

Competitive Offshore Wind Leases on the U.S. Outer Continental Shelf: A Review of the Use of Multiple-Factor Auctions and Nonmonetary Credits



Photo courtesy of Principle Power

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The Schatz Energy Research Center at Cal Poly Humboldt advances clean and renewable energy. Our projects aim to reduce climate change and pollution while increasing energy access and resilience. Our work is collaborative and multidisciplinary, and we are grateful to the many partners who together make our efforts possible. Learn more about our work at [schatzcenter.org](https://www.schatzcenter.org)

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Acronyms

BOEM	Bureau of Ocean Energy Management
CBA	Community Benefits Agreement
CBO	Community-based organization
CFR	Code of Federal Regulations
DOI	Department of the Interior
FCP	Fisheries Communication Plan
FDR	Facility Design Report
FSN	Final Sale Notice
JDA	Joint Development Agreement
LAs	Lease areas
OCS	Outer Continental Shelf
PPA	Power Purchase Agreement
PSN	Proposed Sale Notice
WEA	Wind Energy Area

Bureau of Ocean Energy Management's Regulatory Authority

The Energy Policy Act of 2005 authorized the Bureau of Ocean Energy Management (BOEM) to issue leases, easements, and rights-of-way to allow for renewable energy development on the Outer Continental Shelf (Pub. L. 109-58). The Energy Policy Act provided a general framework for BOEM to follow when authorizing these renewable energy activities. For example, the Energy Policy Act requires that BOEM coordinate with relevant federal agencies and affected state and local governments, obtain a fair return for leases and grants issued, and ensure that renewable energy development takes place in a safe and environmentally responsible manner (Bureau of Ocean Energy Management, n.d.).

In 2009, the Department of the Interior (DOI) announced the finalization of regulations governing BOEM's Outer Continental Shelf Renewable Energy Plan. These regulations provide a detailed structure to govern how BOEM manages its Renewable Energy Program, ensure that BOEM meets its statutory obligations, and provide both certainty and flexibility overseeing the country's emerging offshore wind renewable energy industry (BOEM, n.d.). As seen in Table 1, BOEM's Renewable Energy Program occurs in four phases: planning and analysis, leasing, site assessment, and construction and operations.

Table 1 BOEM's regulatory roadmap outlines four phases for offshore wind lease and development on the Outer Continental Shelf. The agency notes that timeframes depicted are only estimates of best-case scenarios and that the Planning and Analysis phase often takes longer. (For additional details, see BOEM.gov.)

Planning and Analysis	Leasing	Site Assessment	Construction and Operations
~ 2 years	~ 1-2 years	Up to 5 years	~ 2 years (+25)
Intergovernmental Task Force Created	Publish Leasing Notices	Site Characterization	Construction and Operations Plan
Request for Information or Call for Information and Nominations	Conduct Auction or Negotiate Lease Terms	Site Assessment Plan	Facility Design Report and Fabrication and Installation Report
Area Identification	Issue Lease(s)		Decommissioning
Environmental Reviews			Environmental Review and Technical Reviews

General Provisions

BOEM operates the multi-phase process in accordance with 30 Code of Federal Regulations (C.F.R.) §585 (Renewable Energy and Alternative Uses of Existing Facilities on the Outer Continental Shelf). BOEM's authority is established in 30 C.F.R. §585.100(a) to regulate activities that, "produce or support production, transportation, or transmission of energy from sources other than oil and gas." Broad responsibilities for BOEM related to renewable energy development on the Outer Continental Shelf (OCS) include ensuring activities authorized (such as offshore energy commercial leases) are executed in a manner that provides for, but are not limited to: safety, protection of the environment, prevention of waste, conservation of natural resources on the Outer Continental Shelf, coordination with relevant Federal agencies, and a fair return to the United States (30 C.F.R. §585.102).

Issuance of Outer Continental Shelf Renewable Energy Leases

General Lease Information

Once BOEM issues a lease, the lessee then has the right – after obtaining all required permits – to occupy, install, and operate facilities on a designated portion of the Outer Continental Shelf (OCS) to conduct “limited activities that support, result from, or relate to the production of energy from a renewable energy source” (30 C.F.R. § 585.200(a)(2)). Additionally, the lessee is granted the right to “one or more project easements without further competition for the purpose of installing gathering, transmission, and distribution cables; pipelines; and appurtenances on the Outer Continental Shelf as necessary for the full enjoyment of the lease” (30 C.F.R. § 585.200(b)).

Competitive Lease Process

For each competitive lease sale, BOEM will publish a proposed sale notice (PSN) and a final sale notice (FSN) in the Federal Register. The proposed sale notice will include a request for public comments, (historically, a 60-day comment period has been given) that will be considered in developing the final lease sale terms and conditions. The final lease sale terms and conditions determined by BOEM will be published in the final sale notice. Information published in the proposed sale notice and final sale notice includes, but is not limited to, the area available for leasing, lease size, lease term, auction type, auction procedures, the official BOEM lease form to be used, and the criteria that BOEM will use to evaluate competitive bids (30 C.F.R. § 585.216).

Competitive Lease Auction Type and Bidding Process

BOEM has two categories for Outer Continental Shelf renewable energy leases, noncompetitive and competitive. An unsolicited request for a noncompetitive lease will only be considered by BOEM if 1) the proposed lease area is not included in an area of the Outer Continental Shelf already scheduled for a lease sale *and* 2) no competitive interest exists after BOEM issues a public notice in the Federal Register and evaluates all public comment responses (30 C.F.R. § 585.231(a)(b)). In all other instances, BOEM will hold a competitive auction for Outer

Continental Shelf renewable energy leases scheduled for a lease sale. Competitive lease sale auctions to award an Outer Continental Shelf renewable energy lease, such as offshore wind energy areas (WEA), will use one of four auction formats, as determined through and specified in the proposed sale notice and final sale notice. These four auction formats are: sealed bidding, ascending bidding, two-stage bidding (a combination of sealed and ascending bidding), and multiple-factor bidding (30 C.F.R. § 585.220(a)).

Of the four auction types, the only one to consider bid variables other than a cash bonus or an operating fee rate is the multiple-factor bidding auction. Multiple-factor bidding auction variables include, but are not limited to, “technical merit, timeliness, financing and economics, environmental considerations, public benefits, compatibility with State and local needs, cash bonus, rental rate, and an operating fee rate” (30 C.F.R. § 585.220(a)(4)). If a multiple-factor bidding auction is identified in the proposed sale notice and/or final sale notice, BOEM will utilize a multiple-factor approach that combines nonmonetary and monetary bidding factors (30 C.F.R. § 585.221(a)(6)). The factors, or variables, considered in the lease sale will be defined in the resulting final sale notice.

Nonmonetary Packages, Credits, and Factors

By using this multiple-factor bidding system, BOEM is afforded some flexibility in administering the auction and will consider a combination of monetary and nonmonetary factors, or variables, to balance and determine the outcome of the auction. Eligible bidders (already qualified earlier in the process and given an identifying Company Number to be used in the bidding process) are given deadlines and milestones of the auction process from publication of the final sale notice to execution of a lease area sale. Of these deadlines and milestones, this report will focus on the Nonmonetary Package, which bidders are to submit prior to the mock auction if they are applying for a credit. A three-person panel of BOEM employees will review the nonmonetary package submissions, determine if the bidder has earned a nonmonetary credit to be used during the auction, and state the percentage of the monetary bid the credit will be worth.

A nonmonetary credit and a cash bid are the two variables that comprise a multi-factor bid (79 Fed. Reg. 70545). A nonmonetary credit has previously been awarded for a joint development agreement (JDA), a community benefits agreement (CBA), and/or a power purchase agreement (PPA). To meet the asking price during a live multiple-factor auction, a multiple-factor bid would consist of the sum of a cash portion and any credit portion that the bidder has earned. The

credit portion will be applied throughout the auction rounds as a form of “imputed payment against the asking price for the highest priced lease area in a bidder’s multiple-factor bid. This credit serves to supplement the amount of a cash bid proposal made by a particular bidder in each round.” (79 Fed. Reg. 70545).

Prior to the auction, the BOEM panel will evaluate the nonmonetary package submitted by the bidder based on the criteria set forth by the final sale notice. If the nonmonetary package contains a community benefits agreement, the community benefits agreement document and a description of how it meets the requirements outlined in the final sale notice (see Case Studies) must be submitted to the panel by the date specified in the final sale notice. If the panel determines bidders have provided sufficient documentation to satisfy the community benefits agreement, they are then qualified to receive the percentage credit stated in the final sale notice. Details of the panel’s determination of eligibility will be sent to BOEM, who will inform bidders individually via email if they qualify for a nonmonetary credit.

Conclusions

BOEM has the authority to offer wind energy area (WEA) leases on the Outer Continental Shelf to financially qualified bidders. Within this framework, BOEM has the authority to alter the commercial lease boundaries within each wind energy area, the auction format, the nonmonetary credit factors, the credit amount (or discount) associated with nonmonetary credit factors, and to include new and/or modified lease stipulations prior to the publication of the final sale notice. BOEM has predominantly used a multiple-factor auction format for offshore wind lease sales, as can be seen in Appendix A (Chronology of BOEM Offshore Wind Leases).

Of the fourteen offshore wind lease processes that BOEM has managed to date, three were noncompetitive (two of which were research leases), and eight of the eleven competitive auctions have involved multi-factor bidding criteria – including, most recently, the California lease auction held in December 2022. BOEM asks for input from stakeholders via public comments when considering making changes from the proposed sale notice to the binding publication of the final sale notice. BOEM is receptive to comments received in response to the proposed sale notice and publishes their official *Response to Comments* documentation on their website. BOEM has shown flexibility in its lease offerings and has been responsive to the evolving offshore wind industry, applicable federal and state policies, stakeholder engagement,

and domestic supply chain needs to support the robust development and deployment of U.S. offshore wind capacity.

Case Studies

As stated, BOEM has the authority to change several aspects of an upcoming offshore wind competitive lease sale prior to the publication of the final sale notice. The following case studies provide examples of the alterations of nonmonetary credits related to community benefit agreements and stakeholder engagement that have occurred between the proposed sale notice and release of the final sale notice. In the Massachusetts (ATLW4) case study, nonmonetary credits related to community benefits agreements were increased between the proposed sale notice and the final sale notice. In the Massachusetts (ATLW-4A) case study, a nonmonetary credit for a community benefits agreement was offered in the proposed sale notice then omitted from the final sale notice. In the Carolina Long Bay (ATLW-9) case study, a new stakeholder engagement lease stipulation was utilized in lieu of a nonmonetary credit for a community benefits agreement. Lastly, in the California (PACW-1) case study, nonmonetary credits related to a proposed community benefit agreement were increased, and an additional nonmonetary credit was offered for an alternative community benefit agreement that was added between the proposed sale notice and the final sale notice.

Massachusetts (ATLW4)

At the BOEM Massachusetts Renewable Energy Task Force webinar held on January 16, 2014, a public session was held following an intergovernmental session. The task force had specifically requested feedback on the number and configuration of lease areas for inclusion in the proposed sale notice, rent price, lease terms, operating fee rate, and the multiple factor auction format with possibility of an inclusion of additional nonmonetary factors such as a community benefits agreement (BOEM, 2014). Here a community benefits agreement was defined as a “Legally binding contract between a bidder and one or more community-based organizations (CBO) where the bidder has committed to provide specified community benefits and the CBO has committed in specific ways to support the project in the governmental approval process.” (BOEM, 2014).

In the 2014 ATW4 Outer Continental Shelf Offshore Massachusetts proposed sale notice (79 Fed. Reg. 34771), published June 18, 2014, BOEM proposed a 5% credit for a nonmonetary package utilizing a community benefits agreement. BOEM supported its decision to include a community benefits agreement (CBA) and its credit percentage in the following manner:

“BOEM is proposing this non-monetary factor and credit in response to comments requesting CBAs be recognized in the multiple-factor auction format received in response to notices associated with the Massachusetts planning and environmental review process. BOEM received comments recommending that a non-monetary factor for CBAs be given a larger percent credit than 5%. BOEM, however, believes that the 5% credit fairly represents the value associated with CBAs that meet the criteria described in this notice. In particular, these criteria, while recognizing the contribution a CBA may provide to the ultimate success of a project, may not require substantial financial consideration in support of the project. For this reason, BOEM has not proposed a larger percentage credit for this non-monetary factor.” (79 Fed. Reg. 34771)

However, in the Outer Continental Shelf Offshore Massachusetts final sale notice, published November 26, 2014, BOEM increased their community benefits agreement credit factor to 10%. No explicit justification for the increase was mentioned, but this nevertheless suggests that BOEM is responsive to public comments resulting from the proposed sale notice. BOEM received 25 public comments in response to the Massachusetts proposed sale notice, 9 of which mention the community benefits agreement, and 5 of which request the community benefits agreement credit be raised from 5% to 20%. Of note is a public comment from the Martha’s Vineyard representatives of the BOEM Massachusetts Task Force who noted that the 5% community benefits agreement credit does not sufficiently account for the benefits it would afford to the local community, fails to sufficiently recognize the value it adds to BOEM by enhancing the validity of an eligible bidder, and notes that BOEM has previously afforded a 20% nonmonetary credit to bidders with a joint development agreement. Given that a 20% joint development agreement credit was granted by BOEM in the previous Outer Continental Shelf Cape Wind auction, as noted in this public comment from task force members, they questioned BOEM’s presumptive evaluation that a community benefits agreement only increases a project’s success by a fraction of what a joint development agreement would (Pimentel, 2014).

No other rates, lease factors, or credit factors (monetary or nonmonetary) were altered from the Massachusetts proposed sale notice to the final sale notice. The Massachusetts proposed sale notice and the final sale notice, verbatim, state that for a nonmonetary package to qualify for the credit in this auction utilizing a community benefits agreement, the panel must be able to answer yes to the following questions:

1. Is there a legally binding contract?
2. Is the contract between:
 - a. A bidder; and
 - b. One of more community-based organizations (CBO)?
3. Has the bidder committed to provide specified community benefits?
4. Has the CBO committed in specific ways to support the project in the governmental approval process?

A community-based organization is defined in the final sale notice as, “A legally incorporated organization whose membership includes residents or property owners of a community within the potentially affected region, the local government of the community, or an entity created or managed by the local government(s) of the community or communities” (79 Fed. Reg. 70545).

It does not appear that the depth or quality of a community benefits agreement (CBA) is considered, only that the above checklist is satisfied, to qualify for the community benefits agreement nonmonetary credit. It is also worth highlighting that the other nonmonetary credit in the Massachusetts final sale notice was a power purchase agreement which has a credit factor of up to 25%. A full power purchase agreement (PPA) of 250 MW would be eligible for the entire 25% credit. If a bidder had a power purchase agreement for an amount less than 250 MW, they would be eligible for a nonmonetary credit proportional to the agreement’s fraction of 250 MW. The final sale notice also states that a bidder’s overall credit percentage is “limited to the greater of 10% for a CBA or up to 25% for a PPA” (79 Fed. Reg. 70545). The implication from BOEM that a power purchase agreement has greater value and therefore grants the bidder a (potentially) significantly larger credit from a power purchase agreement than a community benefits agreement disincentivizes developers from pursuing a community benefits agreement despite the benefits they afford to local communities.

Massachusetts (ATLW-4A)

Following the 2014 Massachusetts proposed sale notice (PSN) and final sale notice (FSN) previously discussed, the two unsold lease sites from the 2014 Massachusetts lease auction (ATLW4) were included in a new 2018 lease auction: Atlantic Wind Lease Sale 4A (ATLW-4A) Commercial Leasing for Wind Power on the Outer Continental Shelf Offshore Massachusetts. The proposed sale notice included the *potential* for a nonmonetary credit of 5% to be given for a qualified community benefits agreement. However, BOEM welcomed public comment input as to whether this offering was still appropriate and if there should be a cap on the value of the credit (83 Fed. Reg. 15618). On October 10, 2018 BOEM published their *Response to Comments* where they address the comments received and their use of nonmonetary bidding credits for a community benefits agreement (CBA). In response to public comments received regarding CBAs BOEM said,

“Several New England states have recently established aggressive clean energy procurement goals and moved forward with corresponding long-term power purchase opportunities, which have advanced the market for offshore wind energy in New England. As such, BOEM has determined that non-monetary credits (including the CBA identified in the PSN and variations of it) are not necessary to ensure the success of this upcoming auction and the future development of the WEA. BOEM will utilize an ascending bidding auction format for ATLW-4A instead of the multiple-factor format proposed in the PSN. Non-monetary bidding credits will not be implemented in the auction format for this lease sale. This decision was informed through the comments received on the PSN, the increased competitive nature of BOEM’s recent offshore wind lease sales (ATLW-6 and 7), and the aforementioned recent advancements in the maturity of the US offshore wind market since BOEM’s initial lease sales.”

(Anderson, 2018, p. 3)

This BOEM commentary explains their pivot away from offering a nonmonetary credit for a valid community benefits agreement, at the lease stage, for developers wishing to compete in competitive lease auction sales. Since the 2018 ATLW-4A Massachusetts proposed sale notice, BOEM has not included a community benefits agreement as a nonmonetary credit factor in its subsequent East Coast multiple-factor lease auctions: ATLW-8 New York Bight and ATLW-9 Carolina Long Bay.

Carolina Long Bay (ATLW-9)

The Atlantic Wind Lease Sale 9 (ATLW-9) for Commercial Leasing for Wind Power on the Outer Continental Shelf in the Carolina Long Bay Area final sale notice (87 Fed. Reg. 17324) was published on March 28, 2022 and the lease auction was held on May 11, 2022. The lease auction utilized a multiple-factor auction format that included lease stipulations, and a nonmonetary credit of up to 20% was given for committing to local workforce training or domestic supply chain development. New lease stipulations included in the Carolina Long Bay lease auction include reporting requirements for stakeholder engagement, transmission planning to minimize conflicts, bird and bat tracking stations, project labor agreements and supply chain goals, surface structure layout designs with orientation boundaries, and Endangered Species Act programmatic consultations. A nonmonetary credit for a community benefit agreement was not included in this lease auction.

Of interest to this report are the lease stipulations related to stakeholder engagement reporting requirements. The reporting requirements require semi-annual progress reports in which lessees first identify Tribal nations and other parties (e.g. ocean users, underserved communities, agencies, and other stakeholders) potentially affected by the proposed activities. The semi-annual progress reports will then provide BOEM with updates on subsequent engagement activities, impacts on or benefits to Tribal nations and other parties due to the proposed activities, and how, if at all, a project proposal has been informed or altered to address those impacts or benefits, as well as any planned engagement activities during the next reporting period. The semi-annual progress reports also require the development and execution of a Fisheries Communication Plan (FCP), Native American Tribes Communication Plan, and an Agency Communication Plan that will guide the lessee's engagement activities with each of these important stakeholder groups (87 Fed. Reg. 17324). These reporting requirements appear to be BOEM's attempt at requiring lessees to engage early and often with stakeholders throughout the site assessment and construction and operations phases that follow the lease auction. However, bidders were not offered the financial incentive carrot of a nonmonetary credit during the lease auction in exchange for compliance with the lease stipulations as has been the case with a community benefit agreement.

California (PACW-1)

The most recent BOEM lease auction was the Pacific Wind Lease Sale 1 (PACW-1) for Commercial Leasing for Wind Power on the Outer Continental Shelf in California, which included the (Northern California) Humboldt Wind Energy Area and the (Central California) Morro Bay Wind Energy Area. The California proposed sale notice (87 Fed. Reg. 32443) was published on May 31, 2022. The proposed sale notice included two nonmonetary credits: the same local workforce training and domestic supply chain development nonmonetary credit from the Carolina Long Bay (ATLW-9) final sale notice, and a 2.5% nonmonetary credit for a “lease area use” (e.g. fishermen and other ocean users) community benefit agreement. Additionally, the same semi-annual progress report lease stipulations were carried over from the Carolina Long Bay final sale notice. In addition to the proposed nonmonetary credits and lease stipulations, BOEM noted in the California proposed sale notice it was exploring its regulatory authority to offer an additional bidding credit for a second community benefit agreement for stakeholders outside the scope of the lease area use community benefit agreement. Furthermore, BOEM asked for input via public comment related to several aspects of community benefit agreements such as methods of evaluation, documentation, enforcement, execution, publication, effectiveness, and fund distribution methods.

BOEM received over 80 public comments in response to the California proposed sale notice. The California final sale notice (87 Fed. Reg. 64093) was published on October 21, 2022. In a memo from the BOEM Regional Director of the Pacific Region, Douglas Boren, to the BOEM Director, Amanda Lefton, it was recommended that both the lease area use and general community benefit agreement bidding credits be increased up to a 5% credit of the monetary bid (BOEM, 2022). Boren suggested the increase,

“...in response to comments on the PSN stating that 2.5 percent was too low to incentivize developers to invest time and resources into developing authentic collaborative efforts with groups who will be impacted by lease development. In its comments on the PSN, the State of California commented that BOEM should create a strong incentive for bidders to propose robust concepts going into the lease auction that result in meaningful investments into these community benefit agreements.” (BOEM, 2022, p. 15)

In addition to public comments, BOEM evaluated the California Coastal Commission's recent conditional concurrence (with BOEM's consistency determination) which included the need to address benefits to potentially impacted communities and Tribal entities. BOEM determined that the nonmonetary credits in the final sale notice satisfy the Coastal Commission's conditions (BOEM, 2022).

The California final sale notice is unique not only for the addition of a second community benefit agreement but because this represents the first time BOEM has offered an aggregate of nonmonetary credits in excess of 25%. Qualified bidders in the California lease auction were able to combine all three nonmonetary credits offered in the final sale notice (the 20% workforce development and supply chain credit, the 5% lease area use community benefit agreement, and the 5% general community benefit agreement) for a 30% credit on top of their cash bids. Historically, BOEM has adhered to the practice among Federal agencies that discounts in federal auctions should be less than 25% (BOEM, 2022). California's aggregate 30% nonmonetary credit represents a positive shift in BOEM's prioritization of stakeholder needs in relation to their mandate to ensure a fair return to the United States. One tradeoff for the California community benefit agreements was that, prior to the lease auction, bidders had to submit only conceptual strategies for executing these agreements. Lessees do not have to provide documentation of their full contributions or successful execution of the community benefit agreements until their project's Facility Design Report (FDR) is submitted to BOEM (see Table 1), several years from the lease auction (BOEM, 2022).

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Lease Auction Name	Document	Date	Federal Register (FR) Number	Auction Type	Nonmonetary Credit Factors / Lease Stipulations / Recommendations	Proposed Sale Notice (PSN) Credit Percentage	Final Sale Notice (FSN) Credit Percentage	Commercial Lease(s) Included in Auction	Commercial Lessee or Project Name
Key: RFI = Request for Interest RFCl = Request for Competitive Interest DNCl = Determination of No Competitive Interest PSN = Proposed Sale Notice FSN = Final Sales Notice OCS = Outer Continental Shelf									
Commercial Leasing for Wind Power on the Outer Continental Shelf Offshore Delaware	RFI	April 26, 2010	75 FR 21653	Noncompetitive				OCS-A 0519	Skipjack Wind
	RFCl	January 26, 2011	76 FR 4716					OCS-A 0482	Garden State Offshore Energy (GSOE)
	DNCl	April 12, 2011	76 FR 20367						
Atlantic Wind Lease Sale 1 (ATLW1) Commercial Leasing for Wind Power on the Outer Continental Shelf Offshore Virginia	PSN	December 3, 2012	77 FR 71621	Ascending clock auction format				OCS-A-0483	Dominion Energy (Virginia Electric and Power Company)
	FSN	July 23, 2013	78 FR 44150	Ascending clock auction format					
Atlantic Wind Lease Sale 2 (ATLW2) Commercial Leasing for Wind Power on the Outer Continental Shelf Offshore Rhode Island and Massachusetts	PSN	December 3, 2012	77 FR 71612	Multiple-factor auction format with a multiple-factor bidding system	Joint Development Agreement (JDA)	15%		OCS-A 0517	Deepwater Wind South Fork
					Power Purchase Agreement (PPA)	25%			
	FSN	June 5, 2013	78 FR 33898	Multiple-factor auction format with a multiple-factor bidding system	Joint Development Agreement (JDA)		20%	OCS-A 0486	DWW Rev I
					Power Purchase Agreement (PPA)		(up to) 25%	OCS-A 0487	Deepwater Wind New England
Outer Continental Shelf Wind Energy <u>Research Lease</u> Offshore Virginia	RFCl	July 30, 2013	78 FR 45965	Noncompetitive				OCS-A 0497	Dominion Energy (Virginia Electric and Power Company)
	DNCl	December 9, 2013	78 FR 73882						
Atlantic Wind Lease Sale 3 (ATLW3) Commercial Leasing for Wind Power on the Outer Continental Shelf Offshore Maryland	PSN	December 18, 2013	78 FR 76643	Multiple-factor auction format with a multiple-factor bidding system	Power Purchase Agreement (PPA)	(up to) 25%		OCS-A 0489	US Wind Inc.
					Maryland Public Service Commission (PSC) issued Offshore Renewable Energy Credit (OREC)	25% (greater of the two)			
	FSN	July 3, 2014	79 FR 38060	Multiple-factor auction format with a multiple-factor bidding system	Power Purchase Agreement (PPA)		(up to) 25%	OCS-A 0490	
					Maryland Public Service Commission (PSC) issued Offshore Renewable Energy Credit (OREC)		25% (greater of the two)		
Marine Hydrokinetic (MHK) <u>Research Lease</u> on the Outer Continental Shelf Offshore Oregon	RFCl	March 24, 2014	79 FR 16050	Noncompetitive				OCS-P 0560	PacWave South (Oregon State University)
	DNCl	June 20, 2014	79 FR 35377						
Atlantic Wind Lease Sale 4 (ATLW4) Commercial Leasing for Wind Power on the Outer Continental Shelf Offshore Massachusetts	PSN	June 17, 2014	79 FR 34771	Multiple-factor auction format with a multiple-factor bidding system	Community Benefit Agreement (CBA)	5%		OCS-A 0500	Bay State Wind
					Power Purchase Agreement (PPA)	(up to) 25%			OCS-A 0501
	FSN	November 26, 2014	79 FR 70545	Multiple-factor auction format with a multiple-factor bidding system	Community Benefit Agreement (CBA)		10%	OCS-A 0502	
					Power Purchase Agreement (PPA)		(up to) 25%	OCS-A 0503	
Atlantic Wind Lease Sale 5 (ATLW5) for Commercial Leasing for Wind Power on the Outer Continental Shelf Offshore New Jersey	PSN	July 21, 2014	79 FR 42361	Multiple-factor auction format with a multiple-factor bidding system	New Jersey Offshore Wind Renewable Energy Certificate (OREC) Order	(up to) 25%		OCS-A 0498	RES America Developments Inc.
					Power Purchase Agreement (PPA)	25% (for at least 250 MW)			
	FSN	September 25, 2015	80 FR 57862	Multiple-factor auction format with a multiple-factor bidding system	New Jersey Offshore Wind Renewable Energy Certificate (OREC) Order		25%	OCS-A 0499	US Wind Inc.
					Power Purchase Agreement (PPA)		(up to) 25%	OCS-A 0530	Sunrise Wind
Atlantic Wind Lease Sale 6 (ATLW-6) for Commercial Leasing for Wind Power on the Outer Continental Shelf Offshore New York	PSN	June 6, 2016	81 FR 36336	Ascending format with cash as the bid variable	BOEM recommends that lessees facilitate cooperation with the fishing industry by utilizing a fisheries liaison and fisheries representative during the development of their plans			OCS-A 0512	Statoil Wind US
	FSN	October 31, 2016	81 FR 75429	Multiple-factor auction format, with a multiple-factor bidding system	Government Authorities		10%		
Atlantic Wind Lease Sale 7 (ATLW-7) for Commercial Leasing for Wind Power on the Outer Continental Shelf Offshore North Carolina (Kitty Hawk)	PSN	August 16, 2016	81 FR 54591	Ascending bidding auction with cash as the bid variable				OCS-A 0508	Avangrid Renewables
	FSN	January 18, 2017	82 FR 5600						

Chronology of BOEM Offshore Wind Leases

Lease Auction Name	Document	Date	Federal Register (FR) Number	Auction Type	Nonmonetary Credit Factors / Lease Stipulations / Recommendations	Proposed Sale Notice (PSN) Credit Percentage	Final Sale Notice (FSN) Credit Percentage	Commercial Lease(s) Included in Auction	Commercial Lessee or Project Name
Key: RFI = Request for Interest RFCI = Request for Competitive Interest DNCI = Determination of No Competitive Interest PSN = Proposed Sale Notice FSN = Final Sales Notice OCS = Outer Continental Shelf									
Atlantic Wind Lease Sale 4A (ATLW-4A) Commercial Leasing for Wind Power on the Outer Continental Shelf Offshore Massachusetts	PSN	April 11, 2018	83 FR 15618	Multiple-factor auction format, with a multiple-factor bidding system	Community Benefits Agreement (CBA)	5%		OCS-A 0520	Equinor Wind
	FSN	October 19, 2018	83 FR 53089	Ascending bidding auction with cash as the bid variable	Government Authorities		10%	OCS-A 0521 OCS-A 0522	Mayflower Wind Energy Vineyard Wind
Atlantic Wind Lease Sale 8 (ATLW-8) for Commercial Leasing for Wind Power on the Outer Continental Shelf in the New York Bight	PSN	June 14, 2021	86 FR 31524	Ascending bidding auction with cash as the bid variable	Auction credits or credits towards rent and operating fee obligations for investment in the categories of workforce training and development, contracting with and supporting the development of minority- and women-owned businesses, or programs that promote and deliver environmental justice	not specified		OCS-A 0537 OCS-A 0538	OW Ocean Winds East Attentive Energy
	FSN	January 14, 2022	87 FR 2446	Ascending bidding auction with cash as the bid variable	Semi-Annual Progress Report stipulation requires the development of communication plans for fisheries (Fisheries Communication Plan (FCP)), Tribes (Native American Tribes Communication Plan), and agencies (Agency Communication Plan)		N/A	OCS-A 0539	Community Offshore Wind
					Project Labor Agreements and Supply Chain stipulations to encourage union-built projects and contributions towards establishing a domestic supply chain		2% fee rate for the entire life of commercial operations	OCS-A 0541	Atlantic Shores Offshore Wind Bight
					Should the lessee satisfy the terms of the stipulation by meaningfully and substantially assembling or manufacturing major components in the United States they may be eligible		1% discount on operating fee for the period of five years	OCS-A 0542	Invenergy Wind Offshore
				Lease requirement for Project Design Criteria (PDC) and best management practices (BMPs) associated with the mitigation, monitoring, and reporting conditions for reducing noise exposure, vessel interaction, and entanglement with protected species		N/A	OCS-A 0544	Vineyard Mid-Atlantic	
Atlantic Wind Lease Sale 9 (ATLW-9) for Commercial Leasing for Wind Power on the Outer Continental Shelf in the Carolina Long Bay Area	PSN	November 1, 2021	86 FR 60274	Multiple-factor auction format, with a multiple-factor bidding system	Financial commitments (at least 80% of the bidding credit value) towards a workforce training program or to development of a domestic supply chain	(up to) 20%		OCS-A 0545	TotalEnergies Renewables
					Semi-Annual Progress Report stipulation requires the development of communication plans for fisheries (Fisheries Communication Plan (FCP)), Tribal Nations (Native American Tribes Communication Plan), and agencies (Agency Communication Plan)	N/A			
	FSN	March 28, 2022	87 FR 17324	Multiple-factor auction format, with a multiple-factor bidding system	Financial commitments (at least 80% of the bidding credit value) towards a workforce training programs for the offshore wind industry, development of a U.S. domestic supply chain for the offshore wind energy industry, or both		(up to) 20%	OCS-A 0546	Duke Energy Renewables Wind
					Semi-Annual Progress Report stipulation requires the development of communication plans for fisheries (Fisheries Communication Plan (FCP)), Tribal Nations (Native American Tribes Communication Plan), and agencies (Agency Communication Plan)		N/A		
Pacific Wind Lease Sale 1 (PACW-1) for Commercial Leasing for Wind Power on the Outer Continental Shelf in California	PSN	May 31, 2022	87 FR 32443	Multiple-factor auction format, with a multiple-factor bidding system	Financial commitments (at least 80% of the bidding credit value) towards a workforce training programs for the offshore wind industry, development of a U.S. domestic supply chain for the offshore wind energy industry, or both	20%		OCS-P 0561	RWE Offshore Wind Holdings
					Lease Area Use (fishermen and other ocean users) Community Benefit Agreement (CBA)	2.50%			
					Semi-Annual Progress Report stipulation requires the development of communication plans for fisheries (Fisheries Communication Plan (FCP)), Tribes (Native American Tribes Communication Plan), and agencies (Agency Communication Plan)	N/A		OCS-P 0562	California North Floating
	FSN	October 21, 2022	87 FR 64093	Multiple-factor auction format, with a multiple-factor bidding system	Financial commitments (100% of the bidding credit value) towards a workforce training programs for the floating offshore wind industry, development of a U.S. domestic supply chain for the floating offshore wind energy industry, or both		20%	OCS-P 0563	Equinor Wind US
Lease Area Use (fishermen and other ocean users) Community Benefit Agreement (CBA)						5%	OCS-P 0564	Central California Offshore Wind	
General Community Benefit Agreement (CBA)						5%			
				Semi-Annual Progress Report stipulation requires the development of communication plans for fisheries (Fisheries Communication Plan (FCP)), Tribes (Native American Tribes Communication Plan), and agencies (Agency Communication Plan)		N/A	OCS-P 0565	Invenergy California Offshore	