

Renewable Energy Modernization Rule

Key Considerations for Final Rule

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Introduction

- Long history of delivering major offshore energy projects, including 65 years on the OCS
- 20 years experience in wind power generation, with significant offshore wind capacity in operation, under construction, or in the global pipeline
- Developing one of the largest U.S. offshore wind portfolios on the OCS

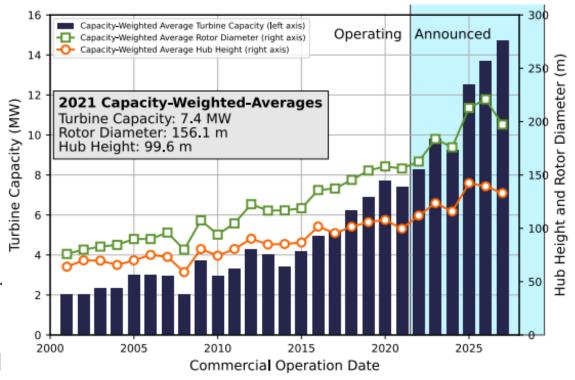




- Committed partner in safe and environmentally sound offshore renewable energy production
- Appreciate BOEM and BSEE's efforts and the opportunity to offer recommendations

Project Design Envelope

- Approval of a range of design, construction, and operation parameters allows lessees to make appropriate site-specific design and engineering decisions following plan approval.
- Project complexity, rapid technological advancements, and resourcing constraints demand flexibility.
 - Average turbine capacity installed in 2021 was 7.4 MW, compared to 3.3 MW in 2011. Manufacturers developing 15-MW-class turbines for deployment soon.
 - Inflexibility can negatively impact project economics
 - Locking in a turbine layout early can result in suboptimal energy generation, foreclosing millions of dollars' worth of energy generation. Better to establish layout at later stages, once surveys are done and type of turbine has been selected.
 - > PDE helps projects respond to supply chain shifts and meet local content requirements, complementing BOEM's efforts to support workforce and domestic supply chain development.



Source: U.S. Dept. of Energy "Offshore Wind Market Report: 2022 Edition"

Project Design Envelope

JV permitting experience demonstrates challenges in implementation of PDE.

USACE requested selection of one onshore cable route for Sec. 10/404 permit, despite COP/EIS PDE including multiple onshore cable route options

USFWS has suggested refinement of min and max air gap parameters to facilitate Biological Opinion

Inquiries regarding PDE narrowing (e.g., ports, foundation types) effectively encourage narrowing



Department of Commerce, National Oceanic and Atmospheric Administration



Department of the Army, US Army Corps of Engineers - Regulatory



Department of the Interior, Fish and Wildlife Service



Environmental Protection Agency

- o To ensure that the promise of PDE is realized in OCS renewable energy permitting . . .
 - > Provide guidance on the actual range of parameters that can be managed through the process
 - > Ensure consulting agencies are aligned and prepared to complete their processes with PDE accepted by BOEM
 - Do not use PDE as a tool for crafting NEPA alternatives

Renewable Energy Leasing Schedule

- A stable, forward-looking leasing schedule will create planning certainty, facilitate supply-chain buildout, and
 ultimately lead to more deliberate development of OCS renewable energy.
- Recommendations for Final Rule
 - > The leasing schedule should be updated annually (or more frequently) rather than once every two years.
 - > To ensure consistency, specify the factors the Secretary will consider in setting the leasing schedule:

Capacity of region or	Federal and State	Needs of regional and	The interest of
	renewable energy goals and mandates	national energy markets	potential developers

- > Require BOEM to solicit and consider public comments before making a significant revision, and require such revisions to be consistent with the factors considered in setting the schedule.
- Utilize PEIS for OCS regions or lease sale areas on the leasing schedule to identify environmental risks and speed up permitting through tiering

Conforming Existing Leases to New Lease Terms

- Shell supports proposed changes to the default lease terms, including:
 - Merging preliminary and site assessment terms into one preliminary period
 - > Establishing variable lease periods for COP review and design and construction
 - Converting existing 25-year operations term to 30-year operations period commencing at COD
- o The final rule should establish a process by which existing leases can be amended to conform to the new terms
 - > New terms better reflect the *permitting, design, construction, and operational realities* faced by developers
 - Fairness to the early lessees who are already progressing OCS renewable energy development
 - > Administrative benefits of implementing a development framework that is *consistent* across leases

Financial Assurance

- Shell opposes the use of joint and several liability and retained liability as a basis for determining the need for financial assurance.
 - > OCS O&G experience illustrates the risk of successors relying on predecessors as implied guarantors and then underfunding critical maintenance, repair, and marginal capital improvement projects.
 - > Financial assurance regime for OCS renewables development should avoid creating any incentives for default and require adequate financial security from each current owner over the life of the lease.
- o Recommendations for orderly and efficient administration in the event of default
 - Agency should first make use of existing financial security before looking to predecessors
 - Require predecessors to be named as beneficiaries on security to facilitate corrective action
 - Enforce decommissioning against liable parties in reverse chronological order

Safety Management Systems & Inspections

- Safety is a top priority across Shell's operations and projects. Shell fully supports agency efforts to ensure OCS renewable energy development is protective of human health and the environment.
- Shell supports the use of industry consensus standards as SMS framework
 - Use of consensus standards has proven effective for offshore oil and gas (SEMS)
 - > Final rule text should more clearly state that a lessee may use relevant national or international standards as applicable throughout its SMS (proposed text not clear on this point)
- Shell supports annual onsite self-inspections, but the scope of self-inspections should be clarified
 - Final rule should detail which safety equipment and other items must be addressed in a selfinspection plan
- Shell encourages the deployment of remote inspections whenever practical in order to reduce emissions and the overall exposure of industry and agency personnel offshore.

