

Auction Format and Fiscal Terms

North Carolina Task Force Meeting

October 7, 2015



Agenda

- **Auction Format** (pre-lease)
- **Fiscal Terms** (post-lease)

Auction Format (pre – lease)

Auction Overview

Round Structure

One Lease Area

Two Lease Areas

Multiple Lease Areas

Multiple Factor Format

Auction Overview

Sales will be conducted using an internet-based auction system

Bidding for wind energy areas will be on a cash bonus basis

The auction is a type of ascending clock auction

- Will be conducted over a series of rounds with escalating prices based on demand in each round
- Allows for price discovery
- Discourages harmful bidding practices

Through the multiple factor format, bidders are eligible to earn a percentage credit applied to their bonus bid, i.e., non-monetary credit

Round Structure

BOEM publishes the asking price

Bidders place bids

- Live bid: meets BOEM's full asking price for the current round
- Intra-round bid: greater than last round's price but less than current round

Round closes

Auction continues so long as there is more than 1 live bid on any lease area

If the auction continues, BOEM posts the following information to bidders:

- The number of live bids on each lease area, and
- The next round's asking price

Repeat

Asking Prices

BOEM determines the asking prices and asking price increments

The initial asking price in Round 1 is the minimum bid, which is announced in the Sale Notice

When two or more bidders submit live bids, we raise the price in the next round

Increments are set by BOEM during the auction and may be different for successive rounds

3 Proposed Wind Energy Areas

If minimum bid is \$2/acre, here's how the first round auction prices would look for the proposed areas:

Wind Energy Area	Kitty Hawk	Wilmington West	Wilmington East
Size (acres)	122,405	51,595	133,590
Minimum Bid	\$ 244,810	\$ 103,190	\$ 267,180

Example: One Lease Area

Round	Bidder 1	Bidder 2	Bidder 3	Bidder 4
1) Who wants the lease area for \$300,000?	Yes	Yes	Yes	Yes
2) For \$450,000?	Yes	X	Yes	Yes
3) For \$600,000?	Yes	X	Yes	X
4) For \$750,000?	X	X	Yes	X
Result:				Winner

Example: One Lease Area with intra-round bids

Round	Bidder 1	Bidder 2	Bidder 3	Bidder 4
1) Who wants the lease area for \$300,000?	Yes	Yes	Yes	Yes
2) For \$450,000?	Yes	Yes	Yes	Yes
3) For \$600,000?	Yes	X	Yes	Intra-round: \$550,000
4) For \$750,000?	Yes	X	Intra-round: \$700,000	X
Result:	Winner			

Two Lease Areas

Similar to holding to single lease area auctions at the same time

Bidders are allowed to participate in both areas, or either one, or can switch from one area to the other

Multiple lease areas require a few extra activity rules:

- **Eligibility:** there are restrictions on when you can change the number of lease areas you are bidding on
- Under certain circumstances, BOEM will “carry over” a bid
- Determining the winner can be a little more complicated

Two Lease Areas: Eligibility

A bidder's individual eligibility is the number of lease areas it is permitted to include in its bid

Initial Eligibility: the number of lease areas you can bid on in the opening round is determined by the bid deposit submitted to BOEM before the auction

- In an auction with one area, eligibility can only be 1

If bid deposit is \$450,000 per area, then:

- \$450,000 bid deposit = initial bid eligibility of 1
- \$900,000 bid deposit = initial bid eligibility of 2

Two Lease Areas: Eligibility

From one round to the next, a bidder's eligibility may stay the same, or go down, but it may never go up

- May go from 3 to 2, but never back up to 3

BOEM returns bid deposits to non-winners following the auction

Winning bidder(s)' bid deposits will be credited toward bid

Two Lease Areas: Carrying Over a Bid

If you submit a bid on a lease area and no one else submits a bid that includes that lease area, BOEM will carry forward that bid for you in the next round

When this happens, BOEM will enter your bid from the previous round for you in the current round

- You can't drop out
- You can't submit an intra-round bid
- You can't switch from that area

Two Lease Area Example

Bidder	Area	R1	IRB R2	R2	IRB R3	R3	IRB R4	R4	Result
Prices	West	\$150		\$200		\$250		\$250	
	East	\$100		\$150		\$200		\$250	
Bidder A	West	Yes		Yes	IR -	Yes		Yes	Win
	East	Yes		Yes	\$400	X		X	
Bidder B	West	Yes		Yes		X		X	
	East	X		X		Yes	IR - \$210	X	
Bidder C	West	X		X		X		X	
	East	Yes		Yes		Yes	IR - \$225	X	Win
Demand	West	2		2		1		1	
	East	2		2		2		0	

Multiple Lease Areas

Rules are the same as for multiple lease areas

Bid eligibility of 3 at \$450,000 per area

- Requires bid deposit of \$1,350,000

Multiple Factor Format

The NC auction will be a multiple factor auction: other factors considered outside of cash bid

Non-monetary factors:

- Power Purchase Agreement (PPA)
- Any other factors announced in the Sale Notice

BOEM designates a panel to consider non-monetary submissions before the monetary auction

Bidders receiving credits are assigned bidding credits up to 25%, as specified in the Sale Notice

If you win more than one lease and have a credit, the credit applies only to the highest-valued area

Fiscal Terms (post – lease)

Fiscal Terms

- **Annual Rent**

- First year's payment due within 45 days of lessee receiving lease
- Subsequent payments due on lease anniversary on portion of lease not authorized for commercial operations

- **Annual Project Easement Rent**

- Initial payment due upon approval of the COP
- Subsequent payments due annually thereafter until lease terminates

Fiscal Terms

- **Annual Operating Fee**
 - Initial fee due within 45 days of commercial operations
 - Subsequent payments due annually thereafter until commercial operations cease
- **Financial Assurance Requirements**
 - Prior to lease issuance the Lessee must provide assurance for initial financial obligations on the lease

Annual Rent Payment

Payment Formula = Leased Acreage * \$3/acre

Wind Energy Area	Kitty Hawk	Wilmington West	Wilmington East
Size (acres)	122,405	51,595	133,590
Rental Payment	\$ 367,215	\$ 154,785	\$ 400,770

- Subsequent rent payments would reflect any adjustments for relinquished acreage or phased development at the time a payment is due
- Last rent payment prior to the start of commercial operations will not be pro-rated

Annual Project Easement Rent

- **Payment** = \$70 per statute mile * statute miles in 200-foot wide transmission easement, and greater of \$5/acre or \$450 for any additional easement required, per year
- Last annual project easement rent payment prior to lease termination will not be pro-rated

Annual Operating Fee

$$F = M * H * C * P * r$$

Annual Operating Fee	Nameplate Capacity [MW]	Hours per Year [8,760]	Capacity Factor [0 to 1]	Power Price [\$/MWh]	Operating Fee Rate [0 to 1]
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- Formula is based on the *anticipated* annual power output, valued at the preceding year's regional wholesale power price, multiplied by an operating fee rate

Annual Operating Fee

$$F = M * H * C * P * r$$

Annual Operating Fee	Nameplate Capacity [MW]	Hours per Year [8,760]	Capacity Factor [0 to 1]	Power Price [\$/MWh]	Operating Fee Rate [0 to 1]
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A bracket is drawn under the Nameplate Capacity [MW] and Hours per Year [8,760] terms, indicating they are multiplied together to represent generation at continuous full power operation (MWh).

Generation at continuous full power operation (MWh)

- Nameplate capacity is the planned available capacity measured in megawatts (MW)
 - Based on COP to reflect installation, repowering, and decommissioning activities on the lease

Annual Operating Fee

$$F = M * H * C * P * r$$

Annual Operating Fee = Nameplate Capacity [MW] * Hours per Year [8,760] * Capacity Factor [0 to 1] * Power Price [\$/MWh] * Operating Fee Rate [0 to 1]

Anticipated Annual Power Output (MWh)

- The capacity factor is the share of anticipated generation relative to its generation at continuous full power operation
 - Value is set to 0.4 for the first 6 years of commercial operations
 - Value is adjusted in 5-year intervals thereafter to reflect actual metered generation over the preceding five years

Annual Operating Fee

$$F = M * H * C * P * r$$

Annual Operating Fee = Nameplate Capacity [MW] * Hours per Year [8,760] * Capacity Factor [0 to 1] * Power Price [\$/MWh] * Operating Fee Rate [0 to 1]

Estimated Market Value [\$]

- Power price is determined at the time each payment is due based on the latest available regional wholesale spot price (\$/MWh) as reported by FERC, adjusted for inflation

Annual Operating Fee

$$F = M * H * C * P * r$$

Annual Operating Fee	Nameplate Capacity [MW]	Hours per Year [8,760]	Capacity Factor [0 to 1]	Power Price [\$/MWh]	Operating Fee Rate [0 to 1]
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- Operating fee rate is the share of the estimated market value of the power produced payable to the lessor
 - The operating fee rate is 0.02 through the life of the commercial operations on the lease

Annual Operating Fee Example: 500 MW project

$$F = M * H * C * P * r$$

Annual
Operating
Fee

Nameplate
Capacity

Hours
per Year

Capacity
Factor

Power
Price
[\$/MWh]

Operating
Fee Rate

$$F = 500 * 8,760 * 0.4 * 40.00 * 0.02$$

$$F = \$ 1,401,600$$

Questions and Comments

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Extra Slides

Financial Assurance

- \$100,000 initial financial assurance due prior to lease issuance in the form of a bond or other approved form
- Additional assurance required to cover all decommissioning, operating fees, and other obligations as the lease progresses
 - Prior to approval of a SAP
 - Prior to approval of a COP
 - Commencement of installation of commercial facilities
 - Past due payment amounts or any other monetary obligations
 - Adjustments to financial assurance amounts

Financial Assurance

- Any bond or other acceptable financial assurance instrument that the lessee provides must:
 - Be payable to BOEM upon demand, and
 - Guarantee compliance with all terms and conditions of the lease, any subsequent approvals and authorizations, and all applicable regulations
- All financial assurance must be in a form approved by BOEM
 - Surety bonds are the primary form of assurance
 - BOEM will consider pledges of other forms of assurance
 - BOEM may also consider your financial strength and reliability or third-party guarantor

Historical Auction Results

Date	State	No. of Areas Offered	Total Acreage Offered (acres)	No. of Rounds	Total in Bonus Bids
Jul '13	RI-MA	2	164,750	11	\$ 3,838,288
Sep '13	VA	1	112,799	6	\$ 1,600,000
Aug '14	MD	2	79,707	19	\$ 8,701,098
Jan '15	MA	4	742,978	2	\$ 448,171

Virginia Auction

September 4, 2013

Company Name	Bid Type	As-Bid Price
Round 1		
Apex Virginia Offshore Wind, LLC	Live	\$225,598
Virginia Electric and Power Company	Live	\$225,598
Round 2		
Apex Virginia Offshore Wind, LLC	Live	\$338,397
Virginia Electric and Power Company	Live	\$338,397
Round 3		
Apex Virginia Offshore Wind, LLC	Live	\$507,596
Virginia Electric and Power Company	Live	\$507,596
Round 4		
Apex Virginia Offshore Wind, LLC	Live	\$761,394
Virginia Electric and Power Company	Live	\$761,394
Round 5		
Apex Virginia Offshore Wind, LLC	Live	\$1,142,091
Virginia Electric and Power Company	Live	\$1,142,091
Round 6		
Apex Virginia Offshore Wind, LLC	Exit	\$1,500,508
Virginia Electric and Power Company	Live	\$1,600,000

Rhode Island – Massachusetts Auction

July 31, 2013

Round 5					
Deepwater Wind New England LLC	live	\$843,253	\$149,820	\$693,433	North & South
US Wind Inc.	live	\$749,100	\$0	\$749,100	North
Round 6					
Deepwater Wind New England LLC	live	\$1,142,893	\$209,748	\$933,145	North & South
US Wind Inc.	live	\$1,048,740	\$0	\$1,048,740	North
Round 7					
Deepwater Wind New England LLC	live	\$1,457,515	\$272,672	\$1,184,843	North & South
US Wind Inc.	live	\$1,363,362	\$0	\$1,363,362	North
Round 8					
Deepwater Wind New England LLC	live	\$1,866,524	\$354,474	\$1,512,050	North & South
US Wind Inc.	live	\$1,772,371	\$0	\$1,772,371	North
Round 9					
Deepwater Wind New England LLC	live	\$2,398,236	\$460,817	\$1,937,419	North & South
US Wind Inc.	live	\$2,304,083	\$0	\$2,304,083	North
Round 10					
Deepwater Wind New England LLC	live	\$3,089,461	\$599,062	\$2,490,399	North & South
US Wind Inc.	live	\$2,995,308	\$0	\$2,995,308	North
Round 11					
Deepwater Wind New England LLC	live	\$3,838,288	\$748,827	\$3,089,461	North & South
US Wind Inc.	intra-round	\$3,400,000	\$0	\$3,400,000	North