U.S. Offshore Wind Transmission:
Policy and Regulatory Challenges

PRESENTED BY
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Brattle

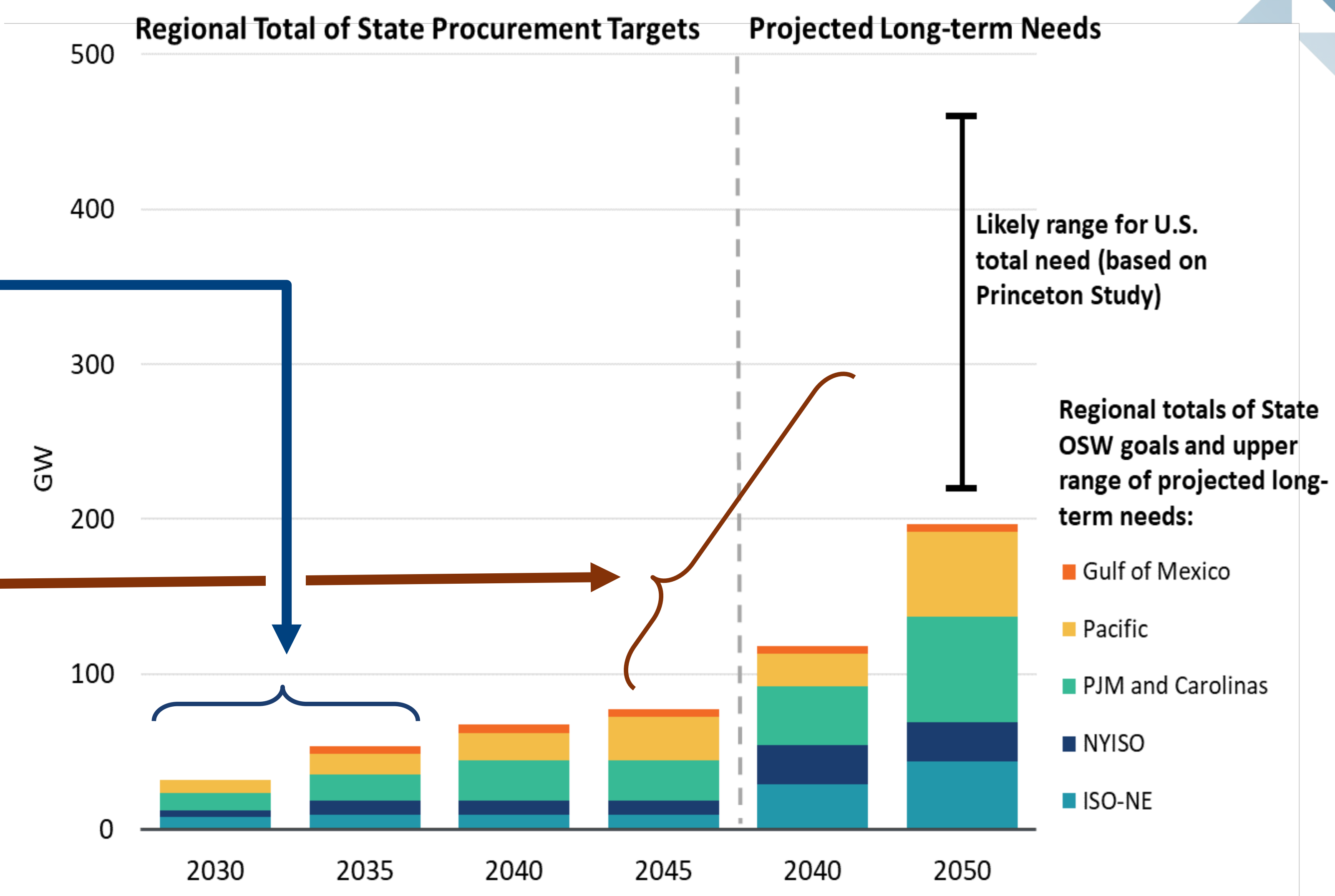
The Urgency of Starting to Plan for OSW Transmission Now

The U.S. needs to urgently plan transmission

1. for 30-50 GW of OSW by 2030-35

while also considering

2. the much higher longer-term needs of 200-450 GW of OSW by 2050



Note: most U.S. OSW generation will need to be delivered to shore; some may be used to produce hydrogen

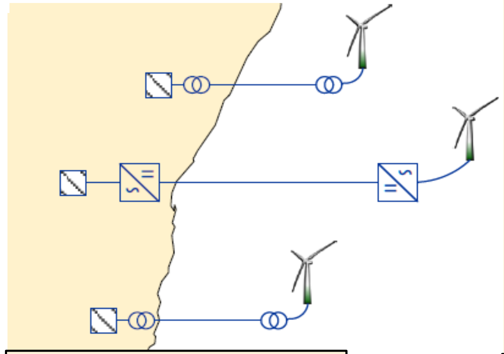
What is Transmission Planning for Offshore Wind?

Transmission planning for OSW generation needs to focus on three elements to reduce total OSW costs and its environmental/community impacts:

1. Where are the best points of interconnection (POIs) for OSW generation that reduce the need for expensive new onshore transmission and upgrades to the existing grid?
2. How can marine cable miles and shoreline impacts be reduced (e.g., high-capacity lines and transmission corridors for cables of multiple OSW plants)?
3. Can submarine cables be networked offshore to reduce costs and reinforce the existing grid

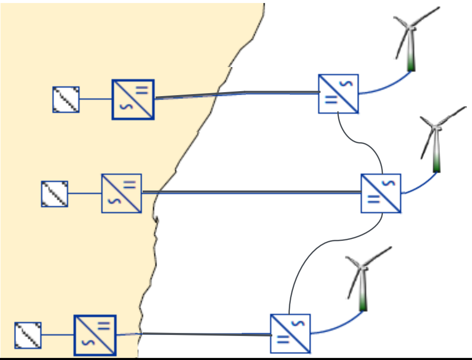
Offshore transmission concepts:

Radial Tie Lines
Transmission links bundled with individual OSW plants



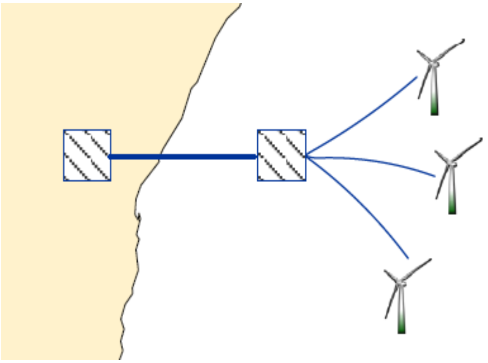
Prevailing approach

Meshed Generation Ties
Individual lines to shore linked through offshore transmission

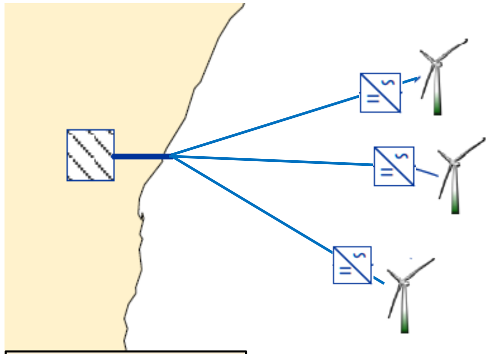


NY/NY "network-ready" req.

Offshore Collector
Planned tie line for multiple OSW plants

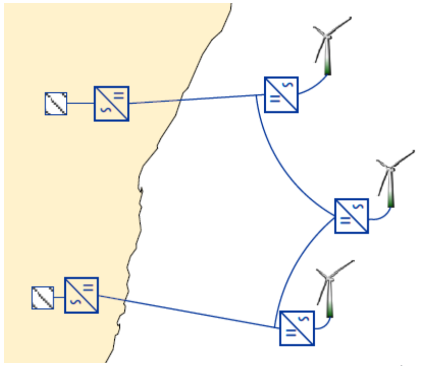


Onshore Collector
Onshore POI and corridor for multiple OSW plants



NJ SAA result

Backbone Offshore Grid
Planned transmission tie lines for multiple OSW plants



The Benefits of Proactively-Planned OSW Transmission

Numerous studies document the benefits of starting proactive planning <u>now</u>

- Choices of POIs, transmission corridors, technology to address 2030 needs will have long-term repercussions, possibly foreclosing attractive options to address longer-term needs

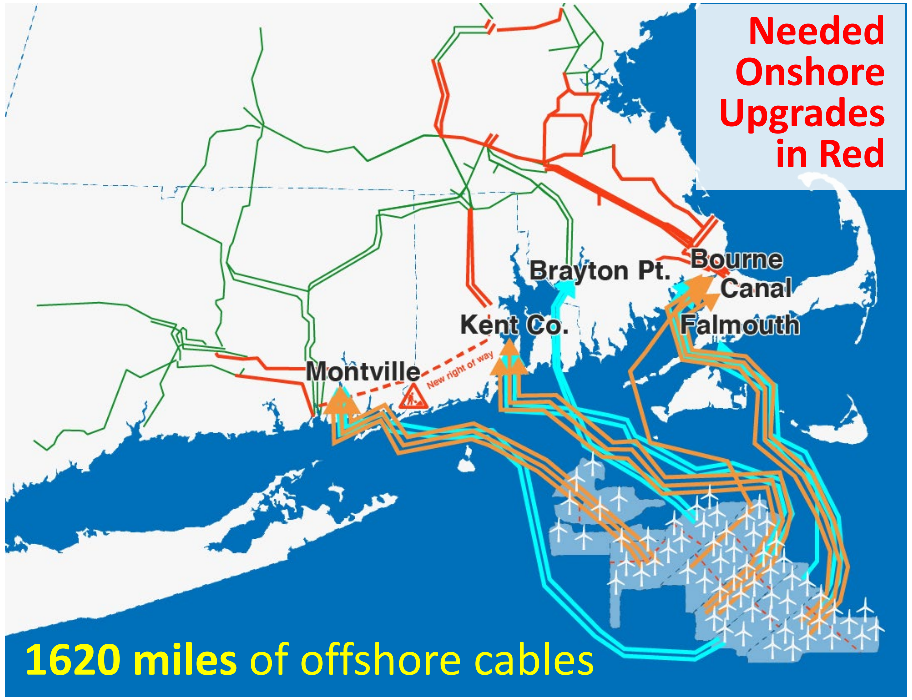
Based on studies and experience (such as in NJ), proactive planning for 100 GW of additional U.S. OSW generation by 2040-50 can:

- Reduce overall transmission costs by at least <u>$20 billion</u>
- Result in <u>60-70% fewer shore crossings</u> and necessary onshore transmission upgrades
- Reduce marine transmission cable installations by <u>50% or approx. 2,000 miles</u>
- Significantly accelerate achievement of OSW development timelines by:
  - Eliminating interconnection and transmission-related delays
  - Reducing project-development and cost-escalation risks
  - Reducing environmental and community impacts
  - Achieving more competitive procurement outcomes
  - Facilitating investments in the local clean energy economy

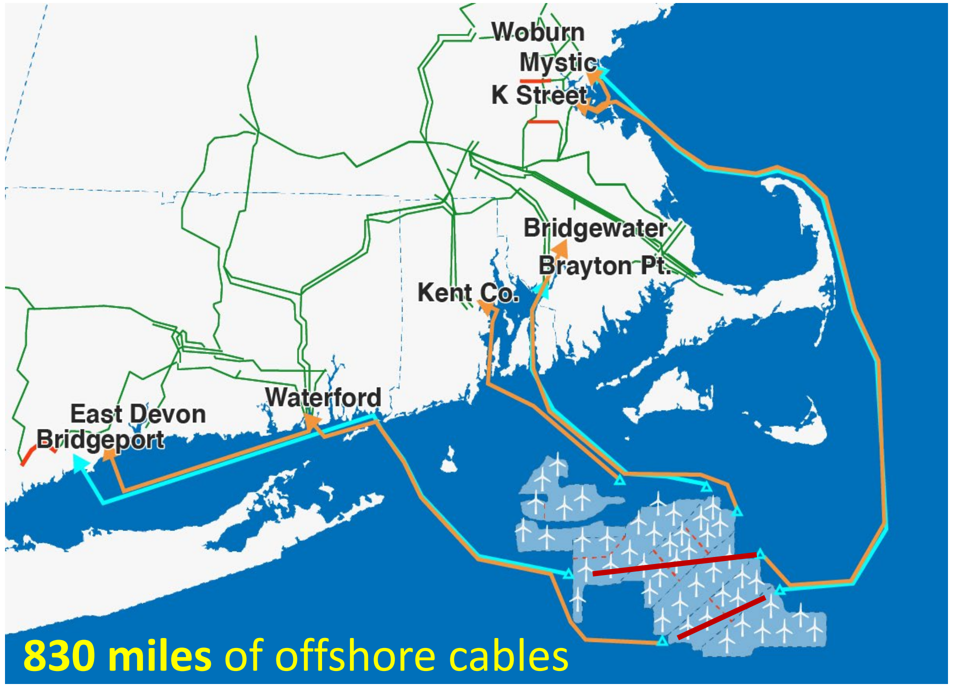
Studies show that delaying the planning effort by just 5 years may reduce these 2050 benefits by half!

Example: Planned Regional Offshore Transmission (for 8,400 MW total OSW in New England)

Plausible AC Gen-Tie Approach



Planned HVDC+POI Approach



1. Higher-capacity HVDC lines: can reach better POIs and **reduce by 50-70% the impacts on existing ocean uses and marine/coastal environments**

2. Proactively-planned POIs: **reduce onshore upgrades by 60-70%** compared to continued reliance on current, incremental generation interconnection process

3. Opportunities for **linking offshore platforms**: to create networks that increase reliability and reinforce the onshore grid

Significant U.S. Policy and Regulatory Challenges

Grid Planning Processes	1. Slow and costly **generator interconnection processes** 2. Siloed **regional grid planning** processes that fail to identify cost-effective solutions for multiple needs 3. The absence of effective planning processes for **interregional transmission**.
Regulations, Contracts, & Operations	4. Uncertain federal **investment tax credits** for offshore wind delivery facilities 5. Undefined **regulatory and contractual frameworks** for the shared and networked offshore transmission 6. **Grid operations** not yet capable to optimize use of HVDC links 7. Unclear **BOEM permitting** for unbundled offshore transmission 8. **Uncoordinated processes** for lease-area auctions, state procurement, and transmission planning
Technology	9. Lack of HVDC **technology standardization** and slow adoption of HVDC in the U.S. 10. The lack of a compelling benefits case for specific **meshed offshore grid designs**

Recommendations for Addressing the Identified Challenges

Immediate Action (this year): to ensure that some challenges can be addressed expeditiously in states' OSW generation and transmission procurements

1. **Increase staffing at state and federal regulatory agencies involved in OSW planning**
   - *Relevant entities: state governors or senior policymakers, federal policymakers*
2. **Create and empower multi-state decision-making entities**
   - *Relevant entities: state governors or senior policymakers and state regulatory agencies with support of grid operators, DOE, FERC, BOEM, industry stakeholders*
3. **Provide IRS guidance regarding applicability of ITC to offshore interconnection facilities**
   - *Relevant entities: IRS*
4. **Identify feasible POIs to cost-effectively accommodate identified OSW needs over time**
   - *Relevant entities: states, multi-state entities, DOE, grid operators, FERC*
5. **Develop network-ready standards for offshore facilities that can be linked to create offshore grid**
   - *Relevant entities: DOE, states, grid operators with input from OSW generation and transmission developers*
6. **Clarify and modify BOEM transmission permitting and lease-process coordination**
   - *Relevant entities: BOEM, DOE, OSW transmission developers*

Recommendations for Addressing the Identified Challenges

Near-Term Actions (1-2 years)

7. **Develop multi-state cost-allocation framework**
   - *Relevant entities: state regulatory agencies, grid operators, FERC*
8. **Develop HVDC-technology and operational standards**
   - *Relevant entities: DOE, grid operators, states*
9. **Improve regional transmission planning processes (ongoing)**
   - *Relevant entities: FERC, grid operators*

Mid-Term Actions (2-3 years)

10. **Create effective interregional transmission planning processes**
    - *Relevant entities: FERC, grid operators, multi-state entities with input from market participants*

Longer-Term Actions (3-5 years)

11. **Develop offshore grid contracts and regulations for shared-use and open-access facilities**
    - *Relevant entities: DOE, FERC, states, multi-state entities, ISOs/RTOs, with input from OSW generation and transmission developers*
12. **Develop grid operations and wholesale market design modifications**
    - *Relevant entities: DOE, FERC, grid operators, transmission owners*

The U.S. Lease and Procurement Process is Particularly Challenging

U.S. separation of OSW leasing, procurements, and transmission planning is particularly challenging:

- **Lease area auctions** requires OSW generators to commit before they know which state will procure their generation, which ISO/RTO region to which they will have to deliver, and which transmission upgrades will be necessary to interconnect
- **OSW generator permitting**, including cable routes and applying for grid interconnections, will have to start before they know which state will procure their resources or how expensive interconnection-related upgrades will be
- **State procurements** of OSW generation before they know which generators from which lease areas will make the most attractive offer or how expensive the winner's interconnection costs will be
  - The number of OSW generators able to bid into state procurements is limited to those with nearby lease areas
  - Delivery infrastructure cannot be pre-developed because the location of winning bidders' lease areas will not be known until after the procurement is completed
- **Transmission solutions** can be finalized only after procurement decisions have been made, creating significant uncertainties about the feasibility and cost of onshore transmission upgrades at the selected POI

A better process (increasingly used in Europe, but requires federal legislation) would be:

1. States make commitments on how much OSW generation they would like to procure over what timeframes (2030-2050)
2. BOEM develops specific wind energy areas that, at a minimum, can meet the state commitments
3. States and ISOs/RTOs (in collaboration with BOEM) develop permittable and cost-effective transmission solutions (and costs) for delivering the OSW generation to shore
4. States issue (one-stop) solicitations for the development of OSW generation within the specified wind lease areas (which already have permittable transmission and interconnection solutions)
   - More competitive procurements (because bidders are not limited to those with wind-energy leases)
   - Less risk for developers and states (because delivery routes are pre-permitted and cost-effective interconnection solutions are already specified)
   - Allows for pre-development of the delivery and transmission interconnection infrastructure

Takeaways

1. Starting proactive, collaborative planning for offshore wind transmission now is critical for lowering costs, reducing delays, and mitigating community and environmental impacts
   - Planning for 2030-35 OSW generation has to consider longer-term needs through 2040-50, or more cost effective options will be foreclosed
   - Planning can reduce OSW transmission costs by $20 billion through 2040, reducing onshore upgrades and community & environmental impact by 60-70%
   - Delaying planning effort by five years, may cut in half cost savings achievable by 2050
2. Significant coordination, planning process, and technology challenges need to be addressed
3. We developed a number recommendations on how to address these challenges
4. Federal funding through IRA and IIJA is available <u>now</u> to support necessary planning efforts and implement recommendations

Thank You!

Comments and Questions?

Additional Slides

OSW Transmission Study Authors and Advisory Panel Members

This presentation is based on the January 2023 report, ***The Benefit and Urgency of Planned Offshore Transmission***

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Disclaimer: The report reflects the analyses and opinions of the authors and does not necessarily reflect those of The Brattle Group's clients, Advisory Panel members, or other consultants. Advisory Panel members provided input and guidance related to study design and evaluation, but the contents and conclusions of the report, including any errors and omissions, are the sole responsibility of the authors. Advisory Panel member affiliations in no way imply that those organizations support or endorse this work.

U.S. OSW Generation Commitments and Future Needs

Region/State	Already Procured	State Goals					Projected Long-Term Need (GW)	
	2022	2030	2035	2040	2045	2050	2040	2050
ISO-NE (MW)	**4,841**	**8,042**	**8,642-9,042**	*8,642-9,042*	*8,642-9,042*	*8,642-9,042*	**23-29**	**42-44**
Massachusetts	3,241	5,600	*5,600*	*5,600*	*5,600*	*5,600*	6.7-11	23
Connecticut	1,158	2,000	*2,000*	*2,000*	*2,000*	*2,000*	9.1-11.1	*9.1-11.1*
Rhode Island	430	*430*	1,030-1,430	*1,030-1,430*	*1,030-1,430*	*1,030-1,430*	2.7	5
Maine	12	*12*	*12*	*12*	*12*	*12*	5	5
NYISO (MW)	**4,362**	*4,362*	**9,000**	*9,000*	*9,000*	*9,000*	**9-25**	**14-25**
New York	4,362	*4,362*	9,000	*9,000*	*9,000*	*9,000*	9-25	14-25
PJM (MW)	**8,432**	**8,432**	**14,722**	**18,222**	*18,222*	*18,222*	**13-30**	**33-58**
New Jersey	3,758	*3,758*	7,500	11,000	*11,000*	*11,000*	3.5-13.5	11-26
Maryland	2,022	*2,022*	*2,022*	*2,022*	*2,022*	*2,022*	*2.0*	*2.0*
Virginia	2,652	*2,652*	5,200	*5,200*	*5,200*	*5,200*	8-15	20-30
SERC (MW)		**2,800**	*2,800*	**8,000**	*8,000*	*8,000*	**8**	**7-10**
North Carolina		2,800	*2,800*	8,000	*8,000*	*8,000*	8	7.2-10
South Carolina								
MISO (MW)			**5,000**	*5,000*	*5,000*	*5,000*	**5**	**5**
Louisiana			5,000	*5,000*	*5,000*	*5,000*	5	*5*
CAISO (MW)		**5,000**	*10,000*	*15,000*	**25,000**	*25,000*	**15**	**25**
California		5,000	*10,000*	*15,000*	25,000	*25,000*	*15*	*25*
NWPP (MW)		3,000	*3,000*	*3,000*	*3,000*	*3,000*	**2-6**	**24-30**
Washington							0	4-10
Oregon		3,000	*3,000*	*3,000*	*3,000*	*3,000*	2-6	20
Atlantic Total (GW)	**17.6**	**23.6**	**35.2-35.6**	**43.9-44.3**	**43.9-44.3**	**43.9-44.3**	**54-93**	**96-137**
Gulf of Mexico Total (GW)			**5**	*5*	*5*	*5*	**5**	**5**
Pacific Total (GW)		**8**	**13**	*15*	**28**	*28*	**17-21**	**49-55**
US Total from State and Regional Studies (GW)	**17.6**	**31.6**	**53.2-53.6**	**66.9-67.3**	**76.9-77.3**	**76.9-77.3**	**76-119**	**150-197**
Federal U.S. Total (GW)		**30**				**110**	**40-100**	**224-458**

OSW DEVELOPMENT PIPELINE AS OF DECEMBER 2022

Status	Description	Total (MW)
Operating	The project is fully operational with all wind turbines generating power to the grid.	42
Under Construction	All permitting processes completed. Wind turbines, substructures, and cables are in the process of being installed. Onshore upgrades are underway.	932
Financial Close	All permitting processes completed. Begins when sponsor announces final investment decision and has signed contracts.	0
Approved	BOEM and other federal agencies reviewed and approved a project's COP. The project has received all necessary state and local permits as well as acquiring an interconnection agreement to inject power to the grid.	0
Permitting	The developer has site control of a lease area, has submitted a COP to BOEM, and BOEM has published a Notice of Intent to prepare an Environmental Impact Statement on the project's COP. If project development occurs in state waters, permitting is initiated with relevant state agencies.	18,581
Site Control	The developer has acquired the right to develop a lease area and has begun surveying the lease area.	24,096
Unleased Wind Energy Area	The rights to a lease area have yet to be auctioned to offshore wind energy developers. Capacity is estimated using a 3 MW/km2 wind turbine density assumption.	8,290
Total U.S. OSW Pipeline:		**51,941**

W. Musial, P. Spitsen, P. Duffy, *et al.*, DOE, Offshore Wind Market Report 2022, August 2022, at 8. Updated with the latest activities of BOEM in the Gulf of Mexico and California.

Sources: see Appendix A of , ***The Benefit and Urgency of Planned Offshore Transmission***

Newly Available Federal Support

Substantial federal support is available now, but should continue to evolve to more fully meet the funding needs of regional & interregional OSW transmission development

1. **Inflation Reduction Act:**
   - ***Section 50153***: *up to $100 million is available for funding for planning, modeling, analysis, and convening stakeholders;*
   - ***Section 50152***: *up to $760 million to facilitate the siting of certain interstate and offshore transmission lines;*
   - ***Section 50151***: *up to $2 billion in facility financing, including loan guarantees, to certain transmission facilities designated by Secretary of Energy to be in the national interest;*
   - ***Section 1706***: *up to $250 billion in energy infrastructure reinvestment loan financing, to retool, repower, or repurpose energy infrastructure, including transmission to avoid or reduce greenhouse gases;*
   - ***Section 13502***: *includes additional tax credits for domestic manufacturing of offshore wind facilities and vessels.*
2. **Infrastructure Investment and Jobs Act:**
   - ***Section 40101***: *up to $5 billion for resilience grants, including $2.5 billion for Grid Resilience utility Grants (40101 (d)) for states, tribes, and territories, and $2.5 billion for Grid Resilience Industry Grants (40101(c)) through competitive grants;*
   - ***Section 40103(b)***: *up to $5 billion for the Grid Innovation Program, funding innovative approaches to transmission, storage, and distribution infrastructure;*
   - ***Section 40107***: *up to $3 billion for Smart Grid Grants, enabling deployment of technologies that enhance grid flexibility;*
   - ***Section 40106***: *up to $2.5 billion on a revolving basis for the Transmission Facilitation Program, which allows DOE to engage in various ways (including capacity contracts) to assist in the design, construction, operation of qualifying facilities.*

Studies: Benefits of Proactively-Planned Offshore Transmission

Cost-Savings, Regional Planning	• PJM's Offshore Wind Transmission Study for 75 GW of clean energy resources shows a nearly 90% interconnection cost reduction for public policy resources compared with previous cost analyses. • PJM-New Jersey State Agreement Approach shows over $900 million in cost-savings for interconnecting an additional 6,400 MW of OSW, among other benefits. • MISO-SPP's Joint Targeted Interconnection Queue Studies reduce interconnection costs by over 50% while reducing other customer costs by approximately $1 billion. • MISO's Long-Range Transmission Planning effort enables 90 GW of new resource interconnections, offering customer savings with total benefits about 3x total costs. • National Grid's study for the UK found that proactive planning OSW Transmission through 2050 reduces costs by 19%, along with other benefits. A delay of only 5 years, cuts these benefits in half.
Cost-Savings, Inter-regional Planning	• LBNL's recent study found expanding transmission capability between any of the 3 northeastern ISOs by 1,000 MW would have saved $100-300 million per year in wholesale power purchases, expected to grow with time. • LBNL also identified resilience benefits, based on a large amount of interregional transmission value occurring during difficult-to-forecast times of severe system stress. • MIT's recent study of the Northeastern U.S. and Canada found that an additional 4 GW of transmission capacity to Quebec could lower costs of zero-emissions power systems by 17-28%. • A recent national study by MIT found for deeply-decarbonized systems interregional transmission could reduce total generation and transmission costs by up to 20%. • A recent General Electric Study for NRDC showed that expanding interregional transmission capacity by 87 GW between various regions would provide $83 billion in customer benefits.

Studies: Benefits of Proactively-Planned Offshore Transmission

Environmental & Community Benefits

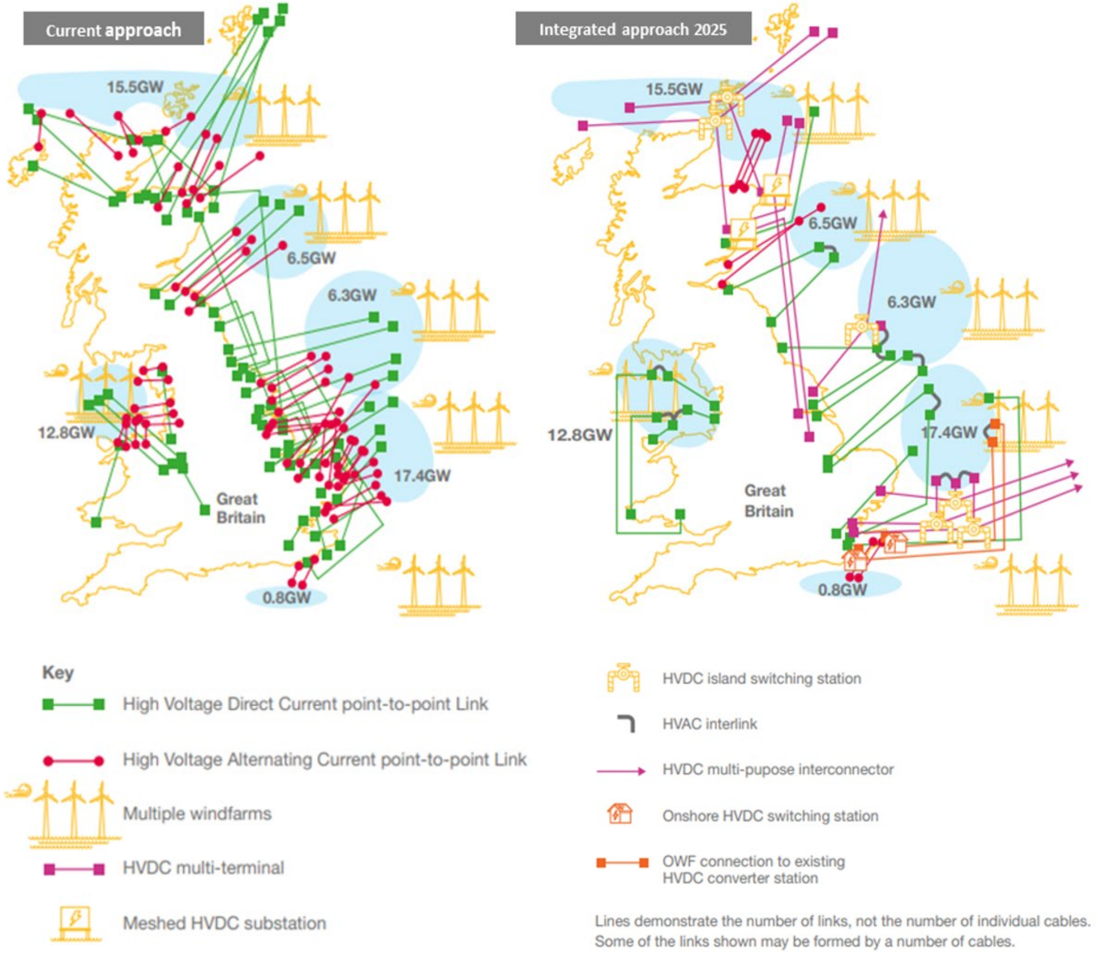
- National Grid found that proactive planning for U.K.'s 2050 OSW goal significantly reduced marine and shoreline impacts, with 70% fewer beach crossings, and 30% lower offshore line-miles. The study similarly found reduced onshore impacts, with proactive planning requiring 60% fewer onshore line miles, and 55% less land.
- Similar benefits have been demonstrated by Brattle and Anbaric for New England and NY
- The magnitude of these benefits is confirmed by New Jersey's experience with the State Agreement Approach, which allowed the consolidation of onshore grid access into a single transmission corridor, reducing onshore environmental and community impacts by two-thirds.

Employment Benefits

- Extrapolating from Clean Energy State Alliance projections, onshoring supply-chains to meet current goals could provide 135,000 jobs.
- The American Wind Energy Association has forecasted 20-30 GW of OSW will support between 45,000-83,000 American jobs by 2030.
- Similar estimates from American Clean Power estimate 23-40 GW OSW will result in 73,000-128,000 direct jobs.

UNPLANNED VS. PLANNED TRANSMISSION FOR U.K. OFFSHORE WIND IN 2050

(Assuming planning efforts start to be effective by 2025)



Source: National Grid ESO, *Offshore Coordination Phase 1 Report*, December 2020.

Recommendations to Address the Identified Challenges

Federal funding through IRA and IIJA is available now to support necessary planning efforts and implement recommendations

Immediate:

R1: Increase agency staffing
R2: Identify and empower multi-state decision-making bodies
R3: Provide IRS guidance regarding applicability of ITC
R4: Identify feasible, cost-effective POIs
R5: Develop network-ready standards
R6: Clarify and modify BOEM permitting requirements

Next 1-2 years:

R7: Develop cost allocation framework
R8: Develop HVDC technology and operational standards
R9: Improve RTO/ISO regional transmission planning processes

Next 2-3 years:

R10: Interregional transmission planning processes

Next 3-5 years:

R11: Develop offshore grid contracts and regulations
R12: Develop grid operations and wholesale market design modifications

2023 2024 2025 2026 2027

Additional Benefits of Networked Offshore Transmission

Using standardized, modular offshore transmission facilities that can be networked into an offshore transmission system and integrated with the onshore grid offers important additional advantages:

- Improve the reliability and value of OSW generation deliveries
- Allow for the utilization of new, higher-capacity transmission cables (each able to deliver 2–2.6 GW of OSW), which further reduces costs and impacts to communities and the environment
- Improve the utilization and flexibility of the offshore transmission infrastructure
- Reinforce and avoid upgrades of existing onshore grids, which will improve grid-wide reliability and reduce future congestion costs
- Create unique, cost-effective opportunities to add valuable interregional transmission links (e.g., addressing constraints into New York City), that increase grid resilience and reduce system-wide costs

Challenge: Transmission Cost Allocations

New, less-contentious cost-allocation approaches are needed to achieve efficient OSW transmission solutions. More cost-effective solutions will facilitate cost allocation!

- Reduce generator responsibility for distant network upgrades identified through today's generation interconnection process
  - Focus generator allocations initially on upgrades needed locally for non-firm interconnection rights
- Address network upgrades through transmission planning process, with cost allocation that <u>roughly</u> reflects beneficiaries
  - If network upgrades are mostly driven by states' public policy needs, consider allocating costs to the respective states (in exchange for clean-energy interconnection rights)
  - Without clean-energy interconnection rights, consider allocating costs to benefitting loads and, pro-rata, to interconnecting generators (similar to CAISO's Tehachapi approach and SPP-MISO's JTIQ)
- Implement portfolio-based (not project-specific) cost allocations
  - Less controversial and easier to implement because portfolio-wide benefits tend to be more even distributed and more stable over time

Avoid cost allocations that are strictly based on quantified benefits (which change over time, and across scenario assumptions and benefit metrics)

About the Speaker

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Johannes (Hannes) Pfeifenberger, a Principal at The Brattle Group, is an economist with a background in electrical engineering and over twenty-five years of experience in wholesale power market design, renewable energy, electricity storage, and transmission. He also is a Visiting Scholar at MIT's Center for Energy and Environmental Policy Research (CEEPR), a Senior Fellow at Boston University's Institute of Sustainable Energy (BU-ISE), a IEEE Senior Member, and currently serves as an advisor to research initiatives by the U.S. Department of Energy, the National Labs, and the Energy Systems Integration Group (ESIG).

Hannes specializes in wholesale power markets and transmission. He has analyzed transmission needs, transmission benefits and costs, transmission cost allocations, and renewable generation interconnection challenges for independent system operators, transmission companies, generation developers, public power companies, industry groups, and regulatory agencies across North America. He has worked on transmission matters in SPP, MISO, PJM, New York, New England, ERCOT, CAISO, WECC, and Canada and has analyzed offshore-wind transmission challenges in New York, New England, and New Jersey.

He received an M.A. in Economics and Finance from Brandeis University's International Business School and an M.S. and B.S. ("Diplom Ingenieur") in Power Engineering and Energy Economics from the University of Technology in Vienna, Austria.

Examples of Brattle Reports on Regional and Interregional Transmission Planning and Benefit-Cost Analyses

Well-Planned Electric Transmission Saves Customer Costs:
Improved Transmission Planning is Key to the Transition to a Carbon-Constrained Future

PREPARED FOR

WIRES

Link: Well-Planned Transmission

PREPARED BY

Judy W. Chang
Johannes P. Pfeifenberger

May 2016

THE Brattle GROUP

Toward More Effective Transmission Planning:
Addressing the Costs and Risks of an Insufficiently Flexible Electricity Grid

PREPARED FOR

WIRES

Link: Effective Transmission Planning

PREPARED BY

Johannes P. Pfeifenberger
Judy W. Chang
Akarsh Sheilendranath

April 2015

The Brattle Group

Link: Transmission Benefits

The Benefits of Electric Transmission: Identifying and Analyzing the Value of Investments

July 2013

Judy W. Chang
Johannes P. Pfeifenberger
J. Michael Hagerty

Link: Diversity Value

BU
Boston University Institute for Sustainable Energy

The Value of Diversifying Uncertain Renewable Generation through the Transmission System

September • 2020

A Roadmap to Improved Interregional Transmission Planning

Link: Interregional Roadmap

PREPARED BY

Johannes P. Pfeifenberger
Kasparas Spokas
J. Michael Hagerty
John Tsoukalis

November 30, 2021

Transmission Planning for the 21st Century: Proven Practices that Increase Value and Reduce Costs

Link: Brattle Grid Strategies

PREPARED BY

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Kasparas Spokas
J. Michael Hagerty
John Tsoukalis

Grid Strategies:
Rob Gramlich
Michael Goggin
Jay Caspary
Jesse Schneider

OCTOBER 2021

Brattle

GRID STRATEGIES LLC

Summarizes proven approaches to quantifying various benefits

Additional Reading on Transmission

Pfeifenberger, DeLosa, et al., The Benefit and Urgency of Planned Offshore Transmission, for ACORE, ACP, CATF, GridLab, and NRDC, January 24, 2023.
Brattle and ICC Staff, Illinois Renewable Energy Access Plan: Enabling an Equitable, Reliable, and Affordable Transition to 100% Clean Electricity for Illinois, December 2022.
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Brattle Group Practices and Industries

ENERGY & UTILITIES

- Competition & Market Manipulation
- Distributed Energy Resources
- Electric Transmission
- Electricity Market Modeling & Resource Planning
- Electrification & Growth Opportunities
- Energy Litigation
- Energy Storage
- Environmental Policy, Planning and Compliance
- Finance and Ratemaking
- Gas/Electric Coordination
- Market Design
- Natural Gas & Petroleum
- Nuclear
- Renewable & Alternative Energy

LITIGATION

- Accounting
- Analysis of Market Manipulation
- Antitrust/Competition
- Bankruptcy & Restructuring
- Big Data & Document Analytics
- Commercial Damages
- Environmental Litigation & Regulation
- Intellectual Property
- International Arbitration
- International Trade
- Labor & Employment
- Mergers & Acquisitions Litigation
- Product Liability
- Securities & Finance
- Tax Controversy & Transfer Pricing
- Valuation
- White Collar Investigations & Litigation

INDUSTRIES

- Electric Power
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- Pharmaceuticals & Medical Devices
- Telecommunications, Internet, and Media
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