

# Case-Study Examples of U.S. Offshore Wind Farm Policy Outcomes: The Role of Science Coproduction

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## Problem Statement

- More than 70 offshore wind farms have been proposed for U.S. coastal waters since the early 2000s.
- Completed in fall 2016, the Block Island Wind Farm, built off the coast of Block Island, Rhode Island, is the only fully constructed and operating U.S. offshore wind farm.
- In comparison, European countries have installed more than 70 offshore wind farms.
- Most coastal states have renewable energy and climate mitigation goals, but a lack of available land for development, making offshore wind an ideal option.



Photo: Brook Knodel

## Research Questions

How did state and local policy makers, researchers, and other stakeholders contribute to the success of the Block Island Wind Farm?

What are the policy lessons from the offshore wind planning process in Rhode Island for:

- States pursuing offshore wind farm development?
- States pursuing other forms of renewable energy development?

## Data Collection and Analysis

Data are collected from three sources, providing a convergence of evidence to confirm findings: Documents, Observations, & Stakeholder Interviews

Qualitative Data Analysis Coding

- State-supported offshore wind studies
- State and municipal agency meeting minutes
- Governor correspondence records
- Legislative sessions
- Stakeholder interviews

## Preliminary Conclusions

- No one or few conditions, for example, community or market acceptance or the availability of offshore wind as a resource or governor support, and no one strategy, for instance, commissioning offshore wind studies or setting a policy goal for offshore wind, determines the success or failure of a state pursuing offshore wind farm development.
  - This suggests that policy-makers interested in renewable energy development should consider a range of interdependent issues, policies, stakeholder actions, and potential outcomes.
- Offshore wind policy created from the coproduction of knowledge, or knowledge generated by scientists, policy-makers, and stakeholders, is more likely to result in effective and timely offshore wind, or renewable energy policy than science and data produced in isolation.
  - Coproduced knowledge advances effective offshore wind policy because: **(1)** scientists are more likely to know the spectrum of science needed for multiple policy decisions **(2)** widespread trust is established between scientists, stakeholders & policy-makers, and **(3)** policy implementation rate increases, which is important for avoiding a change in a political regime or political values.

## Framework & Theory

### The Advocacy Coalition Framework

- The Advocacy Coalition Framework (ACF), developed by Sabatier and Jenkins-Smith, is a theoretical-tool used by policy analysts to systematically describe and study the complex policy process.
- **ACF Theory:** Stakeholders share resources and strategies and arrange themselves into coalitions, or groups, based on their values and beliefs concerning a specific policy-issue.
- **ACF Theory:** Context shape coalitions’ values & beliefs, and available resources & strategies.

### Science & Technology Studies (STS)

- A field of interdisciplinary study that emerged in the 1960s and 70s, which recognizes that scientific research, data, and environmental knowledge are not “disembodied products” that are simply produced and applied.
- STS acknowledges that social, political, and cultural values influence the production, use, & circulation of knowledge. For instance, societies often “police knowledge boundaries,” determining what counts as science and truth.

## Case Study Selection

- Offshore wind project case studies — the Block Island Wind Farm, located off the coast of Block Island, Rhode Island and the Fishermen’s Energy Wind Farm, proposed for the coast of Atlantic City, New Jersey — were selected based on similar design parameters and initial timelines, but different stages of development.
- Selection process allows for a focus on how municipal and state-level stakeholders and contextual factors affect offshore wind planning processes and policy outcomes.

The Block Island (Rhode Island)	Fishermen’s (New Jersey)
Preplanning: Around 2006	Preplanning: Early 2000s
Year Proposed: 2008	Year Proposed: 2008
Turbines: 5	Turbines: 5
Shore Distance: 3 miles	Shore Distance: 3 miles
Status: Operational	Status: In Process

## Findings

**Rhode Island**

(1) Around 2007, then RI Gov. Carcieri, local town council & the RI General Assembly support offshore wind energy

(2) In 2008, a RI state agency notes the benefits of offshore wind energy, but the need for an “Ocean Special Area Management Plan” (Ocean SAMP)

(3) Published in 2010, the RI Ocean SAMP is characterized by: (a) input from more than 100 unique stakeholder & research institutions (coproduced knowledge) (b) a wide range of topics covered (c) relevance for policy (d) a cost of \$3.2 million

**New Jersey**

(1) In the early 2000s, the NJ Board of Public Utilities and NJ governors support offshore wind energy

(2) In 2006, an NJ state agency notes the benefits of offshore wind energy, but the need for “scientific baseline studies”

(3) Published in 2010, the NJ scientific baseline study is characterized by: (a) lack of input from stakeholders & policy-makers (b) consulting firm preparation (c) a focus on avian, marine mammals, & sea turtles (d) scientific jargon and methods (e) a cost of \$4.5 million

## New Jersey and Rhode Island Offshore Wind Planning Timelines

The timeline promotes case-study comparison and insight, including the notion that numerous stakeholder actions and factors influence the offshore wind planning process.

