

Wave and Tidal Energy

California has an aggressive renewable energy power production goal to increase the state's Renewable Portfolio Standard to 33 percent by 2020. In the last few years, wave and tidal energy have emerged as potentially viable renewable energy sources that could aid in meeting these renewable energy goals. The state's offshore wave climate, particularly north of Point Conception, is considered one of the country's most productive wave energy resources. In San Francisco Bay, strong tidal flows also provide opportunity for harnessing tidal power. Much of the information about hydrokinetic technologies, however, remains limited as it is still under development, and there are only a handful of demonstration projects in the world. The Department of Fish and Game (DFG) is faced with determining how much information is needed for approving demonstration projects in California, and what information can be collected during the demonstration phase of these projects. This is critical because the data gathered through these demonstration projects will provide the foundation for monitoring and adaptively managing this industry.

Hydrokinetic energy is a clean renewable energy source that can be tapped in our own backyard, and the industry is willing to develop demonstration projects in California if state permits to do so are made readily attainable. Significant environmental effects have not been proven in other parts of the world from these types of projects making an adaptive management strategy for the development of these projects in California more viable.

There is hesitation in proceeding in this manner, specifically because information about hydrokinetic technologies remains limited. While the state is willing to provide the forum for this groundbreaking industry, it is expected any demonstration project would involve marine water restrictions or closures and the commercial fishing community opposes these actions, particularly the Dungeness crab fishery. For these reasons, it has been recommended the state implement a precautionary approach in analyzing and permitting these projects.

DFG appreciates the importance of establishing protocols for baseline studies and monitoring requirements based on standard scientifically sound methodologies. Standardizing baseline data collection and monitoring protocols would facilitate data comparison and analysis of multiple projects, and of any cumulative impacts. Because of the potential exceptional benefits to California and its natural resources, DFG will continue to work with this emerging industry to develop project protocols to prevent unacceptable effects to marine resources do not occur from the testing or use of this technology.