# An Evaluation of the Department of Energy Marine and Hydrokinetic Resource Assessment



The Department of Energy's (DOE) Marine and Hydrokinetic Resource Assessment (MHKRA) is a comprehensive effort to assess the potential of marine and hydrokinetic renewable energy in the United States. The MHKRA was initiated in 2010 and is scheduled to be completed in 2020. The assessment will provide a detailed understanding of the resource potential of marine and hydrokinetic energy, as well as the economic, environmental, and social implications of developing these resources.

An Evaluation of the U.S. Department of Energy's Marine and Hydrokinetic Resource Assessments

★ ★ ★ ★ ★ 5 out of 5



Language : English
File size : 5460 KB
Text-to-Speech : Enabled
Screen Reader : Supported
Enhanced typesetting : Enabled
Word Wise : Enabled
Print length : 168 pages



### Methodology

The MHKRA is being conducted in three phases:

- Phase 1: Resource assessment. This phase will assess the resource potential of marine and hydrokinetic energy in the United States. The assessment will be based on a variety of data sources, including oceanographic models, remote sensing data, and in-situ measurements.
- 2. **Phase 2:** Technology assessment. This phase will assess the state of the art of marine and hydrokinetic energy technologies. The assessment will include a review of existing technologies, as well as an analysis of the potential for future developments.
- 3. Phase 3: Economic, environmental, and social impact assessment. This phase will assess the economic, environmental, and social implications of developing marine and hydrokinetic energy resources. The assessment will include an analysis of the potential benefits and risks of developing these resources.

#### **Results**

The MHKRA is still in progress, so the results of the assessment are not yet available. However, the DOE has released some preliminary findings from the assessment. These findings suggest that the United States has a significant potential for marine and hydrokinetic renewable energy. The DOE estimates that the United States has the potential to generate up to 1,100 gigawatts of electricity from marine and hydrokinetic energy resources. This is enough electricity to power over 300 million homes.

#### **Discussion**

The MHKRA is a significant effort that will provide a valuable understanding of the potential of marine and hydrokinetic renewable energy in the United States. The assessment will help to inform决策 makers about the potential benefits and risks of developing these resources.

There are a number of challenges associated with developing marine and hydrokinetic renewable energy resources. These challenges include the high cost of development, the potential for environmental impacts, and the need for new transmission infrastructure. However, the MHKRA will help to address these challenges by providing a comprehensive understanding of the resource potential and the economic, environmental, and social implications of developing these resources.

The MHKRA is an important step towards developing marine and hydrokinetic renewable energy in the United States. The assessment will provide a valuable understanding of the resource potential and the economic, environmental, and social implications of developing these resources. The MHKRA will help to inform决策 makers about the potential benefits and risks of developing these resources and will help to pave the way for the development of a sustainable energy future.



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