

**DEFENSE BUDGETS ARE LEAN, BUT WE CAN STILL GO
GREEN: USING THIRD-PARTY FINANCING TO MEET THE
PRESIDENT'S RENEWABLE ENERGY GOALS**

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I. Introduction

The Department of Defense (DoD) is the largest single energy consumer in the United States,¹ incurring annual energy costs of approximately \$4 billion.² As the major energy consumer, the DoD is in a unique position to become an industry leader in the renewable energy arena. President George W. Bush, realizing the critical role played by the federal government in furthering the use of renewable energy, enacted the Environmental Policy Act of 2005 (EPAct 2005) to establish renewable energy goals for the federal government.³ Importantly, Section 203 of EPAct 2005 mandated that renewable energy sources supply at least 7.5 percent of the federal government's electric energy use by 2013.⁴ In March of 2015, President Obama added Executive Order 13963, which required that at least 30 percent of all electric building energy consumed by federal agencies come from renewable sources by 2025.⁵

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¹ Cheryl Pellerin, *DoD Gives High Priority to Saving Energy*, U.S. DEP'T OF DEF. (Sept. 29, 2011), <http://archive.defense.gov/news/newsarticle.aspx?id=65480>.

² See U.S. DEP'T OF DEF., ANNUAL ENERGY MANAGEMENT REPORT FISCAL YEAR 2014, at 17 (May 2015). The Department of Defense (DoD) spent \$4.2 billion on facility energy in 2014. This amounted to 1.2% of the U.S. commercial sector's total energy consumption.

³ Energy Policy Act (EPACT) of 2005 § 203, 42 U.S.C. § 15852 (2005).

⁴ *Id.*

⁵ Exec. Order No. 13,693 § 3(c), 80 Fed. Reg. 15,871 (Mar. 19, 2015). This Executive Order defines renewable energy as, "energy produced by solar, wind, biomass, landfill gas, ocean (including tidal, wave, current, and thermal), geothermal, geothermal heat pumps, microturbines, municipal solid waste, or new hydroelectric generation capacity achieved from increased efficiency or additions of new capacity at an existing hydroelectric project" *Id.*

To move toward an increased use of renewable energy, each DoD department has enacted goals in addition to the goals set forth in Executive Order 13963.⁶ As a result, service branches are constructing renewable energy projects at a rapid rate. For example, as of 2013, the Air Force alone had 261 projects, either under construction or in operation.⁷ Not to be outdone, in 2014, the Army awarded \$7 billion in multiple award task order (MATOC) contracts to ninety separate contractors for the construction of third-party financed projects, which will produce ten megawatts or more of renewable or alternative energy.⁸ In total, these MATOC contracts are expected to produce 37.5 million megawatt hours of renewable energy.⁹

There are a variety of different ways that the DoD can fund renewable energy projects. One option is for the DoD to pay for the projects using up-front appropriations from Congress.¹⁰ The more realistic option is for the DoD to enter into a power purchase agreement (PPA), whereby a third-party developer finances, develops, and maintains the project throughout its life. The DoD then pays the developer for costs incurred by purchasing the renewable energy produced by the project at a negotiated rate.¹¹ One additional incentive for the DoD to use PPAs is the authority found in 10 U.S.C. § 2922a, which permits the secretaries of military departments to enter into contracts for renewable energy production for a period of up to

⁶ See *Selected U.S. Department of Defense Goals, Priorities and Requirements for Renewable Energy*, AMERICAN COUNS. RENEW. ENERGY, <http://acore.org/dod-energy-goals> (last visited July 7, 2016). The Department of the Navy has set a goal to derive 50 percent of all energy consumption from renewable sources by 2050. *Id.* Further, the Departments of the Air Force and the Army have set the goal to ensure all new buildings are designed to achieve zero-net-energy, which means that a building produces renewable energy sufficient to meet its energy needs over the course of one year, by 2030. *Id.* Finally, the Department of the Army has set the goal to deploy one gigawatt of renewable energy on Army installations by 2025. *Id.*

⁷ *Renewable Energy*, U.S. AIR FORCE CIVIL ENGINEER CENTER, <http://www.afcec.af.mil/energy/renewableenergy/index.asp> (last visited July 9, 2016).

⁸ Karen Henry, *Army Awards Final Contracts to Support \$7B Renewable Energy Plan*, ENERGY MANAGER TODAY (Aug. 7, 2014), <http://www.energymanagertoday.com/army-awards-final-contracts-support-7b-renewable-energy-plan-0103805/>.

⁹ Chad T. Marriott, *FAQ on Army's \$7 Billion Draft RFP for Renewable Energy*, ALT. ENERGY MAG. (Mar. 29, 2012, 9:37 AM), http://www.altenergymag.com/content.php?post_type=1875.

¹⁰ *Financing Mechanisms for Renewable Energy Projects*, ENERGY GOV., <http://energy.gov/eere/femp/financing-mechanisms-federal-renewable-energy-projects> (last visited Sept. 23, 2016).

¹¹ *Id.*

thirty years.¹² With tightening defense budgets, third-party financing and ownership of renewable energy projects on DoD installations, specifically using the authority in Section 2922a, is the most efficient way for the DoD to meet both the presidential and service-specific renewable energy goals.

To support this point, this article will first provide a background of the different vehicles available to finance renewable projects. It will then compare and contrast the implications of using appropriated funds versus third-party financing, with a specific focus on why current appropriations are insufficient to meet the renewable energy goals. The article will then address obstacles inhibiting the use of third-party financing vehicles. Specifically, it will identify factors causing developers to associate significant risk with these projects, such as limitations on contract length, complexities of the government contracting process, and the ability to get the projects in service in time to benefit from federal tax credits. Finally, the article will recommend increased use of Section 2922a as an authority to finance DoD renewable energy projects, and lastly discuss how the underlying process can be improved to speed up project timelines and ease developer concerns.

II. Appropriated Funding vs. Third-Party Financing

A. A Background of Available Financing Options

The first option for the DoD to fund renewable energy projects is to use up-front appropriations from Congress. Up-front appropriations can be made in three different ways. First, appropriations can be made for military construction (MILCON) projects.¹³ Military construction funds

¹² 10 U.S.C. § 2922a (2006). *See also* Policy Memorandum, Acting Deputy Under Sec'y of Def. for Installations and Env't., subject: Financing of Renewable Energy Projects Policy (9 Nov. 2012) [hereinafter Office of Secretary of Defense (OSD) Policy Memo] ("Section 2922a applies to any type of energy production facility, not just geothermal.").

¹³ *See* U.S. GOV'T ACCOUNTABILITY OFFICE., GAO-12-401, RENEWABLE ENERGY PROJECT FINANCING: IMPROVED GUIDANCE AND INFORMATION SHARING NEEDED FOR DOD PROJECT-LEVEL OFFICIALS 10 (2012) [hereinafter GAO-12-401]. The Energy Conservation Investment Program (ECIP) administered by the Under Secretary of Defense for Installations and Environment has been established as a subset of the Defense-wide Military Construction program and is specifically designated for projects that save energy and or reduce energy costs. *See also* FY2015 ENERGY CONSERVATION INVESTMENT PROGRAM, CONGRESSIONAL NOTIFICATION FY2015 ECIP PROJECT LIST, <http://www.acq.osd.mil/eie/Downloads/IE/FY2015%20ECIP%20Congressional%20Notification.pdf>. In 2015, thirty-nine DoD projects were listed on the Energy Conservation

are useful for larger projects because there are no statutory caps on the amount of money that can be appropriated for an individual project.¹⁴ The DoD can also use annual operations and maintenance (O&M) funds to finance projects not exceeding \$1 million.¹⁵ Operation and maintenance funds are useful for smaller projects that do not require significant capital expenditures. For example, Nellis Air Force base installed solar panels to illuminate its marquee sign using O&M funds.¹⁶ Finally, appropriated funds can be used to finance projects through other types of direct appropriations. The American Recovery and Investment Act of 2009 is an example of this type of appropriation. The DoD reported spending \$200 million of these stimulus funds on renewable energy projects.¹⁷

Another option for the DoD to fund renewable energy projects is to use third-party financing through various vehicles. One vehicle is an Energy Savings Performance Contract (ESPC). An ESPC is a contract between the DoD and an energy service company whereby the company designs, finances, and constructs a project, which is intended to save energy.¹⁸ The contractor guarantees that the project will create sufficient energy savings to pay back the project costs throughout its life.¹⁹ While ESPCs have been used to finance renewable energy projects, they are primarily intended to generate energy savings.²⁰

An alternate financing vehicle is the Enhanced Use Lease (EUL). An EUL is used to lease non-excess real property to a project developer in return for cash or in-kind consideration.²¹ One major drawback to using an EUL is that it requires the DoD installation to have surplus property that is not currently needed, but is not considered excess property for potential future use.²² The Government Accountability Office (GAO) has

Investment Program (ECIP) project list totaling \$144,589 million. However, these totals also include energy efficiency and water conservation projects. *Id.*

¹⁴ 10 U.S.C. § 2802 (2014) (providing that the Secretary of Defense and Secretaries of the military departments may carry out specified military construction projects as authorized by law). *See also* 10 U.S.C. § 2805 (2014) (providing that the Secretary of a military department may carry out unspecified military construction projects with an approved cost of \$3 million or less).

¹⁵ 10 U.S.C. § 2805(c) (2014).

¹⁶ GAO-12-401, *supra* note 13, at 10.

¹⁷ *Id.* at 11.

¹⁸ *Id.*

¹⁹ *Id.*

²⁰ *Id.*

²¹ *Id.* at 12.

²² *Id.* at 17.

found cases where the installation has actually needed to lease back property that had been leased through an EUL due to mission requirements.²³

Department of Defense installations can also contract directly with their utility provider using a Federal Acquisition Regulation (FAR) Part 41 contract to construct a renewable energy project.²⁴ Pursuant to the contract, the utility will own the project and sell the energy it generates back to the installation.²⁵ While this option may prove especially efficient due to convenience and familiarities that exist between the installation and the local utility, some utility providers may not be in a position to offer the best value to the government.

In most cases, the most useful vehicle available to the DoD is a PPA, where a private developer will obtain financing, develop, and maintain the renewable energy project. As discussed above, the DoD agency pays for the project by purchasing the energy it produces from the developer at an agreed upon rate.²⁶ This rate can either be fixed or escalated.²⁷ A fixed rate is usually set higher than the price that the installation is currently paying for energy, with the expectation that it will be more cost-effective in the long-term as utility rates rise throughout the duration of the contract.²⁸ At the end of the contract, the contractor is responsible for removing all equipment and returning the site to the same condition that existed prior to construction.²⁹ However, the option will likely exist for the installation to renew the contract with the developer at the end of the term, or to purchase the equipment from the developer.³⁰

²³ *Id.*

²⁴ Federal Acquisition Regulation (FAR) 41.103 (2014). The DoD agencies are permitted to enter into contracts for the procurement of utility services for a period of up to 10 years. *See also* 10 U.S.C. § 2922a (2006) (providing DoD installations the option of entering into contracts for up to 30 years for renewable energy projects).

²⁵ *Financing Mechanisms*, *supra* note 10.

²⁶ *Id.*

²⁷ *Why Power Purchase Agreements Make Sense* 4, SUN POWER (2011), <http://us.sunpower.com/sites/sunpower/files/media-library/white-papers/wp-why-power-purchase-agreements-make-sense.pdf>.

²⁸ *Id.*

²⁹ *Strategy for Renewable Energy*, U.S. DEP'T OF NAVY 6 (Oct. 2012), http://greenfleet.dodlive.mil/files/2013/01/DASN_EnergyStratPlan_Final_v3.pdf.

³⁰ John Hopkins, *A Guide to End of Term Options in a Solar PPA*, BREAKING ENERGY (Sept. 26, 2012), <http://breakingenergy.com/2012/09/26/a-guide-to-end-of-term-options-in-a-solar-ppa/>.

The length of a PPA is important because longer contract periods allow developers to attract more financiers, because they will have more time to earn a return on their investment.³¹ The standard FAR part 41 utility service contract for the purchase of power is limited to 10 years.³² Therefore, it is necessary to find other statutory authority that allows for longer contract periods. One tool available to extend the length of PPA contracts is to use the Western Area Power Administration (WAPA)³³ as an intermediary to broker the contract for the government.³⁴ The WAPA is authorized to enter into contracts for durations exceeding ten years; however, in order for an installation to take advantage of this contract authority, it must be located within WAPA's fifteen-state service territory.³⁵ Therefore, the best option for the DoD to enter into PPAs for an extended period of time is to use the authority found in Section 2922a.³⁶ Under Section 2922a, military departments can enter into contracts for the purchase of renewable energy for up to thirty years.³⁷ It is important to

³¹ *Why Power Purchase Agreements Make Sense*, *supra* note 27, at 8.

³² *See* 40 U.S.C. § 501(b)(1) (2011). The General Services Administration (GSA) is charged with providing non-personal services to executive agencies. *See* 40 U.S.C. § 501(b)(1)(A). Contracts for utility services are limited to 10 years. *See* 40 U.S.C. § 501(b)(1)(B) Under FAR Part 41.103(b), this authority is delegated to the DoD. *See* FAR 41.103 (2014). The DoD is also authorized, pursuant to FAR Part 41.103(a)(2), to acquire utility services under 10 U.S.C. 2304 and 40 U.S.C. 113(3)(3). *Id.* This provision permits the DoD to contract for utility services using vehicles other than the GSA-delegated authority such as 10 U.S.C. 2922a. *See* U.S. DEP'T OF ARMY, REG. 420-241, ACQUISITION AND SALE OF UTILITIES SERVICES para. 3-21 (3 Mar. 2015) for a list of regulatory and statutory regulations authorizing the acquisition of utility services.

³³ *See* ANTHONY ANDREWS, CONG. RESEARCH SERV., R41960, FEDERAL AGENCY AUTHORITY TO CONTRACT FOR ELECTRIC POWER AND RENEWABLE ENERGY SUPPLY 10-13 (Aug. 15, 2011). The WAPA is a power marketing administration (PMA), which functions under the Department of Energy. *Id.* There are currently four federal PMAs, which are responsible for marketing and distributing hydropower. *Id.* The WAPA works with the Federal Energy Management Program (FEMP) to coordinate the purchase of renewable energy for federal facilities within its fifteen-state service territory. *Id.* The WAPA does this by issuing a request for proposals (RFP) for renewable energy projects. The federal agency then pays for the projects at cost plus FEMP administrative fees. *Id.* In July 2015, the Department of the Navy entered into an interagency agreement with the WAPA that allowed the WAPA to issue an RFP which ultimately resulted in a contract for the Mesquite 3 solar project, which will provide 210 megawatts of solar energy; enough to supply one-third of the energy required for thirteen Navy and Marine Corps installations. *See Navy Signs Agreement for Largest Purchase of Renewable Energy by Federal Entity*, AMERICA'S NAVY (Aug. 20, 2015), http://www.navy.mil/submit/display.asp?story_id=90684.

³⁴ *Why Power Purchase Agreements Make Sense*, *supra* note 27, at 12.

³⁵ *Id.*

³⁶ 10 U.S.C. § 2922a (2006). *See also* OSD Policy Memo, *supra* note 12 ("Section 2922a applies to any type of energy production facility, not just geothermal.").

³⁷ 10 U.S.C. § 2922a.

note that projects utilizing Section 2922a authority must be approved in advance of award by the Secretary of Defense (SecDef).³⁸ This requirement can lead to lengthy delays, which can impact overall project feasibility; an issue that will be addressed later in this article.

B. Why Third-Party Financing Using PPAs Is a Better Option Than Appropriated Funds

1. *Some Benefits of Using Appropriated Funds*

There are some benefits to using appropriated funds to finance renewable energy projects. One clear reason to use up-front appropriations is that Executive Order 13693 requires this option to be considered prior to utilizing alternative financing options.³⁹ While this requirement does not preclude financing projects using third parties, it does mandate that the feasibility of using appropriated funds be considered before any final decision on project funding is made.⁴⁰

Another incentive to fund projects with appropriations is that it does not obligate DoD land for an extended period of time.⁴¹ If the DoD owns the project from the beginning, it is free to remove the project from service when the mission requires. A PPA will require the military department to give up use of the land where the project is sited for the duration of the contract, because the developer owns the project. Operational requirements may limit the amount of flexibility an installation has to forfeit land for an extended period. The government does have the option to terminate the contract for convenience if the mission requires; however, the government will still generally be required to pay the contractor fair compensation based on the work performed and termination costs.⁴²

Similarly, using appropriated funds can be beneficial because the

³⁸ OSD Policy Memo, *supra* note 12. Section 2922a approval authority has been delegated to the Deputy Under Secretary of Defense Installations and Environment. *Id.*

³⁹ Exec. Order No. 13,693 § 3(d)(i), 80 Fed. Reg. 15,871 (Mar. 19, 2015).

⁴⁰ *Id.*

⁴¹ U.S. DEP'T OF ARMY, ARMY GUIDE: DEVELOPING RENEWABLE ENERGY PROJECTS BY LEVERAGING THE PRIVATE SECTOR 34 (Nov. 6, 2014), <http://www.asaie.army.mil/Public/ES/oei/docs/2014%2011%2006%20Army%20Guide%20to%20Developing%20Renewable%20Energy%20Projects.pdf>.

⁴² U.S. GOV'T ACCOUNTABILITY OFFICE, GAO-13-337, DEFENSE INFRASTRUCTURE: IMPROVED GUIDANCE NEEDED FOR ESTIMATING ALTERNATIVELY FINANCED PROJECT LIABILITIES 22 (2013) [hereinafter GAO-13-337].

government is not committed to purchasing the commodity for years to come.⁴³ Power purchase agreements require the government to commit to buying back the power at a fixed or escalated rate, which creates some risk based on the uncertainty of future defense budgets. Additionally, the rate set in the contract may result in the government overpaying if energy market prices fall during the life of the agreement.⁴⁴ A project paid for with appropriated funds does not require the government to hedge on the future market prices of energy.

2. Third-Parties Are Better Suited to Finance, Develop, and Maintain Projects

Another potential benefit to using up-front appropriations to fund renewable energy projects is the potential that doing so may prove to be more cost-effective in the long-run, because the government will not be required to pay the finance charges associated with third-party financed projects.⁴⁵ Unfortunately, as discussed below, the current amount of DoD appropriations are insufficient to fund the enormous up-front capital costs that these projects require at levels to meet the renewable energy mandates. In addition to the lack of appropriated funding, private parties are better-suited to manage the complexities that exist with these projects based on the experience they have in the industry. Moreover, private parties are in a position to take advantage of financial incentives that exist; thereby allowing them to pass these cost-savings on to the federal government through a discounted utility rate.

The most obvious benefit of third-party financing of DoD renewable energy projects is that it eliminates the need to use appropriated funds to pay for these projects. Large-scale renewable energy projects require massive initial capital expenditures. For example, consider that the Nellis Solar array, completed in 2007, required up-front capital costs in excess of \$100 million.⁴⁶ With narrowing budgets, annual congressional appropriations for DoD renewable energy projects are insufficient to cover

⁴³ ARMY GUIDE, *supra* note 41.

⁴⁴ See Michael Callahan et al., *Lessons Learned From Net Zero Energy Assessments and Renewable Energy Projects at Military Installations*, NAT'L RENEW. ENERGY LAB. (Sept. 2011), <http://www.nrel.gov/docs/fy11osti/51598.pdf>.

⁴⁵ See GAO-12-401, *supra* note 13, at 16.

⁴⁶ *Nellis Solar Power Systems Tour Nellis Air Force Base Las Vegas NV*, WHITE HOUSE (May 27, 2009), <https://www.whitehouse.gov/the-press-office/nellis-solar-power-system-tour-nellis-air-force-base-las-vegas-nv>.

these costs. To demonstrate this deficit, understand that in 2014, renewable energy appropriations for all defense agencies was below \$98.853 million, split among 130 projects.⁴⁷ While this seems like a significant appropriation, it does not approach the amount of up-front capital needed to fund renewable energy projects at the levels necessary to meet the 2025 mandates. To put into perspective just how short these appropriations fall, consider that in 2011, the Secretary of the Army estimated that \$7.1 billion in private investment would be required for the Army to meet the 2025 renewable energy mandates.⁴⁸ This estimate would require over \$507 million to be invested annually on renewable projects. The significant shortfall in appropriations highlights the necessity to use third-party financing vehicles to fund the astronomical up-front capital expenditures required to get these projects in service.

Financing and development of renewable energy projects is a complicated endeavor that can be overwhelming for DoD personnel with minimal experience in the field. Therefore, third parties are often better suited to navigate the intricacies of these projects based on prior their experience. The United States Air Force Academy (the Academy) solar array project presents an example of the detrimental effects that government inexperience can have on project development. The Academy project was the result of a General Services Administration (GSA) area-wide contract whereby the local utility provider, through a third party, was responsible for designing, constructing, connecting, owning, and operating the solar array.⁴⁹ However, the project was not financed through the local utility; rather, the \$18.3-million project was paid for using appropriations stemming from the American Recovery and Reinvestment Act of 2009.⁵⁰ The project became the subject of a DoD Inspector General (IG) report, which found that the Academy erred by classifying the entire \$18.3 million as a “connection charge,”⁵¹ required to be paid in advance

⁴⁷ U.S. DEP’T OF DEF., ANNUAL ENERGY MANAGEMENT REPORT FISCAL YEAR 2014, 63 (May 2015).

⁴⁸ Donna Miles, *New Task Force to Promote Energy Initiatives*, U.S. DEP’T OF DEF. (Aug. 11, 2011), <http://archive.defense.gov/news/newsarticle.aspx?id=65002>.

⁴⁹ *U.S. Air Force Academy Solar Array*, COLORADO SPRINGS UTIL’ S, <https://www.csu.org/Pages/usafa-solar-r.aspx> (last visited Sept. 23, 2016).

⁵⁰ Inspector Gen., U.S. Dep’t of Def., No. D-2011-071, Report of Investigation: U.S. Air Force Academy Could Have Significantly Improved Planning Funding, and Initial Execution of the American Recovery and Reinvestment Act Solar Array Project (16 June 2011).

⁵¹ A connection charge is the payment made to the utility owner to install the service line between the building point of demarcation and the utility main. *Id.* at 8.

pursuant to FAR 32.404(a)(5).⁵² The IG report found that, in fact, only \$1.2 million of the actual costs should have been paid in advance as a connection charge.⁵³ The report concluded that as a result of the advance overpayment, the Academy lost \$676,000 in interest earnings.⁵⁴ Furthermore, the report concluded that by paying all of the project costs in advance, “the Government retained no payment leverage in the management of the project’s execution, which was over seven months behind schedule as of December 20, 2010.”⁵⁵

The Academy IG report provides a valuable example of why private parties may be better-suited to fund projects. It is true that the government’s mistake of overpaying the connection charges in advance could have been avoided by simply following the FAR rules; however, if the project was financed by a private investor, the financial loss resulting from this erroneous overpayment would have fallen squarely on the private party. Moreover, if the utility was responsible for funding the project, it likely would have been incentivized to get the project in service in a timely manner in order to begin earning a return for investors.

Private parties are also best-suited to operate and maintain the equipment once in service. For instance, if the equipment requires a major repair, the developer will be responsible for fixing the equipment. Having a private party perform maintenance on the system allows the installation to focus on the mission, and eliminates the need to devote personnel assets to upkeep the equipment.⁵⁶ Such arrangements are also likely to garner the support of installation and higher-headquarters leadership, who can be assured that the project will not require significant manpower expenditures.

A private developer can also benefit from certain financial incentives that do not apply to the federal government. One of the main benefits that private parties can take advantage of are renewable energy tax credits.⁵⁷ These credits provide a 30% tax credit for companies investing in solar

⁵² *Id.*

⁵³ *Id.*

⁵⁴ *Id.*

⁵⁵ *Id.* at 10.

⁵⁶ Sun Power, *supra* note 27, at 7.

⁵⁷ *Id.* at 6.

and wind projects.⁵⁸ The credits, set to expire on January 1, 2017, were extended by five years through a congressional spending bill in December 2015.⁵⁹ However, it is important to note that the bill also eliminates the wind credit in 2022, and phases down the solar credit to remain at 10% beginning in 2022.⁶⁰

The DoD cannot benefit from these tax credits if they own the project because it is not a taxable entity.⁶¹ Alternatively, private developers who own the project are able to take advantage of the financial incentives that these tax breaks provide.⁶² As a result, the DoD may be able to realize a corresponding decrease in the cost of energy produced by the project from the tax savings being passed on from the third-party owner.⁶³

Another major tool that private investors have to drive down the cost of renewable energy projects is the ability to sell renewable energy certificates (RECs).⁶⁴ A REC is “a document which represents and is used to account for the technological and environmental (non-energy) attributes of energy generated from renewable resources.”⁶⁵ A REC can be sold separately from the underlying physical electricity produced by a renewable project.⁶⁶ However, the Armed Services Board of Contract Appeals has held that RECs are personal property due to their “exclusive nature and transferability.”⁶⁷ As such, the DoD cannot sell RECs without first meeting the burdensome requirements of the GSA property disposal

⁵⁸ Richard Martin, *Congress Extends Tax Credit for Renewables*, MIT TECH’Y REVIEW (Dec. 17, 2015), <http://www.technologyreview.com/news/544741/congress-extends-tax-credits-for-renewables/>.

⁵⁹ *Id.*

⁶⁰ *Id.*

⁶¹ *Federal Clean Energy Contracting*, SOLAR ENERGY INDUST’ S ASS’ N, <http://www.seia.org/policy/renewable-energy-deployment/federal-clean-energy-contracting> (last visited Sept. 23, 2016).

⁶² See Bethany K. Speer, *Funding Solar Projects at Federal Agencies: Mechanisms and Selection Criteria*, NAT’ L REN. ENERGY LAB. (Mar. 9, 2012, 9:00 AM), <http://www.nrel.gov/docs/fy12osti/53322.pdf>.

⁶³ *Id.*

⁶⁴ See U.S. GOV’ T ACCOUNTABILITY OFFICE, GAO-10-104, DEFENSE INFRASTRUCTURE: DOD NEEDS TO TAKE ACTIONS TO ADDRESS CHALLENGES IN MEETING FEDERAL RENEWABLE ENERGY GOALS 23 (2009).

⁶⁵ Policy Memorandum, Assistant Sec’y of the Army for Installations, Energy and Env’t., subject: Department of the Army Policy for Renewable Energy Credits (24 May 2012), at 2 [hereinafter ASAIE&E Policy Letter].

⁶⁶ See ANDREWS, *supra* note 33, at 2.

⁶⁷ Honeywell International, Inc., ASBCA No. 57779, 7 Aug. 2013, at 10.

regulations.⁶⁸ Therefore, when appropriated funds are used to pay for the project, the government is stuck with the associated RECs at whatever their current value is in the market where the project is built.⁶⁹ Private parties, however, have the ability to sell the RECs from the project and buy replacement RECs at lower costs, so long as the contract is written in a fashion that allows the financier to sell the RECs.⁷⁰ Like the tax credits, the cost-savings generated from these transactions can be passed on to the DoD agency through a reduced energy rate.⁷¹ The cost savings associated with the federal tax benefits and REC sales can work to drive down energy prices and should serve as a major financial incentive for the DoD to use third-party financing to fund renewable projects. While third-party financing and ownership of renewable energy projects is the best—and likely the only—option for the DoD to meet the renewable energy goals, many obstacles and misconceptions are currently limiting the potential of these vehicles.

III. Current Obstacles to Third-Party Financing and Ownership

A. Limitations on Contract Length

Contract duration is a very important factor for investors who are considering financing a renewable energy project. Research has shown that contracts much longer than the standard ten-year FAR Part 41 contract are needed to ensure potential investors of a project's viability.⁷²

⁶⁸ *Id.* The government may not sell personal property unless the property cannot be used elsewhere. *Id.* Prior to sale, an agency must deem the property as excess government property and report this to GSA for potential transfer to other agencies. *Id.* If GSA determines that there is no other use, the property is labeled as surplus and available for donation. *Id.* The property is only available for competitive sale if it is not selected for donation. *Id.* Any such sale must be executed by an agent authorized to execute the sale and bind the government. *Id.*; see also 41 C.F.R. § 102.35-102.42 (2007).

⁶⁹ ASAIE&E Policy Letter, *supra* note 65, at 3.

⁷⁰ *Id.*; see also *Renewable Energy Case Study: Nellis Air Force Base, Nevada Solar Photovoltaic Array*, U.S. AIR FORCE CIVIL ENG. CENT. (Dec. 7, 2012), <http://www.afcec.af.mil/shared/media/document/AFD-121207-056.pdf> (“[T]he agreement allows FRV to sell the renewable energy certificates [RECs].”).

⁷¹ *Frequently Asked Questions*, ASS'T SEC'Y OF THE NAVY ENERGY, INST. & ENVIR., <http://www.secnv.navy.mil/eie/Pages/FAQs.aspx> (last visited July 7, 2016) (Question: “Does the [Department of Navy] DON want to own the renewable energy certificates (credits) that are tied to a renewable project?” Answer: “No, [i]f the DON can get a better price for power by not owning the RECs we will negotiate having the contractor retain ownership of them.”).

⁷² See ANDREWS, *supra* note 33, at 2.

Specifically, investors need the assurance of long-term revenue from the project due to the high up-front capital required.⁷³ Long-term contracts also lower the rate of return required for investors and, in turn, can reduce the overall price of the project.⁷⁴ These lower project costs translate into lower power costs for the agency over the life of the contract.⁷⁵

While long-term contracts work better to attract investors by making projects more economically viable, most contracting mechanisms significantly limit the length of the agreement. For instance, contracts entered into pursuant to FAR Part 41 have a ten-year limit.⁷⁶ While the WAPA has authority to broker renewable energy projects for the DoD for up to 40 years, it is important to remember that the WAPA is only authorized to enter into these contracts in its fifteen-state jurisdictional territory.⁷⁷ Further, brokering PPAs is not the primary mission of a power administration. Therefore, it is difficult to determine how long the WAPA will continue to use this authority.⁷⁸

Despite the benefits of longer-term contracts, at least some DoD agencies are still opting to use shorter-term contract vehicles at a considerable rate. For example, as of April 2015, five of the fifteen large-scale Army renewable energy projects, which were either in construction or under contract, were implemented using a GSA area-wide contract.⁷⁹ To attract more investors, and thereby spur on competition, it is in the DoD's best interest to move toward full-scale use of long-term contracting tools.

⁷³ See Dr. Jurgen Weiss & Dr. Mark Sarro, *The Importance of Long-Term Contracting for Facilitating Renewable Energy Project Development*, BRATTLE GROUP (May 7, 2013), http://www.brattle.com/system/publications/pdfs/000/004/927/original/The_Importance_of_Long-Term_Contracting_for_Facilitating_Renewable_Energy_Project_Development_Weiss_Sarro_May_7_2013.pdf?1380317003.

⁷⁴ *Id.*

⁷⁵ *Id.*

⁷⁶ FAR 41.103(a)-(b) (2014).

⁷⁷ ANDREWS, *supra* note 33, at 10-13.

⁷⁸ Bethany K. Speer, *Federal PV Projects Face Finance Barriers—Interview with NREL Experts: Part One of Two*, NAT'L REN. ENERGY LAB. (Apr. 11, 2011, 3:37 PM), <https://financere.nrel.gov/finance/content/federal-pv-projects-face-finance-barriers-interview-nrel-experts-part-two-two>. “If they were to get busier doing other things more central to their core operations, they might not have the capacity to do these solar PPAs.” *Id.* (statement of Blaise Stoltenberg).

⁷⁹ *Presentation of Amanda Simpson, U.S. Army: Office of Energy Initiatives* (Apr. 22, 2015), http://www.asaie.army.mil/Public/ES/oei/docs/ACORE_2015_OEI-ED.pdf.

B. Complexities Associated with the Government Contracting Process

DoD renewable energy projects are generally governed by the FAR.⁸⁰ When entering into renewable energy contracts, the DoD is required to comply with FAR and Defense Acquisition Regulation Supplement (DFARS) rules that do not apply to private sector utility contracts.⁸¹ These regulations can intimidate private developers who are not familiar with the FAR rules and the associated clauses that are required to be incorporated into a government contract. This unfamiliarity can cause financiers and developers concern over the amount of risk involved in contracting with the government.⁸² A complete analysis of the nuances of the government contracting process is beyond the scope of this article; however, it is important to highlight some of the common provisions that cause investor concern.

One provision of the FAR that is unique to the government contracting process is the Buy American Act (BAA). As a general rule, under the BAA, the government is only permitted to contract for domestic end-products.⁸³ An item is considered to be a domestic end-product manufactured in the United States if the cost of its domestic components amounts to at least 50% of the combined cost of all components.⁸⁴ In the realm of renewable energy, the BAA has a major effect on the purchase of photovoltaic panels for solar energy projects.⁸⁵ The requirement that at least 50% of all panels for a solar project be purchased from a domestic supplier has the potential to drive project costs up considerably, if the price of domestic panels is significantly higher than in foreign markets. Furthermore, in such a situation, a developer whose overall business plan

⁸⁰ See GAO-13-337, *supra* note 42, at 11.

⁸¹ Peter Mostow, *Armed Forces' Gigawatt Initiative For Renewable Energy Creating Great Interest*, NATURAL GAS & ELECTRICITY (June 2013), <https://www.wsgr.com/publications/PDFsearch/mostow-0613.pdf>.

⁸² *Id.*

⁸³ FAR 25.01 (2016); see also FAR 25.103 (2016) (carving out numerous exceptions to the BAA, including that the prohibition does not apply if the item is not available in sufficient commercial quantities, the domestic product would be inconsistent with public interest, the cost of the domestic product would be unreasonable, the product is for commissary resale, or the product is information technology that is a commercial item).

⁸⁴ FAR 25.101(a)(2) (2016).

⁸⁵ See Defense Acquisition Regulation Supplement (DFAR) 252.225-7017(b) (Jan. 2016). This clause implements section 858 of the National Defense Authorization Act for Fiscal Year 2015 (Pub. L. 113-291). A covered contract for BAA purposes includes any contract awarded by the DoD that provides for a photovoltaic device to be either installed inside the DoD property or in a facility owned by the DoD; or reserved for the exclusive use of the DoD in the United States for the full economic life of the device. *Id.*

involves purchasing foreign panels at discount prices may be deterred from contracting with the DoD altogether. Therefore, it is crucial for government attorneys to make sure the parties are aware of the BAA requirements early on, to prevent the deal from falling through in a later phase of project development.

Another common concern for developers is the government's ability to terminate the contract for convenience.⁸⁶ Under FAR Part 49.5, the government is permitted to terminate a contract at any point when it is in the government's interest.⁸⁷ The FAR requires that termination for convenience clauses—tailored to specific contract types—be incorporated into the contract.⁸⁸ From a developer and financier perspective, the government's ability to terminate a contract at any point causes some developers to associate significant risk with a government renewable energy project. Some experts in the finance industry have stated that they will not finance a DoD renewable energy project unless there is a termination value schedule included in the underlying contract.⁸⁹

While developer concern over terminations is understandable, it is imperative for DoD contract officers involved in negotiations to understand that the developer will not be left “out in the cold” in the event of a termination. Specifically, the FAR termination clauses provide for monetary relief to the contractor.⁹⁰ The DoD administering meaningful monetary relief to developers after terminations of renewable energy contracts is not new. After the 2005 Base Realignment and Closure, the DoD provided more than \$24 million in combined settlement costs for

⁸⁶ See Mostow, *supra* note 81.

⁸⁷ FAR 49.5 (2013).

⁸⁸ *Id.*

⁸⁹ *Power Contracts With the U.S. Military*, CHADBOURNE & PARKE (June 2013), http://www.chadbourne.com/files/Publication/2f6965ab-f964-4256-b7b4-9efb1896d4fb/Presentation/PublicationAttachment/9077b778-9a29-48dc-b607-a25aa4816590/PowerContractsUSMilitary_pfnJun13.pdf; see also Ellen S. Friedman & Tiana M. Butcher, *Shades of Green: New Department of Defense Renewable Energy Commitment Presents Significant Opportunities (And Risks) for Developers*, NIXON PEABODY (Aug. 7, 2013), http://www.nixonpeabody.com/Shades_of_Green_Contract_Management_November_2013 (stating that a termination value schedule sets forth the negotiated amount the developer will be compensated if the contract is terminated after the project begins commercial operation).

⁹⁰ See FAR 52.249-2(g) (2012). In the event of a termination, the contractor is entitled to the contract price for completed supplies or services accepted by the government, the costs incurred performing work on the project, a fair and reasonable profit unless the contractor would have sustained a loss if the contract had been completed, and reasonable costs of settling the work terminated. *Id.*

three terminated renewable energy projects, and was still paying these settlement costs as of 2013.⁹¹

It should also be understood that any amount of termination risk imposed on the developer is highly dependent on the private developer's ability to continue to utilize the project for third-party power sales after termination.⁹² For instance, after the termination of a solar project, it is possible that the developer will be able to retain the panels for installation at another location and begin to sell energy to other customers relatively easily. On the other hand, a geothermal plant placed on an installation may not serve as great a benefit to a developer after termination. Therefore, the type of renewable project and the corresponding opportunity for reutilization in the event of default should always be considered in price negotiations for DoD renewable energy projects.

IV. Section 2922a Is the Best Tool to Meet the Renewable Energy Goals

A. Benefits of Section 2922a

Section 2922a is an energy-production statute that permits the secretary of a military department to enter into a contract for up to thirty years for the development of any geothermal energy resource within lands under the Secretary's jurisdiction, and for the provision and operation of energy production facilities on real property under the Secretary's jurisdiction, or on private property.⁹³ The statute further permits the secretary concerned to enter into thirty-year contracts to purchase energy produced from such facilities.⁹⁴ The primary benefit of Section 2922a is the thirty-year contract authority.⁹⁵ As discussed above, this authority attracts investors who can offer the DoD lower energy rates based on their confidence in the more stable rate of return associated with longer contract terms.⁹⁶

⁹¹ GAO-13-337, *supra* note 42, at 27.

⁹² See Friedman & Butcher, *supra* note 89.

⁹³ 10 U.S.C. § 2922a (2006).

⁹⁴ *Id.*

⁹⁵ *Id.*

⁹⁶ Jurgin & Sarro, *supra* note 73; see also *Installations, Environment, Energy and BRAC: Hearing Before the Subcommittee on Military Construction, Veteran Affairs, and Related Agencies of the House Appropriations Committee* 19 (2014) (statement of John Conger, Acting Deputy Under Secretary Of Defense, Installations and Environment)

Another feature of Section 2922a is that it provides a work-around for the requirement that DoD installations purchase power from state regulated utilities pursuant to 40 U.S.C. § 591. This statute prevents a department of the federal government from purchasing electricity in a manner inconsistent with state law.⁹⁷ This generally means that a DoD installation located in a state with a regulated utility market is required to purchase power from an authorized utility provider. However, 40 U.S.C. § 591 carves out an exception to this requirement, which states that the secretary of a military department is permitted to enter into contracts pursuant to 10 U.S.C. § 2394 (recodified as Section 2922a).⁹⁸ Further, DoD policy specifically provides that 40 U.S.C. § 591 does not prevent a DoD agency from entering into power purchase contracts under Section 2922a.⁹⁹ This exception allows an installation in a regulated jurisdiction to utilize Section 2922a to expand the field of potential project developers and increase competition. However, there are also benefits to having the local utility provider develop the project; mainly, using the local utility works to preserve the existing relationship between the installation and the utility.¹⁰⁰

While DoD policy provides that 40 U.S.C. § 591 does not apply to Section 2922a projects, it is important for agencies using Section 2922a authority in a state with a regulated utility market to understand that potential litigation risk may exist. Specifically, while 2922a and the statute's underlying policy seem to clearly delineate the DoD's authority to purchase power in a regulated jurisdiction, some experts in the field believe that the authority of a non-regulated developer to sell power in such a jurisdiction is still in dispute.¹⁰¹ To reduce this risk, it is incumbent

There are particular authorities for renewable energy—particularly the ability to sign power purchase agreements of up to [thirty] years—that not only provide incentive for private firms to fund the projects themselves, but also can provide a good enough business case that they are able to offer DoD lower energy rates than are being paid currently.

Id.

⁹⁷ 40 U.S.C. § 591 (2002).

⁹⁸ *Id.* § 591(b)(2)(A) (2002).

⁹⁹ OSD Policy Memo, *supra* note 12, at 3.

¹⁰⁰ Telephone Interview with Karen White, Attorney, Air Force Civil Engineer Ctr. (Jan. 19, 2016) (stating that entering into a PPA with a local utility provider can help to preserve the political relationship that exists between the utility and the installation, make the procurement process more timely, and eliminate the need to enter into a new interconnection agreement to connect the project to the utility grid).

¹⁰¹ Maura Goldstein, *The Bigger Picture: A Lean, Green Fighting Machine? Part 1: The Regulatory Risk Posed by the Army's Renewables Initiative*, ELECTRIC ENERGY, <http://>

upon agency attorneys involved in project planning to coordinate with the regulated utility early in the project development phase to reduce the potential for litigation and ease investor concerns.¹⁰²

B. The Current Status of Section 2922a Project Approval

1. A Brief History of Section 2922a Policy and Legislation

The authority under Section 2922a was first enacted in 1978 under President Carter's administration.¹⁰³ A review of the congressional history behind the legislation reveals that at least part of the intent behind the statute's enactment was to promote the use of geothermal energy.¹⁰⁴ The authority under Section 2922a was mainly viewed to apply only to geothermal projects, until the Deputy Under Secretary of Defense for Installations and Environment (DUSDI&E) issued policy guidance in 2012, clarifying that the statute applied to any type of energy production facility.¹⁰⁵ As of January 2016, the DUSDI&E had approved ten Section 2922a renewable energy projects.¹⁰⁶

www.electricenergyonline.com/show_article.php?mag=82&article=686 (last visited Sept. 23, 2016).

¹⁰² See Callahan & Anderson, *supra* note 44.

Before beginning the contracting process for a renewable energy project, installations should consult with local utilities. Under 40 USC 591, a department, agency, or instrumentality of the federal government cannot purchase electricity,"in a manner inconsistent with state law governing the provision of electric utility service." In the case of the Nellis PPA, the utility preferred that Nellis issue a competitive [photovoltaic (PV)] for the PV array.

Id.

¹⁰³ Military Construction Authorization Act of 1979, Pub. L. No. 95-356, § 803, 92 Stat. 565 (1978). This legislation provided the initial authority found in Section 2922a. It was later entered into law under Section 803a of the Military Construction Act of 1979. It was codified in 1982 as 10 U.S.C. § 2394. The statute was renumbered as 10 U.S.C. § 2922a in 2006.

¹⁰⁴ H.R. REP. NO. 95-1448, at 9 (1978) ("To encourage geothermal energy resource utilization, the conferees agreed to modified language of a Senate provision authorizing the development of such energy production facilities on lands under military [j]urisdiction.").

¹⁰⁵ OSD Policy Memo, *supra* note 12, at 2.

¹⁰⁶ Telephone Interview with Sara Streff, Deputy in the Office of the Deputy Sec'y of Def. for Installations and Env't. (Jan. 15, 2016) [hereinafter Sara Streff Telephone Interview].

2. *The Approval Process*

Pursuant to DUSDI&E policy, any agency engaging in a Section 2922a project must complete all phases of project development prior to final approval of the contract. The process begins with a concept brief to the Office of the Assistant Secretary of Defense for Energy, Installations, and Environment (OSD).¹⁰⁷ There are two major approval steps involved in the process. To the extent that a contract under Section 2922a provides for the exclusive use of DoD real property, the agency must comply with the requirement under 10 U.S.C. § 2662(b)(2)(G) by certifying that the project is consistent with the DoD energy performance goals and master plan.¹⁰⁸ This real property requirement is independent of the Section 2922a contract, and approval must occur in advance of contract solicitation.¹⁰⁹ Prior to submitting the actual “ready to award” contract to OSD for final approval, a laundry list of requirements must be met. The requirements include the following: a ready to award contract that has been agreed to by the contractor, but not yet awarded; appropriate real property documentation consistent with DoD Instruction 4165.70;¹¹⁰ an economic business case analysis; appropriate National Environmental Policy Act (NEPA) documentation; a memorandum for record expressing whether the project is on withdrawn lands; a summary of the project’s contribution to federal renewable energy goals; and, if required, a justification and cost-benefit-analysis of the decision to exclude the pursuit of energy security on the grounds that the inclusion of energy security is cost-prohibitive pursuant to Section 2822 of the National Defense Authorization Act for Fiscal Year 2012.¹¹¹

¹⁰⁷ OSD Policy Memo, *supra* note 12, at 5.

¹⁰⁸ *Id.* at 2; *see* 10 U.S.C. § 2662(b)(2)(G) (2013).

If the proposed lease involves a project related to energy production, a certification by the Secretary of Defense that the project, as it will be specified in the contract solicitation or other lease offering, is consistent with the Department of Defense performance goals and plan required by section 2911 of this title.

Id. § 2662(b)(2)(G).

¹⁰⁹ OSD Policy Memo, *supra* note 12, at 2.

¹¹⁰ *Id.* at 5. Such real property outgrant documentation includes a statement of the fair market value of the outgrant. *Id.* If the fair market value meets any of the reporting requirements of 10 U.S.C. § 2662, the documentation must show how and when the required reports were or will be made, and an explanation why the property is not currently needed for public use. *Id.*

¹¹¹ *Id.* at 5–6.

C. Changes in Policy and Better Communication are Needed to Improve the Process

The fact that only ten Section 2922a projects have been approved, to date, underscores the need for more efficiency in the process. As one can imagine, the OSD requirements for Section 2922a approval makes for a very lengthy application timeline. Agency employees working these projects indicate that the process is currently taking between two to three years to get final project approval.¹¹² The expediency of the process is one of the greatest concerns for developers, who are used to private sector projects with much shorter timelines.¹¹³ This concern is warranted when one considers variables such as fluctuating energy markets and, most certainly, the reduction and elimination of federal tax credits for solar and wind respectively. Based on the current timeline, investors in the coming years will likely be worried that a project may not be in service in time to retain the 30% solar tax credit prior to it dropping to 10% in 2022.¹¹⁴ This concern will likely cause developers to raise project prices, or even resort to avoiding DoD projects in favor of the private sector.

To attract investors and lower project costs, it is crucial for the DoD and the service agencies to implement measures that will speed up the approval process. One potential way to do this is to re-delegate the authority down to the service secretaries.¹¹⁵ At first glance, this appears to be the most useful option to expedite the process; however, it fails to account for the fact that the majority of time lost is being taken up at the service levels.¹¹⁶ Regardless of where the bottleneck is, the better option is for OSD to issue additional policy that requires the agency to informally

¹¹² Telephone Interview with Daniel Gerdes, Chief of Rates and Renewables, Air Force Civil Engineer Ctr. (Jan. 14, 2016); *see also* Telephone Interview with Veronica Norman, Assoc. Deputy Gen., Army Installations, Env't & Civil Works Practice Group (Jan. 12, 2016); *but see* Sara Streff Telephone Interview, *supra* note 106 (stating that packages are taking between three to five years to reach OSD for approval).

¹¹³ Sara Streff Telephone Interview, *supra* note 106.

¹¹⁴ Martin, *supra* note 58.

¹¹⁵ Section 2922a approval authority has already been delegated from the Secretary of Defense through the Under Secretary of Defense for Acquisition, Technology and Logistics down to the Under Secretary of Defense for Energy, Installations and Environment. *See* U.S. DEP'T OF DEF., DIR. 5134.01, UNDER SECRETARY OF DEFENSE FOR ACQUISITION, TECHNOLOGY, AND LOGISTICS para. 3.3 (9 Dec. 2005).

¹¹⁶ *See* Sara Streff Telephone Interview, *supra* note 106. Packages received by OSD have historically taken anywhere from 10 days to 11 weeks to receive approval. *Id.*

coordinate with OSD during critical points in the development process.¹¹⁷ Such policy will ensure that essential aspects of the project, such as NEPA analysis and drafting the Request for Proposals (RFP), are done correctly; thereby reducing the risk that an insufficient package will be sent back to the agency for reworking. Furthermore, such consultations will likely expedite higher-headquarter approval at the service levels by increasing the quality of the packages being reviewed.

In conjunction with improving the timeliness of the overall approval process, it is critical that key players are actively engaged and familiar with the requirements. In particular, attorneys who understand the legal implications and how they may affect project timelines, or the overall viability of a project, need to be involved as soon as a potential opportunity is identified. First, an attorney familiar with the regulatory environment of the jurisdiction where the project will be located is needed to advise on jurisdictional rules governing things such as interconnection or dimensions of the actual construction.¹¹⁸ To provide an example, Texas passed a law that limits a non-utilities' ability to build a solar project that is greater than two megawatts (MW) in a regulated utility jurisdiction. As a result, Fort Bliss decided to pursue a sole-source award of a twenty-MW solar contract to its regulated utility provider.¹¹⁹ This example underscores the importance of having an attorney involved at the outset who understands the regulatory limitations of a project. Interestingly, as a result of the installation and the utility not being able to agree on favorable easement provisions, the Fort Bliss deal fell through after being in the works for multiple years.¹²⁰ This highlights just how essential the real property agreement is to the overall deal.

An attorney familiar with environmental laws and regulations is also crucial to steer the project through the NEPA analysis. Ensuring

¹¹⁷ *Id.* The OSD has requested that agencies pursuing Section 2922a approval engage in informal consultations throughout the process. *Id.* These consultation allow the OSD to be involved in critical aspects of the process such as review of the RFP, NEPA analysis and contract negotiations. Considerable OSD involvement during these key phases helps ensure the project is done correctly, and provides for a much quicker approval once the final package is submitted. At this point, these informal consultations are not written into OSD policy. *Id.*

¹¹⁸ ARMY GUIDE, *supra* note 41, at 15.

¹¹⁹ Margaret P. Simmons, Challenges with Renewable Energy Projects, slide 10 (Nov. 14, 2014) (unpublished PowerPoint presentation) (on file with author).

¹²⁰ Vic Kolenc, *El Paso Electric Axes Fort Bliss Solar Plant Plans*, EL PASO TIMES (Aug. 21, 2015), <http://www.elpasotimes.com/story/money/2015/08/21/el-paso-electric-axes-fort-bliss-solar-plant/71993368/>.

compliance with NEPA is a time-consuming process that can also foster developer uncertainty, because it is only required for federal projects.¹²¹ At the beginning of the project, environmental attorneys should work to identify categorical exclusions that will expedite the NEPA analysis.¹²²

Finally, an attorney familiar with utility acquisitions is in the best position to serve as lead counsel on the project. This attorney should review all documents, including the real property outgrant, the interconnection agreement, the RFP, and the ready to award contract to ensure they include the necessary FAR clauses and follow OSD templates, if available. Moreover, it is especially critical for the attorney to be involved in the negotiations of the final contract. In this role, it is essential that the attorney understand the realistic risks of variables such as expiring tax credits, termination clauses, and potential litigation with regulated utilities. By developing expertise on these issues, the attorney will be able mitigate the potential for high project costs stemming from a developer's overvaluation of the risk involved through knowledgeable negotiation.

V. Conclusion

The DoD's status as the largest energy consumer in the United States is unlikely to change. The question that remains is whether the DoD will continue to use this position as a platform to catapult a wider-scale movement toward the utilization of renewable technology. As Pike Research President Clint Wheelock states, "In particular, military investment in renewable energy and related technologies can help bridge the 'valley of death' that lies between research [and] development and full commercialization of these technologies."¹²³ While Congress has fallen short in appropriating the funding necessary to meet renewable energy goals, it has at least provided statutory assistance in the form of Section 2922a to help the DoD take the lead on renewable energy production. Unfortunately, the utility of Section 2922a is burdened by a lengthy—yet

¹²¹ U.S. DEP'T OF ENERGY: FED. ENERGY MGMT. PROGRAM, LARGE-SCALE RENEWABLE ENERGY GUIDE: DEVELOPING RENEWABLE ENERGY PROJECTS LARGE THAN 10 MWs AT FEDERAL FACILITIES (2013).

¹²² See 40 C.F.R. 1508.4 (1978). A categorical exclusion is a category of actions that do not have a have a significant effect on the human environment, and therefore do not require an environmental assessment nor an environmental impact statement.

¹²³ *U.S. Military to Invest \$10 Billion Annually in Renewable Energy by 2030*, According to Pike Research, NAVIGANT RES. (Oct. 13, 2011), <https://www.navigantresearch.com/newsroom/u-s-military-to-invest-10-billion-annually-in-renewable-energy-by-2030>.

likely necessary—approval process, coupled with skittish developers who do not understand the process and overvalue the risks involved. These obstacles are evidenced by the fact that the OSD has only approved ten projects to date.¹²⁴ The pending reductions and eliminations of federal renewable tax credits in 2022 create an even bleaker forecast, and have the potential to increase costs to a level where projects are no longer economically viable.

To combat these barriers, policy must be implemented whereby the services entering into these projects are mandated to work hand-in-hand with the OSD throughout all phases of the project. Doing so will work to standardize the process and improve the quality of packages being submitted for approval. As a result, project approval will be accelerated. Furthermore, attorneys must play an active role in the project and work to counter the risks that investors and developers associate with these contracts. Only after these steps are taken will Section 2922a have a chance to live up to its potential as a useful tool to help the DoD meet the 2025 renewable energy goals.

¹²⁴ Sara Streff Telephone Interview, *supra* note 106.