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Statement of

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Before the
Senate Committee on
Energy and Natural Resources

S. 2921, California Desert Protection Act of 2010

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Thank you for the opportunity to testify today and provide preliminary comments on S. 2921, the California Desert Protection Act of 2010, introduced by Senator Feinstein. This bill represents a significant and laudable effort to preserve the environment and promote the development of renewable energy while at the same time protecting the ability of the U.S. military to carry out its mission. The Department of Defense supports these goals and we want to work closely with the committee to ensure that military, renewable energy, and environmental equities are protected as you further develop this legislation. We defer to the Department of Interior and Agriculture with respect to provisions that solely concern their lands and interests.

As the Quadrennial Defense Review made clear, crafting a strategic approach to energy and climate change is a high priority for the Department. This reflects mission considerations above all. The Department's own analysis confirms what outside experts have long warned: our military's heavy reliance on oil and other fossil fuels creates significant risks and costs at a tactical as well as a strategic level. They can be measured in lost dollars, in reduced mission effectiveness and in U.S. soldiers' lives. Unleashing warfighters from the tether of fuel and reducing our military installations' dependence on a costly and potentially fragile power grid will not simply enhance the environment, it will significantly improve our mission effectiveness.

Renewable and alternative energy represents a critical plank in the Department's energy security platform. Military installations—many of them located in the Southwest and along our coasts—are well-situated to support large-scale solar, wind and geothermal energy projects that are carefully sited and developed in ways that are consistent with our current and projected military mission requirements. The development of such mission-compatible renewable energy to support our military installations can help the Department achieve two important goals.

First, it can help the Department reduce its costly reliance on fossil fuels and the related greenhouse gas emissions they generate. DoD's permanent installations, which include some 300,000 buildings and 2.2 billion square feet of floor space, account for about 28 percent of the Department's total energy usage ($4 billion in 2009). Installations account for even more of DoD's greenhouse gas emissions—nearly 40 percent—because of their reliance on the commercial electricity grid, which is heavily powered by coal. The Department has pledged to reduce greenhouse gas emissions from non-combat activities by 34 percent over the next decade, and the expansion of renewable energy development on our installations will be key to meeting that goal.

Second, combined with appropriate technologies and necessary energy assurance policies, the development of renewable energy can help military installations provide for greater mission assurance. According to the Defense Science Board, the increasing fragility of the commercial grid to cyberattack, natural disaster and other threats places

the continuity of critical military missions at growing risk.[1] When combined with microgrid technology and energy efficiency investments that significantly reduce demand, distributed renewable energy sources can assist in allowing installations to carry out mission-critical activities and support restoration of the grid in the event of disruption.

The military has been actively pursuing solar, wind, geothermal and other forms of renewable and alternative energy to achieve these and other goals. For example, Nellis Air Force Base in southern Nevada built a 14-megawatt (MW) photovoltaic solar array: more than 72,000 solar panels track the sun to generate 30 million kilowatt-hours of electricity per year—equivalent to a quarter of the total power used at the 16,000+ population base. As with most renewable energy projects on military installations, Nellis took advantage of third-party financing. Nellis saves $1 million a year in electricity costs and avoids 24,000 tons of carbon dioxide emissions.

The military's interest in renewable energy is nothing new. Naval Air Weapons Station China Lake in California has been operating a 270-MW geothermal plant since 1987. The heat from 166 wells, some of them 12,000 feet deep, is sufficient to light up 180,000 homes. The Navy is helping the Army tap into geothermal resources at its Weapons Depot in Hawthorne, Nevada, and that project will be capable of producing 30 MW of clean power. Working to further develop and deploy advanced geothermal technologies to make this a viable strategy at additional installations may be an important element of our energy assurance program.

Also relevant is the Department's effort to use DoD's installations as a testbed for next-generation energy technologies coming out of industry, Department of Energy and university laboratories. These include technologies to improve the conservation and efficiency of building energy, control and management of local energy loads, as well as on-site alterative and renewable energy generation. DoD can assess the performance, cost, and environmental impact of these advanced, pre-commercial technologies. For those technologies that prove effective, DoD can serve as an early customer, helping create a market, as it did with aircraft, electronics and the internet. This approach is key to meeting the Department's needs but it is also an essential element of a national strategy to develop and deploy the next generation of energy technologies needed to support our built infrastructure.

Despite the Department's support for renewable energy, specific renewable energy projects can pose problems for the military. Let me discuss three situations.

[1] "More Fight-Less Fuel," Report of the Defense Science Board Task Force on DoD Energy Strategy, February 2008.

First, the siting of a large-scale renewable energy project on or near a military installation may not be compatible with the current or projected mission of the installation. For example, wind turbines or a solar tower can interfere with mission-critical navigation or other radar. We are working actively both to identify potential problems well in advance of siting and to develop better mitigation technology. However, some conflicts may be unavoidable, and sustaining our ability to conduct our current and projected mission requirements must be our overriding consideration.

A second potential conflict arises from the fact that military installations, which represent some of the best protected and most pristine land in the federal inventory, are home to many threatened and endangered species and other species at risk. Such an installation may not be able to accommodate the construction of, for instance, a large solar facility if it would adversely affect sensitive habitat. Even if the proposed site for a solar facility were outside of the installation fence, the facility could negatively affect military operations by placing additional burdens on the installation for species recovery or by potentially increasing the vulnerability of installation populations.

A third potential conflict has to do with the competition for water. The same areas that are ideally suited to large solar projects also typically face severe water shortages. The construction of such a solar project on or near an installation will almost always increase the competition for water supplies that are already scarce and which may become even more scarce in the future. In addition to putting pressure on the military mission directly, this can make it even more difficult for an installation to maintain its sensitive habitat and the threatened and endangered species it sustains.

In sum, the military has significant interests and equities in federal policy dealing with the development of renewable and alternative energy sources. This is particularly the case with respect to energy development in the Mojave and Colorado Deserts, where we conduct an enormous amount of testing, training and other operational activity. The test and training ranges in this unique part of the country are among the Department's most valuable and irreplaceable installations, often described as our "crown jewels."

We are grateful to Senator Feinstein for recognizing how important this legislation is to the military and for working so cooperatively with the Department's regional environmental staff in California prior to introducing the bill. As a result of that collaboration, the bill incorporates many provisions that address and protect our operations. Below, I mention some of them. I also highlight several sections where the Department's initial review has revealed the need for further discussion. We will provide a letter to the Committee detailing our comments after we have had an opportunity to review the legislation in depth.

Title I – California Desert Conservation and Recreation

We appreciate that, throughout Title I, the bill recognizes that the military is an essential presence in both the proposed Mojave Trails National Monument and the Sand to Snow National Monument. Let me cite three examples:

- The bill includes representatives from the Department of Defense on the Advisory Committee for both Monuments, giving us an important role in their long term management.

- The bill excludes certain areas from the Mojave Trails National Monument pending possible withdrawal and addition to the Marine Corps Air Ground Combat Center at Twentynine Palms, protecting our options to address future mission needs.

- In establishing the Avawatz Mountains, Golden Valley, and Soda Mountains Wilderness Areas adjacent to Fort Irwin, the Great Falls Basin Wilderness Area adjacent to China Lake, and the Kingston Range Wilderness Area to the east of Fort Irwin, the bill protects the authority of the Secretary of Defense to conduct military activities at desert installations, facilities, and ranges. Particularly critical is the language explicitly protecting those military activities that can be seen or heard from within the Wilderness Areas.

Nevertheless, to ensure that our activities are protected, we must better understand the bill's land management requirements in total, particularly as they relate to our ability to conduct testing, training, and operational activities and our responsibilities under the Endangered Species Act to protect threatened and endangered species and the associated critical habitat.

We see many potential benefits to the bill's approach—namely, the designation of large monument and wilderness areas as off-limits to development. This approach may protect our installations from the encroachment that such development could cause. Having these areas protected may expand critical habitat and spread species management responsibilities over a larger area, thereby lessening the pressures on the species and on DoD's land management responsibilities. Precluding development in these areas would also reduce the competition for limited water resources. On the other hand, the limitation of development in certain areas would likely steer development to other areas, which may not be compatible with our current and projected mission requirements in every case. Therefore, we need to conduct a detailed, site-by-site analysis in light of our current and projected missions to understand the full implications of Title I.

Title II – Desert Renewable Energy Permitting

One thrust of Title II would be to concentrate renewable energy development in particular geographic areas within the Mojave Desert. This is potentially quite beneficial: the designation of specific areas for renewable energy development would facilitate such development by giving developers and Federal agencies alike clear parameters early in the planning process, by facilitating coordination with ongoing regional planning efforts at the local, state, and federal levels, and by streamlining that process in numerous other ways. Depending on where those areas are located, however, the concentration of renewable energy development could be incompatible with the Department's current and projected mission requirements. Here, again, we would need to conduct a more detailed analysis.

In addition, based on our preliminary review of the legislation, there are three specific sections in Title II that are of particular interest or that raise potential concerns for the Department.

Programmatic Environmental Impact Statement (Sec. 203)

We appreciate the bill's intent to have federal agencies evaluate the environmental impacts of renewable energy in a programmatic manner, early in the process. This approach enables a more strategic assessment of the range of options and the associated direct, indirect and cumulative impacts. By evaluating these impacts earlier, it shortens the process when we move to site specific decisions while ensuring that we better understand the cumulative impacts of each project.

The Department is, however, concerned with the time restrictions included in the bill. As you can appreciate, for the results of this programmatic environmental impact statement to improve the quality of our siting process and our land management decisions, we need to gather the appropriate information and apply a rigorous and complete environmental analysis. To ensure that this is a thoughtful and meaningful process, we believe it will take significantly more time than currently provided in the bill. Moreover, in the interests of efficiency and overall environmental protection, any programmatic assessment for renewable energy options by DoD should be produced concurrently with assessments done by the Forest Service, Bureau of Land Management and other federal agencies to coordinate efforts, scope, regional coverage, use of data and desired outcomes.

Military Installations Study (Sec. 204)

The military installations study directs the Department to assess the financial, environmental, and national security implications of renewable energy development on military installations in the Mojave and Colorado Deserts in the States of California and Nevada. This area includes many large and critical military installations and contains

some of the most important testing and training ranges within the Department of Defense. Renewable energy is a critical component of the Department's energy strategy and this region of the country has significant renewable energy resources that could be exploited. Section 204 identifies important issues that the Department must consider as we continue to develop renewable energy programs. The Department needs to understand the full impacts of renewable energy development on our installations. We have already initiated plans to conduct such a study based on language in the Department of Defense Appropriations Act for FY 2010.

Renewable Energy Coordination Offices (Sec. 201)

We appreciate the Senator's efforts to make the Department an integral part of the Federal permit coordination process. Renewable energy siting decisions in this region, on or off military installations, must comport with military activities in order to ensure the viability of our training, testing, and operations, to safeguard the public, and to protect the security of sensitive activities.

We believe some aspects of the prescribed process and structure need clarification. First, it is not clear if the Renewable Energy Coordination Offices that the bill would create will have permitting authority for all Federal lands in these states or only those lands currently managed by the Bureau of Land Management (BLM). We have the overriding responsibility to protect our ability to perform testing, training, and operational missions on all of our installations, including those formed in whole or in part from lands withdrawn from the public domain. The Department of Defense already has a permitting process, under its separate authorities, for lands under its management. This process works well to ensure that appropriate energy production occurs on such lands, without interfering with the mission of the Department. The Department's authorities provide strong incentives to installation commanders to pursue such projects. Although the Department's own permitting process would benefit from additional coordination with the permitting process of BLM, it would not be beneficial to limit the authority of the Department with regard to permitting on our installations.

In addition, siting of renewable energy facilities and associated infrastructure on private and state lands has the potential to have a significant impact on our testing, training, and operational missions. It is not clear that the permitting process outlined in the bill adequately addresses the critical interaction of Federal agencies with state and local permitting processes.

Conclusion

We strongly support the goals of S. 2921—namely, to advance renewable energy while protecting the environment and protecting our current and projected military missions. We will provide additional views on the bill in the near future. Along with the other federal agencies, the Department of Defense looks forward to working closely with the Committee in the coming months to address the issues we have highlighted today.