

**ENDANGERED SPECIES ACT ISSUES
ASSOCIATED WITH SOLAR DEVELOPMENT
IN THE SOUTHWEST
~ CASE STUDY: BRIGHTSOURCE ENERGY'S
IVANPAH PROJECT ~**

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GW School of Law, LL.M., Energy & Environmental Law 2010



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This study examines issues arising under the Endangered Species Act (“ESA”)¹ in connection with the development of utility-scale solar power facilities in the Southwest region of the United States. It highlights the significant impact ESA issues can have on solar energy development with a case study of BrightSource Energy’s planned Ivanpah Solar Electric Generating System (the “Ivanpah Project”), the issue of the “*threatened*” desert tortoise, and BrightSource’s proposed mitigation plan² for the tortoise.

This study also examines the Solar Programmatic Environmental Impact Statement (the “Solar PEIS”) which is designed to “*fast-track*” the environmental permitting process for projects located within Solar Energy Zones³ by allowing companies that propose solar energy projects within Solar Energy Zones to “*tier*” their environmental impact statements (“EIS”) to the Solar PEIS, thereby complying with the National Environmental Policy Act (“NEPA”)⁴ but lessening the cost and time associated with the EIS process.

Lastly, this study reviews the legislation proposed by Senator Feinstein from California entitled “*California Desert Protection Act of 2010*”⁵ and outlines the chilling effect its passage

¹ The Endangered Species Act of 1973 (ESA), 16 U.S.C.A. § 1531 et. seq.

² BrightSource’s proposed mitigation plan is currently under review by the United States Fish and Wildlife Service (“USFWS”) as well as the California Energy Commission (“CEC”) in connection with its request for the issuance of an “*incidental take permit*” which would allow for the “*translocation*” of the desert tortoise.

³ On June 29, 2009, Secretary Salazar signed a directive setting aside “*Solar Energy Zones*” consisting of 676,048 acres of land divided into 24 “*Solar Energy Study Areas*” located throughout Arizona, Colorado, California, Nevada, New Mexico and Utah.

⁴ The National Environmental Policy Act of 1969 (NEPA), 42 U.S.C.A. § 4321 et. seq.

⁵ The Feinstein-Merkley bill, the Renewable Energy Incentive Act (S.2899) introduced on December 20, 2009.

would have (and has had⁶) on the development of utility-scale solar power facilities in the Mojave Desert, including the Ivanpah Project.

THE IVANPAH PROJECT & THE DESERT TORTOISE

The proposed Ivanpah Solar Electric Generating System (the “Ivanpah Project”) will contain three separate solar thermal power plants in Southeastern California. It will consist of fields of heliostat mirrors focusing sunlight on boilers on centralized solar power towers.⁷ The Ivanpah Project will be owned by BrightSource Energy (“BrightSource”) in cooperation with Solar Partners, LLC. BrightSource has contracted with Bechtel Corporation (“Bechtel”) to oversee the development and installation of the facility. In addition, BrightSource has power purchasing contracts in place with PG&E and Southern California Edison to purchase the power generated at the facility.⁸ The Ivanpah Project has the potential to generate 300 megawatts (MW) of electricity, could conservatively power 200,000 homes per year, and would remove more than 600 tons of carbon dioxide emissions per year.⁹

The Ivanpah Project was recently granted a \$1.37 billion dollar federal loan guarantee to develop 3,900 acres in the Mojave Desert along the California/Nevada border near the town of Primm.¹⁰ The federal guarantee is conditional upon BrightSource completing a full environmental review of the land where the Ivanpah Project is proposed as well as a cumulative

⁶ See *infra* note 119 and 120.

⁷ www.energy.ca.gov/sitingcases/ivanpah/index.html see also The California Energy Commission “Ivanpah Electric Generating System” Docket No. 07-AFC-5 see also www.brightsourceenergy.com see also www.blm.gov/ca/st/en/fo/cdd/alternative_energy/SolarEnergy.html.

⁸ “BrightSource loan guarantee to help build 3 solar plants,” by Poornima Gupta and Ayesha Rascoe published on February 22, 2010 in Reuters. See also: <http://www.reuters.com/article/idUSN2221548420100223>.

⁹ “Fast-Tracked Solar Project Could Speed Mojave Desert’s Demise,” by Scott Streater of Greenwire published on November 12, 2009 in the New York Times. See also: www.nytimes.com/gwire/2009/11/12/12greenwire-fast-tracked-solar-project-could-speed-mojave-95100.html?scp=1&sq=Fast-Tracked%20Solar%20Project&st=cse.

¹⁰ “Loan Guarantee for a Big Solar Power Plant,” by Todd Woody published on February 22, 2010 in the New York Times. See also: www.nytimes.com/2010/02/22/loan-guarantee-for-a-big-solar-power-plant/?scp=1&sq=Loan%2520Guarantee%2520for%2520a%2520Big%2520Solar&st=cse.

environmental review of the impact the Ivanpah Project will have on the affected area (including large portions of the Mojave Desert). The Ivanpah Project will require both “*exclusive*” and “*intensive*” use of the land where it is located. In order for a utility-scale solar power system to operate, vast amounts of open land are needed, thus making the Mojave Desert a prime location. In order for the land to be utilized by the Ivanpah Project, it will need to be completely graded and fenced and be allocated for a single purpose: the development and capture of solar rays for transfer into electricity. Once completed, no species will be able to migrate through nor utilize the area as a habitat.¹¹

Biological research conducted on the proposed site identified an issue concerning the desert tortoise, whose habitat is located in the affected area and is classified as *threatened* under the Endangered Species Act (“ESA”).¹² The impact of the Ivanpah Project on the desert tortoise has become a significant issue for many environmental groups. In fact, Defenders of Wildlife filed comments during the Solar PEIS process, has entered oral objections throughout the final environmental impact statement (“FEIS”) process,¹³ and may challenge the adequacy of the NEPA review process through a lawsuit. While many environmental factors and general energy permitting and siting issues exist regarding the Ivanpah Project, the desert tortoise issue requires BrightSource to complete a full environmental compliance review under the California state process outlined in the California Environmental Quality Act (“CEQA”)¹⁴ and administered by the California Energy Commission (“CEC”). In addition, BrightSource must complete the

¹¹ “*Application for Certification for the Ivanpah Solar Electric Generating System,*” Docket No. 07-AFC-5 submitted to the State of California Energy Resources Conservation and Development Commission located in Sacramento, California. Docket maintained at www.energy.ca.gov/sitingcases/ivanpah/index.html.

¹² ESA, 16 U.S.C.A. § 1532(20).

¹³ Defenders of Wildlife filed comments on the FSA and the DEIS for BrightSource Energy, Inc.’s Ivanpah Solar Energy Generating System project in a letter dated February 11, 2010. *See also* www.defenders.org/resources/publications/programs_and_policy/renewable_energy/defenders_comments_on_the_ivanpah_solar_project.pdf.

¹⁴ California Environmental Quality Act (CEQA) codified in the California Code of Regulations at 14 CCR § 15000 et. seq.

federal environmental process required by the National Environmental Policy Act (“NEPA”) and administered by the Bureau of Land Management (“BLM”) with the assistance of the U.S. Fish and Wildlife Service (“USFWS”) in connection with compliance under the ESA. The CEC has been designated as the lead agency under NEPA, and it is working jointly with the BLM during the environmental review process.¹⁵

THE DEPARTMENT OF THE INTERIOR & SOLAR ENERGY ZONES

The Obama Administration, with the appointment of former Senator Salazar of Colorado as the Secretary of the Department of the Interior (“DOI”) and the implementation of several policies, has sought to shift U.S. reliance from fossil and coal-based sources and to increase use of renewable energy sources. Federal tax incentives for solar energy and individual state renewable energy portfolio standards¹⁶ are driving an increased interest in utility-scale solar energy development. Secretary Salazar has also stated: “President Obama’s comprehensive energy strategy calls for rapid development of renewable energy, especially on America’s public lands...this environmentally sensitive plan will identify appropriate Interior–managed lands that have excellent solar energy potential and limited conflicts with wildlife, other natural resources or land users.”¹⁷

Solar energy development on BLM-administered lands is permitted under Title V of the Federal Land Policy and Management Act (“FLPMA”).¹⁸ Secretary Salazar issued a memorandum to agencies within the DOI including the BLM and the Minerals Management

¹⁵ See *supra* note 11, Energy Commission Staff’s Opening Brief dated April 19, 2010.

¹⁶ See California Executive Order # S-14-08 signed by Governor Arnold Schwarzenegger on November 17, 2008 requiring California utility companies to produce 33% renewable energy by 2020. See also California Senate Bill 1078 signed in 2002 accelerated in 2006 by Senate Bill 107.

¹⁷ “Secretary Salazar, Senator Reid Announce ‘Fast Track’ Initiatives for Solar Energy Development on Western Lands,” released by the DOI - BLM on June 29, 2009. See also http://www.blm.gov/wo/st/en/info/newsroom/2009/june/NR_0629_2009.html.

¹⁸ The Federal Land Policy & Management Act of 1976 (FLPMA). P.L. 94-579.

Service (“MMS”), outlining the expansion and focus on the licensing and development of alternative energy on all types of federal lands.¹⁹ New programs focus on studying specific areas of the country for installation, development and implementation of various types of renewable energy resources while recognizing the DOI’s mission to protect public lands for future generations. With respect to solar energy, the memorandum specifically states that:

“the two dozen areas we are evaluating could generate nearly 100,000 megawatts of solar electricity. With coordinated environmental studies, good land use planning and zoning and priority processing, we can accelerate responsible solar energy production that will help build a clean-energy economy for the 21st century.”²⁰

Secretary Salazar issued Order #3285 on March 11, 2009 officially designating the development of renewable energy as a priority for the DOI. The stated legal authority for the Order used by the Secretary is Section 211 of the Energy Policy Act of 2005.²¹ The Order established a Department Task Force on Energy and Climate Change, and it amended and clarified the DOI’s roles and responsibilities needed to accomplish its renewable energy development goals.²²

On June 29, 2009, Secretary Salazar officially “*fast-tracked*” solar development by signing a directive setting aside 676,048 acres located throughout the Southwest as “Solar Energy Zones” and divided the zones into 24 “Solar Energy Study Areas.” The goal of the DOI is to develop solar projects in areas of the Solar Energy Zones that are near existing transmission lines, and when possible, on land that has already been “disturbed” by previous/current use

¹⁹ Secretary Salazar Order # 3285 dated 3/11/2009.

²⁰ *Id.*

²¹ Order issued under the authority of §2 of Reorganization Plan No. 3 of 1950 (64 Stat. 1262) as amended, and pursuant to the provisions of 211 of the Energy Policy Act of 2005 (P.L. 109-58).

²² See *supra* note 19.

and/or development.²³ The “*fast-track*” designation sets aside the Solar Energy Zones for two years while studies are conducted. These studies will be used in connection with a final decision to permanently set aside portions of the Solar Energy Zones for solar development and the siting of utility-scale solar facilities over the next twenty years. This new direction for the DOI (focusing on renewable energy) was welcomed by environmental groups and renewable energy developers alike. However, as the programs have developed, issues similar to the leasing of federal property for the development of traditional oil and gas extraction,²⁴ as well as concerns of negative environmental impacts on federal public lands have emerged.

While renewable energy is the key to the future and will help solve the growing problem of climate change and reduce greenhouse gas emissions, federal lands are home to many critical habitats. Various environmental groups believe that development near or through such habitat is prohibited by the ESA. Defenders of Wildlife in particular has taken issue with various projects in the Southwest, alleging violations of Section 7 of the ESA, and they have asserted that development in those areas will lead to an unlawful taking of a protected species.²⁵ These wildlife concerns are just one example that supports the need for a federally pre-determined program in the Southwest which opens up public land for solar development and streamlines the environmental permitting process while taking into consideration important ESA issues.

²³ See *supra* note 19.

²⁴ Environmental issues include: siting, environmental due diligence, transmission, interconnectivity and land use.

²⁵ See *supra* note 13.

**APPLICATION OF THE NATIONAL ENVIRONMENTAL POLICY ACT (“NEPA”)
AND THE ENDANGERED SPECIES ACT (“ESA”) TO SOLAR DEVELOPMENT**

Prior to approving any major federal action, federal agencies must take a “hard look at the environmental consequences under the National Environmental Policy Act.”²⁶ Under the NEPA process, the action agency (federal agency proposing a federal action) is required to evaluate and consider potential direct, indirect and cumulative impacts of its proposed action that may significantly affect the quality of the human environment.²⁷ The NEPA process requires an agency to consider alternatives by creating either: an environmental assessment (“EA”) or a full environmental impact statement (“EIS”).²⁸ An EIS studies all cumulative environmental impacts associated with a proposed action, contains full disclosure of possible alternatives, including a “no action alternative,” and details possible mitigation measures. In addition, if an action could potentially affect an endangered or threatened species and/or its critical habitat, the ESA is examined in connection with an EA or EIS.²⁹

The ESA is the fundamental federal statute designed to protect wildlife, and this authority can be applied to completely prevent or shut down projects that take place on federal land and/or projects financed with federal money, based solely on inadequate protection of an endangered or threatened species and/or its critical habitat. An example of the powerful ESA process was seen in connection with the northern spotted owl and the timber industry in the Pacific Northwest. Due to the presence of the northern spotted owl and the applicability of the ESA, courts placed restrictions on timber harvesting.³⁰ Such restrictions have devastated many small and medium sized timber companies throughout the region. Application of the

²⁶ NEPA, 42 U.S.C.A. § 4331(102)(2)(C).

²⁷ *Id.*

²⁸ An EA is smaller in scope than an EIS.

²⁹ ESA, 16 U.S.C.A. § 1536(a).

³⁰ *Robertson v. Seattle Audubon Soc’y*, 503 U.S. 429 (1992).

ESA has also had a detrimental effect on the development of hydroelectric power in the same region. Litigation relating to efforts to protect stocks of salmon and other species of regional fish has caused (and continues to cause) huge disruptions in hydroelectric power production.³¹ In addition, efforts by advocates to restrict judicial interpretation of the ESA (on grounds that property rights are taken and/or restricted by the ESA and that its implementation constitutes an unauthorized and uncompensated regulatory taking) have largely been unsuccessful.³²

**APPLICATION OF SECTION 7 (§7) OF
THE ENDANGERED SPECIES ACT (“ESA”) TO FEDERAL ACTIONS**

The goal of Section 7 of the ESA is the conservation of endangered and threatened species as well as the ecosystems upon which they depend for survival.³³ Section 7 is the legal mechanism used to apply the ESA to a wide variety of federal activities and federal agency actions. Federal regulators from various land management agencies, including the Forest Service, the BLM; the National Oceanic and Atmospheric Administration, and the National Marine Fisheries Services rely on Section 7 to impose procedural duties on all federal agencies, including the DOI and the DOE.³⁴ Each federal agency must consult with the appropriate land management agency related to each type of species and/or habitat. The federal agency must show that the action(s) being undertaken are not likely to jeopardize the continued existence of any listed species nor result in the destruction or adverse modification of any “critical habitat.”³⁵ However, the cabinet-level Endangered Species Committee has the ability to authorize federal

³¹ *National Wildlife Federation, et. al. v. National Marine Fisheries Service et. al.*, U.S. District Court, District of Oregon, Civil Case No. 01-640-RE currently ongoing, presided over by Judge James Redden, *see also* Case 3:01-cv-00640-RE. *See also* www.salmonrecovery.gov.

³² *American Fisheries Society v. Verity*, No. 88-15351 (9th Cir.); *see also* *Sierra Club v. Lyng*, 694 F.Supp. 1260; *see also* *Conservation Council for Hawaii v. Babbitt*, 24 F.Supp.2d 1074; *see also* *Christy v. Hodel*, 857 F.2d 1324 (9th Cir. 1988); *see also* *State of Louisiana ex rel Guste v. Verity*, 853 F.2d 322 (5th Cir. 1988).

³³ ESA, 16 U.S.C.A. § 1536(a).

³⁴ *Id.*

³⁵ ESA, 16 U.S.C.A. § 1536(a)(2).

projects that would otherwise be prevented by the ESA.³⁶ Section 7 of the ESA also places an affirmative obligation on federal agencies to maintain a database of listed species and to take actions to conserve them.³⁷ The Section 7 process requires consultation by federal agencies with the relevant land management agencies prior to proceeding with or taking any proposed action. The courts require thorough and conscientious compliance with ESA procedures, and they rigorously scrutinize compliance by the federal land management agencies with the environmental processes set out under NEPA.³⁸

Under NEPA, an applicable land management agency must first determine whether any listed species may be present in the affected area, and if so, if the species is likely to be affected by the action. The determination of whether any listed species is going to be affected by an action is called a “*biological assessment*,” which may be incorporated into an EIS or EA prepared in connection with a NEPA analysis.³⁹ The federal agency proposing action also must consult with the USFWS if an assessment indicates that there may be an adverse affect on any habitat and/or species protected by the ESA. In addition, any federal agency proposing action is barred from making any irreversible resource commitments during the consultation process because such commitments may foreclose alternatives that would not result in adverse affects on a listed species.⁴⁰ At the end of the consultation process, the USFWS and the applicable land management agency will issue a formal biological opinion. If the opinion states that the proposed activity will jeopardize a listed species or adversely affect a critical habitat, the federal agency cannot proceed with the proposed action unless it is able to follow alternatives to avoid the harm. Ultimately, it is up to the action agency (the Federal agency submitting the proposal),

³⁶ ESA, 16 U.S.C.A. § 1536(e), (h).

³⁷ ESA, 16 U.S.C.A. § 1533.

³⁸ *Thomas v. Peterson*, 753 F.2d 754 (9th Cir., 1985).

³⁹ NEPA, 42 U.S.C.A. § 4331(102)(B). *See also* 50 C.F.R. § 402.12.

⁴⁰ *Pacific Rivers Council v. Thomas*, 30 F.3d 1050 (9th Cir., 1994).

in consultation with the applicable land management agency, to devise a plan for protecting a listed species jeopardized by any proposed action. The final biological opinion, if a jeopardy opinion is issued, is often referred to as a blueprint for collaboration between an action agency and a determining land management agency, containing a series of guidelines that must be followed and developed in order for a proposed federal action to fully comply with the ESA.⁴¹

SECTION 9 (§9), THE “*TAKING PROVISION*” OF THE ENDANGERED SPECIES ACT (“ESA”) AND THE TENNESSEE TELlico DAM CASE (TVA v. HILL)

Section 9 of the ESA⁴² prohibits any person from “taking”⁴³ any endangered or threatened species; taking is defined very “broadly.”⁴⁴ The broad interpretation and absolute power of the ESA was seen in the seminal Supreme Court case involving the Tennessee Valley Authority’s Tellico Dam.⁴⁵ As the dam was nearing completion, scientists discovered that the sole habitat for the snail darter would be eliminated if the dam became operational. The Supreme Court ruled unequivocally that Congress had spoken in the plainest of words, making it abundantly clear that the balance had been struck in favor of affording endangered species the highest of priorities. In this case, the Court adopted a policy that it described as “institutionalized caution.”⁴⁶ The Endangered Species Committee refused to exempt the dam from the requirements of the ESA and agreed with the finding of the Supreme Court.⁴⁷ Biologists later discovered that the snail darter existed in other locations, and an act of Congress

⁴¹ www.sierraclub.org; see also *Sierra Club v. Yeutter*, 926 F.2d 429 (5th Cir. 1991); see also USFWS “Section 7 Consultation Handbook.”

⁴² ESA, 16 U.S.C.A. § 1538.

⁴³ ESA, 16 U.S.C.A. § 1532(19).

⁴⁴ *TVA v. Hill*, 437 U.S. 153 (1978).

⁴⁵ *Id.*

⁴⁶ *Id.*

⁴⁷ The ESA “God” Committee was created in direct response to the *TVA v. Hill* case. See also “Baker-Culver ESA Amendments,” 1978 P.L. No. 95-632, 92 Stat. 3751. See also 16 USC §§1536(e), (h).

subsequently exempted the dam from the ESA.⁴⁸ Legal interpretations and application of the ESA are based on a clear congressional intent that the continued existence of a species outweighs the economic value of any federal project. The scope of the Section 9 prohibition on taking defines “taking” to include both harm and/or harassment. If the action to be taken includes significant habitat modification and/or disruption of normal behavior patterns, then the applicable land management agency may characterize and prohibit such actions as a Section 9 taking of a species.⁴⁹

The Ninth Circuit, which is the Court of jurisdiction for the majority of the lands in the designated Solar Energy Zones, has determined that an activity which simply creates a mere risk of injury is not considered a Section 9 taking.⁵⁰ This interpretation of “taking” is at the core of the conflict between environmentalists who want clean renewable solar power developed in the Southwest and those environmentalists who believe that the ESA must be followed when a project jeopardizes a critical habitat, even if it prevents the development of solar power projects in the Southwest. The argument between the two sides turns on a simple - yet critical distinction - are the species that may be affected by the solar development classified as endangered or threatened and can a permit be issued to allow for an “incidental taking” of any such listed species?⁵¹ An incidental taking is defined as the capture or kill of a listed species that is “incidental to an otherwise lawful activity.”⁵² The decision to issue or not issue a permit for an “incidental taking” is made by the USFWS based upon the submission of a conservation habitat plan designed to mitigate any adverse impacts on a listed species, and its determination of

⁴⁸ *TVA Appropriations Act of 1980* as part of the *Energy and Water Development Act*, P.L. No. 96-69, Title IV, 93 stat. 437, 449 (1979).

⁴⁹ ESA, 16 U.S.C.A. § 1538.

⁵⁰ *National Wildlife Federation v. Burlington N. R.R. Inc.*, 23 F. 3d 1508 (9th Cir. 1994).

⁵¹ ESA, 16 U.S.C.A. § 1539(a)(1)(B), the ESA authorizes (incidental) takings that are otherwise prohibited by the statute that result from but are not the purpose of carrying out an otherwise lawful activity.

⁵² *Id.*; see also California Fish and Game Code § 2000 et. seq.

whether a proposed incidental taking will reduce the likelihood of survival and/or recovery of a listed species in the wild.⁵³

**“ENDANGERED” vs. “THREATENED” AND THE “CRITICAL HABITAT”
DESIGNATION UNDER THE ENDANGERED SPECIES ACT (“ESA”)**

The ESA requires the USFWS to maintain a list of species it finds to be endangered or threatened.⁵⁴ The distinction between “*endangered*” and “*threatened*” is of critical importance. An “*endangered*” species is one that is in danger of *extinction* throughout all or a significant portion of its range.⁵⁵ A species is classified as “*threatened*” if it is likely to become endangered in the foreseeable future.⁵⁶ The ESA *prohibits* the taking or disturbing of any endangered species and designates its habitat as critical. If a species is classified as “*threatened*,” the ESA gives the Secretary of the DOI the discretion to extend the statutory provisions applied to “*endangered*” species to “*threatened*” species. Simply stated, it is permissible to allow for an incidental taking of a “*threatened*” species, but it is not permissible to allow for an incidental taking of an “*endangered*” species.⁵⁷ Under the ESA, the USFWS also is required to properly designate any corresponding “*critical habitat*” concurrently with the listing and/or determination of any species as “*threatened*” or “*endangered*.”⁵⁸ A critical habitat is defined as “the area occupied by the species at the time of the listing that is considered essential to its conservation and which may require special management considerations and/or protection.”⁵⁹ As part of that

⁵³ ESA, 16 U.S.C.A. § 1539(a)(2).

⁵⁴ ESA, 16 U.S.C.A. § 1533(a)(2)(A)-(C). *See also* §4 of the ESA requiring the Secretary of Commerce and the Secretary of the Interior to determine if a species is endangered and to designate its critical habitat based on the best scientific data available.

⁵⁵ ESA, 16 U.S.C.A. § 1532(6).

⁵⁶ ESA, 16 U.S.C.A. § 1532(20).

⁵⁷ ESA, 16 U.S.C.A. § 1539(d).

⁵⁸ ESA, 16 U.S.C.A. § 1533(a)(3)(A).

⁵⁹ ESA, 16 U.S.C.A. § 1532(5).

process, economic considerations are *relevant* to habit designation, and the USFWS may exclude an area from a critical habitat based on a cost-benefit analysis.⁶⁰

This determination is a critically important step to be taken into consideration during the development of the Solar PEIS to be used in the Solar Energy Zones by the DOE and the DOI. Even if a species is listed as “endangered,” if a careful cost-benefit analysis is completed in compliance with the ESA, the possibility exists that an area which may potentially contain endangered species need not be labeled as a critical habitat. In such a case, the area would not be completely restricted for development by a critical habitat designation.

THE SOLAR ENERGY ZONES AND THE SOLAR ENERGY STUDY AREAS

The DOI (with resources from and in cooperation with the DOE), is currently studying 24 tracts in the Solar Energy Zones (all BLM administered land), known as the Solar Energy Study Areas.⁶¹ These areas are subject to evaluation based on a set of specific criteria relating to environmental resource sustainability and the development of utility-scale solar energy production. Only lands with excellent solar resources, proximity to roads and transmission lines or designated corridors (in order to minimize potential transmission problems), and containing at least 2,000 acres of BLM administered public lands, were considered for inclusion in the Solar Energy Zones.⁶² Solar radiation levels in the Southwest are some of the most ideal in the world, and BLM manages over 30 million acres of public land that could support solar power development.⁶³ In addition, when designating land for the Solar Energy Zones, various wilderness areas and conservation lands were purposefully excluded.⁶⁴

⁶⁰ ESA, 16 U.S.C.A. § 1533(b)(2).

⁶¹ See *supra* note 17.

⁶² *Id.*

⁶³ *Id.*

⁶⁴ For example, U.S. National Parks etc. were excluded from inclusion in the Solar Energy Zones.

Currently, the BLM has 158 active solar applications covering 1.8 million acres of land with production capability to generate up to 97,000 megawatts of electricity.⁶⁵ Within the Solar Energy Zones, 34 solar applications have been submitted and will be given priority processing by BLM.⁶⁶ In fact, the response from private industry has been so overwhelming that the BLM has placed a temporary hold on new solar development applications for the Southwest Solar Energy Zones.⁶⁷

SOLAR PROGRAMMATIC ENVIRONMENTAL IMPACT STATEMENT
(“SOLAR PEIS”)

The objective of the Solar PEIS is to provide guidance in a formal document to allow for uniform, responsible solar development and planning in the Southwest, while also developing a more efficient siting and permitting process for private solar developers.⁶⁸ The federally-funded Solar PEIS for solar development in Solar Energy Zones is an EIS for the installation of utility-scale solar facilities, and it examines all relevant environmental issues (including ESA considerations).⁶⁹ Any previously submitted application or new application (once BLM re-opens the process) for the installation and development of a solar utility project in the Solar Energy Zones will be subject to review, regulation and permitting as it is developed under the Solar PEIS.⁷⁰

⁶⁵ See also “2010 J.B. and Maurice C. Shapiro Environmental Law Conference~ Next Generation Energy and the Law” February 18, 2010, materials presented by Linda Resseguie in substitution for Ray Brady, Energy Policy Office of the BLM. see also www.eli.org/pdf/events/02.18.10dc/Brady-Resseguie.pdf.

⁶⁶ *Id.*

⁶⁷ See *supra* note 64.

⁶⁸ See *supra* note 17.

⁶⁹ *Id.*

⁷⁰ *Id.*

The purpose of the Solar PEIS is not to replace the NEPA responsibilities of private solar developers but to provide guidelines that are consistent with existing obligations under NEPA.⁷¹ The Solar PEIS is designed to be a landscape-based guideline for solar project proposals and development within Solar Energy Zones and is designed to speed the review of the individual permit process. However, the Solar PEIS will *not* eliminate important environmental protections afforded to public lands.⁷²

**CEC AND BLM REVIEW OF THE IVANPAH PROJECT,
ESA §9 TRANSLOCATION & THE ISSUANCE OF AN INCIDENTAL TAKE PERMIT**

Unfortunately, the Ivanpah Project is not located within one of the designated Solar Energy Zones, and therefore it will not benefit from the streamlined process being developed by the Solar PEIS. However, the BLM and the California Energy Commission (“CEC”) have executed a Memorandum of Understanding (“MOU”) concerning their intent to conduct a joint environmental review of all three plants included in the Ivanpah Project under a single NEPA/CEQA process.⁷³ The agencies prepared a FSA and looked at the significance of impacts from both a state and federal law perspective. NEPA and CEQA review have been determined to be parallel for purposes of the environmental assessment by the BLM and CEC.⁷⁴ Pursuant to California Governor Schwarzenegger’s November 2008 Executive Order, CDFG and CEC staff have incorporated the “incidental take” permit requirements into the CEC is facility operating permit by incorporating proposed mitigation measures into the Final Staff Assessment (“FSA”).⁷⁵

⁷¹ *Id*

⁷² *Id.*

⁷³ See *supra* note 11 in “*Staff’s Opening Brief*” dated April 1, 2010.

⁷⁴ *Id.* See also *supra* note 4. See also *supra* note 14.

⁷⁵ See *supra* note 11.

The original Preliminary Site Assessment issued by BrightSource (the actual assessment process was conducted by sub-contractor by CHM2HILL) reported that desert tortoise surveys conducted on the entire area proposed for the Ivanpah Project found: 25 live desert tortoises, 97 tortoise carcasses and 50 other tortoise indicators including turtle tracks and turtle feces droppings.⁷⁶ After discovery of the desert tortoise in 2007 during the development of the project, BrightSource (in compliance with NEPA and the ESA) developed and issued to the BLM, the USFWS, the CEC, and the California Department of Fish and Game (“CDFG”) a mitigation plan based on guidelines created by the USFWS.⁷⁷ The mitigation plan proposes the translocation of the desert tortoise off the Ivanpah Project site. Translocation is defined as the moving of a species from its existing habitat to a habitat of equal or greater compatibility for the species, and is considered an accepted form of mitigation under USFWS guidelines regarding the treatment of threatened species.⁷⁸

BrightSource completed a coverage survey for the land intended as the new habitat to determine its feasibility as a habitat for the desert tortoise. Four areas, west of the Ivanpah Project and near critical habitat designated areas, were jointly identified by BrightSource and the USFWS. The survey indicated that the density of the existing desert tortoise population in those areas was low, thereby making all four sites excellent for translocation with no concerns of overburdening the existing populations.⁷⁹

The proposed Ivanpah Project is located within the USFWS designated Northeastern Mojave Recovery Unit for the desert tortoise.⁸⁰ The Ivanpah project is *not* located within the

⁷⁶ *Id.*

⁷⁷ “*Guidelines for Handling the Desert Tortoise During Construction Projects*” published by The Desert Tortoise Council (1999).

⁷⁸ See *supra* note 11.

⁷⁹ *Id.*

⁸⁰ *Id.*

designated “critical habitat” for the tortoise. Rather, it is within five miles of the Ivanpah Critical Habitat designated by the USFWS.⁸¹ The Northeast Recovery Unit is made up of six units designated by the 1994 and 2008 Desert Tortoise Recovery Plans that emphasize that land managers should strive to limit the loss of tortoise habitat outside of conservation areas as much as possible.⁸² The desert tortoise was federally listed as a threatened species in 1989. Unfortunately, there has been little recovery of the species. Notwithstanding the protections it has been afforded, populations have been decreasing across its habitat range.⁸³

Even though the location of the Ivanpah Project is not in a critical habitat zone and the desert tortoise is classified as a threatened species (as opposed to an endangered species), BrightSource agreed to reduce the size of the Ivanpah Project by 23% (reducing the capacity of the facility to 392 MW).⁸⁴ The proposed modification would eliminate the land area where the project would have the greatest impact on the desert tortoise.⁸⁵ BrightSource’s Chief Executive Officer John Woolard stated that “this is the most you can reduce the footprint of the site and still have a viable project that can move forward and get financed.”⁸⁶ Since the desert tortoise is threatened (not endangered) and the location of the Ivanpah Project is *not* considered a critical habitat, it is permissible under the ESA to propose translocation as an alternative in connection with the submission of an EIS under NEPA. In order to complete the translocation, BrightSource will need to obtain an incidental take permit from both the USFWS and the CEC.

⁸¹ *Id.*

⁸² US Fish and Wildlife Service, 1994, Desert tortoise {Mojave Population} Recovery Plan. US Fish and Wildlife Service, Portland, Oregon, 73 pp plus appendices.

⁸³ See *supra* Note 11.

⁸⁴ “BrightSource Alters Solar Plant Plan to Address Concerns Over Desert Tortoise,” by Todd Woody published on February 11, 2010 in the New York Times. See also: <http://greeninc.blogs.nytimes.com/2010/02/11/brightsource-alters-solar-plant-to-address-concerns-over-desert-tortoise>.

⁸⁵ *Id.*

⁸⁶ *Id.*

In addition, the biological opinion from the USFWS and the CEC will need to be formalized and completed prior to commencement of any construction for the Ivanpah Project.⁸⁷

IVANPAH PROJECT ENVIRONMENTAL ASSESSMENT & BIO-17

The CEC, working jointly with the BLM, has completed five drafts of proposed conditions to certification (the latest is the FSA) for purposes of compliance with CEQA and the development of the EIS.⁸⁸ BrightSource's application has moved forward from initial conditions, to certification from the CEC, to verification section review by the Compliance Project Manager.⁸⁹ Final revisions to the FSA include the biological resource provisions from the Draft Environmental Impact Statement ("DEIS") and provide for a 60-day comment period prior to any final approval from either federal or state regulators. With respect to the impact and translocation plan previously submitted (regarding moving the threatened desert tortoise to adjacent lands under BLM administration), no further edits or conditions have been added. The current draft⁹⁰ addresses other environmental issues such as native shrubs, trees, and cacti that will be affected by the Ivanpah Project, and it requires additional environmental actions and protections. However, sections regarding the threatened desert tortoise contain a BLM/CES approval and no objection from the USFWS is on record.

On March 29, 2010, the CEC issued a compilation of edits, including BIO-17, as recommended conditions to certification of the Ivanpah Project.⁹¹ The compilation of edits were

⁸⁷ See *supra* note 11.

⁸⁸ "Conditions to Certification" can include mitigation measures related to a variety of areas, all of which are abbreviated: (BIO) - biological resources; (CUL) - cultural; (GEO) - geology; (AES) - aesthetics; (LU) - land use; (NS) - noise; (T) - traffic; (AQ) - air quality; (WQ) - water quality; (PS) - public services and utilities.

⁸⁹ *Id.*

⁹⁰ The most recent draft was released in April-2010.

⁹¹ See *supra* note 11.

intended to complement the FSA/DEIS.⁹² However, BrightSource has not agreed to the condition to certification issued by the CEC contained in “BIO-17,” relating to additional mitigation for the desert tortoise.⁹³ BrightSource argues that the additional financial and long-term mitigation called for by BIO-17 and under the California Endangered Species Act (“CESA”) require mitigation beyond what is required by the BLM for compliance under the ESA.⁹⁴ BIO-17 states that in order to “fully mitigate” habitat loss and to qualify for the issuance of an incidental take permit for the potential taking of the desert tortoise, BrightSource is required to pay costs (additional upfront and future costs) for land management of mitigated lands required by provisions of the CESA.⁹⁵ The 3 to 1 ratio of land purchases that the CEC demands in BIO-17 includes the 1 to 1 ratio which satisfies BLM mitigation requirements and BLM’s desert tortoise mitigation requirements contained in the Northern and Eastern Mojave Desert Management Plan developed in 2002.⁹⁶ However, BIO-17 states that in order to satisfy the “fully mitigated standard” under the CESA, BrightSource also is required to provide “compensatory mitigation” for habitat loss.⁹⁷ In addition, an approval from the CDFG and consultation with the BLM and the USFWS will be required for additional property before transactions can be completed. The land to be acquired to satisfy the BIO-17 requirement is also subject to a series of strict pre-qualifications; for example, it must be as close to the project site as possible, and also near lands currently occupied by desert tortoise in stable populations. BIO-17 further requires BrightSource to be financially responsible for the acquisition, initial habitat improvements and long-term management endowment of all lands acquired (2/3 to the CEC and

⁹² See *supra* note 11.

⁹³ *Id.*

⁹⁴ *Id.*

⁹⁵ *Id.*

⁹⁶ *Id.*

⁹⁷ See *supra* note 14.

1/3 to the BLM), all of which must be paid for and/or financial assurances given for future costs before construction of the Ivanpah Project begins.⁹⁸ The total cost estimate for BIO-17, including future financial assurances, raises the total cost of mitigation measures for the desert tortoise to approximately seventeen million dollars (\$17,000,000.00).⁹⁹ That amount relates solely to the desert tortoise, and does not include costs relating to mitigation for desert shrubs, water resources nor any other environmental issues.¹⁰⁰

On April 19, 2010, CEC Staff published its opening brief (dated April 1, 2010) concluding that:

“The Energy Commission (CEC) should license the ISEGS project (Ivanpah Project) with all the conditions of certification proposed by Staff and CDFG. It is the first of a series of large solar thermal projects that will help the State meet its AB 32 and RPS goals. Apart from visual and cumulative traffic and land use impacts, its impacts can be mitigated. Conditions proposed by Staff and CDFG fully mitigate impacts to desert tortoise and rare plants. Applicant’s preference for less rigorous requirements for the tortoise would not comply with the CESA.”¹⁰¹

In summary, the opening brief rejects all arguments by BrightSource relying on the BLM standard of a 1 to 1 ratio for mitigation in the form of land purchases and orders that the California standard of 3 to 1 (outlined by BIO-17), which includes the BLM 1 to 1 ratio, be met in order to comply with the “fully mitigated” provision of the CESA. The CEC states that the 1 to 1 BLM ratio does not fully compensate for the taking of good habitat, as the net result from the project would be fewer tortoise and less high quality habitat in the future. The ratio is intended to adequately compensate for the habitat taken, even assuming that the remaining

⁹⁸ See *supra* note 11.

⁹⁹ *Id.*

¹⁰⁰ *Id.*

¹⁰¹ *Id.* [“If the conditions of the FSA are met, than the CEC permit will serve as the “in lieu” incidental take permit that would otherwise be issued by the CDFG. Consolidation in the CEC permit is favorable to the applicant in that it reduces the time required for sequential permits, eliminating the possibility of inconsistent agency conditions, and reduces the time and risk of legal challenge.”]

habitat will be “enhanced: for higher tortoise ‘carrying capacity’ as well as new land purchased and preserved to ‘offset’ habitat that is taken by the project and meets the requirements of the CESA.”¹⁰² The CEC demonstratively points out that the ESA and the CESA are not identical in their standards for mitigation; specifically that the ESA does not have a “fully mitigated” provision like the CESA.¹⁰³ The CEC also argues that since the Ivanpah Project is within the BLM’s Northern and Eastern Mojave Desert Management Plan (NEMO),¹⁰⁴ there is a programmatic document requiring that additional mitigation measures on top of those required by the ESA.

The primary difference between the two statutes is that the incidental take permit for CESA is not limited to land management jurisdiction like the BLM’s implementation of the ESA.¹⁰⁵ Under BLM procedures, parties acquiring lands are usually required to make a one-time payment to the BLM on a 1 to 1 ratio involving the acquisition, and they do not have further financial responsibilities or obligations for mitigation outside of the transfer of title for the mitigation land to the BLM.¹⁰⁶ On the other hand, CESA requires a determination that any action involving mitigation of a species be *adequately funded and monitored*, (no such requirement exists under the ESA).¹⁰⁷ The CEC also argues that FLMPA requires that right-of-way permits contain terms and conditions “that require compliance with State standards for public health and safety, environmental protection and siting...if those standard are more stringent then applicable federal standards.”¹⁰⁸ The CEC states that leaving a future

¹⁰² See *supra* note 11 – requiring mitigation that is roughly proportional to the extent of the impact on the affected species.

¹⁰³ See *supra* note 11.

¹⁰⁴ *Id.*

¹⁰⁵ *Id.*

¹⁰⁶ *Id.*

¹⁰⁷ *Id.*

¹⁰⁸ *Id.*

determination regarding funding and monitoring to the BLM leaves the obligation under CESA unmet and leaves uncertainty as to whether it will be complied with in the future.¹⁰⁹ In sum, the CEC argues that since the Ivanpah Project requires an applicable state permit, then the conditions of BIO-17 can and must be imposed as a condition to the issuance of a state permit by California.¹¹⁰

FUTURE OF THE IVANPAH PROJECT - THREATS OF LAWSUITS BY ENVIRONMENTAL GROUPS - THE THREAT OF THE “CALIFORNIA DESERT PROTECTION ACT OF 2010” - FEINSTEIN BILL

BrightSource hopes to complete the permitting process and begin construction by the fourth quarter of 2010.¹¹¹ Since the joint FSA/DEIS was issued, a strong possibility exists that BrightSource will be able to begin construction later this year. However, legislation proposed by Senator Feinstein from California could halt construction of the Ivanpah Project permanently.¹¹² Senator Feinstein’s proposed legislation is known as the “*California Desert Protection Act of 2010*.”¹¹³ In summary, the bill proposes to relocate all projects (all in various stages of development) that are outside of designated Solar Energy Zones to areas within designated Solar Energy Zones, and the legislation places new land restrictions on the Mojave Desert, including the establishment of a National Monument on 941,000 acres of federally managed BLM land. If enacted, this legislation could prohibit construction of the Ivanpah Project because it is not

¹⁰⁹ See *supra* note 11.

¹¹⁰ *California Coastal Com’n v. Granite Rock Co.*, 480 U.S. 572 (1987). Holding that state permits imposing environmental regulations apply on federal lands subject to the FLMPA.

¹¹¹ “*Industrial Solar Energy Developments Threaten Desert*,” article published on February 15, 2009 and updated on April 16, 2009 by the Basin and Range Watch Organization. See also . <http://www.basinrangewatch.org/IvanpahValley.htm> and <http://www.basinandrangewatch.org/Ivanpah-FSADEIS-start.html>

¹¹² See *supra* note 5.

¹¹³ *Id.*

located in the Solar Energy Zones. The proposed legislation also specifically bans development on or the use of donated or acquired federal land within the Mojave Desert region.¹¹⁴

The Feinstein legislation is narrowed slightly by providing that the prohibition only applies to public lands located within the California Desert Conservation Area as well as a new national monument area.¹¹⁵ The bill also contains provisions allowing the Secretary of the Interior to make limited exceptions in cases where it is deemed in the public interest and the lands developed in the area are offset by non-BLM land purchased by developers and donated to the federal government as a form of mitigation.¹¹⁶ Robert F. Kennedy Jr., a prominent environmental activist who opposes the legislation has stated, “the Mojave Desert is arguably the best solar land in the world (the Feinstein bill) ... shouldn’t be allowed to take this land off the table without a proper and scientific environmental review.”¹¹⁷ The most troubling aspect of the legislation is Section 202, which would initiate a new process to “eliminate the backlog of renewable energy development proposals on Federal land.”¹¹⁸ While extremely detailed, the proposal would eliminate the existing process and erase the hard work and years spent by government regulators and private solar energy developers that currently have a plethora of projects in various stages of development and have already made countless financial expenditures. The bill also would literally tear apart the coalition of regulatory and private entities that have been created and have worked to put the Ivanpah Project on the verge of commencing construction. The bill’s proposed process would force private developers to go

¹¹⁴ See *supra* note 5.

¹¹⁵ *Id.*

¹¹⁶ *Id.*

¹¹⁷ “*Feinstein Desert Bill Attempts to Reconcile Landscape Protection, Clean Energy*,” by Scott Streater of Greenwire, published in the New York Times on January 7, 2010. See also www.nytimes.com/gwire/2010/01/07/07greenwire-feinstein-desert-bill-attempts-to-reconcile-la-35712.html?scp=1&sq=Feinstein%20Desert%20Bill%20Attempts%20to%20Reconcile%20Landscape%20Protection&st=cse.

¹¹⁸ See *supra* note 5.

through the entire environmental permitting process and basically choose winners and losers by prioritizing some projects over others depending on progress made. The proposed legislation would eliminate existing projects, cause re-evaluations of all proposals, and would effectively bring development of solar energy in the Mojave Desert area to a complete standstill. An example of its potential threat is illustrated by the cancellation of a project proposed by Houston-based Tessera Solar on roughly 12,000 acres in the Mojave Desert.¹¹⁹ Tessera cancelled the project in December 2009, and Sean Gallagher, Tessera's Vice President for market strategy and regulatory affairs, stated that the project was cancelled "partially in response to what we anticipated the Senator might do."¹²⁰

The proposed legislation proposes a completely new process that would replace the current "*first-come-first served*" system with a system requiring full and complete final environmental permitting of all proposals (including the interconnection permits for existing power grids) before the BLM could conditionally sell land to a developer.¹²¹ Backers of the legislation claim that it is based on the process being used by Secretary Salazar in the Solar Energy Zones but they fail to acknowledge that the process being used by Secretary Salazar is for the identification of acres upon acres of BLM land to be used for multiple projects, whereas the legislation plans to apply the same process to each and every individual proposal for solar development. Proponents also mischaracterize the legislation as similar to the "*fast tracking*" developed by the DOI.

On a positive note, the legislation does propose extending the expiration date for renewable developers to receive acceptance of their project in order to qualify for renewable energy tax credits established by the American Recovery and Reinvestment Act, many of which

¹¹⁹ See *supra* note 116.

¹²⁰ *Id.*

¹²¹ *Id.*

make these projects financially appealing or even feasible.¹²² The proposed legislation also opens the BLM Permit Processing Improvement Fund (with hampering conditions) to fund the Renewable Energy Permitting Offices being opened by Secretary Salazar and the DOI to provide financial resources and manpower needed to process the plethora of renewable energy applications.¹²³

CONCLUSIONS

In summary, BrightSource has not only complied with the requirements of the ESA but it has also taken additional measures to protect the threatened desert tortoise. The ESA clearly allows for the proposed translocation mitigation plan, and the location of the Ivanpah Project is not in a critical habitat. All requirements of NEPA and the ESA have been met. Therefore, the USFWS and the CEC should issue an incidental take permit to BrightSource allowing for the translocation of the desert tortoise.

The DOI's Solar PEIS will likely speed development of utility-scale solar power facilities in the Southwest by providing early identification of significant ESA issues. The Ivanpah Project and the discovery of the desert tortoise is just one example of the types of roadblocks that the Solar PEIS can help to avoid or minimize. While the Ivanpah Project will not benefit from the Solar PEIS (because it is not located in the Solar Energy Zones), the process of permitting and constructing the Ivanpah Project should help to refine the ongoing Solar PEIS and provide valuable insight into, and serve as a model for future solar development.

Lastly, while Senator Feinstein's proposed "*desert preservation*" legislation purports to encourage solar development by moving the BLM away from a "*first-come first-served*"

¹²² On February 13, 2009, Congress passed the American Recovery and Reinvestment Act of 2009.

¹²³ *Id.*

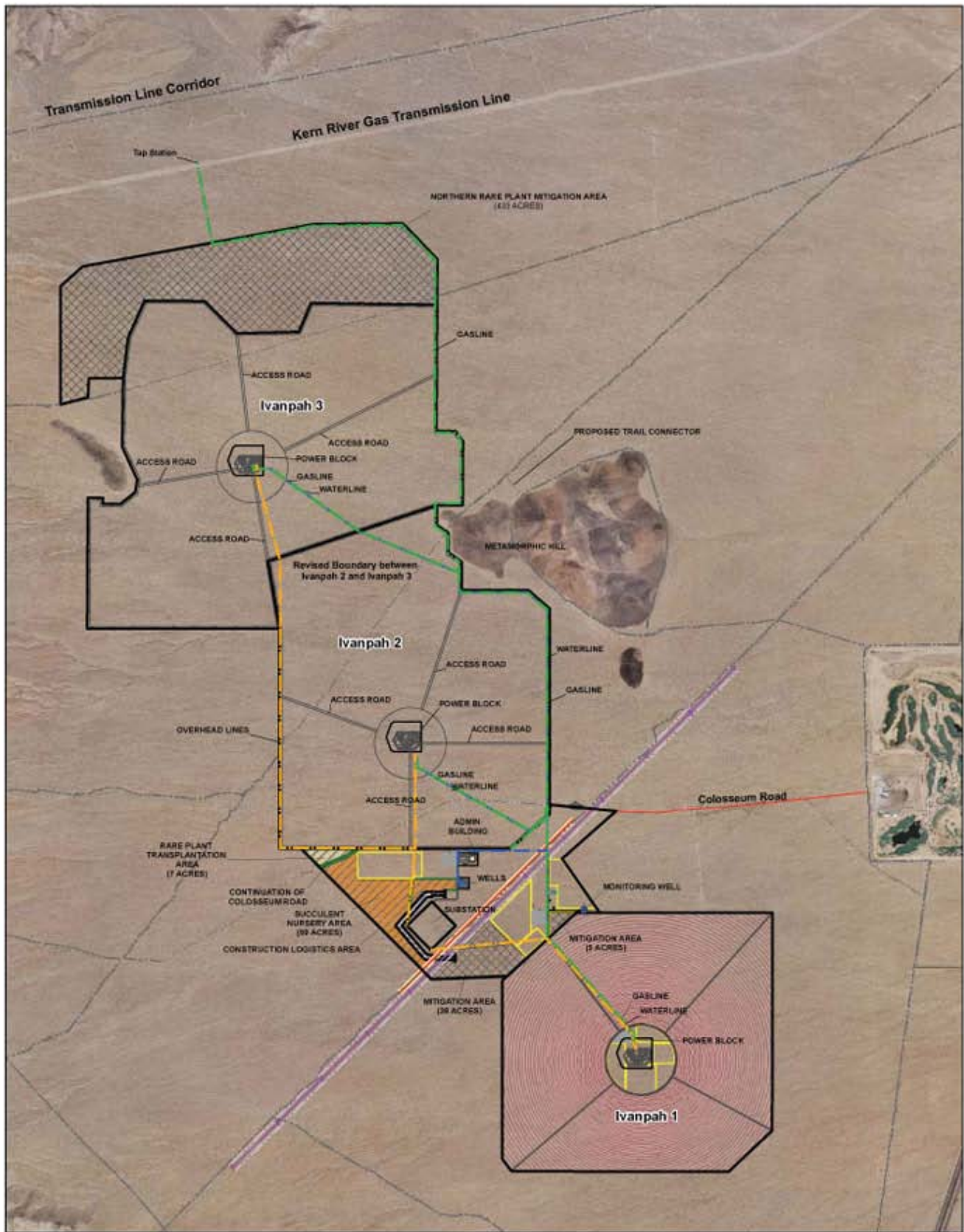
application process to a “*streamlined*” process¹²⁴ for development of solar facilities on public lands the legislation does not achieve that goal. If S. 2899 is approved, it will hamper solar development by placing “*off-limits*” significant portions of the Mojave Desert that are considered prime locations for solar development and will likely pose a threat to the construction of the Ivanpah Project.

The Ivanpah Project represents a crucial step in the renewable energy solar revolution and energy development in the Southwest. Upon completion, it will be among the biggest solar facilities in the world. While several projects overseas are being discussed, the Ivanpah Project has the potential to help the United States make up for lost time spent on its endless thirst for foreign oil from countries that threaten national security. The United States has had setbacks in renewable energy development, dating back to the Reagan Administration when the order was given to remove the solar panels off the White House roof. Right now, the United States has a conscious public acknowledgement of energy needs, the consequences of a fossil fuel economy, and a public mandate to move forward with renewable energy projects. The Ivanpah Project represents the beginning of a movement for the United States (in particular the Southwest) to lead the renewable energy revolution, and it has the potential to help the United States move forward and serve as a positive example and case study in the development of utility-scale solar power in an environmentally conscious manner.

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¹²⁴ The “*first-come first-served*” process is criticized for allowing companies to apply for permits prior to completing environmental assessments and financial due diligence. The proposed “*streamlined*” process would require companies to complete due diligence (including due diligence related to: interconnection, power purchase agreements, transmission, environmental due diligence, and financial feasibility) before the company is notified of whether the project is approved for development by the BLM.

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LEGEND

- Wells
- Heliostad Features**
 - Heliostad Maintenance Paths
 - Heliostad Arrays
- Main Utility Features**
 - Proposed Overhead Line
 - Proposed Gas Line (50-foot Corridor)
 - Proposed Water Line
 - Facility Areas
 - Existing 500 KV Line
 - Existing 115 KV Line
- Project Roads**
 - Proposed Dirt Roads
 - Proposed Gravel Road
 - Proposed Paved Road
 - Trails
- Site Features**
 - Proposed Fence
 - Diversion Channel
 - Rare Plant Transplantation Area
 - Succulent Nursery
 - Rare Plant Mitigation Area

- Notes:**
1. Design pending for Ivanpah 3 / Ivanpah 2 heliostad arrays.
 2. Site feature acreages rounded to nearest whole number.
 3. Map Revised 02/05/2010.

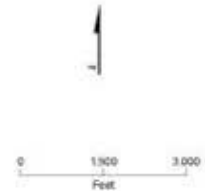


Figure 2-1
Ivanpah Site Plan
 Ivanpah Solar Electric Generating System
 CH2M HILL

