

2 PROPOSED ACTION AND ALTERNATIVES

2.1 PROPOSED ACTION

The Secretary of the Interior, in consultation with other relevant departments and agencies of the Federal Government, may grant a lease, easement, or right-of-way on the Outer Continental Shelf (OCS) for activities not otherwise authorized in the OCS Lands Act (OCSLA), the Deepwater Port Act of 1974 (33 USC 1501 et seq.), the Ocean Thermal Energy Conversion Act of 1980 (42 USC 9101 et seq.), or other applicable law, if those activities:

- Produce or support production, transportation, or transmission of energy from sources other than oil and gas; or
- Use, for energy-related purposes or for other authorized marine-related purposes, facilities currently or previously used for activities authorized under this Act, except that any oil and gas energy-related uses shall not be authorized in areas in which oil and gas preleasing, leasing, and related activities are prohibited by a moratorium.

The two components of the proposed action, namely, development of alternative energy resources and the alternate use of existing structures, are described in the following sections.

2.1.1 Alternative Energy Development on the OCS

The activities related to the development of alternative energy resources on the OCS would include:

1. Characterization of a specific site or sites on the OCS for the purposes of assessing the feasibility of constructing an alternative energy facility,
2. Construction, operation, and decommissioning of demonstration alternative energy and related facilities on the OCS and related environments (i.e., State waters/onshore) for the purposes of testing commercial feasibility of certain technologies, and
3. Construction, operation, and eventual decommissioning of commercial-scale alternative energy production and related facilities on the OCS and related environments.

For the purposes of this programmatic Environmental Impact Statement (EIS), the time horizon over which these activities are projected to be initiated is 2007–2014. In addition, it is expected that National Environmental Policy Act (NEPA) reviews will be conducted for individual proposals to develop alternative energy facilities.

As discussed in Section 1.3, the Minerals Management Service (MMS) expects to receive the following types of applications for alternative energy development on the OCS over the period 2007–2014:

- Demonstration-scale wind energy (e.g., new foundation technologies),
- Commercial-scale wind energy,
- Demonstration-scale wave energy,
- Commercial-scale wave energy,
- Demonstration-scale ocean current energy, and
- Commercial-scale ocean current energy.

It is likely that developers will favor certain geographic areas on the OCS for constructing wind, wave, or ocean current facilities because of the characteristics of the areas favorable for a particular energy source. Because this EIS is programmatic, the impacts are analyzed on a non-site-specific basis with the use of representative or generic locations.

The facilities and operations considered are described in Section 3.2 for wind, Section 3.3 for wave, and Section 3.4 for ocean current. The activities that are anticipated during technology testing, site characterization, facility construction, operation, and decommissioning are outlined in Section 3.5. The impacts associated with these activities, facilities, and operations are discussed individually in Chapter 5. The impacts of the proposed action as a whole are evaluated in Section 7.1.

2.1.2 Alternate Use of Existing Oil and Gas Platforms on the OCS

Siting, construction, operation, and decommissioning of oil and gas platforms on the OCS are regulated by the MMS under the Outer Continental Shelf Lands Act, as amended (43 USC 1331 et seq.). Current regulations (30 CFR Part 250 Subpart Q) require that a structure be removed and the site cleared to predevelopment conditions within one year of cessation of production. Under the proposed action, alternate uses would be allowed for these platforms during and after production. The MMS is planning to issue regulations to process any applications for such use. An overview of potential alternate uses for these facilities is given in Chapter 6. These uses include alternative energy production, offshore aquaculture, and research and monitoring. The MMS will evaluate and conduct an appropriate NEPA review of individual proposals to modify or convert the existing facilities for alternate use activities.

2.2 CASE-BY-CASE ALTERNATIVE

The case-by-case alternative would mean that the MMS would not develop the Alternative Energy and Alternate Use Program on the OCS and would not issue regulations governing the activities related to granting of a lease, easement, or right-of-way for the production of alternative energy on the OCS and for the alternate use of previously or currently used oil and gas facilities on the OCS. The impacts associated with the case-by-case alternative are discussed in Section 7.2.

As stated in Section 7.2, even if the MMS did not issue a comprehensive set of regulations, it is likely that proposals would be forthcoming to conduct the types of activities described under the proposed action alternative. The types and extent of such proposals would be dictated by the economic feasibility of the proposed projects. If the MMS did not have regulations in place, processes for permits, leases, rights-of-way, and related actions would have to be developed on a case-by-case basis. Similar development would be required for proposals for alternate use of existing oil and gas platforms on the OCS. In these situations, the environmental impacts would be similar to the impacts discussed under the proposed action.

If regulations were not issued and if there were no proposals to develop alternative energy resources on the OCS, any increased power demand would have to be met by other sources, including fossil fuels, nuclear fuels, and onshore alternative energy sources. These other energy sources and their associated impacts are discussed in Section 7.4. The impacts from these other energy sources would be dependent on source-specific conditions, such as fuel source, energy generation technology, and site location. An evaluation of differences in impacts between the alternative energy facilities on the OCS and other sources of energy is summarized in Section 2.5 and discussed in Chapter 7.

2.3 NO ACTION ALTERNATIVE

NEPA requires the analysis of a no action alternative. As in the case-by-case alternative, the no action alternative would mean that the MMS would not develop the Alternative Energy and Alternate Use Program on the OCS and would not issue regulations governing the activities related to granting of a lease, easement, or right-of-way for the production of alternative energy on the OCS and for the alternate use of previously or currently used oil and gas facilities on the OCS. In addition, the MMS would not authorize development of OCS alternative energy facilities on a case-by-case basis. The impacts associated with the no action alternative are discussed in Section 7.3.

As discussed in Section 7.3, potentially significant offshore alternative energy resources in the United States would remain largely unexploited if the MMS failed to consider development of alternative energy projects on the Federal OCS. However, individual States could still authorize development of offshore energy resources on State submerged lands. If no development of alternative energy resources on the OCS occurred, any increased power demand would have to be met by other sources, including fossil fuels, nuclear fuels, and onshore alternative energy sources. These other energy sources and their associated impacts are discussed

in Section 7.4. The impacts from these other energy sources would be dependent on source-specific conditions, such as fuel source, energy generation technology, and site location. An evaluation of differences in impacts between the alternative energy facilities on the OCS and other sources of energy is summarized in Section 2.5 and discussed in Chapter 7.

In addition, under the no action alternative, there would be limited opportunities to employ existing oil and gas facilities located on the OCS for alternate uses. The impacts of this reduction would be to limit the research, development, and implementation of potentially beneficial alternate uses of these structures.

2.4 ALTERNATIVES CONSIDERED BUT ELIMINATED FROM DETAILED ANALYSIS

2.4.1 Issuance of Regulations Specific to Energy Source (i.e., Wind, Wave, and Ocean Current)

Focusing the program and issuing regulations for an individual resource was considered but not pursued. The issuance of regulations on a resource-specific basis would be inefficient because of the commonalities among the potential alternative energy technologies and the issues that must be addressed. There is common ground among most technologies, including the general process for site characterization, disturbance of seafloor habitat from foundation installation, and potential disturbance of marine animals during construction and operation by vessel traffic. Also, all technologies require the installation of a submarine cable on the OCS and, therefore, raise land use (lease) issues. Because all potential technologies are analyzed in this EIS, the environmental impacts for this alternative are not significantly different from those of the proposed action. Thus, the regulations that the MMS is preparing to issue are general and apply to all alternative energy resources on the OCS. In the future, as the program evolves and the industries mature, future resource-specific regulations may be considered.

2.4.2 Identifying and Analyzing Specific Areas in Federal Waters Along the Coast with the Greatest Resource Potential

At this early stage in the development of the program and regulations, the MMS did not want to limit the possibilities of development in Federal waters by identifying locations with the best resources. In addition, MMS does not have (and cannot reasonably attain) the requisite information to “map-out” the best areas for alternative energy project activity. The MMS is hoping that such information will be developed in the future with the assistance of coastal States and potential applicants. As additional resource information is obtained by the MMS, it may in the future establish “resource-specific development zones” or “no-development zones” likely through coordination with potential affected States. For the present, the MMS intends to ask industry to identify those areas with the most potential for development through a call for interest, which would be announced after promulgation of the final rule.

2.4.3 Establishing a Regulatory Program That Granted Access Rights, But Did Not Regulate Activities

The MMS considered establishing a regulatory program that only granted access to the OCS through a lease, easement, or right-of-way and did not regulate the resultant activities. The MMS did not analyze this alternative because the MMS believes the impacts would be expected to be greater under this alternative compared with the proposed action.

2.5 COMPARISON OF ALTERNATIVES

In this programmatic EIS, the proposed alternative would be for the MMS to develop the Alternative Energy and Alternate Use (AERU) Program on the OCS and issue the associated rulemaking. For the case-by-case alternative, such a program would not be established and the associated rulemaking would not be issued. This does not mean that such projects would not be permitted under the case-by-case alternative, but simply that there would be no general regulations governing such projects; the lease terms and stipulations put in place for different projects would be handled on a case-by-case basis. For example, the potential impacts from alternative energy facilities summarized in Section 7.1.1 and the potential impacts from alternate use activity summarized in Section 7.1.2 would also be applicable for similar facilities permitted under the no action alternative.

The potential lack of consistency in MMS permitting of OCS alternative energy projects that would result under the case-by-case alternative could have the following adverse impacts: (1) possible incomplete or inadequate preproject data collection requirements, resulting in less informed siting decisions; (2) possible inconsistent or inadequate mitigation stipulations for some projects, leading to potential adverse environmental impacts; (3) increased permitting time, leading to increased costs for developers and delays in alternative energy production; and (4) confusion regarding the roles and responsibilities of various Federal, State, and local agencies with respect to regulation of OCS alternative energy facilities. Although the magnitude of such adverse impacts under the no action alternative is not known, because the number of inquiries about leases, easements, and rights-of-way for new alternative energy projects on the OCS is increasing, the likelihood of these adverse impacts is also increasing.

If alternate uses are proposed and permitted, the proposals would be evaluated and permitted on a case-by-case basis and the impacts would be similar to those discussed in Chapter 6. As discussed in Section 2.1.2, if no alternate uses are proposed, the existing facilities would be removed and the site would be cleared to predevelopment conditions, as would be the case under the no action alternative.

For the no action alternative, alternative energy projects would not be permitted on the Federal OCS under the AERU Program or on a case-by-case basis. Thus, any increased demands on electricity supply would have to be met by other sources, including electricity from fossil fuels, nuclear fuels, and onshore alternative energy sources. A similar situation might also arise if development of alternative energy projects were delayed because of a lack of proposals or a need to treat on a case-by-case basis. The environmental impacts from other energy sources

would depend on the fuel source, type of energy generation technology selected, size of the facility, and location.

Section 7.4 discusses the impacts of the other energy sources. Comparing the impacts that would be associated with alternative energy development on the OCS considered under the proposed action with the impacts that would be realized if the needed electricity demand were met from fossil fuels, the impacts on the air quality, transportation, terrestrial ecological resources, archaeological resources, and water resources near coastal areas would likely be greater for the case of fossil fuels. Similarly, if the electricity were obtained from nuclear power plants, the impacts associated with the management and disposal of radioactive wastes, transportation, terrestrial ecological resources, archaeological resources, and water resources near coastal areas would need to be addressed. If the alternative energy facilities were built on land instead of on the OCS, the impacts on the marine environments would be either nonexistent or greatly reduced, but impacts related to land use, terrestrial ecological resources, visual resources, and archaeological resources would be considerably higher.