

Marine Hydrokinetic Sites
Northeast United States
October 31, 2016

Prepared for:
Northeast Regional Ocean Council (NROC)
Northeast Ocean Data
www.northeastoceandata.org

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1. INTRODUCTION

This dataset contains pending or issued preliminary permits or issued licenses for marine hydrokinetic projects in the U.S. that produce energy from waves or directly from the flow of water in ocean currents or tides. The data are derived from the Marine Hydrokinetic Projects layer for distribution on the Marine Cadastre, which is a joint initiative by the Bureau of ocean energy Management (BOEM) and NOAA Office of Coast Management (OCM). The status of these projects is administered by the Federal Energy Regulatory Commission (FERC). This dataset excludes any sites considered inland.

All projects outside of the northeast region were deleted. One additional site was included for the Muskeget Channel Tidal Project off the coast of Massachusetts near Martha's Vineyard, however this site's issued preliminary permit is expired as of the publication date. This project was previously issued a preliminary permit by FERC and was included in prior datasets on the Marine Cadastre and Northeast Ocean Data.

2. PURPOSE

To support efforts for regional coastal and ocean planning by the Northeast Regional Ocean Council (NROC).

3. SOURCES AND AUTHORITIES

- Marine Hydrokinetic Projects for US Waters as of January 2016 (NOAA OCM)

<https://coast.noaa.gov/dataservices/Metadata/TransformMetadata?u=https://coast.noaa.gov/data/Documents/Metadata/harvest/MarineCadastre/MarineHydrokineticProjects.xml&f=html>

- MarineCadastre.Gov
- Hydrokinetic Sites, Northeast Ocean Data
- Federal Energy Regulatory Commission

4. DATABASE DESIGN AND CONTENT

Native storage format: ArcGIS File Geodatabase – simple feature class

Feature Types:

Point features representing project sites

Data Dictionary:

Line	Name	Definition	Type	Size
1	OBJECTID	Uniquely identifies a feature	OBJECTID	*
2	Shape	Geometric representation of the feature	geometry	*
3	projectName	Name given to the hydrokinetic applicant undergoing license or permit review by Federal Energy Regulatory Commission (FERC	text	50
4	docketNumber	Docket Number for the permit or license application assigned by FERC.	Text	10
5	status	Status of application permit or license in the course of being issued or rejected by FERC	text	50
6	expirationDate	Date the preliminary permit or license expires	text	10
7	issueDate	Date the preliminary permit or license was issued	date	*
8	capacity		text	10
9	licensee	Name of the company applying for the preliminary permit or license	text	50
10	waterway	Name of the waterway the site is located on	text	50
11	state	Name of the state the site is located	text	10
12	energyType	Type of energy source from which electricity is generated	text	10

Feature Class Name: Marine Hydrokinetic Sites

Total Number of Unique Features: 6

Dataset Status: Complete

5. SPATIAL REPRESENTATION

Geometry Type: vector point

Reference System: GCS North American 1983

Horizontal Datum: North American Datum 1983

Ellipsoid: Geodetic Reference System 1980

XY Resolution: XY Scale is 0.000000001

Tolerance: 0.000000008983153

Geographic extent: -73.9 to -66.9, 40.7 to 44.92

ISO 19115 Topic Category: environment, oceans, structure, utilitiesCommunication

Place Names:

Atlantic Ocean, Cape Cod Canal, Cobscook Bay, East River, Maine, Massachusetts,
Muskeget Channel, New York, Pennamaquan River

Recommended Cartographic Properties:

(Using ArcGIS ArcMap nomenclature)

Picture Marker Symbol:

Image: 3-blade turbine with single wave on colored background

Issued License: dark blue background

Issued Preliminary Permit: grey background

Pending (Muskeget only): light blue background

Scale range for optimal visualization: 4,000,000 to 100,000

6. DATA PROCESSING

Processing environment: ArcGIS 10.3, Windows 7 Professional, Intel Core i5 CPU

	Process Steps Description
1	Download Marine Hydrokinetic Projects dataset from MarineCadastre.gov and copy to new dataset.
2	In Edit session, select the Muskeget Channel Tidal project site from the existing Northeast Ocean Data Hydrokinetic Sites dataset and copy it into the new dataset from the Marine Cadastre.

3	In Edit session, delete all project sites not located within the northeast (defined as New York to Maine)
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7. QUALITY PROCESS

Attribute Accuracy: Attributes are accurate based on source material and on filed FERC material.

Logical Consistency: Data points consist of coordinate pairs.

Completeness: Data are complete as of the publication date and include the additional site for Muskeget Channel.

Positional Accuracy: Accurate based on source material.

Timeliness: Up to date as of October 2016.

Use restrictions: None.

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