CHAPTER 10 | DECISION-MAKING PROCESS

Due to the ecological and socioeconomic impacts described in previous chapters, it is important to discuss how decisions will be made regarding proposed utility-scale solar facilities on public lands. The process of development for proposed facilities on public lands involves a Right-of-Way (ROW) grant from the BLM, a license from the CEC, approval of a power purchase agreement from the CPUC, and feasibility, system impact, and facilities studies from the California Independent System Operator (CalISO), among others. The following is an explanation of these individual processes, how they interact, and how these agencies are attempting to create a single process for solar developers.

As the BLM is the major agency responsible for approving the siting of solar facilities and is currently implementing the Solar PEIS, through which it is possible to change the permitting process, an evaluation of the process was conducted. The evaluation highlighted strengths as well as weaknesses of the process. To assist in creating recommendations to address the weaknesses, two alternative processes, onshore oil and gas leasing and wind right-of-way grants, were analyzed to identify components that could be applied to the solar process to improve it.

PERMITTING PROCESSES FOR SOLAR DEVELOPMENT

Due to the interconnected nature of power generation infrastructure and overlapping jurisdictions of federal and state agencies, there are multiple agencies and processes through which solar developers must navigate to receive permits necessary to build their facilities. Some of the processes apply to specific stages of solar development, such as linking into the transmission grid or approving power purchase agreements between utilities and developers, while other processes overlap when multiple permits are needed to develop a facility on federal land within the State of California. The primary permitting processes are conducted by the BLM and the CEC. Other federal and state agencies also play a role in the siting of solar facilities on BLM land in the CDCA.

BLM Right-of-Way Grants for Solar Facilities

Current applications for utility-scale solar facilities on BLM land are processed as ROW grants under Title V of the FLPMA and Title 43, Part 2802 of the Code of Federal Regulations (CFR).[1] Solar developers need to apply for a ROW grant from the BLM field office within which the proposed facility is located for systems for generating, transmitting, and distributing electricity. This process can take two years or more. All utility-scale CSP or PV electric generating facilities must also comply with the BLM's current land use plans. The scope of the environmental analysis required by NEPA for a solar energy development project must address all aspects of the solar project, including direct, indirect, and cumulative effects of the proposed action.[2] If granted, the length of the ROW authorization is not

limited by regulation; however, it must recognize the overall costs and useful life of solar energy facilities.[3]

Currently, ROW applications for solar energy development are being accepted and processed on a first-come, first-served basis. While the entire process has yet to be completed for an individual facility, one BLM staff member noted that the process is expected to take approximately 18 months.[4] The ROW regulations provide authority for offering public lands under competitive bidding procedures. The BLM has indicated they will initiate a bidding process if a land use planning decision has specifically identified an area for competitive leasing. The SESAs may be designated for competitive leasing as part of the Solar PEIS.[5]

Steps for the BLM ROW Solar Facility Siting Process[6] (Figure 10.1):

1. Applicant submits a SF-299 ROW application to the BLM field office with jurisdiction over the proposed project location. The SF-299 is a two page document requiring a short project description, location, and possible environmental impacts.
2. Applicant submits a comprehensive Plan of Development (POD), a $50,000 processing deposit, and initial engineering designs on surface water drainage within 90 days of submitting the SF-299.
3. The BLM Field Office Project Manager reviews the POD to determine data adequacy. Data adequacy is met when the BLM has received all necessary information to process the application. If necessary, the BLM reports deficiencies to the applicant.
    a. The engineering designs are sent to the BLM state office for review by an engineer contractor, who determines if changes are necessary. This can take up to 45 days.
    b. The DOD is consulted to determine conflicts with low-flight zones and other military activities.
    c. State Historic Preservation Officer (SHPO) is consulted to determine conflicts with national historic and cultural places.
    d. Tribes are engaged for Government-to-Government consultation.
4. If deficiencies are reported, the applicant has 30 days to make changes if they are small, or 60 days if significant changes need to be made.
5. When the BLM Field Office Project Manager deems the POD to be data adequate and it has been approved by the Field Office Manager, a briefing process within the BLM is initiated. The BLM District Manager is briefed on the project, and if approval is given, the project moves forward to the BLM State Director for approval.
6. If the project is approved by the State Director, the BLM publishes a Notice of Intent in the Federal Register to begin the NEPA process for the project.
7. The BLM completes a NEPA analysis for project.

a. The BLM conducts public scoping meetings for the project.
b. The BLM publishes a Draft EIS for the project.
    i. While preparing the Draft EIS, the BLM conducts a Section 7 Consultation with the FWS regarding possible impacts to species listed under the Endangered Species Act (see FWS process below).
c. A 90-day public comment period is held for the Draft EIS.
d. The BLM publishes a Final EIS for the project.
e. The BLM holds a 30-day no-action period for public review.

8. The BLM issues a Record of Decision (ROD), approving or denying the ROW grant.

BLM Right-of-Way Fees

Solar facilities granted a ROW are subject to rent based on fair market value of the land using real estate appraisals.[7] Since the rental payment reflects the full use of public land for solar facilities, similar to a lease for industrial purposes, there are no additional royalty payments for electric generation.[8]

The submission of a solar facility application are assessed a $50,000 deposit fee. Each facility is also estimated to spend $200,000 to $300,000 in cost recovery over the course of the permitting process.[9] Cost recovery funds are used to pay for BLM employee time spent on processing individual solar applications. If a facility is granted a ROW there will also be cost recovery fees associated with monitoring and administrative work through the life of the project.

Solar facilities granted a ROW are also required to bond for funds used to ensure compliance with the conditions of the authorization and the requirements of the regulations, including reclamation after termination of the permit. The reclamation provisions within the POD should include not only removal of solar collectors and other structures, but also the reclamation of access roads and other disturbed areas.[10] The amount of the bond will vary by project based on the predicted cost of facility removal and land reclamation. For example, wind projects are assessed a $10,000 reclamation bond per turbine.[11]

Environmental mitigation is required for all approved solar facility ROWs. Presently, a standard protocol for determining mitigation requirements has not been adopted by the BLM. Traditionally, mitigation has required the ROW grantee to purchase and donate to the federal government private land or purchase mitigation credits at a ratio of one acre for every acre granted under the ROW.[12]

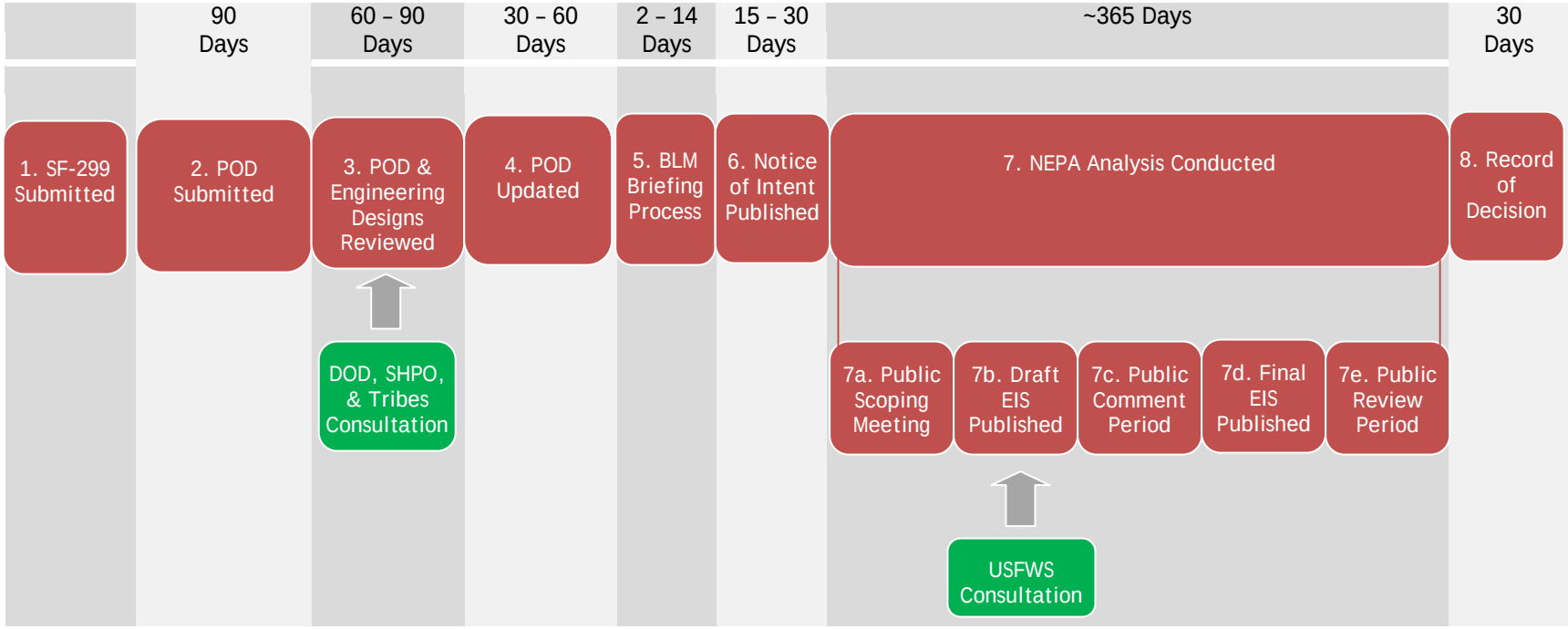

Figure 10.1 Flowchart of the Bureau of Land Management Right-of-Way Process for Solar Projects. Red boxes denote a step in the BLM process. Green boxes denote consultations with or input other agencies and governments.

CEC Application for Certification for Solar Facilities

The CEC has the statutory authority for licensing all thermal energy projects larger than 50 MW. Solar developers must apply for an AFC from the CEC, which will issue a separate decision from the BLM. The CEC's AFC process is certified under the CEQA and is equivalent to CEQA's Environmental Impact Report (EIR) process. This allows for replacement of the EIRs that would normally be completed by the DFG with the CEC's staff assessments and committee reports. As stated in the statute, an AFC process must be completed within 12 months of the project being deemed data adequate; however, currently the CEC is completing applications, on average, in 17 months.[13]

Steps for the CEC AFC Solar Facility Siting Process[14] (Figure 10.2):

1. Applicant submits 125 copies of their AFC application to the CEC's Docket Unit. Required information includes a project, site, engineering, and environmental description, related transmission information, and proof of compliance with federal, state, and local laws.
2. CEC staff reviews the AFC for data adequacy. Data adequacy is determined by the inclusion of all required siting information. Relevant agencies participate in this review process. CEC staff makes a data adequacy recommendation to the Commission within 30 days of the AFC being filed.
3. CEC issues decision on AFC data adequacy at a public meeting within 45 days of the AFC being filed.
    a. If there are deficiencies, the applicant must submit a supplement with the changes.
    b. If deemed data adequate, an Energy Commission Committee is formed, which contains two Energy Commissioners, to preside over the process.
4. When the Commission deems the AFC to be data adequate, CEC staff begins to collect data for impact analysis from the applicant and other agencies.
    a. The CEC holds informational public hearings and workshops.
    b. The CalISO files findings on System Impact Study (SIS). This is an evaluation of the impact of the transmission connection with the grid.[15]
    c. State and federal agencies issue draft permits or opinions.
5. The CEC completes a Staff Assessment for the project.
    a. The CEC publishes a Preliminary Staff Assessment for the project.
    b. A 20 day period of public workshops is held for the Preliminary Staff Assessment.
    c. The CEC publishes a Final Staff Assessment.
6. CEC staff, applicant, and related agencies present findings to the Energy Commission Committee.
7. The Energy Commission Committee releases the Presiding Members Proposed Decision (PMPD) for a 30 day public comment period.
8. The Energy Commission Committee issues a Final Presiding Members Proposed Decision.

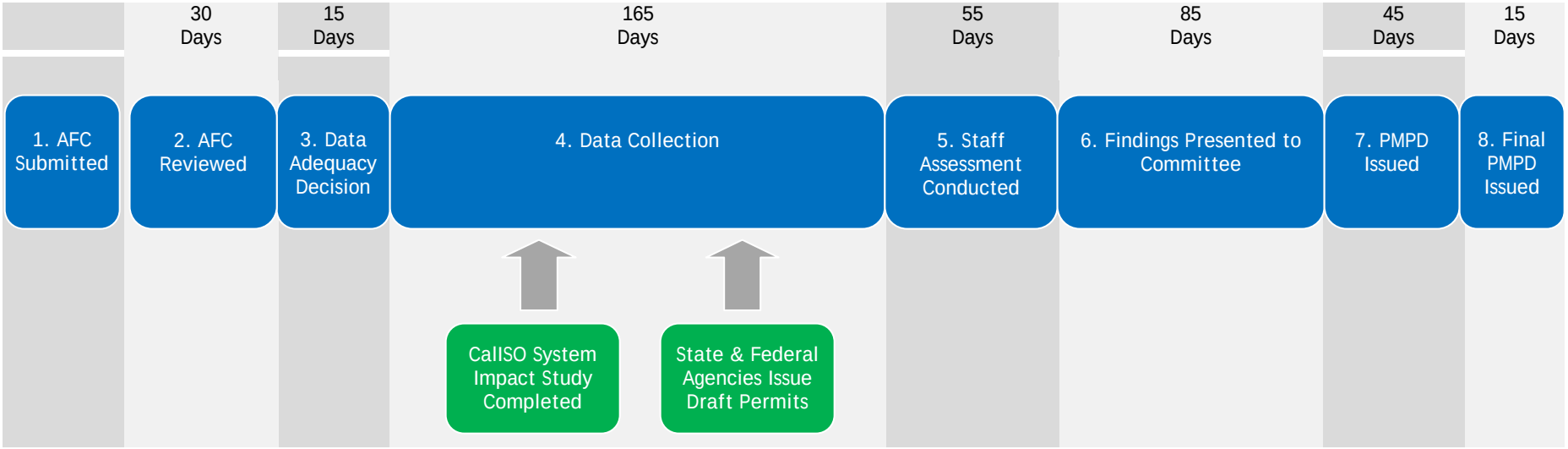

Figure 10.2 Flowchart of California Energy Commission's Certification Process for Solar Projects. Blue boxes denote a step in the CEC process. Green boxes denote consultations with or input from other agencies and governments.

Linking the BLM and CEC Processes

The CEC entered into a MOU with the BLM in August 2007 to create a joint process for completing solar applications on BLM land (Figure 10.3). The two processes require similar information from the developer, public participation opportunities, consultation with relevant agencies, and environmental analysis. There are differences in that CEC analyzes the engineering of a project and the BLM considers alternatives under the NEPA. The goal of the MOU is to have a single process with joint workshops, meetings, and environmental analysis in order to streamline and expedite the application process.

As a CEC staff member said, "They're [the processes] similar but different. BLM has their plan of development that has to be submitted, and it's more general than the Energy Commission [requirements]… We [the Energy Commission] also evaluate the engineering of the project and we also do socioeconomics of the project. So it's more than just environmental. So our processes are similar. BLM has a little more [required by NEPA], we've incorporated theirs but they have sections on recreation and alternatives that are different between the two processes so we use the BLM more, if you would. BLM has more info required in their alternatives analysis than the CEQA does and we expand the alternatives to cover that. So we've merged the two processes to come up with a document that covers everything."[16]

The agencies have combined the CEC's informational hearing and site visit with the BLM's public scoping meeting.[17] During the joint NEPA/CEQA process, the BLM is responsible for preparing the Purpose of Need, the NEPA alternatives, and Native American consultation.[18] The CEC is responsible for preparing an environmental and engineering assessment of the project.[19] However, there will be separate permits issued by each agency, a ROD from BLM and a PMPD from CEC.

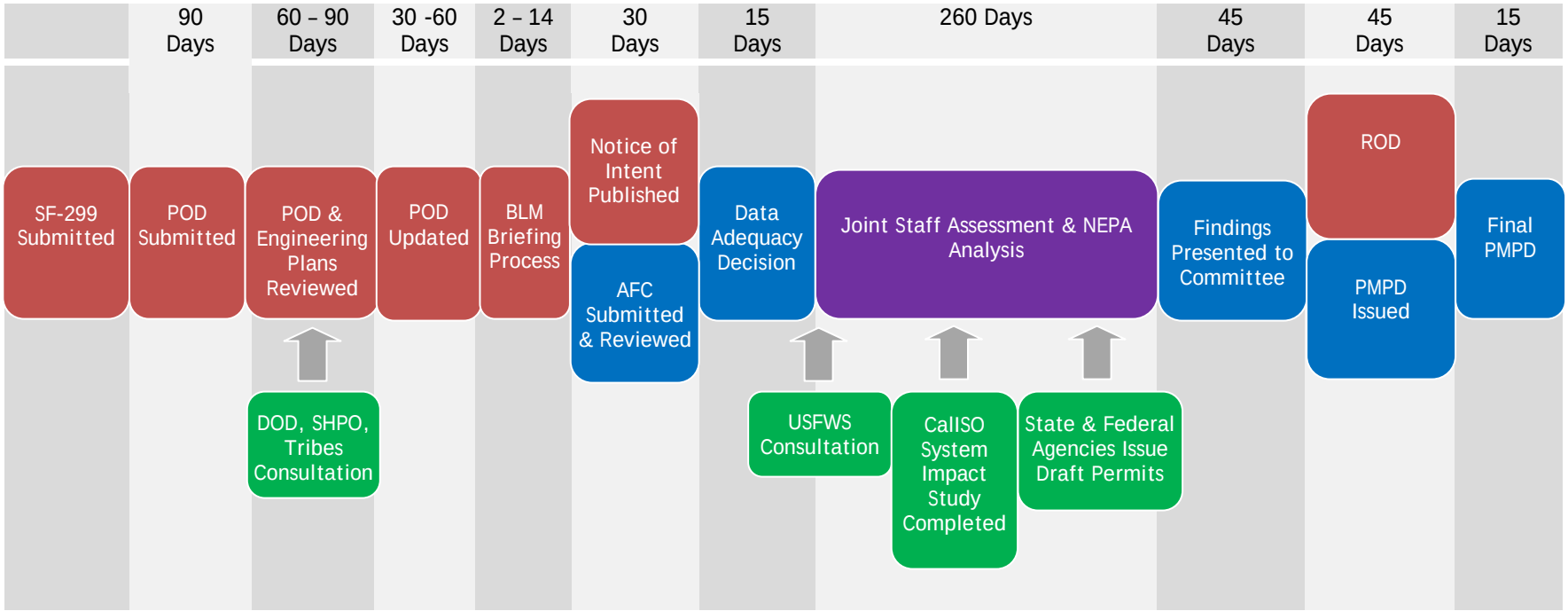

Figure 10.3 Flowchart for Joint BLM and CEC Processes for Permitting Solar Projects. Red boxes denote a step in the BLM process. Blue boxes denote a step in the CEC process. Purple boxes denote a joint activity by the BLM and CEC. Green boxes denote consultations with or input from other agencies and governments.

Other Agencies and Governments Involved in Permitting

The California Public Utilities Commission

The CPUC regulates investor-owned utilities in California, oversees the procurement of renewable energy in the state under the RPS implementation program, and permits electrical transmission.[20]

In order to sell the power produced by a new facility, a solar developer must enter into a long term contract, known as a Power Purchase Agreement (PPA), with a utility for the purchase of the power that the solar energy facility will produce. Before the PPA is finalized, the CPUC must approve the contract.[21] In doing so, the CPUC considers the perceived viability of the project, the price of power in the contract, and how purchasing that power will contribute to the utility's goals under the RPS program before approving or denying the contract.[22] As an analyst at CPUC noted, "It's rare that we deny contracts, because we have been working with them all along. If we have concerns about a project, we would have given the utility that feedback beforehand. It is pretty rare that they would get to the point of filing a contract with us, and then we would deny the approval for that project."[23] PPA contracts can come to CPUC before the developer submits permit applications, during the approval process, or after the facility has been approved. This can vary because developers must obtain permits to construct the facility, obtain transmission connection, and obtain a PPA, and progress on one component can hinge on the progress of another.[24]

In addition to approving individual PPAs and ensuring utilities sign contracts that will help them achieve their goals under the state RPS program, the CPUC has statutory responsibility to permit transmission lines. Most of the transmission grid in California is owned by investor-owned utilities. CalISO operates the transmission grid in California, but the CPUC is responsible for determining if a new line is needed, for determining if the cost of the lines recovered through increased rates is a justifiable to rate payers, and for permitting the routing of new lines, including those undergoing environmental review under the CEQA.[25]

The California Independent System Operator

CalISO operates the majority of California's high-voltage transmission grid.[26] They conduct technical planning for electrical transmission, including determining availability across various lines to ensure power can be delivered through the grid to meet demand. CalISO works closely with CPUC in the permitting of new transmission lines.[27] In order for a solar facility to gain interconnection into the grid, CalISO performs three studies. The feasibility study "evaluates the feasibility of the proposed interconnection by performing power flow and short circuit analyses."[28] This study requires a $10,000 deposit and takes 60 days. The system impact study "evaluates the impact of the proposed interconnection on the reliability of the grid."[29] This study requires a $50,000 deposit and takes 120 days. The facilities study evaluates the impact on interconnection facilities and determines if any

network upgrades needed. This study requires a $100,000 deposit and takes 120 to 210 days. In addition to the deposits noted, the solar facility developer must pay for the actual costs of these studies.

The U.S. Fish and Wildlife Service

The FWS is responsible for administering the Endangered Species Act (ESA). Section 7 of the ESA requires federal agencies to "consult with the FWS to ensure that the effects of actions they authorize, fund, or carry out will not jeopardize the continued existence of listed species."[30] Permitting solar facilities on BLM land qualifies as an agency action. A Section 7 Consultation, as this process is known, is likely to be required for most, if not all, solar facility right-of-way applications because of the numerous listed species found throughout the CDCA, notably the widely dispersed and threatened desert tortoise (*Gopherus agassizii*). The consultation process is typically initiated by the BLM during their development of the biological assessment as part of the Draft EIS for a proposed solar facility.[31]

During this Section 7 Consultation, the FWS issues a biological opinion on the proposed action that analyzes the impacts of the action on listed species and determines if the action will jeopardize the continued existence of the species.[32] If a jeopardy determination is made, which is rare, the agency offers alternative recommendations for how the proposed action can be altered to avoid jeopardy.[33] If the determination is that there will be impacts to the species, but such impacts will not jeopardize its existence or substantially lead to its extinction, the FWS issues terms and conditions within a biological opinion document. These are measures that the FWS feels need to be implemented to minimize impacts to the species under the proposed action.[34]

The California Department of Fish and Game

The DFG is responsible for the management of fish and wildlife in the state, which includes administering the California Endangered Species Act (CESA). Under the CESA, the CEC must consult with the DFG to determine any impacts to species listed under the CESA. Similar to implementation of the federal ESA, the DFG must issue an incidental take permit for any action that would impact one or more species listed under the CESA before the action impacting the species can be undertaken.[35]

The Office of Historic Preservation

The Office of Historic Preservation (OHP) for the State of California is responsible for ensuring the projects carried out or sponsored by federal or state agencies comply with appropriate federal and state historic preservation laws, including the National Historic Preservation Act (NHPA). Section 106 of the NHPA requires any federal agency undertaking an action that may affect historic properties to consult with the SHPO.[36] Historic properties are those included in the National Register of Historic Places or properties that meet National Register criteria.

For any proposed solar facilities that may affect historic properties, the BLM must initiate a Section 106 consultation. During this consultation, the SHPO identifies any historic properties that may be impacted and assesses possible adverse effects. If adverse effects are found, the SHPO and the BLM will typically sign a Memorandum of Agreement outlining the measures that the BLM will take to avoid, minimize, or mitigate the adverse effects.[37] The parties may also agree that "no such measures are possible, but that the adverse effects may be accepted in the public interest".[38]

The U.S. Department of Defense

The DOD operates several large military installations in the CDCA, including Fort Irwin, Twentynine Palms Marine Corps Base, China Lake Naval Weapons Center, and Edwards Air Force Base. The DOD reviews all applications processed by the BLM to determine if proposed facilities will have any effect on the ability for the DOD to carry out its mission.[39] While the DOD has no authority or jurisdiction in altering or denying an application, they may issue recommendations to the BLM on individual projects regarding any possible conflicts with DOD missions. The DOD issues red, yellow, or green recommendations based on possible conflicts with missions in established low-flight zones.

Tribes

There are many tribes in the California desert that have historic and cultural ties to BLM land. For any proposed solar facilities, the BLM must conduct Government-to-Government consultation with the Tribes as mandated under Section 106 of the NHPA. The CDD formally notifies the tribes of each project, with follow–up, and they are encouraged to provide their views and comments through all available processes, including NEPA, Section 106, and formal government-to-government meetings.[40] Tribal views and comments are then taken into consideration during decision-making for solar projects.

EVALUATION OF THE BLM RIGHT-OF-WAY PROCESS FOR SOLAR FACILITIES

As the BLM will be using the ROW process to evaluate proposed solar facilities, it is important that this process allows for siting decisions to made in a comprehensive and effective manner. A critical analysis of the BLM's right-of-way process as it is applied to solar facilities was conducted using a set of normative criteria. Input from interviews, the stakeholder survey, and a survey of organizations supported our evaluation. The analysis determined whether the solar ROW process effectively addressed each of the criteria. The results of the analysis highlight the strengths and weaknesses of the process as well as considers other factors affecting processing. We have chosen to focus our evaluation and recommendations on the BLM ROW process since the agency is currently in the process of conducting a Solar PEIS, which will consider changes to the process. The analysis was conducted in order to inform and offer recommendations for improvement of the process for BLM staff, solar developers, and other interested and involved agencies and organizations. The CEC is not considering

changes to their AFC process; therefore, their process is not analyzed. However, the integration of the BLM and CEC process was included in the analysis, as some changes to the BLM process may affect how the two processes integrate.

Two strengths and eleven weaknesses with the BLM process for siting solar facilities as it currently exists were identified (Table 10.1). When the Solar PEIS is released in draft and then in final form it may address some or all of these weaknesses, but these remain important as applications are processed in the meantime. Additionally, seven other factors were identified as affecting the processing of solar development applications. These are situational factors that are creating concerns and not weaknesses of the process itself. Most of these factors stem from the high level of interest in solar project development, which has generated a large number of solar ROW applications in a short time period in the California desert.

Table 10.1 List of Criteria, the Strengths (+) and Weaknesses (—) of the Current ROW Process as Applied to Solar Projects, and Other Factors (○) Affecting Application processing.

Efficiency
- (+) ROW process familiarity
- (—) No authority to reject applications
- (—) No method for prioritizing applications
- (—) CEC & BLM collaboration
- (—) BLM guidance for SF-299 and POD
- (○) Number of applications
- (○) BLM staff levels
- (○) Inter-agency coordination

Clarity of Process
- (—) CEC & BLM collaboration
- (—) Undefined environmental mitigation
- (—) Undefined Land Rental Rate
- (—) BLM guidance for SF-299 and POD
- (○) Initial BLM — developer contact
- (○) Process applied to new use

Robust Set of Options
- (+) Use of the NEPA process
- (—) First come, first serve
- (—) Limited alternatives considered

Environmental Protection
- (+) Use of the NEPA process
- (—) Combined agency enviornmental analysis
- (—) Undefined environmental mitigation
- (○) "Fast Track" projects

Spatial or Temporal Scale
- (—) Lack of desert scale consideration
- (—) Lack of cumulative impact consideration

Public Engagement
- (+) Use of the NEPA process
- (—) Inefficient public communication
- (○) "Fast Track" projects

Efficiency

An efficient process reduces costs to developers and the BLM, BLM staff time, and other resource inputs while allowing for decisions to be made in a timely manner.

1. BLM Familiarity with the ROW Process

The BLM issues right-of-way grants for roads, transmission lines, communication towers, wind turbines, and similar developments, so BLM staff is well versed in the right-of-way process. BLM staff feel this is a strength since applying the process to solar facilities

presents some challenges, discussed below, but the process itself does not impose a learning curve on the BLM. This adds to the efficiency of the process.

2. Lack of BLM Authority to Reject Applications

The BLM does not have the authority to reject "bad" applications before the NEPA process begins. Applications that are clearly speculative, include fatal flaws based on staff experience, or are located in areas with many existing land use conflicts must be reviewed even when BLM staff know will never get through the process for approval. Instead of rejecting applications, BLM staff may inform the applicant of likely conflicts with their application but cannot require the applicant to move or change their application. BLM staff at the state, district, and field offices and an environmental group mentioned this weakness.

For example, the Ridgecrest Field Office rejected several right-of-way applications for solar facilities because the proposed siting was in a designated Mojave Ground Squirrel Conservation Area. Based on that designation, a BLM staff member noted, "Within the Mojave Ground Squirrel Conservation Area, between 2006 and the year 2036, there can only be new surface disturbance totaling 10,387 acres scattered across the entirety of the Conservation Area. If you do the math, it comes up to about 300 surface acres a year that we can absorb in new disturbances within the area. When we had applications coming in for 6,000 acres, we were looking at one permitee consuming 60 percent of the available acres for the 30 year life of the plan. As you can imagine, that created quite some concern for us in management. We determined that in the conservation area that was not compatible, so we rejected the application."[41] The Interior Board of Land Appeals later overturned the rejection and declared that the BLM must treat each application seriously and equally as they do not have the authority to be pre-decisional, that is making a decision before a full analysis has been completed.[42]

Since BLM cannot simply reject applications they see as unfeasible, they are forced to use time and resources processing those applications, which reduces efficiency. This detracts from their ability to process applications that are better developed and potentially face fewer conflicts, as well as their ability to perform the numerous other duties of their office beyond solar facility siting.

3. No Method for Prioritizing Application Processing

Both a BLM field office staff member and a solar developer noted that field offices do not have a standard method or protocol for prioritizing application processing. With so many right-of-way applications filed at the same time within each field office, BLM staff must attempt to effectively process all applications with limited staff while completing the numerous other duties of the office, which reduces efficiency. As a BLM staff member stated, "We started off on a project by project basis and then got slammed. We're working under pretty strict deadlines: there are targets to be made here

in California, and there are national targets. There are commitments made by the [Obama] administration. How do we do that with a large flood [of applications]? How do we do it in a fair process for everyone?"[43] The October 2009 MOU between the State of California and the DOI places a higher priority on applications within SESAs and renewable energy zones identified in the DRECP and in RETI and areas that do not require new transmission. Additionally, 10 projects are self-identified as "Fast Track" projects in an attempt to take advantage of ARRA Funding. These projects are also prioritized as the funding deadline is December 2010. Even with these priorities the BLM has not established a method for prioritizing applications within these groups. Field office staff continue to face pressure from solar developers to process their application quickly and efficiently, while some environmental stakeholders pressure them to slow down in order to ensure all possible impacts are completely analyzed. Thus, the lack of a prioritization method means the BLM is subject to political and stakeholder pressures. An established method would insulate the agency from these pressures.

4. CEC & BLM Collaboration

Solar projects located on BLM land must go through both the BLM and the CEC permitting process. To reduce processing time, the two agencies entered into an MOU to combine the two processes. However, BLM and CEC have never collaborated on large projects before. Employees of both agencies are struggling to work out the differences in the two processes and the timelines, but the joint process is not yet clear or efficient

As one BLM employee stated regarding energy efficiency, "That's not our area. I work for a land management company. That's why we have such a tight partnership with CEC on this. I mean when I say a tight partnership, a planner in my office spends an hour or two every day on conference calls with CEC, because between them and CPUC their expertise and their knowledge of the electrical side of the equation, they're a critical part of this. I manage the land; they manage pretty much the power needs of the citizens of the state. It's getting those two integrated in a very good process. It has been painful. They don't know how to talk BLM; we don't know how to talk power company. And I think if you want to get into that, you start looking, there's just a lot that's unknown. The economics of the industry are just not out, they're not public. Nobody knows those numbers. So even if we were asked to make a judgment, we can't do it. We don't have the factual information to do that."[44]

5. Inconsistency and Lack of Thoroughness of BLM Guidance

Interviews with BLM staff indicate the developers have been submitting ROW SF-299 applications and associated PODs with varying levels and relevancies of information. One BLM staffer mentioned, "Some of them will give us everything we never wanted to know on how their boilers are going to be designed and they skip the basics on the biological community and what their plan is for vegetation recovery.

And those are the types of things we're interested in as surface manager. What's going to happen to the vegetation? What going to happen to the soils?"[45]

Commenting on this issue, another BLM staffer noted, "The right-of-way application is not bad, it's just that the applicants all respond to it different. I think it's because while the right-of-way application isn't bad, it's not explained very well. There's the chance that maybe folks look at the website and pull off the SF-299 and have never met with the field office. They don't understand how to describe all of the things that fit into an SF-299. We don't get good legal descriptions. It would be good actually if the right-of-way said 'check the master title plot or make sure you check any other applications in this area before you submit for this specific section', but it doesn't say that."[46]

While the SF-299 is a standard form and the BLM provides some guidance for what should and should not be included in a POD, the BLM has not produced clear and detailed guidance to developers to ensure these submissions are adequate when they are first submitted. When an inadequate SF-299 and/or POD is received, BLM staff must use more time and resources to inform the applicant of the gaps in their application and what types of information is needed for the BLM to move forward processing it. Another BLM staff member noted that BLM was in the process of developing a checklist for developers, but that it was not complete as of the time of the interview.

6. Large Number of Applications to Process

Solar development has been referred to as a land rush in the California desert, as there have been a multitude of applications submitted in the past 4 years. With the creation of policy and financial incentives for solar projects there has been a flood of applications into the region. The BLM field offices are faced with new projects every week and this has led to staffing and time management issues. The number of applications also makes it difficult to get individual projects through the process in a timely and efficient manner as new applications constantly need to be reviewed.

7. Insufficient BLM Staffing

BLM staff, solar developers, and environmental organizations all noted the limitations of BLM offices in efficiently processing the right-of-way applications received simply because many BLM offices are short-staffed. Some field offices hired contractors to come in and assist with analysis and the BLM responded nationally by creating Renewable Energy Coordination Offices to focus solely on processing renewable energy applications, alleviating field office staff that spend a significant amount of their time working on solar facility applications. One BLM Field Office Manager said, "[working on solar applications takes] probably about 25 percent of my time. It's pretty significant."[47] Given the number of applications, the man-hours required to process just one application, and the fact that staff resources continue to be limited, this problem remains significant.

8. Inter-Agency Coordination

As noted above, there are multiple processes among different agencies that solar developers must go through to receive all of the permits and grants to construct and operate a solar facility on public lands in California. In an attempt to ease the burden on developers, the agencies are focused on integrating the processes. The BLM participates in multiple working groups to achieve this goal. Aside from integrating the processes there are also many groups that are attempting to plan where solar development and transmission should go, including the Western Governor's Association's Western Renewable Energy Zones (WREZ), California's Renewable Energy Action Team (REAT) and RETI, the Renewable Energy Policy Group (REPG) and the DRECP group. Both the REPG and the DRECP are collaborative groups of federal and State of California agencies. The BLM participates in all of these groups in order to provide and gather feedback on the status and future of solar development in the desert. Inter-agency coordination requires a significant dedication of time spent in meetings with other agencies discussing individual projects and on coordinating public meetings and environmental reviews, which can reduce efficiency in processing individual applications.

Clarity of Process

A process whose steps, requirements, and other components are well understood by the applicant, regulatory agencies, interested stakeholders and the public reduces uncertainty and ultimately adds to the efficiency of the process.

1. CEC & BLM Collaboration

The integration of the CEC and BLM processes resulted in an inefficient process largely due to the unfamiliarity with the combined processes. The unfamiliarity with the joint process also leaves stakeholders, solar developers, and regulatory agencies unsure about process steps and agency responsibilities.

2. Undefined Environmental Mitigation

A major weakness identified by the BLM state and district offices as well as by environmental and citizens' groups is the lack of a clear set of standardized mitigation measures for solar facilities. The lack of defined environmental mitigation standards is concerning for solar developers who face uncertainty and lack clear direction for how and what to include for environmental mitigation in their PODs. A BLM staff member stated that, "When we come to making a mitigation decision it's not just the BLM; we have to make the mitigation decision with other agencies as well, which involves staffing and coordination issues along the way."[48] The Solar PEIS may include policies and best management practices that provide mitigation requirements or guidelines for solar projects.

3. Undefined Land Rental Rate

Traditionally, ROW grants are assessed an annual land rental rate based on the fair market value of the land. However, as a ROW has never been granted for a solar facility, which requires more land than traditional uses such as road or transmission corridors, the rental rate is undetermined. One BLM employee stated, "The Washington [DC] Office is still in the middle of developing policy for rental for solar."[49] Only one solar project has progressed far enough in the process to request an appraisal, which is still under review.[50] The lack of a defined rental rate leaves the financial investment required of solar developers uncertain. The Solar PEIS may include a standardized policy for assessing a rental rate for solar facilities.

4. Inconsistency and Lack of Thoroughness of BLM Guidance

As noted above, there is a lack of consistent and thorough guidance provided by the BLM to solar developers, which has created inefficiency in the process. This lack of guidance contributes to the uncertainty faced by solar developers.

5. Unclear BLM-Developer Initial Contact

When a solar developer applies for a right-of-way grant for siting a solar facility on BLM land, they commonly meet with BLM staff to discuss their proposal. However, there is no consistency with which office they contact first because the process is not clearly defined. As one BLM staff member noted, "Some of them come to the state office because they think if they get on the state director's radar that they'll get more attention, while others will go to the field office because they know the field office is the one doing the work."[51] Other developers contact the district office first. In a process that has yet to be executed to completion, developers may be given less information on expectations or status of the lands they are interested in if they do not contact the field office first, which creates inconsistency with application materials.

6. Established Process Applied to New Energy Development

The right-of-way process is well established and familiar within the BLM. However solar energy development presents a new use of the land surface for which the impacts of the technologies at the scale proposed are still unknown because similar facilities do not exist. According to a BLM staff member, "What's difficult is that we're not that familiar with large-scale projects of this size."[52] In the CDCA, most ROW grants are used for roads, electrical transmission corridors, communication towers, and wind energy projects. These uses differ from solar as they still allow for multiple use of the land and do not take a large portion of land away from public use.

Consideration of a Robust Set of Options

An effective process considers a robust set of options, promoting choice beyond simply whether or not to site the facility. Considering multiple alternatives allows for an evaluation of tradeoffs and encourages a more informed decision-making process.

1. Use of the NEPA Process

Much of the solar facility permitting process falls under the NEPA process. Citizen and environmental groups refer to this as a strength of the process as NEPA laws were created to protect the environment, provide public participation opportunities, and require multiple alternatives to be considered. Additionally, many organizations, stakeholders, and the public are familiar with this process. Therefore, they know what to expect and have the opportunity, as required under NEPA, for public participation through commenting at many stages throughout the process.

2. Effects of First-come, First-serve

The BLM must process the first application for a given location fully before second or third applications for that same location can be considered. There are currently 19 second- and third-in-line applications in Barstow and Palm Springs Field offices.[53] While the first-come, first-serve system may seem fair, it restricts the ability of the BLM to analyze multiple proposals for the same location at the same time and choose the one that minimizes water use and impact to environmental, cultural and historical, recreational, or visual resources, maximizes electricity produced per acre of land developed.

3. Consideration of Limited Alternatives

The current right-of-way process does not allow for a wider range of alternatives to be considered during the NEPA process. The facilities to be constructed in the rights-of-way are proposed by private developers, so the alternatives the BLM can consider are essentially limited to (1) approving the right-of-way and corresponding facility as proposed, (2) approving the right-of-way and corresponding facility at a smaller scale or different layout than proposed, and (3) a "no action" alternative of simply denying the right-of-way.[54] The BLM cannot analyze and consider as an alternative a more efficient technology type for the facility, granting the right-of-way at an alternate location, or some level of distributed generation.[55] Distributed generation has been identified by both citizen's groups and environmental organizations as a favorable alternative to utility-scale solar facilities, but BLM cannot consider development it has no jurisdiction over this alternative.

Level of Environmental Protection

Under NEPA, environmental impact must be analyzed for major federal decisions, including solar facility siting. A good process goes beyond simply analyzing environmental impact and seeks to only

approve applications that minimize impact while providing appropriate environmental mitigation measures.

1. Use of the NEPA Process

While use of the NEPA process provides a set of options in its environmental analysis it also provides strong environmental protection. In constructing the EIS for a facility, a full environmental analysis is conducted, addressing impacts to threatened and endangered species, species habitats, ecological processes, water use, and visual resources, among others. While the most environmentally protective alternative does not have to be selected under NEPA, completing the EIS and allowing public input throughout the process ensures that environmental impacts are considered.

2. Effects of the Combined BLM-CEC Environmental Analysis

As directed in the August 2007 MOU between the CDD and the CEC, the two agencies must conduct a joint environmental review of solar projects.[56] The MOU stipulates that the BLM is responsible for preparing an analysis of NEPA alternatives and Purpose of Need. However, the CEC is responsible for preparing an assessment that addresses air quality impacts, biological resources, cultural resources, water resources, land use, visual resources, and facility design engineering among others. An environmental group categorized the use the CEC CEQA equivalent process to fulfill NEPA requirements as a weakness, as the CEC process has a shorter time frame and does not fully analyze alternatives. The CEC must complete their entire AFC process within 12 months whereas the BLM has no legislated timeline to complete a ROW or NEPA process. In order to complete the process in the short 12 month timeframe the CEC process has shorter public commenting periods. An environmental assessment is also completed more rapidly in the CEC process, which has led to concerns about short-cuts and completeness of impact and environmental studies. In addition to the time frame, the CEC process does not require a full analysis of alternatives, which is required by the NEPA process. To resolve this issue between the two processes the BLM will identify the alternatives and CEC will conduct the analysis. However, the CEC has not previously conducted full analyses on alternatives and it is unknown how comprehensive the analyses will be.

3. Undefined Environmental Mitigation

Undefined environmental mitigation standards have contributed to making the BLM process unclear for developers and the lack of defined environmental mitigation standards is concerning to environmental groups, since the BLM could potentially require a different level of environmental mitigation for each project.

4. "Fast Track" - Too Fast?

In the CDCA there are 10 projects that are self-identified as "fast track" projects. "Fast track" status may help developers take advantage of grant funding in lieu of tax credits from the U.S. Treasury Department as part of the ARRA. In order to be eligible for the grant, the projects must begin construction by December 31, 2010. The BLM has pledged to complete EISs for each of the projects by the deadline to ensure the projects receive the funding (provided a ROW permit is also approved). However, in order to complete the NEPA process for these projects the BLM truncated the timeline, and the fast track projects are not required to wait for the Solar PEIS to be completed. The BLM conducts an individual EIS for each project, and without the guidance of the PEIS, these projects will lack clear best management practices and a standardized set of mitigation requirements, possibly reducing the level of environmental protection provided.

Consideration of Spatial and Temporal Scale

It is important to consider not only the immediate, predicted impacts at the site itself, but also the impacts that will extend beyond the immediate site, the cumulative impacts of multiple facilities on the landscape, and impacts over time to the siting of one or more facilities.

1. Project Scale vs. Desert Scale

Currently, the right-of-way process is designed to analyze each application separately at the site specified. The EIS process conducts an assessment of impacts of the individual project on the ecosystem. The process cannot be used to determine the optimum placement of projects throughout the entire desert and it lacks full consideration of the spatial scale of likely impacts beyond the project boundary. The process does not take a holistic look at the desert biology and ecosystem across California, Nevada, and Arizona. It only takes a snapshot of each project area and cannot cross state boundaries. The Solar PEIS may address this issue, but at this time it is unclear how it will incorporate spatial and temporal impacts. BLM staff at the state and district office as well as a citizen's group mentioned this as a weakness.

2. Lack of Cumulative Impact Analysis

Due to the large number of applications currently being processed by the BLM it is difficult, if not impossible, to address the concerns of cumulative impacts of multiple facilities across the desert landscape and over time. Each project is reviewed individually and the process does not consider the possibility of one project located in the same area as another potential project. As a BLM Staff Member stated, "When you're looking at an application, you can easily look at what's already gone on and do a cumulative impact analysis on that, but what's difficult is predicting the future."[57] Tribes and environmental groups have voiced concerns over the BLM's inability to address cumulative impacts due to the many solar applications submitted within a narrow time frame, with, each being assessed only

for individual impacts. If development proposals occurred singly and over a longer period of time, the impacts of adding each new facility could be analyzed. The Solar PEIS may be looking at cumulative impacts inside the designated SESAs; however, this will not apply to previously proposed projects not in SESAs.

Public Engagement

An effective process will go beyond the minimum requirements for public participation outlined in NEPA to ensure that affected parties are involved, local concerns are heard, meaningful participation is achieved, and any concerns are addressed early in the process before decisions are made.

1. Use of the NEPA Process

The application of the NEPA process to proposed solar facilities ensures consideration of a set of alternatives and environmental protection. It also requires agencies to offer public participation opportunities, including commenting at many stages throughout the process.

2. Inefficient Public Communication

The lack, or perceived lack, of communication between the BLM and the public has been noted by tribes, citizens groups, and a local government. It is important for the BLM to announce public participation opportunities, to educate the local stakeholders, and receive feedback regarding the proposed facilities. While the BLM has held multiple scoping meetings for the Solar PEIS and individual projects, many groups remain unaware of these opportunities. Based on responses to a survey of organizations, the most popular form of public participation was attending a public scoping meeting for an individual project. The groups that did not take part in any form of public commenting responded that they were "unaware of participation opportunities."

The results of the stakeholder survey show that local residents are not taking the opportunity to participate in the process, with only 17 percent of respondents participating. Of those residents who participated in the process, the most popular form of participation was attending a public meeting held for an individual proposed solar project (Figure 10.4). When asked why they did not participate, 74.5 percent of residents indicated that they were unaware of participation opportunities (Figure 10.5).

Further analysis of the results indicated that residents younger than 40 years old have a higher likelihood of being unaware of participation opportunities. Residents over the age of 60 may be more aware of participation opportunities, however they are also more likely to think that their opinions are irrelevant or will make no difference (Figure 10.6). In order to test the statistical significance of this trend, we used a chi-square test for independence, and calculated the p-value to be 0.00016. This result indicates that there is a connection between age group and rationale for not participating in the

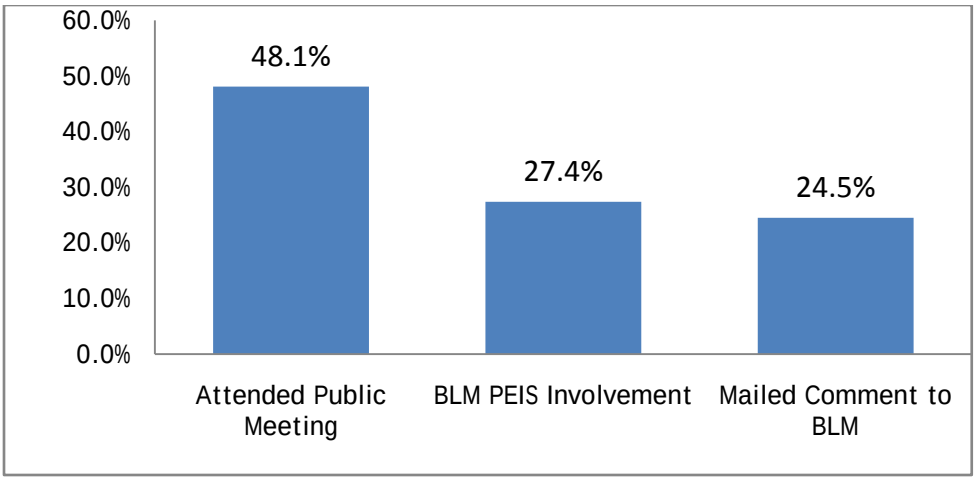

Figure 10.4 Forms of Participation by Residents who Participated in the BLM Process.

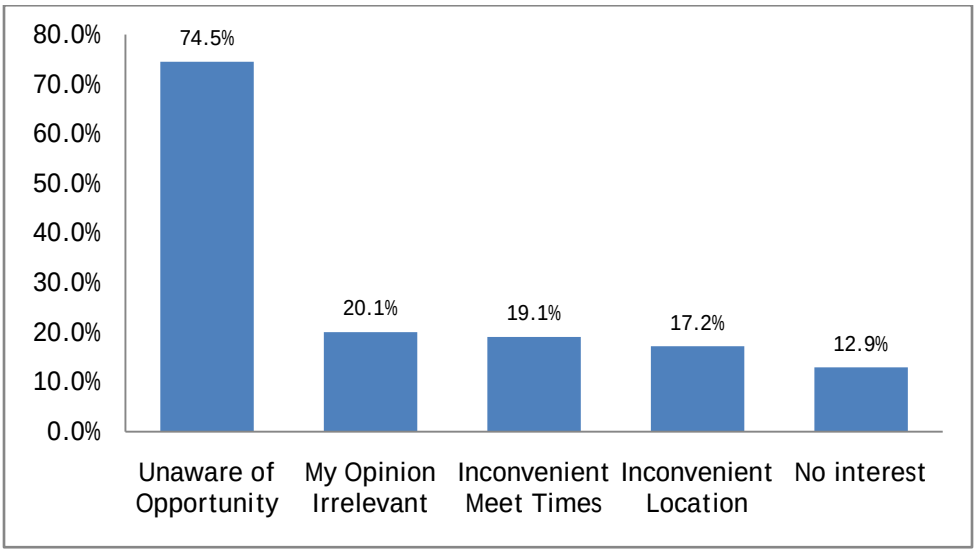

Figure 10.5 Reasons for Not Participating in the BLM Process.

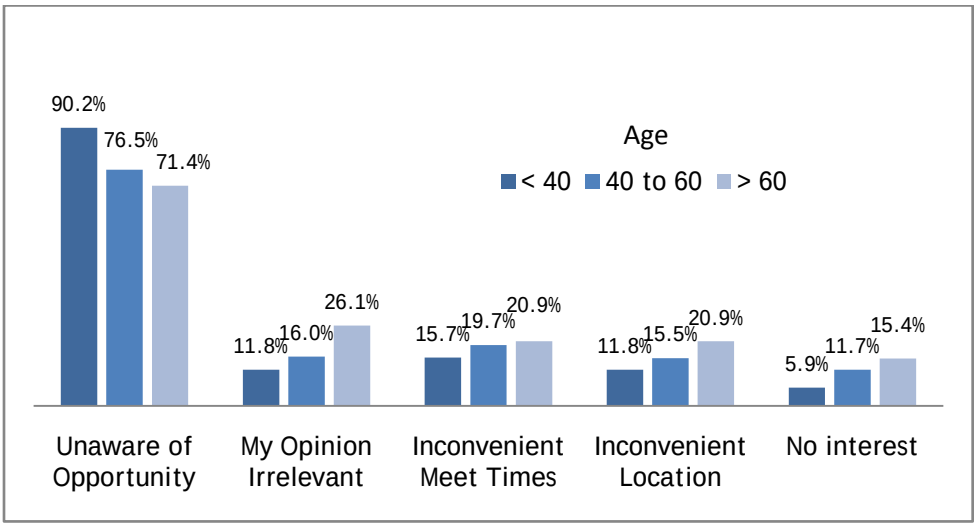

Figure 10.6 Reasons Given for Not Participating in the BLM Process by Age.

process: the older respondents were, the more aware they were of participation opportunities, but the less they believed their opinion would make a difference. The results of both surveys indicate that the BLM has not effectively communicated opportunities for stakeholders to participate in the process.

3. "Fast Track" - Too Fast?

The truncated timeline for the environmental analysis of "Fast Track" projects is a source of concern among environmental organizations. Similarly, the truncated timeline is of concern to a citizens group and an environmental organization who noted that the BLM is ignoring information requests, scheduling scoping comment deadlines next to holidays, and scheduling multiple scoping meetings at the same time, making it impossible to attend them all.

ANALYSIS OF ALTERNATIVE PROCESSES

There are many types of resource extraction already taking place on public lands, including wind energy, cattle grazing, timber harvesting, mining, and oil and gas drilling. Proposed projects for each of these land uses have a different permit application process within the BLM. Solar energy facilities currently utilize the right-of-way process; however, the Solar PEIS is considering changes to this process. We completed a comparative analysis, using the same set of normative criteria as the solar process analysis, of two processes used for energy generation: the wind energy right-of-way process and the oil and gas leasing process. The comparative analysis of these two processes builds off the results of the solar process analysis by identifying components which could offer solutions to weaknesses identified in the solar process. Both BLM staff and the public are familiar with these established processes and incorporating some or all of either of these processes into a new solar process could feasibly be considered. Key components of all three processes are summarized in Table 10.2.

Onshore Oil and Gas Resource Leasing Process

Based in the General Mining Act of 1872 and the Mineral Leasing Act of 1920, the BLM's process for leasing onshore federal oil and gas resources has been in place for decades and is well established, though some changes have occurred in these acts. This process is distinct from ROW processes used for solar and wind energy development because it deals primarily with subsurface property rights instead of surface rights.

Process Background

For each BLM field office with oil and gas resources, BLM-managed lands within the field office are first declared open or closed to drilling through the Resource Management Plan (RMP) process. In the RMP process, the BLM analyzes reasonably foreseeable oil and gas development and spells out stipulations

Table 10.2 Processes Comparison Matrix

	Wind	Oil & Gas	Solar
Type of Process	Right-of-Way	Lease	Right-of-Way
Site Competition	First-Come, First-Served; Second application rejected	Competitive bidding	First-Come, First-Served; Second application held in queue (TBD in Solar PEIS)
Application Processing Timeline	Site-testing ROW: 30-90 days; Development ROW: ~2 years (for full EIS)	Varies based on project size	~18 Months
Length of Lease or ROW	Varies by project, generally 30 years with possible renewal	10 years with possible renewal	Will vary by project, generally 30 years with possible renewal
Fees	**3-year study grant:** $1,000 or $1/acre whichever is larger; **Development grant:** $4,155/MW of installed capacity	**Rental:** $1.50/acre for 1st 5 years; $2/acre every year after; **Royalties:** based on amount of resources extracted and determined by state office	**Current:** Rental fee based on fair market value of land; **Future:** TBD in Solar PEIS
Mitigation Guidance	Included in Wind PEIS (excluding CA & AZ)	Varies by State BLM Office	TBD (may be included in Solar PEIS)
Adaptable to Multiple Technologies	N/A	No	Yes
Set of NEPA Alternatives	**EIS** – 3 Actions 1. No Action 2. Proposed Action 3. Approve with Modifications **EA** – 2 Actions 1. Approve 2. Deny	**APD EIS** – 3 Actions 1. No Action 2. Proposed Action 3. Approve with Modifications -OR- Defer Action	**EIS** – 3 Actions 1. No Action 2. Proposed Action 3. Approve with Modifications

to attach to leases.[58] The RMP process includes a full NEPA analysis and a corresponding EIS. Once the RMP is adopted, a parcel can be nominated for leasing, and if the parcel is congruent with the RMP, the BLM attaches appropriate stipulations and brings the parcel to a lease sale.[59] Lease sales, which typically happen quarterly and are conducted by the state BLM office, are competitive. The lease is for a period of 10 years, and is a conveyance of the property right for the subsurface estate in the given parcel. If a parcel is nominated and brought to the lease sale but receives no bids, it can be leased non-competitively after the sale.[60]

As the lease sale is a conveyance of the property right for the subsurface estate, the leaseholder must then file an Application for Permit to Drill (APD) to gain permission to place infrastructure on the surface and to engage in resource extraction.[61] Additional project-level analysis then occurs. For large projects, a full EIS is produced, but for smaller projects where the BLM feels the impacts of the proposed drilling has already been accounted for in the RMP process, a Documentation of NEPA

Adequacy (DNA) statement is issued. When granting an APD, the BLM attaches Conditions of Approval, which are additional stipulations dealing with surface management issues, and then approves, approves with modification, denies, or defers action on the application. Once granted, an APD is valid for 2 years, or until the lease expires, whichever comes first.[62]

Additional requirements exist for oil and gas drilling. The leaseholder must pay rental fees of $1.50 per acre for first 5 years of the lease, and $2 per acre every year after, whether or not the lease is in production.[63] Royalties, collected by the Minerals Management Service, must be paid of resources extracted and are shared by the federal and state governments. Bonding is also required to fund the reclamation of the disturbed lands. Reclamation begins as soon as possible after drilling ends and continues until the BLM determines reclamation efforts successful. Each BLM state office has established standards for environmental mitigation to provide uniformity across the state offices. Specific mitigation standards are attached to APDs and put in through the project-level EIS or DNA.

Implications for Solar Facilities

Many strengths of the oil and gas leasing process could, hypothetically, be applied to solar facilities (Table 10.3). One strength, use of the NEPA process, already exists in the solar process. Another, process familiarity, comes with time. Other aspects would not be as easily transferable.

Table 10.3. Process Evaluation of Positive Implications for Solar in the Oil and Gas Leasing Process.

Efficiency	•Competitive Leasing •Process Familiarity
Clarity of Process	•Land Rental and Royalty Fees
Robust Set of Options	•Use of the NEPA process
Environmental Protection	•Use of the NEPA process
Spatial or Temporal Scale	•Identification of Open and Closed Areas
Public Engagement	•Use of the NEPA process

The land use planning process for portions of the CDCA or for the CDCA as a whole could identify areas open and closed to solar development, allowing for spatial scale considerations. Legally prohibited or other high conflict areas could be excluded at this stage, leaving no ambiguity for solar developers. Parcel nomination could likewise be applied to solar development if a competitive lease or competitive ROW process was adopted.

With a direct application of the oil and gas leasing process, solar developers would be required to obtain a lease for land through competitive bidding, then submit a POD and wait for approval for the actual facility, similar to an APD. This could present some challenges. If the BLM sold a lease for an area and then did not approve the developer's proposed

solar facility, the BLM could not revoke the lease and sell it to a different company. This would be taking of property, prohibited under the 5th Amendment to the Constitution. A lease of the surface estate in place of a ROW easement would also prevent the continued management the land by the BLM for the term of the lease. This is a likely reason BLM uses a ROW process for surface rights. A competitive ROW process may be more favorable than a competitive lease sale. Whether a lease sale or ROW is used, the length of the lease or ROW would have to be appropriate for solar facilities, likely longer than the 10-year term used in oil and gas. Once the lease or ROW is granted, an EIS would be needed for the proposed solar facility before the facility could be approved.

As with the oil and gas leasing process, rental fees, reclamation bonding, and environmental mitigation standards are needed for solar development, either at the national or state levels. This would reduce uncertainty for developers and BLM staff. BLM does not have the authority to assess royalties based on energy production on public lands, but could base rental rates on total installed capacity of a solar facility.

Integration with Other Processes

If the oil and gas leasing process were to be applied to solar facilities in California, the process would need to be integrated with other approval processes. During the land use planning process and designation of open and closed areas, it would be necessary for the BLM to consult with the CalISO to ensure that access to the transmission grid is feasible from the areas designated open for solar, likely requiring one or more system impact studies. Because an additional EIS (beyond the EIS for the land use planning process) is likely to be required for all utility-scale solar facilities, the CEC process would be able to work in parallel with this project-level EIS, much like the current application of the ROW process for solar.

Wind Energy Right-of-Way Process

The DOI completed a Wind PEIS in June 2005 and issued a ROD in January 2006. These documents determined that wind energy development on public lands would utilize a standard ROW process with wind specific requirements. To date, the BLM has approved 28 wind development projects nationwide with a total generation of 437 megawatts.[64]

Process Background

For a typical wind project a 2800-14 ROW form is submitted for a 3-year project area grant with the possibility for renewal.[65] This short-term ROW grant allows the developer to test the wind energy potential of the site. An environmental review is required for these short-term ROW grants under NEPA; however, they do not need to include an analysis of wind energy facility impacts.[66] The review is limited to the scope of the meteorological towers and sonar equipment necessary to test for wind

potential. A POD is also required before the end of the 3-year ROW grant and the developer is assessed an annual fee of $1,000 or $1 per acre, whichever is larger.[67] If the developer determines that a site has sufficient wind energy potential, they must submit another 2800-14 ROW form and POD for a long-term utility-scale wind project.[68] This development application also has a broader NEPA scope to determine compliance with the ESA, the Migratory Bird Act, and the NHPA. This environmental review can utilize information gathered in the Wind PEIS. Therefore, an Environmental Assessment (EA) may be sufficient rather than a full EIS.[69] An EA is a less detailed environmental impact analysis to determine if a full EIS is needed for a project. The annual rent assessed to developers is $4,155 per MW of total anticipated installed capacity.[70] Both of these processes are subject to cost-recovery bonding with the BLM.

Included in the Wind PEIS is a set of policies and BMPs that provide information and action requirements for developers and application processing instructions for land managers. Specifically, the policies require BLM staff to consider visual resource impacts and to consult with the DOD, the SHPO, tribes, and the FWS regarding conflicts and concerns.[71] A policy also requires developers to include all BMPs in their POD. BMPs are adopted for each step in a project's life span: site monitoring and testing, POD preparation, construction, operation, and decommissioning. They attempt to mitigate a wide spectrum of concerns including land-use conflicts, obstruction or disruption of visual resources, creation of roads, generation of harmful air emissions, increased ground transportation, disturbance of cultural and historic resources, noise creation, and harm to wildlife and ecological resources.

Implications for Solar Facilities

The process for wind energy facilities is similar to the current process for solar in that they both cause surface disturbance and utilize ROW grants and the NEPA process. However, the Wind PEIS instituted positive changes to the standard ROW process that the Solar PEIS may incorporate (Table 10.4). While wind energy projects need large amounts of land, 17 acres per MW on average, it allows for multiple land uses whereas solar facilities necessitate large scale surface disturbance and do not allow for other land uses within the facility boundary.[72]

Table 10.4. Process Evaluation of Positive Implications for Solar in the Wind ROW Process.

Efficiency	•Processing Instructions for BLM •ROW process familiarity
Clarity of Process	•Information Requirements for POD •Developer Guidance through BMPs •Processing Instructions for BLM •Royalty Fee Based on Energy Production
Robust Set of Options	•Use of the NEPA process
Environmental Protection	•Developer Guidance through BMPs •Use of the NEPA process
Public Engagement	•Use of the NEPA process

The Wind PEIS provides information requirements for PODs, which developers must follow, adding to the clarity of the process. This provides detailed guidance to developers and a checklist of information for BLM staff to use to analyze the completeness of an application, increasing efficiency of processing. In addition to the POD requirements, the Wind PEIS established a set of BMPs, which provide further guidance to developers on information needs and expected conduct throughout the life span of a facility. These BMPs are a management tool for the BLM to enforce standards of on-site environmental mitigation.

Wind developments are not subject to the regular ROW land rental assessment, which is based off of fair market value for the land. Instead, the Wind PEIS introduced a royalty fee for annual energy production. The BLM uses an equation to assess the fee which includes the nameplate capacity of the facility, the capacity factor, the federal rate of return, and the average price of electricity. A similar equation could be used for future solar facilities instead of assessing a lease fee based on acreage. A final change made to the standard ROW process by the Wind PEIS was the inclusion of policies which dictate necessary consultations between the BLM and other agencies, including DOD, SHPO, and tribes. This provides a framework to ensure affected stakeholders have input during the process of analyzing each application.

While the Wind PEIS provided many positive changes, it did not solve the issue of land speculation. The solar process is first-come, first-served, which prevents the BLM from choosing the best proposed project in terms of megawatts produced, size of ecological footprint, and socioeconomic impacts. This concern also applies to the wind process since once an application has been received for a tract of land, a second application will be rejected without consideration.

Integration with Other Processes

An application of the Wind PEIS to solar facilities would not require significant changes in other agency's processes. There is not a parallel CEC process for new wind facilities. However, as the wind utilizes ROW grants, an integration framework has already been established for the BLM and CEC processes. Wind energy projects already complete CalISO required studies for integration with the electric grid and sign PPAs with a utility, identical to solar energy projects.

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Chapter 10

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