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## Process for Identifying Alternatives for Environmental Reviews of Offshore Wind Construction and Operations Plans pursuant to the National Environmental Policy Act (NEPA)

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### Background

The purpose of this document is to establish standard screening criteria for alternatives to be analyzed in detail in Construction and Operation Plan (COP) Environmental Impact Statements (EISs). The Council on Environmental Quality (CEQ) National Environmental Policy Act (NEPA regulations) requires that every EIS include a statement that briefly specifies the underlying purpose and need to which the agency is responding when proposing a reasonable range of alternatives, including the proposed action.<sup>13</sup> Agencies have “discretion to develop and rely on statements of purpose and need that are consistent with the agency's decision-making responsibilities while considering multiple relevant factors, including the public interest and the goals of an applicant.”<sup>14</sup> “While a purpose and need statement that is too narrow is inconsistent with NEPA's requirement to consider alternatives to the proposed action, so too is a boundless analysis of alternatives. Rather, agencies are guided by a rule of reason in identifying the reasonable alternatives that are technically and economically feasible and meet the purpose and need of a proposed action.”<sup>15</sup> The Department of the Interior's (DOI) 2008 NEPA regulations added “technically and economically *practical or feasible*” to this definition based on CEQ's *Forty Most Asked Questions Concerning CEQ's National Environmental Policy Act Regulations*.<sup>16</sup> Moreover, the Department requires that an Environmental Impact Statement (EIS) include a range of alternatives that “address[es] one or more *significant issues* related to the proposed action.”<sup>17</sup> Based on DOI NEPA practice and policy, a significant issue is (1) related to significant or potentially significant effects; (2) has a cause and effect relationship with the proposed action or alternatives; (3) is within the scope of the analysis; (4) has not been decided by law, regulation, or previous decision; and (5) is amenable to scientific analysis rather than conjecture.<sup>18</sup>

Agencies are also required to briefly discuss their reasons for eliminating alternatives from detailed study.<sup>19</sup> The use of these screening criteria supports BOEM's clear and consistent description of its methodology for selecting which alternatives to analyze in detail and which to include in its table of

<sup>13</sup> 40 CFR § 1502.13

<sup>14</sup> 86 FR 55760 (October 7, 2021). *See also* “agencies should have discretion to base the purpose and need for their actions on a variety of factors, which include the goals of the applicant, but not to the exclusion of other factors. Agencies have long considered myriad factors in developing a purpose and need statement. These include the agency's mission and the specifics of the agency decision, including statutory and regulatory requirements.” 87 FR 23453, 23458 (April 20, 2022).

<sup>15</sup> *Id.*

<sup>16</sup> 43 CFR § 46.420(b) (emphasis ours).

<sup>17</sup> 43 CFR § 46.415(b) (emphasis ours).

<sup>18</sup> [Bureau of Land Management \(BLM\) NEPA Policy Handbook \(H-1790-1\) page 40. Available at \[https://www.blm.gov/sites/blm.gov/files/uploads/Media\\\_Library\\\_BLM\\\_Policy\\\_Handbook\\\_h1790-1.pdf#book\\\_h1790-1.pdf\]\(https://www.blm.gov/sites/blm.gov/files/uploads/Media\_Library\_BLM\_Policy\_Handbook\_h1790-1.pdf#book\_h1790-1.pdf\)](https://www.blm.gov/sites/blm.gov/files/uploads/Media_Library_BLM_Policy_Handbook_h1790-1.pdf#book_h1790-1.pdf)

<sup>19</sup> 40 CFR § 1502.14(a).

“alternatives considered but dismissed from detailed analysis” in the EIS. The use of screening criteria is common practice across the Federal government.<sup>20</sup> BOEM received and incorporated input from CEQ, cooperating agencies, and the Department’s Office of the Solicitor (SOL) on these criteria.

### **Purpose and Need for a COP EIS**

When considering a COP, the “Major Federal action” analyzed in the EIS is a decision on a proposal prepared by a private applicant which proposes the development of a specific project in a defined geographic area (i.e., The Major Federal action is the “[a]pproval of specific projects, such as construction or management activities located in a defined geographic area.”)<sup>21</sup> Each defined geographic area is determined as part of BOEM’s staged decision-making process. During this process, BOEM identifies wind energy areas; determines competitive interest; and, defines lease areas. The lease area, for which the COP is submitted, represents the defined geographic area and has been analyzed for consistency with the Outer Continental Shelf Lands Act (OCSLA) Sec. 8(p)(4) which requires the balancing of several factors including safety; protection of the environment; the prevention of waste of the wind resource; conservation of natural resources; national security; and consideration of other ocean and OCS uses, among others. The lease area within which a COP is proposed, was also subject to mandatory “coordination and consultation with the Governor of any State or the executive of any local government that may be affected” by the lease which typically results in lease areas that are designed to meet the offshore wind energy demand of the affected states and localities; while also taking into account the concerns of state and local stakeholders during the lease identification process regarding potentially significant impacts to environmental and socioeconomic resources.<sup>22</sup> In addition, the lessee has a right to “one or more project easements without further competition for the purpose of installing, gathering, transmission, and distribution cables; pipelines; and appurtenances on the OCS as necessary for the full enjoyment of the lease.”<sup>23</sup> The lessee must propose their project easement(s) in their COP, however, they may defer the identification of specific easement(s) for the latter phases of a phased development proposal under BOEM’s phased development regulations.<sup>24</sup>

Under BOEM’s regulations a COP must describe: (1) all planned facilities that the applicant will construct and use for their offshore wind project including onshore and support facilities and all anticipated project easements; (2) all proposed activities including the applicant’s proposed construction activities, commercial operations, and conceptual decommissioning plans for all planned facilities,

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<sup>20</sup> See e.g., FERC’s National Gas Act EIS standard alternatives screening criteria: (1) Does the alternative have the ability to meet the Projects’ objectives?; (2) Is the alternative technically and economically feasible and practical?; (3) Does the alternative offer a substantial environmental advantage over the proposed projects? *See also*, Section 6.6.3 of BLM NEPA Policy Handbook (H-1790-1). *Available at* [https://www.blm.gov/sites/blm.gov/files/uploads/Media\\_Library\\_BLM\\_Policy\\_Handbook\\_h1790-1.pdf](https://www.blm.gov/sites/blm.gov/files/uploads/Media_Library_BLM_Policy_Handbook_h1790-1.pdf)

<sup>21</sup> 40 CFR 1508.1(q)(3)(iv)

<sup>22</sup> 43 USC 1337(p)(7)

<sup>23</sup> 30 CFR 585.200(b)

<sup>24</sup> 30 CFR 585.626(b)(3); 585.629

including onshore and support facilities which are connected actions.<sup>25</sup> BOEM responds to a COP submission with an approval, approval with modifications, or disapproval.<sup>26</sup>

As the Lead Federal Agency, BOEM bases the Purpose and Need for a COP EIS on the following:

- A description of the proposal, including the lease area, project area, and an overview of the proposed facilities, easements, and point(s) of interconnection.
- Federal and state policy goals:
  - The United States’ policy under the OCSLA to make OCS energy resources available for expeditious and orderly development, subject to environmental safeguards...<sup>27</sup>
  - Executive Order 14008, *Tackling the Climate Crisis at Home and Abroad*, issued on January 27, 2021,
    - The Departments of Interior (DOI), Energy (DOE), and Commerce (DOC) shared goal released pursuant to the above Executive Order to deploy 30 gigawatts (GW) of offshore wind in the United States by 2030, while protecting biodiversity and promoting ocean co-use.<sup>28</sup>
  - The goals of affected states, including state laws that establish renewable energy goals and mandates, where applicable.
- BOEM’s mandate under OCSLA Sec. 1337(p)(4) to ensure “any activity under this subsection is carried out in a manner that provides for” several factors including safety; protection of the environment; the prevention of waste of the wind resource; conservation of natural resources; national security; and consideration of other ocean and OCS uses, among others.<sup>29</sup> DOI SOL issued M-Opinion 37067 which describes how the Secretary of the Interior holds the ultimate discretion as to how to weigh and balance these various factors at the leasing and plan approval stages of renewable energy activities.<sup>30</sup>
- The applicant’s primary goal(s)<sup>31</sup>: awarded contracts for offtake and/or the MW nameplate capacity for the proposed project; the proposed area within the lease; among others.
- The Purpose and Need of cooperating agencies:

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<sup>25</sup> 30 CFR 585.620(a) and (b). Notably, BOEM does not have jurisdiction over onshore activities and activities within State waters, however, BOEM’s EIS cover these activities and associated resources because cooperating federal and state agencies, such as the U.S. Army Corps of Engineers, among others, may adopt and/or use BOEM’s analysis for permitting activities under their respective jurisdiction. 40 CFR 1501.9(e)(1) also requires the inclusion of “connected actions” in an EIS scope.

<sup>26</sup> 30 CFR 585.628(f)

<sup>27</sup> 43 USC 1332(3)

<sup>28</sup> [FACT SHEET: Biden Administration Jumpstarts Offshore Wind Energy Projects to Create Jobs | The White House](https://www.whitehouse.gov/briefing-room/statements-releases/2021/03/29/fact-sheet-biden-administration-jumpstarts-offshore-wind-energy-projects-to-create-jobs/) <https://www.whitehouse.gov/briefing-room/statements-releases/2021/03/29/fact-sheet-biden-administration-jumpstarts-offshore-wind-energy-projects-to-create-jobs/>

<sup>29</sup> 43 USC § 1337(p)(4).

<sup>30</sup> [m-37067.pdf \(doi.gov\)](https://www.doi.gov/m-37067.pdf)

<sup>31</sup> “Agencies may consider regulatory requirements, desired conditions on the landscape or other environmental outcomes, and local economic needs, as well as an applicant’s goals.” 86 FR 55760 (October 7, 2021). *See also* Citizens Against Burlington, Inc. v. Busey 938 F.2d 190, 199 (D.C. Cir. 1991) “Congress did expect agencies to consider an applicant’s wants when the agency formulates the goals of its own proposed action.” Moreover, “The stated goal of a project necessarily dictates the range of ‘reasonable’ alternatives.” City of Carmel-by-the-Sea v. U.S. Dep’t of Transp., 123 F.3d 1142, 1155 (9th Cir. 1997).

- National Oceanic and Atmospheric Administration (NOAA) National Marine Fisheries Services (NMFS) consideration of an incidental take authorization under the Marine Mammal Protection Act (MMPA), where applicable.<sup>32</sup>
- U.S. Army Corps of Engineers (USACE) consideration under section 404 of the Clean Water Act and multiple sections of the Rivers and Harbors Act, where applicable.<sup>33</sup>
- Other required permits, where applicable.

### **How to use the Screening Criteria**

The purpose of the screening criteria is to guide BOEM to identify, early in the development of alternatives process, which alternatives may and may not be appropriate to analyze in detail. Under the NEPA regulations, “reasonable alternatives means a reasonable range of alternatives that are technically and economically feasible, and meet the purpose and need for the proposed action.”<sup>34</sup> If an alternative is flagged as inconsistent with this definition it should not be analyzed in detail. However, prior to eliminating alternatives, BOEM should collaborate with the cooperating agencies and the applicant to see if the alternative could be modified in order to resolve the inconsistency, where appropriate. Based on NEPA caselaw and practice, it is also reasonable for BOEM to consider dismissing alternatives that increase environmental harms, are inconsistent with the applicant’s primary goals, are speculative, vague, lack evidence to support their relevance/efficacy and are duplicative.<sup>35</sup> The remaining criteria speak to these potential flaws that render the alternative “unreasonable” under the NEPA regulations. Again, BOEM could consider whether it may be possible to modify the alternative in order to remedy the flaw, in a situation where such a remedy is reasonable.

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<sup>32</sup> NOAA NMFS asserts the Action and No Action alternatives are sufficient for MMPA purposes.

<sup>33</sup> Section 404 of the Clean Water Act may require the consideration of alternatives identified by the USACE. USACE reviews the following information for all alternatives (including those determined infeasible) to fulfill Section 404 requirements: the proposed impacts including quantification of the proposed discharge of dredged or fill materials; quantification of other impacts so the same variables can be considered across all proposed alternatives (including upland impacts and USACE jurisdictional impacts); details about upland only cable routes (to avoid Section 404 impacts); a review of practicality of costs and logistics.

<sup>34</sup> 40 CFR § 1508.1(z).

<sup>35</sup> “Finally, the goals of the applicant are an important, but not determinative, factor in developing a purpose and need statement for a variety of reasons, including helping to identify reasonable alternatives that are technically and economically feasible.” 87 FR 23453, 23458 (April 20, 2022).

## Screening Criteria for Alternatives to be Analyzed in Detail in Environmental Impact Statements for Construction and Operations Plans <sup>36</sup>:

1. Does the alternative respond to BOEM's purpose and need? <sup>37</sup>
  - a. Does the alternative result in activities that are prohibited under the lease (e.g., requiring locating part, or all, of the wind energy facility outside of the lease area, or constructing and operating a facility for another form of energy)? <sup>38</sup>
  - b. Is the alternative inconsistent with the federal and state policy goals below?
    - i. The United States' policy under OCSLA to make OCS energy resources available for expeditious and orderly development, subject to environmental safeguards...<sup>39</sup>
    - ii. Executive Order 14008, *Tackling the Climate Crisis at Home and Abroad*, issued on January 27, 2021.
    - iii. The Departments of Interior (DOI), Energy (DOE), and Commerce (DOC) shared goal to deploy 30 gigawatts (GW) of offshore wind in the United States by 2030, while protecting biodiversity and promoting ocean co-use.<sup>40</sup>
    - iv. The goals of affected states, including state laws that establish renewable energy goals and mandates, where applicable.
  - c. Is the alternative inconsistent with existing law, regulation, or policy? (e.g., does the alternative meet the requirements of 33 CFR § 585.102?)
    - i. Are any state or federal agencies prohibited from permitting activities required by the alternative?
2. Does the alternative meet the primary goals of the applicant?

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<sup>36</sup> Several of these criteria were adapted from BLM's Gemini Solar Project Alternatives Report available at: [https://eplanning.blm.gov/public\\_projects/nepa/100498/20010844/250013872/508\\_FINAL\\_DRAFT\\_Gemini\\_Alternatives\\_Report\\_122019.pdf](https://eplanning.blm.gov/public_projects/nepa/100498/20010844/250013872/508_FINAL_DRAFT_Gemini_Alternatives_Report_122019.pdf); and Chapter 2 of BLM's Desert Quartzite Solar Project FEIS available at: [https://eplanning.blm.gov/public\\_projects/nepa/68211/20004344/250005187/Desert\\_Quartzite\\_Final\\_EISEIR\\_Main\\_Document\\_September\\_11\\_2019\\_508.pdf](https://eplanning.blm.gov/public_projects/nepa/68211/20004344/250005187/Desert_Quartzite_Final_EISEIR_Main_Document_September_11_2019_508.pdf)

<sup>37</sup> BOEM's template purpose and need paragraph for a COP EIS is: "Based on BOEM's authority under OCSLA to authorize renewable energy activities on the OCS; Executive Order 14008; the shared goals of the Federal agencies to deploy 30 gigawatts (GW) of offshore wind in the United States by 2030, while protecting biodiversity and promoting co-ocean use;<sup>37</sup> and in consideration of the goals of the applicant; the purpose of BOEM's action is to determine whether to approve, approve with modifications, or disapprove (insert developer name)'s COP. BOEM will make this determination after weighing the factors in subsection 8(p)(4) of OCSLA that are applicable to plan decisions, and in consideration of the above goals. BOEM's action is needed to fulfill its duties under the lease, which requires BOEM to make a decision on the lessee's plan to construct and operate a commercial-scale offshore wind energy facility(ies) in the Lease Area."

<sup>38</sup> See e.g., *Theodore Roosevelt Conservation Partnership v. Salazar*, 661 F.3d 66, 72 (D.C. Cir. 2011) (affirming a district court ruling that an application to approve, disapprove, or approve with modifications may inform a scope for the purpose and need and alternatives that is limited to the specific agency approval authority at issue).

<sup>39</sup> 43 USC 1332(3)

<sup>40</sup> [FACT SHEET: Biden Administration Jumpstarts Offshore Wind Energy Projects to Create Jobs | The White House](https://www.whitehouse.gov/briefing-room/statements-releases/2021/03/29/fact-sheet-biden-administration-jumpstarts-offshore-wind-energy-projects-to-create-jobs/) <https://www.whitehouse.gov/briefing-room/statements-releases/2021/03/29/fact-sheet-biden-administration-jumpstarts-offshore-wind-energy-projects-to-create-jobs/>

- a. Does the alternative propose relocating *a majority of the project* outside of the area (often termed the Wind Development Area (WDA) if the entire lease is not included in the proposal) proposed by the applicant?
  - i. TIP: Some shifting of the WDA may be reasonable. If an alternative is proposed that shifts the WDA, BOEM should engage with the applicant as early as possible regarding technical and economic feasibility and the need for additional data. In addition, BOEM may invite the applicant to propose adjustments to the alternative that would make it feasible and still address the potentially significant impact.
- b. Does the alternative result in the development of a project that would not allow the developer to satisfy contractual offtake obligations?<sup>41</sup>
  - i. Does the alternative result in a project with a nameplate capacity or anticipated annual energy production that is less than what is required under a Power Purchase Agreement (PPA) or Offshore Renewable Energy Credit (OREC) agreement?
    - a. TIP: If a proposed alternative results in a project below the MW nameplate capacity required by a PPA/OREC or other offtake, BOEM may review the alternative to see if an adjustment can be made that would preserve the threshold capacity (e.g., remove fewer turbines).
  - ii. Does the alternative result in implementation delays that would invalidate the agreement or trigger significant penalties (that would lead to economic infeasibility) for delays in commercial operations according to the terms of the PPA or OREC agreement<sup>42</sup>?
    - a. TIP: BOEM may seek to confirm whether flexibility to extend the deadlines is available to the applicant with both the applicant and the other party to the agreement, if possible.
- c. For a project without an existing offtake agreement, BOEM should determine whether the project is currently being reviewed as part of a competitive offtake award, or whether it plans to compete for an award during the EIS development, and identify the minimum

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<sup>41</sup> Where present, meeting an offtake agreement(s) is the primary goal of the applicant's proposal. Offtake agreements are also unlike other private agreements between two for-profit entities involved in an offshore wind project: (1) The offtake agreement is the primary (and often sole) source of revenue for a project. Offshore wind projects will not obtain financing for the capital investment needed for construction without an offtake agreement. This makes the offtake agreement central to the economic feasibility of a project. (2) Offtake agreements are often the result of years of work by states and/or regional/local utilities that may include competitive award processes; coordination with a regional ISO regarding Point of Interconnection and the capacity constraints therein; and are subject to considerable regulations regarding electricity pricing, interconnection requirements and public interest considerations. BOEM finds that the unique position of these agreements necessitates more deference than a typical contract between two private for-profit entities. An alternative that fails to meet the main goal of the applicant would be equivalent to analyzing a no action alternative. Therefore, BOEM considers it appropriate under NEPA to analyze in detail only those alternatives that would allow lessees to meet the obligations under their offtake agreements.

<sup>41</sup> 43 CFR 46.420(b) (emphasis ours).

<sup>42</sup> BLM's Southern Bighorn Solar EIS contains an example of similar analysis regarding a PPA: [https://southernbighornsolar.com/wp-content/uploads/2021/06/SBSP-Final-EIS\\_Vol-1\\_210527\\_508\\_Final-revised.pdf](https://southernbighornsolar.com/wp-content/uploads/2021/06/SBSP-Final-EIS_Vol-1_210527_508_Final-revised.pdf)

nameplate capacity required to remain eligible for these awards. Based on the specific facts of the project, and BOEM’s own research, BOEM may use this minimum nameplate capacity as an applicant’s primary goal which would inform the range of reasonable alternatives.

3. Is it environmentally infeasible? An alternative would be environmentally infeasible, if, after coordination with cooperating agencies, BOEM determined that the alternative:
  - a. Would cause an obvious and substantial impact to the human environment such that a permitting agency would not issue the requested permit or authorization (e.g., a cable route through a USACE sand borrow area)?<sup>43</sup>
  - b. Would result in an obvious and substantial increase in impacts to the human environment that outweighs potential benefits, including impacts to: protected resources (e.g., an ESA-listed species, marine mammal, essential fish habitat, migratory bird species, wetlands); other ocean and/or OCS users; Tribal resources; cultural resources; and environmental justice communities, among others.
  - c. When weighing whether to analyze an alternative in detail, known increases in harmful environmental or socioeconomic impacts resulting from the alternative should be considered in case they outweigh the potential benefits. A holistic view across resources and impacts must be taken, rather than a single resource or impact view. If this information requires further study, a detailed analysis of the alternative may be appropriate.
    - i. TIP: If an alternative is proposed that is environmentally infeasible, BOEM may consider whether an adjustment to the alternative could reduce the impact to an acceptable level.
4. Is there scientific evidence that the alternative would avoid or substantially lessen one or more *significant* socioeconomic or environmental effects of the Project?<sup>44</sup> When determining: (1) the efficacy of the alternative to avoid or substantially lessen an impact; (2) whether a socioeconomic or environmental effect is significant, BOEM should request scientific information from the agency that recommended the alternative. Upon consideration of this information, BOEM may eliminate the alternative from detailed analysis if there is no scientific evidence that the alternative would avoid or substantially lessen one or more significant socioeconomic or environmental effects of the Project.

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<sup>43</sup> “Human environment means comprehensively the natural and physical environment and the relationship of present and future generations of Americans with that environment.” 40 CFR § 1508.1(m) Proposed placement of cables in or under federal civil works projects sand borrow areas will be screened out. Early coordination with USACE is recommended (Step 3 of Process Summary above) to coordinate feasible cable routes.

<sup>44</sup> See note 17 on definition of significance. Similarly, Section 6.6.3 of BLM NEPA Policy Handbook (H-1790-1). Available at [https://www.blm.gov/sites/blm.gov/files/uploads/Media\\_Library\\_BLM\\_Policy\\_Handbook\\_h1790-1.pdf](https://www.blm.gov/sites/blm.gov/files/uploads/Media_Library_BLM_Policy_Handbook_h1790-1.pdf) includes the screening criteria: “Would it avoid or substantially lessen any significant effects of the Project?”. See also 43 CFR 46.415(b); Tule Wind Energy Project [https://eplanning.blm.gov/public\\_projects/nepa/66447/80893/94355/C.Alternatives.pdf](https://eplanning.blm.gov/public_projects/nepa/66447/80893/94355/C.Alternatives.pdf) and Gemini Solar Project [https://eplanning.blm.gov/public\\_projects/nepa/100498/20010844/250013872/508\\_FINAL\\_DRAFT\\_Gemini\\_Alternatives\\_Report\\_122019.pdf](https://eplanning.blm.gov/public_projects/nepa/100498/20010844/250013872/508_FINAL_DRAFT_Gemini_Alternatives_Report_122019.pdf)

- a. If it is a proposed alternative onshore or offshore cable route, is it likely to confer a substantial environmental or socioeconomic advantage over the proposed route?<sup>45</sup>
5. Is the alternative technically infeasible or impractical, meaning implementation of the alternative is unlikely given past and current practice, technology (e.g., experimental turbine design or foundation type), and/or site conditions (e.g., presence of boulders) as determined and documented by BOEM’s technical experts?<sup>46</sup> When considering technical and economic feasibility, BOEM staff should review the *Project Siting and Design* section of the applicant’s COP to see if sufficient technical and economic justifications for eliminating the alternative are documented therein. If BOEM is relying on information and determinations supplied by the applicant, BOEM should seek to independently verify the information to the extent reasonably possible and prepare a written determination, where appropriate.
    - a. Is the alternative consistent with the applicant’s Project Design Envelope (PDE) at the time of the NOI<sup>47</sup>? While not always dispositive, the applicant’s PDE should be given considerable weight when considering technical feasibility and practicality due to the interdependencies of offshore wind facility components; and the need to select components that are suitable and effective for the site-specific seabed, ocean and meteorological conditions.
      - i. TIP: If an alternative is proposed that includes a significant change to the PDE (project layout; turbine and offshore substation numbers and design; cabling length; landfall and/or Point of Interconnection location and Offshore Export Cable Corridor (OECC)) BOEM should engage with the applicant as early as possible regarding technical and economic feasibility. In addition, BOEM should invite the applicant to propose adjustments to the alternative that would make it feasible and still address the potentially significant impact.
    - b. Does the alternative require the use of technology that is not anticipated to be commercially available at the time the Record of Decision (ROD) is scheduled to be issued (based on permitting timeline at the Notice of Intent (NOI))?
      - i. TIP: If the technology is outside of the applicant’s PDE and is not available at the time of the NOI, BOEM should caveat in the Draft EIS that the selection of the alternative will depend on whether the technology is commercially available at the time of ROD.

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<sup>45</sup> “Route alternatives are typically only recommended if the alternative confers a substantial environmental advantage over the proposed route. Otherwise, such an alternative merely represents a shift in impacts from one area or resource to another.” Final Environmental Impact Statement for the NEXUS Gas Transmission Project and Texas Eastern Appalachian Lease Project at <https://cms.ferc.gov/sites/default/files/2020-05/FEIS.pdf>;

<sup>46</sup> The Section 6.6.3 of BLM NEPA Policy Handbook (H-1790-1) uses the same screening criteria “consider whether implementation of the alternative is likely given past and current practice and technology.” Available at [https://www.blm.gov/sites/blm.gov/files/uploads/Media\\_Library\\_BLM\\_Policy\\_Handbook\\_h1790-1.pdf#book\\_h1790-1.pdf](https://www.blm.gov/sites/blm.gov/files/uploads/Media_Library_BLM_Policy_Handbook_h1790-1.pdf#book_h1790-1.pdf)

<sup>47</sup> [Draft Guidance Regarding the Use of a Project Design Envelope in a Construction and Operations Plan \(boem.gov\)](https://www.boem.gov/draft-guidance-regarding-the-use-of-a-project-design-envelope-in-a-construction-and-operations-plan)



6. Is the alternative economically infeasible or impractical, meaning implementation of the alternative is not feasible due to unreasonable costs as determined by BOEM’s technical and economic experts? While this does not require cost-benefit analysis or speculation about an applicant’s costs and profits, there must be a reasonable documented basis for concluding that a project is not feasible economically. If BOEM is relying on information and determinations supplied by the applicant, BOEM seeks to independently evaluate the information and make an independent determination, to the extent reasonably possible, relying on agency technical and economic SMEs.
  - a. Common factors include<sup>48</sup>:
    - i. Impacts to a lessee’s ability to access suitable points of interconnection.
    - ii. Impacts to a lessee’s position in an ISO queue.
    - iii. Exceeding the technical capabilities of a key proposed component (e.g., an alternative that requires the use of an HVAC booster station or a switch to HVDC power because of its impact to the export cable length).
    - iv. Remoteness from existing infrastructure (e.g., ports, highways).
    - v. Results in a delay of the ROD that impacts the feasibility and/or undermines the purpose and need of the project (A reasonable approach is to seek information from the applicant about delays that are 6 months or longer).<sup>49</sup>
    - vi. Results in onshore site accessibility challenges, such as onshore cable route crossing newly identified private land(s), or the presence of USACE civil works projects under Section 408 of the Rivers and Harbors Act. In this case BOEM may request that the lessee engage in due diligence to determine their ability to reasonably obtain site access.<sup>50</sup>
  - b. TIP: If an alternative is proposed that is potentially economically infeasible, BOEM should engage with the applicant as early as possible regarding economic feasibility. In addition, BOEM may invite the applicant to propose adjustments to the alternative that would make it feasible and still address the potentially significant impact.
  
7. Is implementation of the alternative remote or speculative?
  - a. Is there insufficient information to meaningfully analyze impacts based on: available information; information that is incomplete or unavailable but could be obtained through practicable means; or could be predicted using available models or other well-recognized scientific methods?

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<sup>48</sup> BLM and BIA’s FEIS for the following projects informed this section: Crimson Solar, Borderlands Wind, Eagle Shadow Mountain Solar, Yellow Pine Solar.

<sup>49</sup> “A preferable alternative also would need to provide the services within a reasonably similar timeframe. It is important to recognize that not all conceivable alternatives have the ability to meet the objective, and an alternative that does not meet the Projects’ objectives cannot be considered a reasonable alternative and is not considered in our evaluation.” Final Environmental Impact Statement for the NEXUS Gas Transmission Project and Texas Eastern Appalachian Lease Project at <https://cms.ferc.gov/sites/default/files/2020-05/FEIS.pdf>

<sup>50</sup>See e.g., Crimson Solar Project FEIS at [https://eplanning.blm.gov/public\\_projects/88925/200202547/20034526/250040724/Crimson%20Solar%20Final%20EIS-PA.pdf](https://eplanning.blm.gov/public_projects/88925/200202547/20034526/250040724/Crimson%20Solar%20Final%20EIS-PA.pdf); Alta East Wind Project FEIS which eliminates a potential route alternative with barriers to feasibility due to inclusion of private lands at [https://eplanning.blm.gov/public\\_projects/nepa/66300/80735/93985/Vol1\\_BLM\\_Alta\\_East\\_FEIS.pdf](https://eplanning.blm.gov/public_projects/nepa/66300/80735/93985/Vol1_BLM_Alta_East_FEIS.pdf);

- b. Is there insufficient available information to determine whether the alternative is technically feasible?
- 8. Is it substantially similar in design to an alternative that is analyzed in detail?
  - a. Does the alternative substantially duplicate other less harmful or less expensive alternatives?
- 9. Would it have substantially similar effects as an alternative that is analyzed in detail?<sup>51</sup> If this is the case, BOEM may eliminate the alternative, or consider whether the alternative would be more appropriate to consider as a mitigation.

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<sup>51</sup> “The Department agrees that bureaus need not separately analyze alternatives that have been shown to have substantially similar environmental consequences. This is a well-established principle.”—preamble to 43 CFR Part 46 pg. 61311, available at <https://www.doi.gov/sites/doi.gov/files/uploads/Federal-Register-October-15-2008-NEPA.pdf>. See also *e.g.*, *Paradise Ridge Defense Coalition v. Hartman*, No. 17-35848, (9th Cir. 2018).