TECHNICAL SUMMARY

Study Title: Workshop to Identify Alternative Energy Environmental Information Needs

Report Title: Workshop to Identify Alternative Energy Environmental Information Needs: Workshop Summary

Contract Number: 1435-01-06-CT-39821

Sponsoring OCS Region: Headquarters – Alternative Energy and Alternate Use Program

Applicable Planning Areas: East Coast, Gulf of Mexico, and Pacific Coast

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Costs: FY 2007: $136,000

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Background: With the passage of the Energy Policy Act of 2005, the Minerals Management Service (MMS) assumed regulatory responsibilities on the Outer Continental Shelf (OCS) for activities that produce or support the production, transportation, or transmission of energy from sources other than oil and gas (i.e., alternative energy). Potential impacts on the human and marine environments must be evaluated in order for MMS to make environmentally sound decisions when authorizing alternative energy activities on the OCS. MMS funded a synthesis and analysis report that reviewed existing data on environmental effects of alternative energy uses and identified information needs, entitled *Worldwide Synthesis and Analysis of Existing Information Regarding Environmental Effects of Alternative Energy Uses on the Outer Continental Shelf* (Michel et al., 2007). This report provided the basis for a workshop, held on 26-26 June 2007 and attended by 144 participants.

Objectives: The workshop was an important step for the MMS in communicating and developing a collaborative relationship with other Federal agencies, affected State and local groups, and industry. Members of groups with knowledge about existing offshore alternative energy development (i.e., academia or representatives from countries or states where development is already occurring) were invited to share their expertise, to identify data needs, and to outline potential studies for the MMS Environmental Studies Program and its partners.

Description: The workshop began with ten technical presentations by national and international experts covering the state of wind and wave technologies, future trends, environmental concerns, and lessons learned. The presentations provided a strong technical background for later discussions. The participants then were assigned to one of four breakout groups: 1) Aquatic Resources; 2) Flying Animals; 3) Physical Oceanography and Air Quality; and 4) Social Sciences and Economics. The groups were asked to discuss and develop a list of critical information needs that were scientifically feasible; after a break, each group was asked to provide supporting detailed information for the most important priorities. For each identified topic, the group provided comments on data needs, suggested methods, collaborators, other limitations, special considerations. The report contains 29 tables that summarize the topics and comments contributed by each group.

Several major information needs were identified. All four breakout groups identified the need for the compilation and evaluation of geospatial data and collection of new data to fill identified data gaps. Maps showing the locations of energy resources were of priority interest to every group. Once the priority areas are identified for possible alternative energy development in the Outer Continental Shelf, resource agencies will need to compile existing data on habitats of concern and the distribution, abundance, and use of these areas by species of concern to identify key data gaps and develop study plans to collect missing data to support regional assessments.

Each group also discussed the need for geospatial tools to support data analysis at different scales and for data analysis and integration across disciplines.

Research is needed on strategies to avoid or reduce significant effects from alternative energy developments. Collaboration with other groups working on similar problems is essential. Tapping into existing resources will minimize duplication of effort, ensure that all concerns are addressed, and result in better scientific products. Drawing upon expertise in the international community will be important to continue, and that dialog will enhance study designs.

Standardization in field methods for data collection, classification, and assessment was common theme among the breakout groups and in the plenary discussions.

To support development of the Alternative Energy Program, participants indicated that a strategic assessment of regions where environmental information collection is needed would be valuable. The European experience and activities can serve as a guide for programmatic marine spatial planning. Stakeholders would benefit from guidance on the process and regulatory structure. Stakeholder involvement has been recognized as a key component of the Alternative Energy Program, and there are continuous efforts underway to ensure their participation.

Study Products: Michel, J. and Burkhard, E. 2007. Workshop to Identify Alternative Energy Environmental Information Needs: Workshop Summary. U.S. Department of the Interior, Minerals Management Service, Herndon, VA, MMS OCS Report 2007-057. 55 pp. + appendices.