholesale native load for the instantaneous peak of the Delivery Day, adjusted appropriately for load forecast uncertainty, and (b) Seller's third-party contractual obligations.

1.2.2 Add reliability obligations for Regulating Reserve and Contingency Reserve-Spinning as required by the Southern Balancing Authority consistent with applicable NERC and SERC requirements.

1.3 The "Available Capacity" is that portion of the Supply Curve in excess of Total Obligations.

## **2.0 Divide Available Capacity into DAE Blocks**

2.1 Available Capacity will be divided into DAE Blocks, subject to the following conditions.

2.1.1 In the case of the marginal committed generating unit(s) (i.e., the last unit(s) presumed to be serving firm obligations), that portion of the marginal generating unit(s) not presumed to be serving firm obligations shall be divided into 50 MW DAE Blocks as appropriate.

2.1.2 In the case of an uncommitted generating unit with a minimum operating limit of more than 50 MW, multiple “linked” DAE Blocks may be created to represent the minimum output of that unit; in which case, additional Available Capacity above the minimum output would be offered as separate, incremental 50 MW Blocks, provided that these incremental blocks would not be sold unless the “linked” minimum output blocks were also sold.

2.1.3 The Available Capacity of generating units with less than 50 MW of Available Capacity in Available Capacity may be combined and “linked” with other, similar generating units to form DAE Blocks to the extent practicable.

## **3.0 Determine Firm LD or Recallable Nature of DAE Blocks**

3.1 The quantity of DAE Blocks equivalent to the capacity of generating units with the following characteristics will be offered through the DAE Auction as Recallable Energy: (i) generating units online, but indicating potential for unexpected outage; (ii) generating units offline, scheduled to return, but indicating potential for delayed return; and (iii) other generating units that cannot reasonably be offered except as Recallable Energy without impairing reliability.

3.2 All DAE Blocks not offered as Recallable DAE Blocks will be placed into the DAE Auction for sale as Firm LD Energy.

**Appendix DA-2**  
**Determination of Seller Offer Prices**  
**for DAE Auction**

Seller Offer Prices shall be determined on a unit by unit basis for each resource identified by the process in Appendix DA-1 as being made available for sale in the DAE Auction. Seller Offer Prices for use in the DAE Auction will be determined using the same methodology whether the DAE Blocks are offered on a Firm LD or Recallable basis. The Seller Offer Price level for capacity made available for sale in the DAE Auction shall include components for Average Variable Costs, and/or Commitment Costs as follows.

**1.0 Cost Components**

1.1 “Average Variable Costs” (expressed in \$/MWh) shall be determined in manner consistent with the determination of variable dispatch cost pursuant to Article III of the IIC Manual and include cost components associated with marginal replacement fuel cost, variable operation and maintenance expenses, in-plant fuel handling costs, emission allowance replacement costs, and compensation for transmission losses that would otherwise not have been incurred; provided, however, that the marginal replacement fuel cost shall be applied to the average heat rate equation for the unit under consideration rather than the incremental heat rate equation.

1.2 “Commitment Costs” (expressed in \$/MWh) shall include startup costs. If the unit has a minimum run time such that it must operate beyond the 16-hour sale period, then Commitment Costs shall also reflect the expected increase in production cost associated with running the unit in subsequent hours. In the case of a combustion turbine or combined-cycle unit, the Commitment Cost may also include an adder associated with maintenance costs associated with incurred start-ups. The Commitment Cost adder (in \$/MWh) shall be spread across DAE Blocks by dividing the total startup costs (in dollars) by the minimum load (low limit operating point) of the unit being committed and by the presumed 16 hours of operation. In the case of linked units or combustion turbines, Commitment Costs will be spread across the total MW of all the linked blocks.

**2.0 Determination of Seller Offer Prices for DAE Blocks**

2.1 The Seller Offer Price for DAE Blocks created in accordance with Section 2.1.1 of Appendix DA-1 shall not exceed the sum of: (a) 110 percent of the associated unit’s Average Variable Cost for operating at maximum load (in \$/MWh); and (b) a demand charge of \$21.43/MWh.

2.2 The Seller Offer Price for DAE Blocks linked in accordance with Section 2.1.2 of Appendix DA-1 shall not exceed the sum of: (a) 110 percent of the associated unit’s Average Variable Cost for operating at its low limit operating point (in \$/MWh); (b) 110 percent of the unit’s Commitment Costs (in \$/MWh); and (c) a demand charge of \$21.43/MWh.

2.3 The Seller Offer Price for a DAE Block formed in accordance with Section 2.1.3 of Appendix DA-1 shall not exceed the sum of: (a) 110 percent of the MW weighted average of

the Average Variable Cost of each of the associated units operating at maximum load (in \$/MWh); (b) 110 percent of the combined Commitment Cost of the units (in \$/MWh); and (c) a demand charge of \$21.43/MWh.

2.4 The Seller Offer Price for any DAE Block not determined in accordance with Section 2.1 thru 2.3, above, shall not exceed the sum of: (a) 110 percent of the associated unit's Average Variable Cost for operating at maximum load (in \$/MWh); (b) 110 percent of the unit's Commitment Costs (in \$/MWh); and (c) a demand charge of \$21.43/MWh.

2.5 The Seller Offer Prices for all DAE Blocks shall be converted into an implied heat rate by dividing the Seller Offer Price (expressed in \$/MWh) by Seller's presumed Gas Price (expressed in \$/MMBtu).

2.6 The above formulas shall establish an upper limit for the determination of Seller Offer Prices. Seller may establish Seller Offer Prices lower than these limits on a unit-by-unit or Energy Block by Energy Block basis so long as the Seller Offer Prices apply to all Bidders.



**Appendix HA-1**  
**Determination of Available Capacity**  
**for HAE Auction**

Seller is not required to offer into the HAE Auction any Energy: (a) in excess of its total Controlled Capacity or (b) that it reasonably deems necessary to serve its Total Obligations (as defined below). To this end, this Appendix HA-1 sets forth the process for the determination of the quantity of HAE Power that Seller will offer into a given HAE Auction.

**1.0 Determine Seller's Residual Supply Curve**

1.1 Determine Seller's Supply Curve

1.1.1 Start with Seller's total Controlled Capacity sorted in ascending merit order (i.e., into a "Supply Curve").

1.1.1.1 Such capacity shall include: (a) all steam, combined cycle, and combustion turbine resources dispatched pursuant to the IIC, (b) the portion of hydroelectric resources scheduled by Seller for the Delivery Hour, and (c) third-party purchases.

1.1.1.2 The following resources will be placed at the bottom of the supply curve for purposes of determining Available Capacity: (a) nuclear resources, (b) the portion of hydroelectric resources scheduled by Seller for the Delivery Day, (c) third-party purchases, and (d) generating units classified as "must run" for either transmission or generation purposes.

1.1.2 Subtract capacity: (a) that is unavailable for dispatch due to existing or planned outages, de-rates, or operational constraints, (b) that cannot be committed to supply HAE Power for the Delivery Hour, or (c) uncommitted resources not located in the Southern BAA.

1.2 Determine Seller's Total Obligations

1.2.1 Start with Seller's native load and contractual obligations pursuant to the IIC for the Delivery Hour based on (a) Seller's load forecast for retail and wholesale native load for the instantaneous peak of the Delivery Hour and (b) Seller's third-party contractual obligations.

1.2.2 Add reliability obligations for Regulating Reserve and Contingency Reserve-Spinning as required by the Southern Balancing Authority consistent with applicable NERC and SERC requirements.

1.3 The "Available Capacity" is that portion of the Supply Curve in excess of Total Obligations.

**2.0 Place Capacity Forming Residual Supply Curve into HAE Auction**

2.1 The capacity forming Available Capacity will be placed into the HAE Auction for sale; provided, however, that the capacity of units with fixed output levels (e.g., combustion turbines) contributing to such uncommitted capacity shall be “linked” together such that the Seller will not sell any of the capacity of such unit unless it receives enough winning bids to account for all of the capacity of such unit.

**Appendix HA-2**  
**Determination of Seller Offer Prices**  
**for HAE Auction**

Seller Offer Prices shall be determined on a unit by unit basis for each resource identified by the process in Appendix HA-1 as being made available for sale in the HAE Auction. Seller Offer Prices for use in the HAE Auction shall be based on the Incremental Variable Costs (as defined below) of the incremental resource(s) that are reasonably anticipated to be serving the sales made as a result of the HAE Auction.

**1.0 Cost Components**

1.1 “Incremental Variable Costs” (expressed in \$/MWh) shall be determined in a manner consistent with the determination of variable dispatch cost pursuant to Article III of the IIC Manual and include cost components associated with marginal replacement fuel cost, variable operation and maintenance expenses, in-plant fuel handling costs, emission allowance replacement costs, and compensation for transmission losses that would otherwise not have been incurred.

1.2 “Commitment Costs” (expressed in \$/MWh) shall include fuel startup costs. In the case of a combustion turbine, the Commitment Cost may also include an adder associated with maintenance costs associated with incurred start-ups. If the unit has a minimum run time exceeding one (1) hour, then Commitment Costs shall also reflect the expected increase in production cost associated with running the unit in subsequent hours. The Commitment Cost adder (in \$/MWh) shall be determined by dividing the total Commitment Costs (in dollars) by the full load output of the unit being committed.

**2.0 Determination of Seller Offer Prices**

2.1 The Seller Offer Price level for that portion of the Available Capacity associated with online (i.e., spinning), uncommitted, and dispatchable electric capacity from steam generating units shall not exceed the sum of: (a) 110 percent of the Incremental Variable Costs for such Energy (in \$/MWh) and (b) a demand charge of \$21.43/MWh.

2.2 The Seller Offer Price for the Available Capacity associated with a combustion turbine shall not exceed the sum of: (a) 110 percent of the associated unit’s Incremental Variable Cost for operating at maximum load (in \$/MWh); (b) 110 percent of the unit’s Commitment Costs (in \$/MWh); and (c) a demand charge of \$21.43/MWh.

2.3 The above formulas shall establish an upper limit for the determination of Seller Offer Prices. Seller may establish Seller Offer Prices lower than these limits on a unit-by-unit basis so long as the Seller Offer Prices apply to all Bidders.