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April 22, 2016

BY OVERNIGHT DELIVERY
New Jersey Board of Public Utilities
Attn: Board Secretary
44 South Clinton Avenue, 9th Floor
Trenton, NJ 08625-0350

QO16040382

RE: NJ Land, LLC
Filing of Petition for Declaratory Relief – "On-Site" Generation

Dear Madam Secretary:

The undersigned represents NJ Land, LLC ("NJ Land"). NJ Land hereby submits its Petition for Declaratory Relief pursuant to N.J.S.A. 52:14B-1 et seq. with respect to application of the definition of "on-site generation facility" as contained in N.J.S.A. 48:3-51. Please circulate this Petition for processing at the earliest possible date.

A copy of the within Petition is being served on Jersey Central Power and Light Company ("JCP&L"), by way of its counsel, Gregory Eisenstark of Windels Marx Lane & Mittendorf, LLP. Also, a copy is being served on Stefanie Brand, NJ Rate Counsel.

Please contact the undersigned if you have any questions regarding this filing.

CMS
R. BAYLAN
DAG
RPA
R. JACKSON
CLEAN ENERGY

Respectfully submitted,

RUSSO TUMULTY NESTER
THOMPSON & KELLY, LLP

HOWARD O. THOMPSON

Enclosures
c. Gregory Eisenstark, Esq.
Windels Marx Lane & Mittendorf, LLP
Stefanie Brand, Esq. NJ Rate Counsel
Kenneth J. Sheehan, Esq., BPU Chief of Staff
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Attorneys for Petitioner
NJ Land, L.L.C.

In The Matter of the Application of NJ LAND, L.L.C.	:	**Docket No.**
Seeking a Declaratory Judgment Pursuant to NJSA 52:14B-1 et seq., or a Waiver Pursuant to the Waiver Rule, N.J.A.C.14:101.2(b)	:	**PETITION FOR DECLARATORY RELIEF**

NJ Land, L.L.C., hereinafter sometimes "Petitioner" or "NJL," says in support of the within petition:

Preliminary Statement

Petitioner, acting through one or more special purpose entities, proposes to construct and operate two photovoltaic electric generating facilities – one 9.2 MW (DC) and one up to 19 MW (DC) – from its site across one public thoroughfare from Joint Base – McGuire Dix Lakehurst, in order to serve on-base customer needs. These will be "net-metered" renewable energy facilities located on Petitioner's site, as that lot is identified on the Tax Map of Springfield Township, Burlington County as being contiguous with the Joint Base, but for Saylors Pond Road. Once across Saylors Pond Road, the wires (one for each facility) delivering the electricity to customers will remain on the base property. Again, the customers themselves are on the base. The renewable energy facilities will be sized to meet annualized usage, rather than exceed annualized usage of their customers.

It is recognized by the State of New Jersey (see **Exhibit C** below) that the Joint Base is under consistent review for force or mission reduction and base closure and that, as the State's second largest employer, the Joint Base, its public and private on-base activities, and its economic impact on the surrounding area are valuable to the State. Accordingly, the State has determined that its policy should be to support actions and opportunities that will help maintain the Joint Base and make it more economically viable – including supporting the Joint Base with renewable energy projects that will supply green power, power at reduced pricing, and resilient power generation sources.

Petitioner's solar power generating facilities provide an opportunity for reduced pricing and more resilient power for military housing, and, in the future, the United States Air Force's

internal distribution system at the McGuire portion of the Joint Base. Petitioner's projects comply with New Jersey's statute as "on-site" generation that therefore qualifies for Solar Renewable Energy Certificates ("SRECs") and they also comply with the more detailed regulations promulgated to support that statute's definition.

The uniqueness of the large, military-controlled property on which the customers will receive solar-produced electricity ensures that the declaratory relief sought here is very limited in scope. Nonetheless, the utility has indicated that it has not accepted that a NJL solar project serving a customer on the Joint Base as being "on-site" generation. This determination is essential for receipt SRECs. Petitioner submits that its solar projects are precisely the type of projects contemplated in the enactment of the statutory definition of "on-site" generation. If for any reason the Board is concerned about approval of the Petitioner's projects for SRECs under a strict interpretation of the on-site regulations, the importance of supporting the Joint Base, the State's pro-Joint Base policy, and three of the State's Energy Master Plan's policy objectives (i.e. reducing energy costs for major customers, promoting a diverse, in-State portfolio of clean generation, and achieving renewable energy portfolio percentages in an economic way) form the basis for the Board to waive strict compliance and approve the Petitioner's solar projects for SRECs as outlined below.

Parties and Relief Sought.

1 NJL is a limited liability company and the developer for a 156+ acre site (Lot 11 in Block 1901) located in the Township of Springfield, Burlington County, New Jersey (as further described below, the "NJL Site"), which is directly across a street (Saylors Pond Road) from Joint Base McGuire-Dix-Lakehurst ("JB-MDL").

2 NJL is developing a solar facility of approximately 9.2 MW (DC) (the "Phase I Facility") on the NJL Site to serve electricity needs of United Communities LLC ("United Communities"), by separate distribution wire, and anticipates developing a separately wired solar facility of up to 19 MW (DC)(the "Phase II Facility") on the NJL Site to serve electricity needs of the McGuire portion of JB-MDL's electricity needs, pursuant to a separate distribution wire running along the same route as the Phase I Facility wire to United Communities. (See Site Plan attached as **Exhibit A**).

3 United Communities operates the housing for military personnel at JB-MDL. The Phase I Facility will serve United Communities' Falcon Courts North housing area, which is on JB-MDL (United Communities owns the homes and leases the area from the United States Government through the United States Air Force). The Falcon Courts North housing area includes a chapel and a school for which JB-MDL is responsible for electricity costs.

4 An interconnection application has been presented by NJL with United Communities' authorization to the local electric utility, Jersey Central Power & Light Company ("JCP&L") and a feasibility study has been completed by JCP&L. As part of the interconnection process, JCP&L issued a notice of deficiency asserting that the Phase I Facility was not in compliance with the on-site generation requirement. (See Notice attached as **Exhibit B**). Petitioner does not agree with the notice of

deficiency. The feasibility study reflected minor JCP&L-directed equipment upgrades and/or requirements, the costs of which are acceptable to NJL.

5 Inasmuch as its connecting distribution wire will follow the exact same route as the Phase I Facility, NJL believes that when an interconnection application is sought for the Phase II Facility, a similar notice of deficiency regarding the on-site generation requirement would be provided for the Phase II Facility. Petitioner would not agree with such a deficiency notice premised on the same factual situation. Accordingly, NJL seeks the same relief for the proposed Phase II Facility.

6 N.J.S.A. 52:14B-8 permits "any interested person" to seek "a declaratory ruling with respect to the applicability . . . of any statute or rule enforced or administered by [the] agency." The New Jersey Board of Public Utilities (herein sometimes the "Board" or the "BPU") is the agency charged with enforcement of N.J.S.A. 48:3-49 et seq. which statutes, when enacted, were collectively referred to as the Electric Discount and Energy Competition Act.

7 NJL seeks a Declaratory Ruling from the Board with respect to application of the definition of "on-site generation facility" as contained in N.J.S.A. 48:3-51 with respect to the Phase I Facility and the Phase II Facility (collectively, the NJL Solar Facilities"). Each of the NJL Solar Facilities will deliver solar generated electricity from the NJL Site crossing Saylors Pond Road (which separates the NJL Site from JB-MDL) by separate wire, without using JCP&L's distribution lines, to end use customers located on JB-MDL; i.e. United Communities and the United States Air Force. Specifically, NJL seeks the Board's ruling that each of the NJL Solar Facilities (as further outlined on maps presented with this Application) is an "on-site generation facility" under the statute and, therefore, will be entitled to Solar Renewable Energy Certificates ("SRECs") for 15 years – each from its commencement date of commercial operations.

8 Financing of the NJL Solar Facilities will be affected by the interpretation and application of the definition of "on-site generation facility." The need for the Board's immediate confirmation that the NJL Solar Facilities will be entitled to SRECs due to their being deemed on-site generation facilities delivering direct electricity service on JB-MDL to (a) United Communities and (b) the United States Air Force is crucial.

9 Solar-generated electric service by the NJL Solar Facilities to United Communities and the military personnel and service buildings (as noted above) and to the United States Air Force provide these JB-MDL customers with renewable, reliable, resilient, cost-effective, on-site power precisely as called for in the State of New Jersey's Military Installation Growth and Development Task Force Report from July 2015. (the "NJ Task Force Report") (See page 21 of **Exhibit C**). The Task Force notes that JB-MDL is New Jersey's second largest employer and very important to the State's economy. The NJ Task Force Report also confirmed it is the State's policy to support ways to enhance JB-MDL by reducing costs and encouraging continued operations that provide thousands of jobs and billions of dollars to the New Jersey economy.

Solar Project and Property Background.

10 The NJL Solar Facilities will be constructed by an engineering procurement and construction contractor for NJL or its designee/partner on portions of approximately 156 acres of land that has frontage on Saylors Pond Road and is near the intersection of Saylors Pond Road and Route 68 in Springfield Township, New Jersey. The site had been used by an organic recycling operation, but the operation was wound down. The site is ideal for solar generating facilities, as it can not be used for farming. Moreover, commercial or residential development would require more municipal services and increase traffic when compared to operating solar generating facilities on the NJL Site.

11 The Township of Springfield has reviewed and approved the site plan for the NJL Solar Facilities.

12 The customers for the NJL Solar Facilities are located on the United States Government's property administered by the United States Air Force which is located directly across one street (Saylors Pond Road): JB-MDL. The NJL Site is contiguous to JB-MDL, separated by Saylors Pond Road.

13 The NJL Site's most beneficial use is as one or more solar facilities. This use would avoid placing burdens that development of the property for residential purposes would place on local schools and/or municipal services.

14 As noted above, NJL is providing with this Petition a PDF with an overlay of the NJL Solar Facilities layout, as well as a summary PDF with other information to help identify the site. (See **Exhibit A**).

15 In 2005, the Department of Defense directed that the military undertake a nationwide base closure, consolidation and realignment take place. With respect to JB-MDL, this resulted in the 2009 Memorandum of Agreement that realigned and combined McGuire Air Force Base, Fort Dix and Lakehurst Naval Air Station into one base: JB-MDL. JB-MDL is one piece of property and that is where the customers are located for the NJL Solar Facilities located on contiguous property to JB-MDL. (See Memorandum of Agreement attached as **Exhibit D**).

16 NJL notes that JB-MDL represents a nearly unique property in New Jersey, in that it is very large single piece of property controlled by the military. The Department of Defense has confirmed that its policy is to harden the resiliency of electric service to military bases by use of dedicated renewable power, which is precisely what the NJL Solar Facilities will provide. As stated by the Department of Defense:

> **(4) Renewable Energy. The Department of Defense is committed to creating opportunities to install renewable energy technologies and purchase electricity generated from renewable sources when it is life cycle cost effective to enhance energy resilience. Passive solar designs, such as building orientation and**

window placement and sizing, shall be implemented in a variety of building types and new facility construction.

(a) Purchases. The DoD Components shall purchase renewable energy generated from solar, wind, geothermal, and biomass sources when cost effective and any premium is considered fair and reasonable. ...

(b) Generation. Exploration in efficiency opportunities in renewable energy technologies such as wind, biomass, geothermal, ground source heat pumps, and photovoltaics shall be pursued when life cycle cost effective. Self-generated power may be coupled with ground source heat pumps, solar water heating systems, and photovoltaic arrays to generate electricity at isolated locations, such as range targets, airfield landing strips, and remote water pumping stations.

(5) Distributed Energy Generation. Distributed energy resources shall be used for on-site generation using micro-turbines, fuel cells, combined heat and power, and renewable technologies when determined to be life cycle cost effective or to provide resilience and security to mitigate unacceptable risk. In most cases, larger scale, off-grid, electrical generation systems should be non-DoD owned and operated. ...

(See Department of Defense Instruction dated December 11, 2009 with Change 1 Effective March 16, 2016 attached as **Exhibit E**).

17 Further, while NJL believes that it is entitled to relief based on proper application of the N.J.S.A. 48:3-51 and N.J.A.C. 14:8-4.1, NJL also believes that the NJ Task Force Report confirms the State's public policy is to support JB-MDL with energy resilience and cost saving efforts. In short, State public policy is defined that serves as the basis upon which the Board should grant a waiver request to approve the NJL Solar Facilities as on-site generation for customers on JB-MDL and thereby entitled to SRECs.

18 Additionally, Petitioner notes that, unlike with a number of electricity rate classes in JCP&L's tariff, the rate class in the JCP&L tariff utilized by JCP&L with respect to United Communities and the United States Air Force for electricity delivered to JB-MDL (Service Classification GT-DOD Service) includes a demand charge and a KVAR (kilovolt-ampere reaction charge). Therefore, the rate classification and electricity usage pattern will allow JCP&L to continue to be paid service fees based on maximum 15-minute demand periods, rather than have other ratepayers provide the financial reassurance for JCP&L's standby obligation if 100% of a customer's power needs are met by on-site, renewable resources. (See copy of applicable tariff rate classification summary attached as **Exhibit F**).

Behind-The-Meter/On-Site Generation Facility.

19 The NJL Solar Facilities will provide renewable power dedicated to United Communities (and its Air Force buildings as noted above) and, with the Phase II

Facility, directly to the Air Force, while avoiding transmission and distribution charges.

20 The NJL Site is contiguous to JB-MDL; i.e. the NJL Site abuts JB-MDL. The NJL Site is geographically located next to JB-MDL, simply separated by a public thoroughfare, Saylors Pond Road.

21 Each of the two NJL Solar Facilities will be separately wired (i.e. not using the utility's distribution wires) to deliver electricity behind the meter of its end use customer on JB-MDL and, in each case, the solar facility will be sized not to exceed the customer's 12-month historic electricity usage.

22 The NJL Solar Facilities on the NJL Site therefore satisfies the statutory definition of an "on-site generation facility" with respect to neighboring, would-be customers. The applicable statutory definition in N.J.S.A. 48:3-51 is as follows:

> **"On-site generation facility" means a generation facility, and equipment and services appurtenant to electric sales by such facility to the end use customer located on the property or on property contiguous to the property on which the end user is located. An on-site generation facility shall not be considered a public utility. The property of the end use customer and the property on which the on-site generation facility is located shall be considered contiguous if they are geographically located next to each other, but may be otherwise separated by an easement, public thoroughfare, transportation or utility-owned right-of-way."**

23 The Board promulgated N.J.A.C. 14:8-4.1 to further address what constitutes an "on-site generation facility." Subsection (b) ii. Applies. Said regulation states:

> **(b) For the purposes of this subchapter, class I renewable energy that meets all of the following criteria shall be deemed to be generated on the customer's side of the meter:**
>
> **1. The renewable energy generation facility is located either:**
>
> **i. Within the legal boundaries of the property, as set forth within the official tax map, on which the energy is consumed; or**
>
> **ii. Within the legal boundaries of a property, as set forth within the official tax map, that is contiguous to the property on which the energy is consumed. The property on which the energy is consumed and the property on which the renewable energy generation facility is located shall be considered contiguous if they are geographically located next to each other, but may be otherwise separated by an existing easement, public thoroughfare, or transportation or utility-owned right-of-way and, but for that**

> **separation, would share a common boundary. The fact that a public thoroughfare may be encumbered by third-party easements does not alter a determination as to whether two properties would be considered contiguous; ... (Emphasis added).**

24 The NJL Solar Facilities are on the NJL Site and within the legal boundaries of the NJL Site as set forth on the official tax map of Springfield Township, Burlington County, New Jersey. The tax map for the NJL Site is Lot 11 in Block 1901. The tax map also reflects that said Lot 11 is contiguous to JB-MDL, separated by one public thoroughfare, Saylors Pond Road. (See copy of applicable portion of the tax map attached as **Exhibit G**).

Local Benefits.

25 The NJL Site is an existing field, as opposed to being covered with acres of trees, with natural screening from Saylors Pond Road. Residential or other commercial development would place greater demands on municipal services (such as placing more children in schools, increasing water and sewer needs, etc. The NJL Solar Facilities will result in an inherently beneficial use of the property, supplying renewable energy to JB-MDL customers for decades, without burdening municipal services.

26 NJL also respectfully submits that the NJL Solar Facilities are consistent with state policy supporting solar development on areas of historic fill. New Jersey's Energy Master Plan from 2011 as updated last year indicates that large solar on properly closed landfills and areas of historic fill. Historic fill includes areas that have been filled in by concrete debris. NJL notes that JB-MDL's concrete runway debris was used to fill in areas of the NJL Site, making the NJL Site unsuitable for farming and (without significant site costs) residential uses. Instead, the NJL Site is ideal for solar. (See NJDEP Letter dated March 11, 2011 confirming cupola slag and cement on the NJL Site and accepting the planned use of the NJL Site as a solar panel farm; letter attached as **Exhibit H**). In short, installing on the NJL Site will not result in New Jersey losing arable land and will avoid potential development for industrial purposes. Hence, solar is a development choice with particular merit for the NJL Site.

27 In addition, by delivering by direct wire behind the meter, the NJL Solar Facilities will provide electricity at rates that avoid transmission charges and certain utility distribution charges on a direct basis to the customers on JB-MDL.

28 The continued operation of a military base versus closure is partly a function of local electricity and other fuel/power costs. As a military base, JB-MDL is no exception to the pressures resulting from high electricity costs. The NJL Solar Facilities are an ideal choice for meeting a substantial portion of electricity needs on JB-MDL. First, there is the United Communities' Falcon Courts North area, which has (a) a school and chapel the electricity needs for which the Air Force pays United Communities and (b) housing that serves the Joint Base's military personnel. Second, there are the

United States Air Force's electricity needs at the McGuire portion of JB-MDL, with the Department of Defense's emphasis on furthering renewable and resilient power supply. The NJL Solar Facilities will answers these need by delivering direct, behind the meter electricity at reduced, fixed rates as negotiated by United Communities and the United States Air Force.

29 The United States Air Force has a focus on increasing the use of renewable energy and securing its infrastructure with dedicated power sources. (See **Exhibit E**).

30 The State of New Jersey has determined that its state policy will include efforts to support JB-MDL to retain its significant economic benefits for New Jersey. As per the NJ Task Force Report:

> **3. Improve Energy Resiliency**
> **In recent years and especially in the wake of Superstorm Sandy, there has been a significant effort to increase the resiliency of New Jersey's power grid, allowing it to better respond during and in the aftermath of natural and other disasters. Be it hardened infrastructure, the creation of micro---grids, the "islanding" of essential facilities, or the installation of on---site generation, such strategies have become critically important. Moreover, these efforts to improve our power grid's overall resiliency, can often be combined with other policy priorities, such as reducing the cost of electricity and increasing the use of renewable energy sources. Thus, win---wins. Military installations are prime examples of facilities that would benefit from implementing cost---saving resilient energy strategies to not only ensure that constant flow of energy to their essential functions, but also to reduce costs and reduce reliance on third---parties and utilities in the event of disaster. Accordingly, the state should take all reasonable efforts to assist our military installations in the development of resilient energy projects. Such projects will allow our installations to be energy independent, reduce costs due to predictable production, and increase reliability and resiliency when large---scale emergencies affect the power grid. Additionally, the surrounding communities will benefit from this initiative's efficient and reliable energy production, taking pressures off the remainder of the grid, and ensuring that the installations will be able to operate in the face of a disaster to help assist with the provision of emergency services. Moreover, by improving a military installations' energy infrastructure and reducing costs, such resiliency projects may assist in the attraction of additional missions to New Jersey's installations, but at the very least will offer cost---savings, thus making New Jersey's military installations less attractive targets for mission loss or a realignment or closure.**

31 The NJL Solar Facilities will serve these purposes, delivering dedicated power by separate distribution lines to military housing, a chapel and a school on JB-MDL behind United Communities' meter and to the McGuire portion of JB-MDL's internal distribution system interconnecting behind McGuire's meter.

32 The economics of these projects are based on the developer receiving the 30 percent federal investment tax credit and SRECs by virtue of being on-site generation.

33 JCP&L expressed uncertainty as to the status of a facility on the NJL Site as being "on-site" generation facility in the factual situation outlined above. NJL submits that the NJL Solar Facilities comply with the broad provisions of the statutory definition and also comply with the particular provisions of the regulation as drafted. to wit: the NJL Solar Facilities are on Lot 11 in Block 1901 on the Tax Map of Springfield Township, which Tax Map confirms that JB-MDL is immediately across one street from Lot 11; the distribution line (one each to United Communities and the McGuire portion of JB-MDL) will cross that street onto the property (i.e. JB-MDL) where the energy will be consumed; and the distribution line remains within the perimeter of JB-MDL for its entire time until interconnecting to the customer.

34 Petitioner retained the expert services of William Slover, Esq. – a recognized title expert and of counsel to Lanciano & Associates, L.L.C. to confirm that the NJL Facilities are to be located on Lot 11 in Block 1901 is identified on the Tax Map of Springfield Township, Burlington County, New Jersey and that the proposed route of the wires to connect those generation facilities crossed one street to reach the property on which the customers for the electricity are located. He confirmed that the route takes the wires across one street, Saylors Pond Road, onto JB-MDL and remains within the perimeter of JB-MDL until interconnecting to serve customers on JB-MDL. William Slover's Report dated April 18, 2016 is submitted herewith as **Exhibit I**)(See also aerial maps and engineering drawings showing property lots submitted herewith as **Exhibit J**).

35 NJL also notes that JB-MDL is property uniquely controlled by the United States military pursuant to Department of Defense alignment and consolidation of JB-MDL and federal statutes regarding protection and the ability to deny others access to any and all property within the perimeter of JB-MDL. (See title analysis of William Slover, Esq. submitted herewith as **Exhibit I**). This property power to control is the power to exclude and is unique to the Unites States military. The wires from the generating facilities cross one street until being on this uniquely controlled property until interconnection.

36 In summary, the NJL Solar Facility is a good use of property, provides renewable energy competitively, and serves the municipality by avoiding further burdens on municipal services. Moreover, the NJL Solar Facility will provide electricity during peak times, when it is most needed, in an area of heavy energy consumption, while being distribution-system connected/supportive. In short, this project is consistent with the United States Department of Defense's and the State's goals of promoting distributive generation projects that produce power, enhance reliability of the distribution grid, and deliver renewable power to users within immediate proximity to the renewable production source.

Conclusion.

37 NJL respectfully requests an immediate Declaratory Judgment confirming that the NJL Solar Facilities comply with the definition of "on-site generation facility" contained in N.J.S.A. 48:3-51 and N.J.A.C. 14:8-4.1 by being located on a tax lot identified on the township tax map, which map also confirms that said lot is across one street from JB-MDL, and by virtue of the delivery wire for each facility remaining within the perimeter of the military-controlled property called JB-MDL until interconnection behind the customer's meters on JB-MDL. Accordingly, the NJL Solar Facilities should be confirmed to be eligible for SRECs as described above.

38 Should the Board determine that the NJL Solar Facilities do not meet the definition of "on-site generation facility," by way of alternative relief, NJL requests a waiver of the statutory and/or regulatory requirements due to New Jersey's public policy as enunciated in the NJ Task Force Report to support JB-MDL with projects that can reduce power rates and provide resiliency and due to the uniqueness of the United States government's military control of JB-MDL. Should a waiver be deemed necessary (and NJL believes that the JL Solar Facilities fully comply with the statute and regulations), the uniqueness of the military base control and the need to support JB-MDL's continued operations are a unique and limited basis for relief. Again, however, NJL submits that the NJL Solar Site and the NJL Solar Facilities comply with New Jersey's regulations and should be confirmed to be eligible for SRECs as described above.

WHEREFORE, Petitioner NJLand, LLC respectfully requests that your Honorable Board of Public Utilities grant Declaratory Judgment confirming that the NJL Solar Projects identified in the within Petition each will constitute an "on-site generation facility" and eligible for SRECs as described above. In the alternative, NJL requests a waiver of the statutory and/or regulatory requirements due to New Jersey's public policy as enunciated in the NJ Task Force Report to support JB-MDL with projects that can reduce power rates and provide resiliency and due to the uniqueness of the United States government's military control of JB-MDL. Should a waiver be deemed necessary, the uniqueness of the military base control and the need to support JB-MDL's continued operations are a unique and limited basis for relief, thereby a waiver should be issued confirming that the NJL Solar Facilities shall receive SRECs for 15 years from commencement of operations after JCP&L's permission to energize under the standard interconnection agreement.

RUSSO TUMULTY NESTER
THOMPSON & KELLY, LLP
Attorneys for Petitioner

BY: _____
Howard O. Thompson, Esq.

VERIFICATION

MICHAEL MAYNARD, of full age, being duly sworn according to law, upon his oath deposes and says in support of the within Petition:

1. I am the Manager of NJLAND, LLC and fully familiar with the facts set forth herein and the relief being sought.
2. The information presented herein is true and correct to the best of my knowledge and belief.
3. The relief sought is in the public interest.

I am aware if any statement herein is willfully false, I may be subject to punishment.

J. Michael Maynard
MICHAEL MAYNARD

Sworn to and subscribed
before me on this
day of April 2016

(Name): Ewelina A Leja
A Notary Public of the
State of Massachusetts

EWELINA A. LEJA
Notary Public, Commonwealth of Massachusetts
My Commission Expires December 12, 2019

VERIFICATION

MICHAEL C. HAYDINGER, of full age, being duly sworn according to law, upon his oath deposes and says in support of the within Petition:

1. I am the Vice President of the Manager of UNITED COMMUNITIES LLC and fully familiar with the facts set forth herein and the relief being sought.
2. The information presented herein is true and correct to the best of my knowledge and belief.
3. UNITED COMMUNITIES LLC is the proposed customer of the above-described solar project, is an electricity customer of JCP&L, and supports the relief sought. I respectfully submit that the relief sought is in the public interest.

I am aware if any statement herein is willfully false, I may be subject to punishment.

UNITED COMMUNITIES LLC
By: United Communities, Inc.,
Its Managing Member

MICHAEL C. HAYDINGER, V.P.

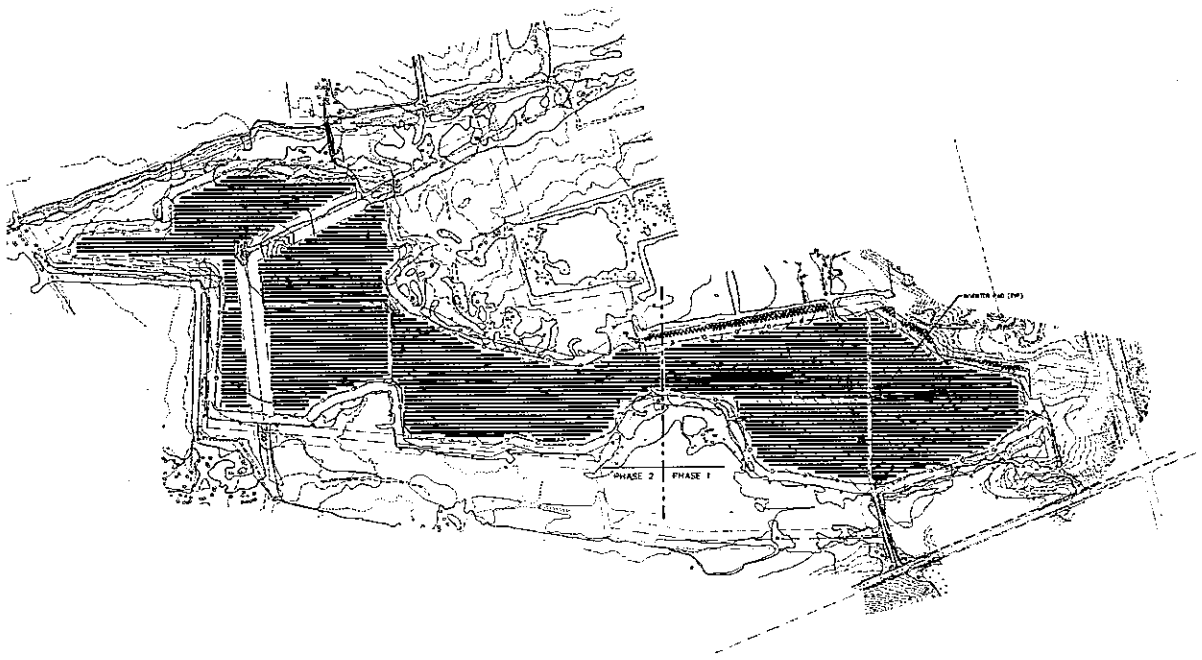
Sworn to and subscribed
before me on this
21 day of April 2016

(Name):
A Notary Public of the
State of New Jersey

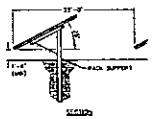
LAURA ROSE SANNINO
NOTARY PUBLIC OF NEW JERSEY
ID # 2420385
My Commission Expires 5/4/2017

EXHIBIT A
to
NJ Land, LLC Declaratory Petition

Site Plan (map overlay showing NJL Site)
and maps showing distribution wire location



PARTIAL SITE PLAN – PHASES 1 & 2 SOLAR ARRAY



RACKING DETAIL

SOLAR SYSTEM RATING	
PV MODULES	15,760 x 400
TILT OF MODULES	30°
AZIMUTH OF MODULES	180° (SOUTH)
PV MODULE TYPE	3161 Enfinity
STRING INVERTERS	210 x Fimer, 5.0kW
STRING VOLTAGE	850 V nom, 580 V min
STRING SIZING	75 no. 750 V max

SOLAR SYSTEM PHASES		
	Phase 1	Phase 2
MODULES	10,272	15,537
STRINGS	136	207
DC SYSTEM SIZE	4094.12 kWdc	13,201.48 kWdc
MODULES	3 x 3.7 kW	4 x 3.7kW
AC SYSTEM SIZE	3161.1 kWac	10,240.4 kWac
EST. PRODUCTION	13,547 MWh/yr	17,101 MWh/yr

NU LAND, LLC

AMENDED PRELIMINARY (PHASE 1 & 2) & AMENDED FINAL (PHASE 1) SITE PLANS

ELECTRICAL SITE PLAN - PHASES 1 & 2

CHARLES E. HOPKINS, P.E.
LICENSED PROFESSIONAL ENGINEER

E-5

XX
of 21

SPRINGFIELD TOWNSHIP
PLANNING BOARD

RESOLUTION #2015-4

RESOLUTION GRANTING AMENDED PRELIMINARY AND AMENDED FINAL SITE PLAN APPROVAL TO PERMIT THE CONSTRUCTION OF A SOLAR ENERGY GENERATION FACILITY IN TWO PHASES

NJ LAND, LLC.
BLOCK 1901, LOT 11

WHEREAS, NJ Land, LLC., whose address is 22469 Saylors Pond Road, Wrightstown, New Jersey, filed application #4-15 for amended preliminary site plan approval to construct a solar energy generating facility in two (2) phases and for amended final site plan approval to construct phase I of the project. The subject property is designated as lot 11, block 1901 on the Township tax map; and

WHEREAS, the application was the subject of a public hearing held on October 20, 2015; and

WHEREAS, testimony and evidence was received from Michael R. Thomas, the applicant's engineer; and

WHEREAS, the testimony and evidence received together with the testimony of the board's professional staff led the board to conclude that the proposed use is permitted in the zone, that the applicant's plans and supporting documents meet the standards and requirements established by ordinance for the grant of preliminary major site plan approval, that the project can be undertaken in phases and that phase I of the project meets the standards and requirements established by ordinance for the grant of final approval.

NOW, THEREFORE, in reliance on the foregoing it is hereby **RESOLVED** that application #4-15 be and hereby is **GRANTED PRELIMINARY MAJOR SITE PLAN APPROVAL** in two phases, and

Be it **FURTHER RESOLVED** that, phase I of the project is hereby granted **FINAL MAJOR SITE PLAN APPROVAL,** and

Be it **FURTHER RESOLVED,** because the within resolution was prepared in advance of the public hearing in anticipation of an approval, the Solicitor is hereby authorized and directed to

prepare a supplemental resolution which reflects the findings of fact, conclusions of law and conditions of approval upon which the approval was based.

Be it **FURTHER RESOLVED** that the Secretary is hereby authorized and directed to provide a signed and certified copy of this resolution to the applicant.

Jo Jacques, Chairperson

ATTEST:

Susan Minock, Secretary

DATE ADOPTED: October 20, 2015
DATE MEMORIALIZED: October 20, 2015
FOR ADOPTION:
AGAINST:
ABSTENTIONS/RECUSALS:

CERTIFICATION

The undersigned hereby certifies that she is the Secretary of the Springfield Township Planning Board and that the foregoing is a true copy of a resolution adopted by the said board at a meeting held on October 20, 2015 and memorialized on the same day.

Susan Minock

SPRINGFIELD TOWNSHIP
PLANNING BOARD

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Susan Minock

EXHIBIT B
to
NJ Land, LLC Declaratory Petition

JCP&L E-mail of Notice of Deficiency
Alleging Non-Conformity with New Jersey's Definition of
On-site Generation

From: Tobia, James S [mailto:jtobia@firstenergycorp.com]
Sent: Wednesday, December 09, 2015 10:32 AM
To: Matt Garron <mgarron@mcguiredixuc.com>; John Dean <jdean@tandmassociates.com>
Cc: Scopino, John <jscopino@firstenergycorp.com>; JC_Interconnection <jc_interconnection@firstenergycorp.com>
Subject: Notice of Deficiency - CNJ - CK- United Communities - JBMDL - 8.16MW Add-on

Level 3 Interconnect – Notice of Deficiency

RE: United Communities LLC
3700A Circle Drive
JBMDL, NJ 08641

Account # 100068327509

This transmittal serves as:

I. Notification that the Company has received your application for the above account and system
II. Notification that the Company has found deficiencies with your application.

Based on the information provided in the interconnection application, JCP&L has determined that the project, as presently proposed, would not satisfy the "contiguous property" requirements of N.J.A.C. 14:8-4.1(b)(1).

That regulation provides:

"(b) For the purposes of this subchapter, class I renewable energy that meets all of the following criteria shall be deemed to be generated on the customer's side of the meter:

1. The renewable energy generation facility is located either:

i. Within the legal boundaries of the property, as set forth within the official tax map, on which the energy is consumed; or

ii. Within the legal boundaries of a property, as set forth within the official tax map, that is contiguous to the property on which the energy is consumed. The property on which the energy is consumed and the property on which the renewable energy generation facility is located shall be considered contiguous if they are geographically located next to each other, but may be otherwise separated by an existing easement, public thoroughfare, or transportation or utility-owned right-of-way and, but for that separation, would share a common boundary. The fact that a public thoroughfare may be encumbered by third-party easements does not alter a determination as to whether two properties would be considered contiguous;"

Please correct the above errors and resubmit for application processing.

Please feel free to contact us per the information below with any questions:

General Information & Billing Issues - Customer Service Center at 800-662-3115
Project Status - 973-401-8830

Jersey Central Power & Light
Attn: Interconnection Coordinator - Engr Dept.
300 Madison Ave
P.O. Box 1911
Morristown, NJ 07962-1911

Jim Tobia
James Tobia, P.E.
JCP&L Regional Engineering
732-212-4251
jtobia@firstenergycorp. com

EXHIBIT C
to
NJ Land, LLC Declaratory Petition

State of New Jersey's Military Installation
Growth and Development Task Force Report – July 2015

NEW JERSEY

MILITARY INSTALLATION GROWTH AND DEVELOPMENT

TASK FORCE REPORT

FINDINGS AND RECOMMENDATIONS

JULY 2015

SUBMITTED BY

Honorable Kim Guadagno, Lieutenant Governor, Chair

Brigadier General Michael Cunniff, Adjutant General of New Jersey

Melissa Orsen, CEO of the Economic Development Authority

Michele Brown, President and CEO of Choose New Jersey

The Honorable Jim Saxton, former Congressman

Paul Boudreau, President of the Morris County Chamber of Commerce

STATE OF NEW JERSEY
DEPARTMENT OF STATE
TRENTON, NJ 08625
(609) 984-1900

CHRIS CHRISTIE
Governor

LT. GOVERNOR KIM GUADAGNO
Secretary of State

Dear Governor Christie:

The New Jersey Military Installation Growth and Development Task Force is proud to release this report containing recommendations and strategies to fortify New Jersey's military installations in the face of potential federal budget cuts or a future Base Realignment and Closure (BRAC) process.

Over the last year, the Task Force learned a great deal about New Jersey's military installations, their economic impact on the state, and their impact on their home communities. As we studied our military installations, the public debate about funding national defense and military installations intensified. Be it the impacts of sequestration, the looming possibility of a BRAC, or the possibility of losing missions to other installations, the public debate continues and the urgency increases. Those issues are of paramount importance to our nation and our national defense. Accordingly, the primary decision makers are federal officials and entities. Nevertheless, the state and local communities have a role – albeit a supporting role – in this on-going federal dialogue and in our efforts to protect the military installations that provide so much to our communities. To such ends, this report presents a series of recommendations for the state, local governments, interested stakeholders, and impacted communities to undertake to help not only improve the vitality of our military installations, but also to inform our federal representatives.

During this time of great flux for the United States Military, the public dialogue on the future of our military continues in earnest. The time for action is now. No military installation is off limits. And we must not be caught flat footed. Only by working together – Republicans and Democrats at all levels of government – can we strengthen our military installations, make them less attractive targets for a BRAC or mission loss, and speak with a loud, unified voice in Washington, D.C. The Task Force and I look forward to continuing our efforts to fortify our state's military installations, working with our partners in this effort, and fighting for our state's military installations.

Sincerely,

Kim Guadagno

Kim Guadagno
Lieutenant Governor

I. Executive Summary

Base Realignment and Closure (BRAC) is the congressionally authorized process periodically employed by the federal government to reorganize the military's physical assets to more efficiently and effectively support and advance the long-term strategic posture of the United States. When Congress created this statutory process for realignment and closure in 1990, it implemented procedures designed to ensure a transparent, objective, and fair process that sought input from the Executive and Legislative branches as well as an independent BRAC Commission (Commission).

But beyond the formal BRAC process, another threat to New Jersey's military installations is mission loss. Indeed, in light of austere federal budgets and in view of on-going deliberation regarding funding for national defense, the specter of mission loss has increased. And when missions are lost, those weakened military installations become more of a target when a BRAC is initiated.

Although this dialogue continues in earnest in Washington, D.C., among federal representatives including, but not limited to, the President of the United States, Congress, the Department of Defense (DOD), and the BRAC Commission, the state and impacted local communities have an important – albeit supporting – role in the debate. In recognition of those challenges, the importance of New Jersey's military installations, and the state's role in this dialogue, Governor Chris Christie created the New Jersey Military Installation Growth and Development Task Force (Task Force) by Executive Order. Lt. Governor Kim Guadagno was named chair.

New Jersey's military installations are of significant strategic and tactical military value. But beyond that value to our collective security, they have a major economic impact – producing 45,631 jobs directly and another 27,603 indirectly while adding $3.8 billion to the Gross Domestic Product directly and another $2.7 billion indirectly. Nevertheless, and despite their collective and individual impacts, no installation is safe from mission loss or BRAC.

In supporting New Jersey's congressional delegation's efforts to fight for our state's military installations, the state, local governments, impacted stakeholders, and the community can, among other things:

- Promote and facilitate a coordinated approach to economic development related to our military installations and the industries that support them;
- Align New Jersey's workforce with the military's and defense industry's current and future needs;
- Develop synergistic opportunities for our military installations to work in cooperation with local governments and their communities to reduce their costs, improve efficiencies, and ensure a symbiotic relationship – all making our installations stronger; and
- Aggressively advocate in Washington, D.C., for our military installations by strengthening relationships with our federal partners

The foregoing all drive to one goal: Demonstrate that New Jersey is military friendly. By doing so, we will strengthen our military installations and make them less attractive targets for a BRAC or mission loss.

II. Task Force History

The Task Force arose from the on-going national dialogue regarding BRAC and mission loss and the potential impact on New Jersey. In recognition of the significant impact New Jersey's installations have on the nation's defense, the state's economy, and local communities, the Task Force was created to help fortify our bases and make them less attractive targets for BRAC or mission loss.

A. Base Realignment and Closure -- Background

BRAC is the congressionally authorized process periodically used by the Commission and the DOD to reorganize military installation infrastructure to more efficiently and effectively support military forces, increase operational readiness, and facilitate the redesign of the military's physical plant. When the tumultuous geopolitical realities of the 21st century are combined with the ever-changing technological capabilities of modern national defense, a re-marshalling of resources becomes all the more likely in the near term.

When Congress created a statutory process for realignment and closure in 1990, it implemented procedures designed to ensure a transparent, objective, and fair process. That process, then and now, involves the President of the United States, DOD, Congress, and the Commission. First, the Secretary of Defense drafts a twenty-year strategic plan as well as realignment and closure selection criteria that are sent to the Commission and Congress. Based on the twenty-year strategic plan and using the selection criteria as its guide, DOD recommends installations for closure or realignment. The Commission then edits DOD's recommendations to ensure consistency with the twenty-year strategic plan and selection criteria. Finally, the Commission forwards its recommendations to the President, who may accept or reject it in the entirety. If accepted, the recommendations are sent to Congress for approval or rejection, again, as a whole. If the President rejects the Commission's recommendations, the Commission may edit and resubmit the recommendations or accept the rejection as final.

The most recent iteration of the process, BRAC 2005, marked a dramatic change from previous rounds because the nature of the excess capacity changed. Previously, BRAC dealt with whole installation closures, but in 2005, the fragmented excess capacity existed as underutilized installations or infrastructure within otherwise useful and important installations. Thus, DOD sought to reorganize the branches into joint installations based on their similar needs and functions, where the installations would share infrastructure and work in concert to maximize resources based on compatible uses. In selecting military installations for realignment or closure, DOD focused on the following:

Questions Regarding Military Value (Highest Priority)

- The current and future mission capabilities and the impact on operational readiness of the total force of DOD, including the impact on joint war fighting, training, and readiness;
- The availability and condition of land, facilities, and associated airspace at both existing and potential receiving locations;
- The ability to accommodate contingency, mobilization, surge, and future total force requirements at current and potential locations to support operations and training; and
- Costs of operation and manpower implications.

Other Considerations (Lower Priority)

- The extent and timing of potential costs and savings, including the number of years – beginning with the date of completion of the closure or realignment – for the savings to exceed the costs;
- The economic impact on existing communities near the military installations;
- The ability of the existing infrastructure in current and potential communities to support forces, missions, and personnel; and
- Environmental impact, including costs associated with remediation, waste management, and compliance.

Over two and a half years, DOD drafted its recommendations with instructions from the Secretary of Defense to reconfigure its current infrastructure to maximize both war fighting capacity and efficiency. More specifically, DOD focused on five goals:

- Transforming the current and future force and its support systems to meet new threats;
- Eliminating excess physical capacity;
- Rationalizing the installation infrastructure with the new defense strategy;
- Maximizing both war fighting capacity and efficiency; and
- Examining opportunities for joint activities.

This new emphasis – described as "jointness" and defined as selecting the appropriate organizations from two or more Services to share installations in the right location – has the potential to significantly improve combat effectiveness while reducing costs.

Central to any conversation about BRAC is the current fiscal and political climate in Washington, D.C. For FY 2016, Congress seeks to increase DOD spending, but the Administration believes that increases in domestic spending should match increases in defense spending, so much so that President Obama vowed to veto appropriations bills that do not reflect increased spending. Over the past few years, DOD spending has been erratic. Congress appropriated $606 billion for defense programs in FY 2014, $586 billion in FY 2015, and for FY 2016, the President proposed $612 billion while Congress is still in discussions on DOD appropriations. Given the national security challenges facing the country, Congressional leadership and NJ Congressman Rodney Frelinghuysen, Chair of the House Defense Appropriations Committee, are committed to providing sufficient defense spending. Reacting to Congress' propensity to cut spending, the President used the budget process over the past few years to signal to Congress that in order to save resources in the defense area, Congress should establish a BRAC. However, the Congress has steadfastly opposed a new BRAC round and is not expected to change its mind during the Obama Presidency. Lastly, it should be noted that the 2005 BRAC took much longer to recoup the anticipated savings, since the overall costs exceeded projections.

In comparison, in Fiscal Year 2013, DOD faced an 11 percent reduction (after adjusting for inflation) in its base budget from Fiscal Year 2012. This reduction, however, follows a period of generally increasing real resources for DOD; from Fiscal Year 2001 to 2010, funding for DOD's base budget rose by more than 40 percent, after adjusting for inflation. In real terms, after the reduction in Fiscal Year 2013, DOD's base budget is about what it was in 2007 and is still 7 percent above the average funding since 1980.

Stakeholders must be aware of the possibility of military installations losing missions in the interim between official rounds of BRAC to capitalize on efficiencies and lower costs. This so-called "Stealth BRAC" may prove insidious because, as missions are taken away from an installation, the losing installation's standing before DOD and the Commission is considerably weakened. When a BRAC is authorized and the DOD looks for weakened installations that may no longer serve multiple branches and functions, naturally those installations bleeding missions will be prime targets.

B. Creation of the Task Force

In recognition of these challenges and the importance of New Jersey's military installations, Governor Christie, via executive order, created the New Jersey Military Installation Growth and Development Task Force and named Lt. Governor Guadagno as chair. The Task Force members include:

- Lt. Governor Kim Guadagno
- Brig. Gen. Michael Cunniff, *Adjutant General of New Jersey*
- Melissa Orsen, *CEO of the Economic Development Authority*
- Michele Brown, *President and CEO of Choose New Jersey*
- The Honorable Jim Saxton, *former Congressman*
- Paul Boudreau, *President of the Morris County Chamber of Commerce*

To gain a better understanding of New Jersey's military installations and their impact on the state, the Task Force toured the state's military installations and was briefed by the installations' commanding officers. Additionally, the Task Force hosted business roundtable discussions near Picatinny Arsenal (Picatinny) and Joint Base McGuire-Dix-Lakehurst (Joint Base) to open a candid and frank dialogue with business owners. This helped the Task Force learn more about the relationship between business owners and their military neighbors and the potential impact of closures on the surrounding communities. At both roundtables, the primary concern and point of discussion was the negative economic impact an installation closure or any "Stealth BRAC" would have on area businesses and local quality of life.

In addition, in February 2015, Lt. Governor Guadagno joined a contingent of New Jersey's Congressional delegation for a day-long tour of the state's military installations. The goal was not only to inform the Congressional delegation of the valuable missions at New Jersey's installations and their impacts on the state, but also to help unify the Congressional delegation's message as it began efforts to fend off budget cuts or a new BRAC round.

C. Fiscal Year 2015 and 2016 Appropriations

Following the Task Force's organization and to complement its on-going efforts, the Christie Administration's Fiscal Year 2015 and 2016 budgets – approved by the Legislature and signed by Governor Christie – included a $200,000 appropriation to the New Jersey Department of Military And Veterans Affairs (DMAVA) to secure a contractor to provide research and government affairs assistance in Washington, D.C. The contractor, Cassidy & Associates, Inc., is responsible for gathering and researching all appropriate information related to the viability of each of New Jersey's military installations and developing recommended courses of action to ensure these installations remain economically viable and their related missions are preserved, enhanced, and strengthened.

III. New Jersey's Military Installations

New Jersey is home to five military installations, all with significant strategic and economic importance to the nation, state, and their local communities. Those impacts are discussed below.

A. Economic Overview – Cumulative

In 2013, the New Jersey Council on Armed Forces and Veterans Affairs commissioned a study by the Rutgers Economic Advisory Service, part of the Edward J. Bloustein School of Planning & Public Policy at Rutgers University, entitled *The Economic Contributions of Military and Coast Guard Installations to the State of New Jersey*, to determine the estimated economic impact of the military presence in New Jersey. The following economic data was drawn from that report.

When viewed in the aggregate, New Jersey's military installations are the state's largest employer. The state's military installations directly produce 45,631 jobs and indirectly produce another 27,603. The state's military installations directly produce $3.8 billion and indirectly produce another $2.7 billion toward the Gross Domestic Product (GDP). In total, the installations generate $9.6 billion annually in business-type revenue, including $6.5 billion of wealth added to the state GDP. Of the total GDP, more than $4 billion is in the form of labor income supporting employment for about 73,234 workers. The charts below illustrate the military installations' annual effect on New Jersey's economy.

The economic impact generated by these activities is not limited to installation jobs, but extends to residual effects in surrounding communities that provide services and operate businesses that support installation activities and associated personnel. The installations complement key industries in New Jersey, including information technology, communications, engineering, logistics, and construction.

Direct Effects of New Jersey's Military Installations, 2012				
Installation	**Output ($1,000)**	**Employment**	**Earnings ($1,000)**	**GDP ($1,000)**
Joint Base	2,938,939.0	35,395	1,757,075.0	2,533,137.0
Picatinny	1,455,612.3	5,196	527,270.2	913,627.2
NWS Earle	32,532.2	295	17,628.7	25,092.7
Air Guard	109,555.7	2,376	71,828.0	102,377.9
Army Guard	232, 829.3	1,641	148,932.9	176,795.3
Coast Guard	65,058.6	728	51,480.1	54,696.2
Total	**4,834,527.1**	**45,631**	**2,574,214.9**	**3,805,726.3**

Total Effects of New Jersey's Military Installations, 2012				
Installation	**Output ($1,000)**	**Employment**	**Earnings ($1,000)**	**GDP ($1,000)**
Joint Base	5,935,300.0	51,989	2,715,516.0	4,220,370.0
Picatinny	2,789,759.7	13,834	921,348.6	1,708,408.1
NWS Earle	68,287.1	481	28,756.2	44,717.2
Air Guard	220,963.6	2,982	107,415.5	165,317.6
Army Guard	487,212.2	2,890	228,591.3	319,423.9
Coast Guard	127,480.0	1,058	71,497.1	90,916.4
Total	**9,629,002.6**	**73,234**	**4,073,124.7**	**6,549,153.2**

B. Overview of Military Installations

Despite that significant cumulative impact, it is important to understand the uniqueness of each military installation in New Jersey and their individual impact on the state's economy and surrounding communities.

1. Joint Base McGuire-Dix-Lakehurst

The Task Force toured the Joint Base on May 30, 2014. The Joint Base is in Burlington and Ocean counties on 42,000 acres and is home to more than eighty mission partners and forty mission commanders providing a wide range of combat capability. The installation spans more than 20 miles east to west and is bordered by 10 municipalities. The 87th Air Base Wing – a Joint Base tenant – is responsible for providing community services and installation management support for the 3,933 facilities, with an approximate value of $9 billion in physical infrastructure.

The Joint Base has a high military value as the only installation in the United States Military that hosts units from all four military branches, as well as the Coast Guard and other federal and state government agencies. The Joint Base is the state's second largest employer, supporting more than 40,000 military and civilian employees – including over 7,800 part-time Reservists – and contributing more than $7 billion annually to New Jersey's economy alone. It is estimated that the Joint Base supports more than 65,000 off-installation jobs.

In addition to a full briefing on the Joint Base's missions, the Task Force was briefed on the Joint Base's important Enhanced Use Lease Project. This project will make the Joint Base the first energy independent military installation in the nation. The surrounding community will also benefit through upgraded energy infrastructure and a hardened disaster response headquarters, as proven necessary by Superstorm Sandy. The briefing also discussed the Joint Base's successful leveraging of community support to institute a system of school choice for children residing at either McGuire or Ft. Dix and established concurrent jurisdiction between the 87th Security Forces Squadron and county police for Falcon Courts North housing area.

Total Annual Economic Impacts on NJ's Economy Joint Base, All Activity, 2012			
	Indirect/Direct Effects	**Induced Effects**	**Total**
Output ($1,000)	2,938,939	2,996,361	5,935,300
Jobs	35,395	16,593	51,989
Earnings ($1,000)	1,757,075	958,442	2,715,516
GDP ($1,000)	2,533,137	1,687,232	4,220,370

2. Picatinny Arsenal

Picatinny is designated as DOD's Joint Center of Excellence for Guns and Ammunition with products and services benefiting all branches of the military developed on the 6,500-acre installation. Notably, Picatinny personnel received 52 patents in FY13 and 23% of all Army patents since 2010.

Home to organizations from all branches of the Service and one of the largest employers in Morris County, Picatinny employs about 3,907 civilians, approximately 93 military personnel, and about

1,035 contractors. Picatinny supports more than 8,200 indirect jobs in surrounding communities and adds $1.5 billion to New Jersey's economy annually. Due to its diverse portfolio specializing in advanced conventional weaponry and ammunition, approximately half of these employees are engineers and scientists.

Picatinny established a specialized technical education center called the Armament University (AU). AU is dedicated to advancing the United States Army Armament Research, Development and Engineering Center's knowledge base and pushing its workforce's skills and abilities to the limits through scholarship in science and technology. It seeks to effectively expand DOD's knowledge base in armament engineering and science through onsite education and both formal and informal training at reduced cost.

On June 30, 2014, the Task Force toured Picatinny. The Task Force was briefed on, among other things, the 120 partnerships between Picatinny and industry, academia, and other government agencies, which are known as Cooperative Research and Development Agreements (CRADA). The Task Force was briefed on Picatinny's successful Family, Morale, Welfare, and Recreation Organization, which opened the installation's recreational facilities to the surrounding communities. In 1996, the entities joined forces and Picatinny allowed Rockaway Township to use its recreational facilities in exchange for maintenance support of the fields. That initial partnership led to sharing of numerous additional recreational facilities.

Annual Economic Impact on NJ's Economy Picatinny Arsenal, All Activity, 2012			
	Indirect/Direct Effects	**Induced Effects**	**Total**
Output ($1,000)	1,455,612.3	1,334,147.4	2,789,759.7
Employment	5,196	8,638	13,834
Earnings ($1,000)	527,270.2	394,078.4	921,348.6
GDP ($1,000)	913,627.2	796,840.9	1,708,408.1

3. United States Naval Weapons Station Earle

Prior to the tour of United States Naval Weapons Station Earle (NWS Earle) on July 10, 2014, the Lt. Governor, serving as Acting Governor, reaffirmed the collective support and appreciation all New Jerseyans share for the brave men and women in uniform by signing legislation designating May "Military Appreciation Month." The bill signing was held at VFW Post 2179 in Port Monmouth, Monmouth County.

Following the bill signing, the Task Force toured NWS Earle and was briefed on, among other things, the installation's history as an integral part of the Allied victory in Europe during WWII when it supplied the majority of ammunition used by the Allied Forces in the invasion of Normandy.

Located in two unique sections of Monmouth County, NWS Earle is home to a diverse tenant base. It handles, stores, transports, renovates, and issues a wide array of naval weapons and ammunition. The Main-side area is located largely in Colts Neck across more than 10,000 acres, which contain storage areas and the majority of NWS Earle's departments and facilities. An integrated workforce of military and civilian personnel operates the inland storage, renovation, transshipment, and demilitarization facilities. The Waterfront area is located on Sandy Hook Bay in Leonardo. The trident-

shaped pier complex extends 2.2 miles into Sandy Hook Bay and is capable of providing ammunition to nearly every class of ship operated by the Navy and Coast Guard.

NWS Earle is the only facility of its kind on the East Coast and is the only weapons facility with such a large capacity for bulk ordnance. It provides all ordnance for all Atlantic Fleet and Expeditionary Strike Groups. Additionally, NWS Earle is the only deep-water Navy ammunition pier on the East Coast, boasting the largest East Coast deep-water pier (three miles long, 35-foot draft, eight berths) and the shortest East Coast access to open water (no bridges or rivers to navigate).

Activity at NWS Earle adds $32.5 million to New Jersey's economy annually. In doing so, it supports nearly 300 jobs that generate $44.7 million in wealth.

Annual Economic Impact on NJ's Economy NWS Earle, All Activity, 2012			
	Indirect/Direct Effects	**Induced Effects**	**Total**
Output ($1,000)	32,532.2	35,754.9	68,287.1
Employment	295	185	481
Earnings ($1,000)	17,628.7	11,127.5	28,756.2
GDP ($1,000)	25,092.7	19,624.5	44,717.2

4. Air National Guard 177th Fighter Wing

The Task Force visited the Air National Guard (ANG) 177th Fighter Wing, stationed at the Atlantic City International Airport, on August 19, 2014. Task Force members were briefed on, among other things, how the Wing supports the citizens of New Jersey by protecting life and property and preserving the peace, order, and public safety whenever called upon by the Governor. The ANG has 35 percent of the capabilities of the United States Air Force (USAF), but exists on only six percent of the USAF's budget. Likewise, ANG retirement costs are one-tenth that of the active duty USAF. For the cost of one active duty USAF wing ($5 million), 89 separate ANG Wings could be established.

The 177th Fighter Wing employs more than 1,100 people and provides combat-ready citizen airmen and single-seat F-16C "Fighting Falcon" aircraft for worldwide deployment in support of USAF. The 177th Fighter Wing's strategic location makes it the only fighter wing on the East Coast that can reach and defend the airspace of Washington, D.C., New York City, and their critical infrastructures within existing time criteria. It also serves New Jersey with emergency relief during natural disasters, search and rescue, and public safety support. Since October 2001, the 177th was involved in Operations Noble Eagle, Southern Watch, Northern Watch, Iraqi Freedom, and Enduring Freedom.

In net, the 177th Fighter Wing adds $109.6 million to the New Jersey's economy annually, supporting nearly 3,000 jobs that generate $165.3 million in wealth.

In early 2015, U.S. Representative Frank A. LoBiondo (NJ-02), a senior member of the House Armed Services Committee, helped secure $10.2 million for the 177th Fighter Wing for the construction of a new Fuel Cell & Corrosion Hangar in the "Fiscal Year 2016 Military Construction - Veterans Affairs Appropriations Act." The legislation was later approved by the full House of Representatives.

Annual Economic Impact on NJ's Economy ANG 177th Fighter Wing, Capital Spending, 2012			
	Indirect/Direct Effects	**Induced Effects**	**Total**
Output ($1,000)	10,000.0	8,302.0	18,302.0
Employment	34	47	80
Earnings ($1,000)	2,601.3	2,992.7	5,593.9
GDP ($1,000)	3,977.8	5,211.7	9,189.4

5. United States Coast Guard Training Center Cape May

The Task Force toured the United States Coast Guard Training Center Cape May (TRACEN Cape May) and was briefed by military leaders on August 7, 2014. The briefing covered, among other things, several unique aspects of the installation ranging from recruit training to facilities engineering projects. TRACEN Cape May is the sole accession point for the Coast Guard's enlisted work force.

TRACEN Cape May is the fifth largest installation in the Coast Guard. TRACEN Cape May provides logistical support to tenant commands that perform a number of operational and support missions for the Coast Guard including Search and Rescue; Military Readiness; Port & Environmental Safety; Commercial Vessel Safety; Enforcement of Laws and Treaties; Marine Environmental Response; Recreational Boating Safety; and Waterways Management. TRACEN Cape May also houses the Company Commander School and Recruiter School and is the home port for cutters that support a variety of Coast Guard activities, including Homeland Security missions.

Notably, the United States Coast Guard operates within the Department of Homeland Security and so is not included in the BRAC process. However, given the intense pressure on the federal budget, the Coast Guard is feeling the effects of budget reductions and may be under increasing pressure to reduce its operating budget and personnel in the foreseeable future. And, like New Jersey's other installations, TRACEN Cape May has a significant impact on the state's economy and quality of life. Coast Guard activity in New Jersey amounted to about $65.1 million in 2012. This supported 1,058 jobs that generated $90.9 million in wealth for New Jerseyans.

Annual Economic Impact on NJ's Economy TRACEN Cape May, All Activity, 2012			
	Indirect &Direct Effects	**Induced Effects**	**Total**
Output ($1,000)	65,058.6	62,421.4	127,480.0
Employment	728	330	1,058
Earnings ($1,000)	51,480.1	20,017.0	71,497.1
GDP ($1,000)	54,696.2	36,220.2	90,916.4

IV. Threats

In addition to the threat of a BRAC as discussed above, New Jersey's military installations face three additional threats: (1) policy shifts during the BRAC process, as occurred in 2005; (2) austere federal budgets and the possibility of future sequestrations; and (3) mission loss – aka "Stealth BRAC."

A. BRAC 2005 and New Jersey: Lessons Learned

From the BRAC 2005 Commission recommendations emerged a realignment and closure scheme quite different from that suggested by the Force-Structure Plan, selection criteria, and Secretary of Defense's five goals, all detailed above. But knowing DOD's recommendations often failed to align with BRAC's governing documents was little comfort to the service members and their families affected by Ft. Monmouth's closure. Six years after BRAC 2005, Ft. Monmouth officially closed its gates on September 15, 2011. For 94 years, Ft. Monmouth provided the development and operational services for world-wide communication, surveillance, and reconnaissance for the Armed Forces. BRAC 2005 realigned the technical functions of Ft. Monmouth to Aberdeen Proving Ground, Maryland. The implications of BRAC 2005 for future rounds only became clear in retrospect. First, cost was not a determining factor: the final cost represented a sixty-seven percent increase over the original estimate. Said plainly, the Commission will not be discouraged from closing or relocating an installation based on the cost to do so; if the Commission feels such action is in the best interest of effectiveness and efficiency, it will act.

Second, DOD went forward with the Ft. Monmouth closure despite the significant negative economic impact on the state. A 2004 Ft. Monmouth Impact report concluded that Ft. Monmouth directly and indirectly contributed 22,500 jobs statewide with a total economic impact of $2.4 billion. BRAC 2005 resulted in the largest national transfer of any high technology mission with the largest workforce ever moved. The closure and realignment of Ft. Monmouth affected 4,400 federal government civilian positions and approximately 200 military positions. A third of the workforce consisted of scientists, engineers, and logistical specialists. Additionally, the Ft. Monmouth workforce was supplemented by nearly 1,600 embedded contractor employees and more than 1,000 contractors located off the installation. The majority of these employees elected not to move to Aberdeen Proving Ground and sought employment opportunities within New Jersey or elsewhere.

B. Recent Federal Development – Sequestration

Ft. Monmouth's closure inspired a sense of urgency in New Jersey's elected officials and citizens alike. Thus, this report highlights what may forecast the next BRAC round, namely Congressional appropriations or a lack thereof. After all, BRAC's stated goal is to redesign the infrastructure to more efficiently and effectively aid in the implementation of the American military's 21st century strategy. We only learned after BRAC 2005 that the realignment itself need not be cost effective. The realignment does, however, have to deploy deliberately inevitably shrinking resources to achieve the 21st century strategy.

Since the Budget Control Act (BCA) passed in 2011, the global threat environment and the United States military's involvement have become distinctly more complicated. Additionally, as the DOD rebalances the joint force after thirteen years of war, it confronts an uncertain fiscal environment in the absence of congressional action to reverse the BCA's sequestration. As part of the BCA, sequestration is the term used to refer to $1.2 trillion in mandated cuts to federal agencies that includes $500 million in

military spending cuts over the next ten years. Congress employed this budgetary device to encourage a compromise on deficit reduction by Dec. 23, 2011, lest the across-the-board spending cuts – sequester cuts – would automatically go into effect. When Congress did not come to an agreement, sequestration was triggered on March 1, 2012, and Congress and the Administration have battled ever since.

According to DOD, the geopolitical events of the past year only reinforce the need to resource DOD at the President's requested funding level as opposed to current law (BCA). As the budget makes clear, a return to sequester-level funding would be irresponsible and dangerous, resulting in a force too small and ill-equipped to respond to the full range of potential threats to the nation. In light of this incongruity, the Administration's FY 2016 defense budget request exceeded the cap imposed by the BCA by about $36 billion. For the last two fiscal years, Congress and the Administration agreed to a number above the sequestration cap. So far, no such deal has been worked out for FY 2016, and it appears that the Administration is growing increasingly nervous about the DOD's ability to meet all of its obligations to the nation and its allies on a greatly diminished sequestration-level budget. This explains why the DOD and the Administration have requested a new round of BRAC for three years running.

This potential combination of increased need and decreased resources has the DOD rebalancing internally to prioritize spending on combat power. Key ongoing activities include reducing DOD's major headquarters' operating budgets by twenty percent and reducing intelligence analysis and production at Combatant Commands. The need to reduce unneeded facilities is so critical that, in the absence of authorization of a BRAC, the Administration will pursue alternative options to reduce wasteful spending. In such a case, it is entirely likely that the Administration will unilaterally change or diminish missions or contracting procedures at bases – a process referred to in this report as "Stealth BRAC."

C. "Stealth BRAC" (A.K.A. Mission Loss)

In addition to budgetary pressures, New Jersey must be aware of the possibility of military installations losing missions in the interim between official rounds of BRAC. "Stealth BRAC" is insidious because, as missions are taken away from a base, that base's standing before DOD and the Commission is considerably weakened. When the DOD and Secretary of Defense look for bases no longer serving multiple branches and functions, naturally those bleeding missions will be easy targets. It is in this light that changes abroad may have serious implications for New Jersey's military installations: the Joint Base is the only power projection platform in the heart of the most populated region of the United States.

Additionally, future federal budget cuts may impact the Joint Base's fleet of KC-10 refueling planes. KC-10s support aerial refueling and transporting cargo. Currently, the Air Force primarily maintains two types of refueling aircraft: the KC-135 and KC-10. There are only 59 KC-10s compared to more than 400 KC-135s. As a result, the idea of discontinuing the smaller KC-10 fleet has been floated. If that occurred, it is uncertain if the aircraft will be replaced and how severely this will diminish the standing of the Joint Base. On April 30, 2015, Congressmen Tom MacArthur and Donald Norcross announced that they had secured key language in the National Defense Authorization Act for Fiscal Year 2016 to protect the KC-10 refueling tanker from early retirement. While this is certainly welcome news, this and other potential mission loss due to Stealth BRAC must be at the forefront of New Jersey's continuous and ongoing effort to protect the State's military installations.

V. Recommendations

After the last year of tours and briefings, two truths stood out. First, presuming BRAC's potential imminence and the continuation of austere federal budgets, the state should take all reasonable steps to fortify and ensure the economic vitality of our military installations now. Second, New Jersey must posture itself in the best possible manner for BRAC – stealth or otherwise – because it remains a threat. With those two truths as our polestar, the Task Force presents the following recommendations.

A. Appoint a Military and Defense Economic Ombudsman

Economically fortifying New Jersey's military installations and improving the economic environment for New Jersey's defense industry requires a coordinated approach. Any effort to foster growth of the state's defense industries must account for, among other things, the complexities inherent in interactions with the DOD and federal government as a whole, coordination of myriad state agencies, and understanding county and municipal regulatory overlays – not to mention business acumen. To best manage those and other issues, the state should appoint a Military and Defense Economic Ombudsman (Ombudsman) to focus on coordinating and implementing such a strategy.

Housed in the Business Action Center, and reporting to the Lt. Governor, the Ombudsman would, among other things, including those more fully discussed below:

- Report on and recommend strategies and best practices for economically fortifying our military installations and improving New Jersey's defense industry;
- Support all efforts related to the creation of a defense industry cluster;
- Identify strengths, weaknesses, opportunities, and threats to our military installations from an economic perspective, and to New Jersey's defense industry;
- Provide recommendations on significant economic development projects that would support New Jersey's defense industry; and
- Work in coordination with any retained consultants devoted to advocating for New Jersey and its military installations.

In addition, the Ombudsman would be tasked with overseeing, implementing and/or coordinating the recommendations outlined in Section V.B "Establish a Coordinated Approach to Improve Military and Defense Industry Economic Development".

Given the complexities and nuances of the task, the Ombudsman should, preferably, be an individual with military and business knowledge, who is well-versed in government affairs.

B. Establish a Coordinated Approach to Improve Military and Defense Industry Economic Development

The Ombudsman should oversee a variety of efforts geared to improving economic outcomes for New Jersey's military installations and defense industry.

1. Attract Private Capital to and Around Our Military Installations

A critical element of strengthening our bases is to ensure that private sector businesses choose to partner with New Jersey installations – not those installations in other states. Therefore, efforts should be made to attract private capital to our military installations.

a) Develop Targeted State Incentive Programs for Businesses Working with Military Installations

Creating an environment that facilitates innovation supports our bases and leads to symbiotic relationships between the installations and the industry that surrounds them. For example, New Jersey ranks sixth in the nation for space and defense manufacturing. The state offers various incentives and programs to facilitate innovation, including the technology business tax certificate transfer program and the angel investor tax credit program.

Incentives exist to foster innovation. For example, the technology business tax certificate transfer program enables approved technology and biotechnology businesses with net operating losses (NOL) to sell their unused NOL carryover and unused R&D tax credits to a corporate taxpayer in New Jersey. Another example is the angel investor tax credit program that provides credits against New Jersey corporation business or gross income tax for ten percent of a qualified investment in an emerging technology business.

Despite those and other tools, the state must better encourage innovation related to the significant research and development functions of our state's military installations. As an initial matter, the state must better educate entrepreneurs, innovators, and potential military contractors about the numerous tools available to them to encourage innovation related to the missions of our military installations.

In addition, the state should explore the possibility of further incentivizing innovation related to the missions and operations of our state's military installations. By facilitating investment in innovation around our military installations, the state can help attract investment in critical areas such science, technology, engineering, math, and research and development. This can be accomplished by providing additional jobs-based incentives as well as the consideration of the location of a company near a military installation in the determination of the interest rate for loan programs. The jobs-based incentives would be in the form of a bonus available in the Grow New Jersey program, administered by the New Jersey Economic Development Authority (EDA), and would allow for a $500 per employee bonus for new or at risk employees of a company located within 5 miles of a military installation and working cooperatively with that installation. For projects seeking loan assistance through EDA loan programs, a company could be eligible for a rate reduction of up to twenty-five basis points if they are located within five miles of a military installation.

b) Cut Red Tape for Military Installations and the Defense Industry

P.L. 2011, c.34 (N.J.S.A. 52:14B-26, et seq.) requires the Secretary of State to designate a responsible contact person for "any large, complex project having a significant potential employment or investment impact" to assist that business and all appropriate government entities throughout the permit and approval application process. The contact person shall, among other things: (1) develop a checklist of permits to which the applicable agencies agree; (2) establish a detailed course of action and

milestones for the permitting or approval process agreeable to the applicable agencies; (3) report any impediments to the Secretary of State; and (4) coordinate, as needed, with the EDA.

This customer-service approach to business development has proven successful and, while some projects impacting our military installations will undoubtedly be "large, complex project[s] having a significant potential employment or investment impact," others may not. To ensure that smaller – though still important and valuable – projects related to and supporting our state's military installations receive similar treatment, the Ombudsman should serve as the Business Action Center advocate devoted to providing similar treatment to any project related to or designed to support our state's military installations. The Ombudsman should directly report to the Lt. Governor and the Red Tape Commission. By centralizing this function, the Ombudsman can develop greater expertise and relationships with issues that may arise due to the project's relationship to the military as well as develop deeper relationships with our military installations.

To further streamline the Ombudsman's efforts to cut red tape related to our military installations and defense industry, each Cabinet-level department and agency should designate a single point-of-contact responsible for interfacing with the Ombudsman, as well as interfacing with any businesses on whose behalf the Ombudsman advocates.

c) Targeted Marketing Campaign by Choose New Jersey

Since its creation, Choose New Jersey has been effectively marketing the countless positives of doing business in New Jersey to the rest of the nation and the rest of the world. Be it the state's prime location, its highly educated workforce, its unparalleled quality of life, or myriad other positives, Choose New Jersey has spread the message that New Jersey is an ideal location to do business.

To help further combat any misconceptions about New Jersey's business environment, Choose New Jersey – in coordination with the Ombudsman – should undertake a targeted marketing campaign focused on the sectors primed for growth in New Jersey's defense industries including, but not limited to, aerospace, information technology, cybersecurity, biotechnology and bioscience, and engineering.

d) Establish and Deploy a Military Mobile Cabinet

A "Military Mobile Cabinet" of high-level agency officials should be deployed to each military installation at least once a year. In addition to the Ombudsman, the Military Mobile Cabinet should include representatives from the Departments of Banking and Insurance, Children and Families, Community Affairs, Education, Environmental Protection, Health, Human Services, Labor and Workforce Development (LWD), Transportation, Treasury, and, of course, Military and Veterans Affairs.

This Military Mobile Cabinet will improve the interactions of the military installations with state departments and agencies. Be it addressing environmental issues related to development, wastewater treatment, and sewer service; utility issues concerning access to the power grid, establishment of resilient energy sources, and sufficient broadband capabilities; or a host of other matters, the military installations themselves can cut through red tape they may encounter. The Military Mobile Cabinet would also be available to the service members, employees on the installations, and their families, to address any issues they may be confronting with state government.

e) Develop Asset Management Databases of New Jersey Resources

One hurdle often faced by innovative start-up businesses, including those supporting DOD and the military, is identifying resources such as equipment and laboratory space at a university or research projects and professor specialties. Most universities house data regarding research and development as well as faculty specialties and equipment in private databases. The Task Force recommends – through the Office of the Secretary of Higher Education (OSHE) and the Council on Innovation – creating a combined, public higher education asset management database. This database would be a centralized web space able to inventory our higher education institutions' assets to further strengthen the existing connections between higher education and the state's economic ecosystem in a tangible, meaningful way.

This publically shared database will allow all resources of higher education to be leveraged by innovative startups – including those cutting edge companies seeking to do business with our state's military installations. This information should include, among other things:

- Faculty contact information and research areas;
- Patented technologies;
- Research centers, facilities, and equipment;
- Published academic articles; and
- Information about university-based incubators and accelerators.

This database will fill an information void and facilitate collaboration, thereby allowing the exploitation of synergies between institutions of higher education among themselves and with New Jersey's defense industry.

2. Improve Relationships Among Federal Contractors

A critical component of economic development related to our installations and defense industries is to ensure that the participants have access to information and relationships. Accordingly, the Ombudsman should undertake efforts designed to improve access to information and relationships among stakeholders.

a) Establish New Jersey Procurement Partnership Program

Because federal contracts are an economic driver for New Jersey business, another method for maximizing revenue streams to New Jersey businesses and leveraging current resources within the state is to foster relationships among large, medium, and small New Jersey-based companies who market their products and services to the federal government, specifically the DOD. Thus, in an effort to increase federal procurement dollars directed towards New Jersey, the Ombudsman should establish the New Jersey Procurement Partnership Program. This program should:

- Establish a Mentorship Program – A mentorship program serves numerous symbiotic goals. Smaller companies who may not be as sophisticated as larger companies with respect to federal procurement can gain valuable insight into the federal procurement process and best practices, while simultaneously developing relationships with larger companies, who may be general contractors that will require the services of smaller entities. Larger companies will

develop relationships that encourage the hiring of in-state subcontractors, thereby increasing overall federal procurement expenditures in New Jersey.

- Host Procurement Seminars – Again, smaller businesses or those new to federal procurement can benefit greatly from guidance on the federal procurement process. Such seminars – taught by larger and/or more seasoned federal contractors – would prove invaluable.

- Identify Federal Procurement Resources and Develop a Plan to Make Them More Accessible – The Ombudsman should endeavor to disseminate information relating to federal procurement opportunities, provide best practices and guidance for navigating the federal procurement process, and monitor trends related to federal procurement.
  One such example of a procurement information repository is Choose New Jersey's Request For Proposal Watch (RFP Watch) (www.rfpwatch.choosenj.com), a service that puts public and private contract opportunities at businesses' fingertips. RFP Watch tracks bids from 30,000 data sources to connect businesses to contracts issued not only by the federal government, but also by state government, cities, municipalities, counties, and special district agencies across the New Jersey, New York, Pennsylvania, Delaware, and Maryland region. Industry categories run the gamut, and more than 535 General Services Administration (GSA) categories can be searched by keyword, GSA category, sector and status, with an average of 7,000 contract leads posted per month and $2 billion in contracts awarded weekly.

- Engage with NJ MarketShift – The New Jersey Innovation Institute received a $5.67 million grant from the DOD to create NJMarketShift, a model for creating regional industry clusters strengthening economic development in New Jersey. NJMarketShift is focused on a statewide strategy to support New Jersey's aerospace and defense industry to diversity markets, foster product innovation, and strengthen companies and supply chains integral to defense needs and the state's economy. The Ombudsman should actively engage with NJMarketShift and help connect companies with this effort.

b) Organize Regular Military "Resources for Growth" Events in Coordination with Military Installations

In an effort to ease access to incentives and programs for the business community, over the last five years, the Business Action Center has hosted more than a dozen "Resources for Growth" events throughout the state. These events – occasionally geared towards an industry or specific geographic locale – are designed to welcome business to meet with federal, state, and county representatives and community partners to learn more about the myriad resources available to New Jersey's businesses. Well-received by the business community, these events provide fertile ground for developing relationships and making businesses – particularly small businesses – aware of various programs and government offerings.

The Ombudsman should replicate this model and convene a Resources for Growth event related to each of the state's five military installations, targeting the geographic areas and industries most impacted by each of the military installations. By incorporating military leaders from the installations – as well as other relevant federal officials – such "Military Installation Resources for Growth" events will provide impacted businesses with a unique opportunity to network and be informed of various opportunities, while creating and continuing dialogues between businesses and governments of all levels.

C. Align New Jersey's Workforce with the Military and Defense-Industry Current and Future Needs

To ensure that New Jersey's military installations – and the businesses and industries that support them – are well situated for the 21st Century's economic and military needs, the state, industry, and educators must work together to provide New Jersey's workforce with the necessary skills and abilities. Despite a highly educated workforce and celebrated school system, we must avoid and mitigate any potential shortcomings.

1. Understand and Respond to the Needs of Our Military Installations and the Industries that Support Them

In December 2014, the Lt. Governor, OSHE, LWD, State Employment and Training Commission (SETC), and the Department of Education (DOE) convened a Manufacturing Skills Council of chief executives and key industry leaders to help guide New Jersey's workforce and education investments, thereby addressing any potential skills gap. The first meeting of the Manufacturing Skills Council began the dialogue about potential solutions and helped set priorities to maximize the impact of state investment dollars to fill critical job openings in the short-, mid-, and long-terms. These solutions may include expanded career awareness efforts to promote such opportunities, expanded training programs to prepare unemployed workers for job openings, development of new curricula for high school and post-secondary education, and expansion of work-based learning opportunities, including internships.

a) Convene a Military Skills Council

Building on the above model, those same state entities should work with New Jersey's military installation leadership and the defense industry to establish a Military Skills Council to look at the workforce alignment issue through the spectrum of DOD needs, as well as the needs of those supporting industries.

Among other things, the Military Skills Council should:

- Develop a comprehensive needs analysis for our military installations and key industries;
- Explore barriers impeding workforce alignment with the federal government, be it geographical, economic, educational, etc., and offer solutions to overcome those barriers;
- Identify skills gaps by surveying contractors to identify opportunities for growth and deficiencies in the current skill sets of the workforce;
- Examine methods to develop and align curriculum, specifically science, technology, engineering, and math (STEM), at all levels of education in preparation for jobs with our military and supporting industries, as well as methods for increasing the enrollment of students of all ages in STEM programs;
- Develop methods to improve understanding of the resources, benefits, and improved outcomes for service members resulting from Post-9/11 Bill education;
- Prepare workforce development strategies for the jobs of today and the future, by expanding academic/training opportunities to support workforce needs and exploring public-private partnerships to support workforce development; and
- Engage with educators, the military, and industry to ensure that workforce alignment initiatives address military, public, and private sector needs.

b) Target Workforce Training Dollars Towards Supportive Grantees

LWD has a robust workforce training program that allows employers to train current and new employees with the skills necessary to keep their businesses up-to-date with the most recent techniques and technologies used by industry. At bottom, this program is designed to ensure that New Jersey's workforce has the skills needed by New Jersey's business.

In administering this workforce training program going forward, LWD should consider finding opportunities to target workforce training dollars and grants to those industries connected to our military installations and supportive of them due to their industry or procurement contracts. Doing so will help ensure that our defense related industries have the employees they need to continue supporting our state's installations and, thus, provide jobs to New Jersey residents and veterans.

2. Improve New Jersey's Pipeline of STEM-Educated Employees Who Can Fill the Needs of Our Future Military and Defense Jobs

While many of the recommendations contained in this report relate to near-term deliverables that will immediately benefit the state's military installations and defense industry, we also must be cognizant of the long-term health and viability of our installations and related industries. As such, we must actively ensure that New Jersey has a robust, long-term pipeline of employees for the future needs of our military installations and the defense industry. One area where we must take action is STEM education, as STEM careers will only increase in the future, especially for our military installations and the vendors and contractors on which they rely.

a) Include Military and Defense-Industry Membership on the STEM Pathways Network

Recognizing the increasing need to proactively educate our children and our workforce to ensure that New Jersey's best and brightest are ready to fill the STEM jobs of the future, the OSHE established the STEM Pathways Network which brings together three dozen of the state's leaders in academia, industry, and philanthropy to enhance collaboration among agencies, foundations, higher education, and businesses. The impetus for the STEM Pathways Network was the realization that despite the existence of more than 200 discrete STEM initiatives in New Jersey, there was limited awareness and interaction between those initiatives.

Because STEM-education will be critical to filling the military and defense industry jobs of the future, we should ensure that New Jersey's military installations and defense industry have a voice in this on-going dialogue. Accordingly, the STEM Pathways Network should ensure inclusion of the military and defense industry in the STEM Pathways Network going forward.

b) Collaborate with Military Installations on Increasing STEM Education

To ensure the availability of STEM-educated professionals for the future needs of our military installations and defense industry, the DOE, OSHE, and local boards of education near our military installations should further collaborate to raise awareness of STEM education and the positive employment outcomes and exciting career potential.

In addition to raising awareness of the career opportunities a STEM education can lead to in the military and defense industries, these collaborations must also implement proactive steps to increase involvement in STEM education. DOE and OSHE should provide assistance to schools and institutions of higher education that seek to better incorporate STEM principles into their curriculum, be it in the form of best practices or assisting with STEM grant application, management, and implementation. Moreover, those state agencies should collaborate with our military installations and local boards of education, as appropriate, to identify partnerships and/or pilot programs that will highlight, in a tangible way, the connection between a STEM education and future jobs in the military and defense industries.

In addition, all stakeholders should look for opportunities to strengthen professional development for teachers in STEM fields. Without qualified and engaging STEM teachers, students will not flourish nor remain engaged in this exciting field.

3. Continue Expanding Prior Learning Assessments for Veterans

While the foregoing STEM recommendations address long-term needs, we must also look at short-term STEM needs. In this regard, veterans who developed expertise and skills in STEM fields while serving their country should not be slowed in their transition to civilian employment where unnecessary.

In July 2014, Lt. Governor Guadagno, along with Secretary of Higher Education Rochelle Hendricks, announced the launch of the New Jersey Prior Learning Assessment Network (NJ PLAN) pilot program, an initiative whereby Thomas Edison State College, Essex County College, New Jersey City University, the New Jersey Institute of Technology, and Rowan University established a consortium where students earn college credits when their previously obtained skills are demonstrated through examinations or by preparing portfolios of prior work. Such a program could be particularly beneficial for veterans whose learned skills will address the needs of a highly competitive 21st century economy.

The OSHE and the state's higher education institutions should continue to implement prior learning assessments and consider expanding the NJ PLAN pilot to account for both the unique skill sets of veterans and the emerging needs of the military and defense industry.

D. Develop Synergistic Opportunities Enabling Greater Cooperation Between Military Installations and Local Communities

It goes without saying that government budgets at all levels – federal, state, and local – are under pressure. That fiscal pressure requires fiscal responsibility and requires all government officials to examine creative ways to efficiently maximize their limited public funds, without undermining the delivery of essential public services.

1. Facilitate Shared Services Between Installations and Neighboring Governments

One area ripe for cost-savings is shared services among New Jersey's military installations and their adjacent governments. In 2013, a federal statute was enacted that empowers military installations to enter into intergovernmental support agreements with state or local governments to provide, receive, or share installation-support services where such agreements enhance mission effectiveness or create efficiencies or economies of scale, including cost reduction. See 10 U.S.C. 2336. Examples of military installations and municipalities sharing services around the country include:

- Shared maintenance of the installation's streets, sewers, storm drains, and fence systems;
- Allowing installation personnel to utilize the civilian 9-1-1 service;
- Shared vehicle, grounds, and road maintenance;
- Refuse and snow removal;
- Shared utility infrastructure and maintenance including sewer, water, and electric; and
- Consolidated police and fire units to maximize effective coverage area.

As noted earlier, Rockaway Township and Picatinny have a long-standing relationship that, among other things, includes mutual aid agreements related to police and fire protection as well as sharing of recreation facilities, specifically the partnership between Picatinny Arsenal Family Morale Welfare and Recreation and the Township's Parks and Recreation Department. New Jersey towns and military installations are encouraged to follow suit and engage with their installation neighbors to learn what assistance they can provide. The state should assist and facilitate this sharing of services to the greatest extent possible.

2. Minimize Encroachment Through Strategic Land Use Planning

The coexistence of adjacent municipalities and military installations is an important issue in New Jersey. Development and redevelopment, brownfield remediation, security buffers, open space, resource capacity, and infrastructure expansion and maintenance call for a cohesive, inclusive system to protect all parties' interests. Achieving this requires long-term, strategic planning and open communication between all parties. Where possible, land use initiatives should account for the needs of all stakeholders because the effects of those policies often transcend borders to impact regions.

a) Coordinate to Establish a Plan for Symbiotic Land Use

When military installations are first established, they are often built in remote regions. Over time, these military installations become hubs for the development of communities, requiring housing and local businesses to support the installation and its population. In 1985, the DOD recognized that as communities developed near military installations, both civilian and military activities were negatively impacted. That realization led to the DOD's Joint Land Use Study (JLUS), which encourages community and installation decision-makers to study issues of compatibility in an open forum, balancing military and civilian interests, and empowering local communities to work with their neighboring installations to guide the implementation of appropriate land use controls.

In 2009, authorities from the Joint Base and its surrounding communities worked together on a JLUS. Other governments surrounding the state's other military installations should act accordingly and either conduct a JLUS or, at the least, implement its principles, and such documents should be regularly re-visited.

Beyond the JLUS process, local and municipal governments should work cooperatively with their military installations to prevent unnecessary encroachment and encourage compatible uses. To facilitate this dialogue, local and municipal government should schedule regular meetings with the complete spectrum of interested parties, including utilities and local water, wastewater, and power authorities, to discuss the collaborative planning process.

Counties and municipalities should share proposed master plan updates and zoning changes with the nearby military installations before adoption. Counties and municipalities should consider sharing planning proposals with the State's Office for Planning Advocacy before adoption for input on such proposals. To aid this process, the Office for Planning Advocacy should develop a closer relationship with DOD's Office of Economic Adjustment, which runs the JLUS program.

b) Preserve Open Space Near Military Installations

Because military installations are such a crucial part of the economies of the state, counties, and municipalities, these government entities should be mindful of undue encroachment on our military installations. Potential hazards in this regard include, among others:

- Erecting unnecessarily tall buildings around installations that limit the flight paths or sight lines of aircraft;
- Building residential areas too close to installations thereby exposing residents to noise from planes, helicopters, and firing ranges; and
- Limiting potential for future expansion on the installation by reducing open or undeveloped surrounding property.

While these may seem to be mere nuisances, installations should aim to avoid any negative interactions with surrounding residents through perceived noise pollution and should also be mindful of maintaining excess capacity to accommodate potential mission expansion. One method of limiting such encroachment is maintaining open space near our military installations – a method all levels of government should utilize.

3. Improve Energy Resiliency

In recent years and especially in the wake of Superstorm Sandy, there has been a significant effort to increase the resiliency of New Jersey's power grid, allowing it to better respond during and in the aftermath of natural and other disasters. Be it hardened infrastructure, the creation of micro-grids, the "islanding" of essential facilities, or the installation of on-site generation, such strategies have become critically important. Moreover, these efforts to improve our power grid's overall resiliency, can often be combined with other policy priorities, such as reducing the cost of electricity and increasing the use of renewable energy sources. Thus, win-wins.

Military installations are prime examples of facilities that would benefit from implementing cost-saving resilient energy strategies to not only ensure that constant flow of energy to their essential functions, but also to reduce costs and reduce reliance on third-parties and utilities in the event of disaster. Accordingly, the state should take all reasonable efforts to assist our military installations in the development of resilient energy projects. Such projects will allow our installations to be energy independent, reduce costs due to predictable production, and increase reliability and resiliency when large-scale emergencies affect the power grid. Additionally, the surrounding communities will benefit from this initiative's efficient and reliable energy production, taking pressures off the remainder of the grid, and ensuring that the installations will be able to operate in the face of a disaster to help assist with the provision of emergency services. Moreover, by improving a military installations' energy infrastructure and reducing costs, such resiliency projects may assist in the attraction of additional missions to New Jersey's installations, but at the very least will offer cost-savings, thus making New Jersey's military installations less attractive targets for mission loss or a realignment or closure.

4. Increase Supportive Coalitions to Forge and Strengthen Local Relationships

Throughout the Task Force's efforts, the Defense Enhancement Coalition (DEC) and the Picatinny Enhancement Coalition (PEC), which respectively support the Joint Base and Picatinny Arsenal, were consistently and actively engaged. Both are well-organized, highly motivated, and supportive of their installations – qualities that significantly strengthened installation-community ties.

Simply put, the Task Force encourages DEC and PEC to continue their efforts in hopes that other communities replicate the model. Such organized groups raise community awareness of the positive impacts of military installations, develop synergies between the installations and area businesses and, at bottom, further demonstrate that New Jersey is military friendly. Thus, the Task Force should keep DEC and PEC apprised of statewide developments and continue to solicit their invaluable feedback and input.

5. Improve Roadway Signage for Joint Base

Despite the merger of the United States Air Force's McGuire Air Force Base, the United States Army's Fort Dix, and the United States Navy's Naval Air Engineering Station Lakehurst, on October 1, 2009, the roadway signage directing visitors to the Joint Base was not timely updated. Fortunately, due to the efforts of the Task Force and collaboration with the Department of Transportation, as well as local and county officials, these outdated signs are being replaced to better reflect the identity of Joint Base and to reduce any confusion among motorists. However, signs remain to be updated, and the DOT should continue its efforts with local and county governments, to replace outdated signs.

E. Strengthen Relationships with Federal Partners to Improve Advocacy Outcomes

To best advocate for itself, New Jersey's voice must be loud, consistent, and unified in Washington, D.C. By actively engaging with members of Congress, congressional staffers, and DOD military leaders, New Jersey's voice will be heard.

Additionally, it is important that New Jersey's congressional delegation be strong advocates for the state's military installations. Since its organization, the Task Force interacted with the state's Congressional delegation and their staffs. These fruitful conversations must continue so that all parties remain well-informed of military-related developments in real time.

1. Annual Congressional Delegation Tour of Installations

In February 2015, the Lt. Governor joined members of the New Jersey Congressional delegation to tour New Jersey's military installations and be briefed by the commanding officers. This cooperative and collegial tour allowed the Congressional delegation and Lt. Governor to become better informed on issues relating to the installations and further unified the bipartisan effort to enhance and protect New Jersey's military installations. The Lt. Governor, Task Force, Ombudsman, and Congressional Delegation should make this an annual event.

2. Provide Advocacy Information to Federal Partners

Across the nation, misperceptions about New Jersey are pervasive. In relation to BRAC, such misperceptions could mean the undoing of years of carefully organized advocacy and hard work if the decision makers wrongly believe New Jersey is unfit for major military installations or missions. The state's organized advocacy would be bolstered by materials available for federal legislators focused on these subjects recognized as important throughout the defense community. These materials should include, among others:

a) Air Space

Given New Jersey's dense population and proximity to numerous commercial airports, there is a lingering misperception that the air space around the Joint Base and the 177th Fighter Wing is overly congested. That misperception ignores that these pilots train on ranges that extend out over the Atlantic Ocean and that anti-encroachment measures greatly reduce congestion. Moreover, that misperception unduly discounts the value of teaching pilots how to navigate diverse air space. Nevertheless, New Jersey should provide federal partners with advocacy materials on our air space from independent, recognized experts to help counter that harmful misperception.

b) Encroachment

Another persistent misconception is that New Jersey's military installations are urbanized and physically encroached by development. Highlighting the significant open space around our military installations would effectively rebut that misconception. Furthermore, this analysis would publicize the proactive steps taken by county and municipal governments to control encroachment at the Joint Base, including the April 2009 JLUS.

c) Installation Infrastructure

High-quality military installation infrastructure aids the operations at the military installations and helps limit future costs related to maintenance, repair, and upkeep. Data demonstrating the quality and modern condition of our military installations' infrastructure will demonstrate that our installations offer an attractive and cost-effective venue for current and additional missions.

3. Establish and Convene Regular "Commanders Council" Meetings

A key component of the Ombudsman's charge will be to remain abreast of developments on the state's military installations with respect to both current issues and concerns, as well as future and prospective needs. Accordingly, the Ombudsman should regularly meet with the state's military installations' commanding officers and other high-ranking officials. Individual meetings will allow for sharing of information, deepening of relationships, and problem-solving with respect to installation-specific issues.

But, some issues may require a more holistic approach where the expertise and input of other of the state's military installations is valuable. Therefore, the Ombudsman should, as necessary, convene regular "Commanders Council" meetings that can address issues of statewide importance or issues where the military installations can support each other or benefit from a unified response.

4. Extend the Task Force

Extending the Task Force would communicate a sense of long-term, systematic dedication to the state's military installations. An extended Task Force could more effectively and efficiently wield the collective influence of New Jersey's federal, state, county, and municipal elected officials in an uninterrupted and non-partisan fashion. An extended Task Force could also gather a wealth of institutional knowledge that, combined with energetic, coordinated, consistent, and unified advocacy, would be a formidable advantage when confronting a BRAC or the threat of mission loss.

5. Annual Appropriation For Military Installation Fortification Efforts

The Fiscal Year 2015 Appropriations Act and the Fiscal Year 2016 Appropriations Act – both passed by the Legislature and signed by Governor Christie – included a $200,000 appropriation to DMAVA to inoculate New Jersey's military installations from BRAC. As noted earlier, the appropriation was used by DMAVA for the retention of a consultant to advocate for New Jersey and our military installations.

This appropriation should be continued as an annual appropriation in the budget going forward. Although cognizant of the state's budgetary outlook and competing concerns, New Jersey's efforts towards economically fortifying our military installations and fending off any BRAC and mission loss must be viewed as a marathon, not a sprint. Continued, steady funding for an experienced consultant to advocate for New Jersey's interests in Washington, D.C. is important. As stated above, the key to success is steady, uninterrupted, and unified advocacy.

VI. Conclusion

The foregoing demonstrates that in order for the State to best fortify its military installations from any future BRAC or the looming threat of mission loss, concrete steps must be taken – and be taken in earnest. In so doing, New Jersey must demonstrate in a unified voice that it is military friendly and that the retention and gain of missions in New Jersey not only makes strategic sense, but also makes economic sense.

Due to the efforts this year of the Task Force and governmental actors at all levels, significant momentum was created in New Jersey's efforts to fortify our military installations and protect them from BRAC and mission loss. We must not lose that momentum, but rather capitalize on it. The Task Force is committed to this effort and will continue to work with elected officials at all levels, the military installations themselves, and the industries that rely on those installations to best strengthen our installations, with all efforts doggedly geared towards protecting our military installations both today and in the future.

EXHIBIT D
to
NJ Land, LLC Declaratory Petition

United States Air Force et al.
Memorandum of Agreement
Consolidating JB-MDL

MEMORANDUM OF AGREEMENT

BETWEEN

UNITED STATES AIR FORCE, SUPPORTING COMPONENT

AND

UNITED STATES ARMY & UNITED STATES NAVY, SUPPORTED COMPONENT(S)

SUBJECT: Installation Support Memorandum of Agreement (MOA) for Joint Base McGuire-Dix-Lakehurst

1. PURPOSE. The purpose of this MOA is to define the installation support relationship between the supporting Component – United States Air Force (USAF), hereafter referred to as the "supporting Component", and the supported Component(s) – United States Army (USA) and United States Navy (USN), hereafter referred to as the "supported Component(s)" for fully implementing Base Realignment and Closure (BRAC) 2005 Joint Base decisions per references (a), (b), (c), and (d) at Joint Base McGuire-Dix-Lakehurst (MDL). For the purposes of this MOA, the terms "party" and "parties" shall be understood to refer exclusively to the supporting Component and the supported Component(s), either collectively or individually. This MOA establishes a comprehensive framework for Joint Base MDL implementation, and captures the most practical methods for transferring Installation Support functions while meeting mission requirements. The MOA represents Full Operational Capability (FOC). Initial Operational Capability (IOC) requirements, to include reimbursement arrangements, will be addressed in the Implementation Plan (Attachment 1).

The strategic imperative of Joint Basing is to provide consistent, high quality installation support to the missions. In order to meet this imperative in a dynamic mission environment, the MOA may require refinement as mission requirements evolve, organizational structures mature, and efficiencies improve product delivery.

The Joint Base Partnership Council (JBPC) shall review the MOA at least once prior to Full Operational Capability (FOC) for any needed changes, taking into account the experiences of the Initial Operational Capability (IOC) period. Thereafter, at a minimum, the JBPC shall review the MOA annually for mission, manpower, and financial impacts and to ensure delivery of installation support to common output level standards. The annual review will include the information collected and reported in the Cost and Performance Visibility Framework. The JBPC shall review the MOA in its entirety triennially. The supported or supporting component may propose additional reviews of the MOA at any time.

Any proposed changes to the MOA affecting execution of service delivery or changes of an administrative nature shall be resolved by the Joint Base Partnership Council. Any significant proposed changes to the MOA, including those regarding resourcing, manpower, or output standards will be reviewed and approved through the Joint Management Oversight Structure (JMOS) as directed by the Senior Installations Management Group (SIMG).

2. AUTHORITY/REFERENCES (Hereby expressly made a part of this agreement)

a. Defense Base Closure and Realignment Act of 1990 (Part A of Title XXIX of Public Law 101-510; 10 U.S.C. 2687 Note).

b. Department of Defense Base Closure and Realignment Commission Report to the President, September 8, 2005, Volume I, Recommendation #146.

c. Department Of Defense Initial Guidance for BRAC 2005 Joint Base Implementation, January 22, 2008.

d. Each Department of Defense Supplemental Guidance for BRAC 2005 Joint Base Implementation, developed and approved pursuant to reference (c).

e. DoD Instruction 4000.19, "Interservice and Intragovernmental Support", August 9, 1995.

3. SCOPE. This MOA establishes a comprehensive framework for Joint Base MDL implementation to capture and continue the most practical savings for the Department of Defense (DoD) through the transfer of Installation Support functions while meeting mission requirements. It establishes the Installation Support services to be provided and received, and defines terms, conditions, reimbursements and responsibilities for Joint Base MDL. As a minimum, this MOA will define financial arrangements, Installation Support responsibilities, financial and performance reporting requirements, dispute resolution procedures, disposition of assets other than real property, and other relevant issues, as well as detailing the timeline for full implementation. This MOA will address the Installation Support functions listed and defined in attachment (D) of reference (c).

4. BACKGROUND

a. Reference (a) requires the Department to close and realign all installations so recommended by the Commission in its report to the President. This requirement includes the relocation of installation management functions and the establishment of Joint Bases as specified in reference (b).

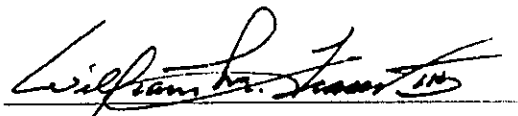
b. Within DoD, installations employ military personnel, civilians, and contractors to perform common Installation Support functions. All installations execute these functions using similar processes.

c. Installations identified in reference (b) share a common boundary or are in close proximity. As such, there is significant opportunity to consolidate the delivery of Installation Support functions and realize savings. The Department shall use this opportunity to create the conditions for more consistent and effective delivery of Installation Support functions.

d. While enabling the Department to identify, capture, and continue significant savings through consolidation, thus freeing resources for other priorities, Joint Base implementation will allow flexibility to consider the best business practices while ensuring that warfighting capabilities are preserved or enhanced.

e. Reference (c), attachment (B) defines the terms used in the document, and reference (c). attachment (C) provides a list of acronyms used in this document. Reference (c), attachment (D) provides common definitions for Installation Support functions. Reference (c), attachment (E) identifies the Office of the Secretary of Defense (OSD)

15. Signed and agreed to.



24 April 2009

(Signature) (Date)

General William M. Fraser III

TITLE: Vice Chief of Staff

ORGANIZATION: United States Air Force

(Signature) (Date)

General Peter W. Chiarelli

TITLE: Vice Chief of Staff

ORGANIZATION: United States Army

(Signature) (Date)

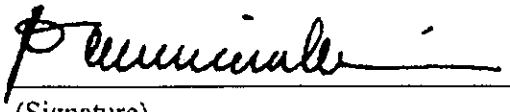
Admiral Patrick M. Walsh

TITLE: Vice Chief of Naval Operations

ORGANIZATION: United States Navy

15. Signed and agreed to,

(Signature) (Date)
General William M. Fraser III
TITLE: Vice Chief of Staff
ORGANIZATION: United States Air Force



3 APRIL 2009
(Signature) (Date)
General Peter W. Chiarelli
TITLE: Vice Chief of Staff
ORGANIZATION: United States Army

(Signature) (Date)
Admiral Patrick M. Walsh
TITLE: Vice Chief of Naval Operations
ORGANIZATION: United States Navy

15. Signed and agreed to.

_____ (Date)

(Signature)
General William M. Fraser III
TITLE: Vice Chief of Staff
ORGANIZATION: United States Air Force

_____ (Date)

(Signature)
General Peter W. Chiarelli
TITLE: Vice Chief of Staff
ORGANIZATION: United States Army

Patrick M. Walsh 9/10/09 (Date).

(Signature)
Admiral Patrick M. Walsh
TITLE: Vice Chief of Naval Operations
ORGANIZATION: United States Navy

DEFENSE BASE CLOSURE AND REALIGNMENT COMMISSION
2521 South Clark Street, Suite 600
Arlington, VA 22202
Telephone: (703) 699-2950

September 8, 2005

George W. Bush
President of the United States
1600 Pennsylvania Avenue, N.W.
Washington, D.C. 20500

Dear Mr. President:

The 2005 Defense Base Closure and Realignment Commission is proud to present its Final Report for your consideration. As required by law, the Commission thoroughly and objectively reviewed the domestic installation closure and realignment recommendations proposed by the Secretary of Defense on May 13, 2005.

In 2005, the Secretary made more recommendations, with more complexity, than all four previous base closure rounds combined. We held ourselves to a high standard of openness and transparency in all our activities and deliberations as we assessed these recommendations. Over the past four months, the Commission conducted 182 site visits, held 20 legislative and deliberative hearings, hosted 20 regional hearings, and received well over 200,000 written and electronic communications from the public. We publicly sought, and received, expert analysis and commentary from a variety of governmental and non-governmental sources to assist our independent analysis.

We recognize that our final recommendations will have profound effects on many communities and the people who bring them to life as well as on the uniformed men and women embodying our Armed Forces. We are confident that the recommendations contained in our Final Report will positively shape our military for decades to come. The warfighters securing our way of life will depend on the successful implementation of our recommendations to shape the infrastructure supporting their current and future missions.

In addition to the Commission's assessment of the Secretary's recommendations, we have addressed issues relevant to future rounds of base realignment and closure.

Mr. President, it has been an honor and privilege for us to serve on the 2005 Defense Base Closure and Realignment Commission.

Respectfully Yours,

Anthony J. Principi
Chairman

James H. Bilbray
Commissioner

Philip E. Coyle III
Commissioner

ADM Harold W. Gehman Jr., USN (Ret)
Commissioner

James V. Hansen
Commissioner

GEN James T. Hill, USA (Ret)
Commissioner

Gen. Lloyd W. "Fig" Newton, USAF (Ret)
Commissioner

Samuel K. Skinner
Commissioner

Brig. Gen. Sue Ellen Turner, USAF (Ret)
Commissioner

2005 Defense Base Closure and Realignment Commission Report

Table of Contents

Volume One

Commission Recommendations

The Commission found that the Secretary of Defense deviated substantially from final selection criteria 3, 4, and 6 and from the Force Structure Plan. Therefore, the Commission recommends the following:

Close the Defense Finance and Accounting Service (DFAS) sites at Denver, CO; Rock Island, IL; Pensacola Saufley Field, FL; Naval Station, Norfolk, VA; Lawton, OK; Naval Air Station, Pensacola, FL; Omaha, NE; Dayton, OH; St. Louis, MO; San Antonio, TX; San Diego, CA; Pacific Ford Island, HI; NAS Patuxent River, MD; Charleston, SC; Orlando, FL; Lexington, KY; Kansas City, MO; Seaside, CA; San Bernardino, CA; and Oakland, CA. Relocate the functions performed at these locations to the DFAS sites at Cleveland, OH; Columbus, OH; Indianapolis, IN; Limestone, ME; and Rome, NY; grow the DFAS site at Cleveland, OH, to not less than 1500 Full Time Equivalents (FTE); grow the DFAS site at Limestone, ME, to not less than 600 FTE, and grow the DFAS site at Rome, NY, to not less than 1000 FTE; maintain not less than the current FTEs at the DFAS sites at Columbus, OH, and Indianapolis, IN. Assign functions among the DFAS sites retained to provide for strategic redundancy in all critical tasks. Realign the Arlington, VA, site by relocating all functions to the remaining DFAS sites except the minimum essential DFAS liaison staff to support the Under Secretary of Defense (Comptroller)/Chief Financial Officer, Military Service Chief Financial Officers, and Congressional requirements, which will be retained in the National Capital Region.

The Commission found this change and the recommendation as amended are consistent with the final selection criteria and the Force Structure Plan. The full text of this and all Commission recommendations can be found in Appendix Q.

Joint Basing

Recommendation # 146 (H&SA 41)

One-Time Cost:	$50.6M
Annual Recurring Costs/(Savings):	($183.8M)
20-Year Net Present Value:	($2,342.5M)
Payback Period:	Immediate

Secretary of Defense Recommendation

Realign McChord Air Force Base (AFB), WA, by relocating the installation management functions to Fort Lewis, WA, establishing Joint Base Lewis-McChord.

Realign Fort Dix, NJ, and Naval Air Engineering Station Lakehurst, NJ, by relocating the installation management functions to McGuire AFB, NJ, establishing Joint Base McGuire-Dix- Lakehurst.

Realign Naval Air Facility Washington, MD, by relocating the installation management functions to Andrews AFB, MD, establishing Joint Base Andrews-Naval Air Facility Washington, MD.

Realign Bolling AFB, Washington, DC, by relocating the installation management functions to Naval District Washington at the Washington Navy Yard, Washington, DC, establishing Joint Base Anacostia-Bolling-Naval Research Laboratory (NRL), Washington, DC.

Realign Henderson Hall, VA, by relocating the installation management functions to Fort Myer, VA, establishing Joint Base Myer-Henderson Hall, VA.

Realign Fort Richardson, AK, by relocating the installation management functions to Elmendorf AFB, AK, establishing Joint Base Elmendorf-Richardson, AK.

Realign Hickam AFB, HI, by relocating the installation management functions to Naval Station Pearl Harbor, HI, establishing Joint Base Pearl Harbor-Hickam, HI.

Realign Fort Sam Houston, TX, and Randolph AFB, TX, by relocating the installation management functions to Lackland AFB, TX.

Realign Naval Weapons Station Charleston, SC, by relocating the installation management functions to Charleston AFB, SC.

cuts, and expressed concern over the overall health and welfare of the bases involved. Additionally, communities argued that the "clash of cultures" and service-specific interests would impair installation management by a different service. To avoid this likely problem, some community advocates argued DoD would need to develop a common installation management approach by establishing a joint basing office in DoD to implement the new Joint Bases so that individual military services did not issue conflicting guidance and procedures. Finally, there was concern expressed that non-appropriated fund employees were not addressed specifically in the DoD recommendation.

Commission Findings

While the Commission supports the concept of Joint Basing strongly, it is concerned, as is GAO, that DoD must assess and remedy several issues before implementation will be successful. For instance, common terminology is lacking to define Base Operating Support (BOS) functions among the military services and OSD. The Commission concurs with the Government Accountability Office (GAO) that DoD needs an analytic process for developing BOS requirements. Also, while each military service has standards, there are no DoD-wide standards for common support functions.

Additionally, the Commission learned that DoD determined the manpower reductions through application of a formula and not deliberations among commanders of the affected installations. In other words, the manpower savings were directed rather than derived from functional analyses and manpower studies.

Finally, the Commission found that currently Naval District Washington provides non-mission related services to the Naval Research Laboratory because the Navy has centralized its installation management functions. Naval Research Laboratory (NRL) is a Secretary of the Navy Working Capital Fund Activity, so it must maintain control of laboratory buildings, structures, and other physical assets that are essential to the NRL research mission.

Commission Recommendations

The Commission found that the Secretary of Defense deviated substantially from final selection criteria 1 and 4 and from the Force Structure Plan. Therefore, the Commission recommends the following:

Realign McChord Air Force Base (AFB), WA, by relocating the installation management functions to Fort Lewis, WA, establishing Joint Base Lewis-McChord, WA.

Realign Fort Dix, NJ, and Naval Air Engineering Station Lakehurst, NJ, by relocating the installation management functions to McGuire AFB, NJ, establishing Joint Base McGuire-Dix-Lakehurst, NJ.

Realign Naval Air Facility Washington, MD, by relocating the installation management functions to Andrews AFB, MD, establishing Joint Base Andrews-Naval Air Facility Washingron, MD.

Realign Bolling AFB, DC, by relocating the installation management functions to Naval District Washingron at the Washington Navy Yard, DC, establishing Joint Base Anacostia-Bolling, DC.

Realign Henderson Hall, VA, by relocating the installation management functions to Fort Myer, VA, establishing Joint Base Myer-Henderson Hall, VA.

Realign Fort Richardson, AK, by relocating the installation management functions to Elmendorf AFB, AK, establishing Joint Base Elmendorf-Richardson, AK.

Realign Hickam AFB, HI, by relocating the installation management functions to Naval Station Pearl Harbor, HI, establishing Joint Base Pearl Harbor-Hickam, HI.

Realign Fort Sam Houston, TX, and Randolph AFB, TX, by relocating the installation management functions to Lackland AFB, TX.

Realign Naval Weapons Station Charleston, SC, by relocating the installation management functions to Charleston AFB, SC.

Realign Fort Eustis, VA, by relocating the installation management functions to Langley AFB, VA.

Realign Fort Story, VA, by relocating the installation management functions to Commander Naval Mid-Atlantic Region at Naval Station Norfolk, VA.

Realign Andersen AFB, Guam, by relocating the installation management functions to Commander, US Naval Forces, Marianas Islands, Guam.

EXHIBIT E
to
NJ Land, LLC Declaratory Petition

Department of Defense Instruction
dated December 11, 2009
with Change 1
Effective March 16, 2016

Department of Defense
INSTRUCTION

NUMBER 4170.11
December 11, 2009
Change 1, Effective March 16, 2016

USD(AT&L)

SUBJECT: Installation Energy Management

References: See Enclosure 1

1. PURPOSE. This Instruction:

a. In accordance with the authority in DoD Directive (DoDD) 5134.01 (Reference (a)), reissues DoD Instruction 4170.11 (Reference (b)) to reflect changes in Public Laws 110-140 and 109-58 (References (c) and (d) respectively) and requirements of Executive Order (E.O.) ~~13423~~ *13693* (Reference (e)).

b. Implements policy established in ~~DoDD~~ *DoD Instruction* 4140.25 (Reference (f)) and provides guidance, assigns responsibilities, and prescribes procedures for DoD installation energy management.

2. APPLICABILITY. This Instruction:

a. Applies to OSD, the Military Departments, the Office of the Chairman of the Joint Chiefs of Staff and the Joint Staff, the Combatant Commands, the Office of the Inspector General of the Department of Defense, the Defense Agencies, the DoD Field Activities, and all other organizational entities in the Department of Defense (hereafter referred to collectively as the "DoD Components"). The term "Military Services," as used herein, refers to the Army, the Navy, the Air Force, and the Marine Corps.

b. Pertains to all phases of administration, planning, programming, budgeting, operations, maintenance, training, and materiel acquisition activities that affect the supply, reliability, and consumption of facility energy.

3. POLICY. In accordance with References (f), it is DoD policy that:

a. Installation energy management shall satisfy all goals and policies established by References (b) through (e), and in accordance with sections 8251 et seq. and 6361 et seq. of Title 42, United States Code (Reference (g)).

b. DoD utility infrastructure be secure, safe, reliable, and efficient.

c. Utility commodities are procured effectively and efficiently.

d. The Department of Defense maximize energy and water conservation efforts.

e. The Department of Defense invest in cost effective renewable energy sources and energy efficient facility designs and regionally consolidate Defense requirements to aggregate bargaining power to achieve better energy ~~deals~~*pricing*.

f. This Instruction, including the ~~principles~~*requirements* in References (c), (d), and (e), shall be applied to all facilities that use U.S. funding, both appropriated and non-appropriated, for construction, sustainment, renovation, maintenance, or operation, without regard to the location of those facilities.

g. Readiness and sustainability policies and installation missions are considered and facilitated as part of installation energy management practices.

4. RESPONSIBILITIES. See Enclosure 2.

5. PROCEDURES. See Enclosure 3.

6. INFORMATION REQUIREMENTS

a. The Annual Energy Management Report, referred to in paragraph 2.a. of Enclosure 3 of this instruction, has been assigned report control symbol DD-AT&L(A)1529 in accordance with the procedures in Volume 1 of DoD Manual 8910.01 (Reference (h)). The expiration date of this information collection is listed in the DoD Information Collections System at https://apps.osd.mil/sites/DoDIIC/Pages/default.aspx.

b. The Energy Conservation Investment Program, referred to in paragraphs 1.d.(3) and 3.d.(3) of Enclosure 2 and paragraphs 2.b, and 3(b)2. of Enclosure 3 of this instruction, has been assigned report control symbol DD-AT&L(A)2603 in accordance with the procedures in Reference (h). The expiration date of this information collection is listed in the DoD Information Collections System at https://apps.osd.mil/sites/DoDIIC/Pages/default.aspx.

~~a. The reporting requirements referenced in Enclosure 3, paragraph 2.a., have been assigned report control symbol DD-AT&L(A)1529.~~

~~b. This reporting requirement has been assigned in accordance with DoD 8910.1-M (Reference (h)). Reference (c) requires that energy usage for covered facilities be reported in a Web-based system to be developed by the Department of Energy (DoE). Until such time that the~~

~~Department of Defense issues guidance to DoD Components regarding use of the Web-based tool, facility energy information shall be reported via spreadsheets provided by the Deputy Under *Assistant* Secretary of Defense (*Energy,* Installations, *& and* Environment) (DUSD*ASD(EI&E)*).~~

7. RELEASABILITY. ~~UNLIMITED.~~ ***Cleared for public release.*** This Instruction is ~~approved for public release and is~~ available on ~~the Internet from~~ the DoD Issuances Web*site* ~~Site~~ at http://www.dtic.mil/whs/directives.

8. EFFECTIVE DATE. This Instruction is effective ~~immediately~~ *December 11, 2009.*

Ashton B. Carter
Under Secretary of Defense for
Acquisition, Technology, and Logistics

Enclosures
1. References
2. Responsibilities
3. Procedures

Glossary

ENCLOSURE 1

REFERENCES

(a) DoD Directive 5134.01, "Under Secretary of Defense for Acquisition, Technology, and Logistics (USD(AT&L))," December 9, 2005, *as amended*
(b) DoD Instruction 4170.11, "Installation Energy Management," November 22, 2005 (hereby cancelled)
(c) Public Law 110-140, "Energy Independence and Security Act of 2007," December 19, 2007
(d) Public Law 109-58, "Energy Policy Act of 2005," August 8, 2005
(e) Executive Order ~~13423, "Strengthening Federal Environmental, Energy, and Transportation Management," January 24, 2007~~*13693, "Planning for Federal Sustainability in the Next Decade," March 19, 2015*
(f) DoD ~~Directive~~ *Instruction* 4140.25, "DoD Management Policy for Energy Commodities and Related Services," ~~April 12, 2004~~ *June 25, 2015*
(g) Sections 8251 et seq. and 6361 et seq. of title 42, United States Code
(h) ~~DoD 8910.1-M, "Department of Defense Procedures for Management of Information Requirements," June 30, 1998~~*DoD Manual 8910.01, Volume 1, "DoD Information Collections Manual: Procedures for DoD Internal Information Collections," June 30, 2014*
(i) Executive Order 13221, "Energy Efficient Standby Power Devices," July 31, 2001
(j) Section 317 of Public Law 107-107, "National Defense Authorization Act for Fiscal Year 2002," December 28, 2001
(k) National Institute of Building Sciences Whole Building Design Guide[1]
(l) Part 434 of title 10, Code of Federal Regulations
(m) American Society of Heating, Refrigerating, and Air Conditioning Engineers Standard 90.1-~~2004~~*2013*
(n) Federal Leadership in High Performance and Sustainable Buildings Memorandum of Understanding," January 24, 2006[2]
(o) Unified Facilities Criteria (UFC 3-400-01), "Energy Conservation," July 5, 2002
(p) U.S. Green Building Council's Leadership in Energy and Environmental Design rating system *(current version)*
(q) Assistant Secretary of Defense for Logistics Memorandum, "Energy Conservation Investment Program Guidance," March 17, 1993
(r) Unified Facilities Criteria (UFC 3-500), Electrical Series[3]
(s) DoD Directive 3020.40, "DoD Policy and Responsibilities for Critical Infrastructure," January 14, 2010
(t) Unified Facilities Criteria (UFC 3-540-01), Engine-Driven Generator Systems for Backup Power Applications[4]
(u) DoD Instruction 6055.17, "DoD Installation Emergency Management (IEM) Program,"

[1] The Whole Building Design Guide is a DoD-sponsored, Web-based application available at www.wbdg.org
[2] Available at http://www.epa.gov/oaintrnt/documents/sustainable_mou_508.pdf
[3] *Available at http://www.wbdg.org/ccb/browse_cat.php?c=4*
[4] *Available at http://www.wbdg.org/ccb/browse_doc.php?d=9689*

January 13, 2009[5]

(v) *Deputy Assistant Secretary of Defense for Logistics Memorandum, "Department of Defense Energy Security Policy," January 14, 1992*

(w) *National Institute of Standards and Technology Handbook 135, Life Cycle Costing Manual*[6]

(~~sx~~) "Department of Defense Energy Manager's Handbook," August 25, 2005

(~~ty~~) Presidential Memorandum, "Energy Conservation at Federal Facilities," May 3, 2001[7]

(~~uz~~) Deputy Secretary of Defense Memorandum, "Revised Guidance for the Utilities Privatization Program," October 9, 2002[8]

(~~vaa~~) Under Secretary of Defense for Acquisition, Technology, and Logistics Memorandum, "Supplemental Guidance for the Utilities Privatization Program," November 2, 2005[9]

(~~wab~~) Under Secretary of Defense for Acquisition, Technology, and Logistics Memorandum, "Supplemental Guidance for the Utilities Privatization Program," March 20, 2006[10]

(~~xac~~) OMB Circular A-94, "Guidelines and Discount Rates for Benefit-Cost Analysis of Federal Programs," October 29, 1992

[5] *Available at http://dtic.mil/whs/directives/corres/pdf/605517p.pdf*

[6] *Available at http://www.wbdg.org/ccb/browse_doc.php?d=8097*

[7] Available at http://www.gpo.gov/fdsys/pkg/WCPD-2001-05-07/pdf/WCPD-2001-05-07-Pg698-2.pdf

[8] Available at http://www.acq.osd.mil/ie/irm/irm_library/Oct9_2002_DepSecDef.pdf

[9] Available at http://www.acq.osd.mil/ie/irm/irm_library/UPSuppGuidance2005-3793-ATL_signed.pdf

[10] Available at http://www.acq.osd.mil/ie/irm/irm_library/UPguidance_20March06.pdf

ENCLOSURE 2

RESPONSIBILITIES

1. ~~DEPUTY UNDER SECRETARY OF DEFENSE (INSTALLATIONS AND ENVIRONMENT) (DUSD(I&E))~~ *ASSISTANT SECRETARY OF DEFENSE FOR ENERGY, INSTALLATIONS, AND ENVIRONMENT (ASD(EI&E))*. The ~~(DUSD(I&E))~~ *ASD(EI&E)*, under the authority, direction, and control of the Under Secretary of Defense for Acquisition, Technology, and Logistics (USD(AT&L)), shall:

a. Oversee the Department's implementation of References (c), (d), and (e).

b. Represent the Department of Defense on ~~the Interagency Energy Policy Committee and the Steering Committee on Strengthening Federal Environmental, Energy, and Transportation Management~~*Federal Interagency Sustainability Steering Committee and will continue to contribute to other standing working groups as a non-leader member agency* established by Reference (e).

c. Implement policies and provide guidance to the DoD Components for managing facility energy resources in the Department of Defense and serve as the primary adviser for facility energy policy matters.

d. Provide for energy conservation and resource management, including:

(1) Goals. Establish departmental energy conservation program goals and develop procedures to measure energy conservation accomplishments by the DoD Components.

(2) Annual Guidance. Provide annual programming guidance and oversight for the achievement of DoD energy goals and objectives.

(3) Investment. Establish criteria, program and budget for, and monitor the execution of the Energy Conservation Investment Program (ECIP).

(4) Reporting. Develop policy guidance consistent with References (c), (d), and (e), to report energy and water use and results of conservation accomplishments against Federal energy conservation and management goals.

2. DIRECTOR, DEFENSE LOGISTICS AGENCY (DLA). The Director, DLA, under the authority, direction, and control of the USD(AT&L), through the ~~Deputy Under~~ *Assistant* Secretary of Defense for Logistics and Materiel Readiness, shall:

a. Perform energy management responsibilities assigned to DLA and the Defense Energy Support Center (DESC) according to Enclosure 3 of this Instruction.

b. Maintain a DoD energy database to provide petroleum and alternative fuel data required for fulfilling the reporting requirements of References (c), (d), and (e). Fuel supplied by the General Services Administration (GSA) will not be entered into this database.

c. Monitor energy markets to determine existing or potential adverse conditions and advise DoD Components utilizing DLA energy programs.

3. HEADS OF THE DoD COMPONENTS. The Heads of the DoD Components shall:

a. Execute defense installation energy policies in paragraph 3.e. according to the procedures described in Enclosure 3.

b. Designate and assign qualified Government personnel to represent the DoD Component in national, international, Government, or industry organizations ~~deliberating~~*engaging* installation energy policy matters. Any contacts with international organizations or foreign governments will be coordinated in advance with the Under Secretary of Defense for Policy.

c. Designate and assign qualified personnel as energy managers for covered facilities in accordance with the requirements of Reference (c). Designated energy managers shall be responsible for implementing the requirements of all applicable statutes, E.O.s, and DoD issuances at their covered facilities.

d. Establish and execute an energy program management structure to:

(1) Provide program and budget funds sufficient to meet energy and water conservation goals.

(2) Implement DoD-established policies and procedures to measure progress in meeting energy and water conservation goals.

(3) Report energy and water use and progress in meeting conservation goals and program costs and ECIP program execution. The report data are also used for calculating greenhouse gas emissions.

(4) Develop programs that result in facilities that are designed, constructed, operated, maintained, and renovated to achieve optimum performance and maximize energy efficiency according to sustainable design principles.

(5) Provide facilities with trained energy program managers, operators, and maintenance personnel for lighting, heating, power generating, water, ventilating, and air conditioning plants and systems. Conduct training programs, as required, to ensure energy efficient operation and maintenance (O&M) of sustainable facilities.

(6) Require facility leases for Government-owned, contractor-operated facilities to include the implementation of sound energy conservation procedures; allow contract

modification to accommodate energy efficiency improvements; and measure and report energy use and the resulting savings.

e. Develop internal energy awareness programs to:

(1) Publicize energy conservation goals.

(2) Disseminate information on energy matters and energy conservation techniques.

(3) Emphasize energy conservation at all command levels and relate energy conservation to operational readiness.

(4) Promote energy efficiency awards and recognition.

(5) Continue to promote energy awareness at the workplace.

(6) Encourage command or installation to observe October as energy awareness month.

ENCLOSURE 3

PROCEDURES

1. GENERAL GUIDANCE. ~~Conserving~~*Reducing* energy *consumption* and investing in energy reduction measures makes good business sense and allows limited resources to be applied to readiness and modernization. The Department will make great strides in energy efficiency and consumption reduction to meet the DoD vision of providing reliable and cost effective utility services to the warfighter. Dramatic fluctuations in the cost of energy significantly impact already constrained operating budgets, providing even greater incentives to conserve and seek ways to lower energy consumption.

a. Governing Statutes and E.O.s. References (c), (d), and (e) require a reduction in emissions and improvement in energy management, and task the Department of Defense to provide leadership to promote energy efficiency, water conservation, the use of renewable energy, and to help foster markets for emerging technologies. The E.O. goals specifically address greenhouse gas emissions, energy efficiency, renewable energy, petroleum use, source energy consumption, and water usage. E.O. 13221 (Reference (i)) directs Federal agencies to purchase products that use no more than 1 watt in their standby mode.

b. Policy Development and Implementation. DoD policy initiatives shall be coordinated through a*n* ~~DUSD(I&E)~~ *ASD(EI&E)*-led interservice working group forum.

c. Management and Administration. Energy management on DoD installations focuses on improving efficiency, eliminating waste, and enhancing the quality of life while meeting mission requirements. Accomplishing these objectives will reduce costs and ensure that the program goals are achieved. The DoD energy program for facilities is decentralized, with the DoD Component headquarters providing guidance and funding and regional commands or military installations managing site-specific energy and water conservation programs. Funding of energy projects is multi-faceted, using a combination of Federal appropriations and private funds. Installations are responsible for maintaining awareness, developing and implementing energy projects, ensuring that new construction uses sustainable design principles, and meeting energy goals. The energy management infrastructure is composed of:

(1) E.O. ~~13423 Executive Committee (EOEC)~~*13693 Senior Sustainability Council (SSC)*. ~~DUSD(I&E)~~ *The ASD(EI&E)* established a DoD SSC for the implementation of Reference (e). The membership of the committee contains the cross-section of DoD senior leadership necessary to make decisions needed to remove obstacles hindering compliance with the energy program. The ~~EOEC~~*SSC* is supported by a working group, which provides programmatic logistical and technical support. The working group includes representatives from multiple areas of OSD, the Army, the Navy, the Air Force, and the Defense Agencies. Members of the working group also provide representation on a variety of other cross-functional integrated product teams and working groups. This integration of membership helps ensure a consistent approach to energy conservation throughout the Department of Defense. DoD Components are also encouraged to develop cross-functional groups at the DoD Component level.

(2) Interagency Working Groups. Representatives from the DoD Components shall be assigned to participate in interagency working groups in support of the Interagency Energy Management Task Force, as required. Established interagency working groups include, but are not limited to, renewable energy, sustainable design, ESPC, and energy efficient products.

(3) Component Energy Managers. As required by Reference (c), each DoD Component shall designate an energy manager for each covered facility who shall be responsible for implementing the requirements of all governing statutes and DoD implementing guidance and for reporting to the DoD energy manager, through the respective chain of command, on aspects of facility energy management within the DoD Component.

d. Goals

(1) General. The Department of Defense shall strive to modernize infrastructure, increase utility and energy conservation, enhance demand reduction, and improve energy ~~flexibility~~ *resilience*, thereby saving taxpayer dollars and reducing emissions that contribute to air pollution and global climate change.

(2) Program Goals. Specific program goals that correspond with the most current legislation and E.O.s *(References (c), (d), and (e))* shall be published through ~~DUSD(I&E)~~ *ASD(EI&E)* memorandums, if and when required. ~~Reference (c) requires the Department of Defense to reduce its facility energy use by 30 percent (from the 2003 baseline) by fiscal year 2015 in existing buildings. Fossil fuel generated energy consumption in new buildings and buildings undergoing major renovation shall be reduced 100 percent by 2030. Reference (e) requires water intensity reductions of 16 percent by 2015.~~

2. REPORTING. The following reporting mechanisms shall be used to track energy conservation measures, investments, and performance against established goals.

a. Annual Energy Management Report (AEMR) and Long-Term Plan and Strategy for Conservation. The DoE, under the Federal Energy Management Program, working with the Office of Management and Budget (OMB), consolidates the separate energy management data and reports required by Reference (g) as amended by References (c), (d), and (e). Section 317 of Public Law 107-107 (Reference (j)) requires the Department of Defense to submit reports required by References (c) and (d) to the Congressional defense committees as well. The AEMR is the primary vehicle by which the Department tracks and measures its performance and energy efficiency improvement. The format for the report is prescribed annually by DoE and contains a narrative section, tables, a data report spreadsheet (quantitative data on consumption and costs), and a scorecard. The DoD Components will maintain a utility energy reporting system to prepare the data for submission of this report. Along with the AEMR, DoD Components shall also submit a long-term plan and strategy for achieving the requirements of References (c), (d), and (e). Changes and updates to the initial long-term plan and strategy shall be submitted annually in conjunction with the AEMR. The ~~DUSD(I&E)~~ *ASD(EI&E)* compiles and submits

the report and revisions to Department's Strategy for Conservation based on DoD Component inputs.

b. ECIP. ECIP is an OSD centrally managed, project-oriented element within the Defense-wide military construction (MILCON) account that is programmed annually and represents the primary direct DoD investment in energy and water conservation. The program requires Congressional notification prior to project execution and periodic updates of execution status. DoD Components with active projects shall submit quarterly project status updates to ~~DUSD(I&E)~~ *the ASD(EI&E)* within 30 days of the end of each fiscal quarter.

3. IMPLEMENTATION STRATEGIES. DoD Components shall manage their own energy programs to meet the requirements of this instruction. The primary objectives are to improve energy efficiency and eliminate energy waste while maintaining reliable utility service.

a. Awareness Campaign. Energy awareness programs publicize energy conservation goals, disseminate information on energy matters and energy conservation techniques, and emphasize energy conservation at all command levels and relate energy conservation to operational readiness.

(1) Training and Education. Awareness and training programs are important to the Department of Defense for achieving and sustaining energy efficient operations at the installation level. DoD personnel shall be trained through either commercially available or in-house generated technical courses, seminars, conferences, software, videos, and certifications. The DoD Components shall increase awareness and publicize program goals, tools, and progress at different organizational levels through Web sites, conferences, e-mails, displays, reports, newsletters, handbooks, and other methods.

(2) Recognition. Energy conservation awards shall be presented to individuals, organizations, and installations in recognition of their energy savings and water conservation efforts. In addition to recognition, these awards provide motivation for continued energy reduction achievements. The DoD Components shall establish and maintain their individual awards programs and incorporate on-the-spot awards and incentive awards to recognize exceptional performance and participation in the energy management program. DoD Components are encouraged to participate in the DoE's Federal Energy and Water Management Awards Program. This program recognizes organizations, small groups, and individuals for outstanding achievements in several energy-related categories within the Federal sector. Each DoD Component may also recognize one outstanding individual for overall contribution to the program. In addition to DoE and DoD Component energy award programs, the White House recognizes leadership in Federal energy management with Presidential awards.

(3) Showcase Facilities. Showcase facilities demonstrate promising best commercial practices and the use of innovative techniques to improve energy and water efficiency. The Department of Defense shall emphasize the benefit of these facilities, with a target of each Service developing at least one showcase facility for the federally sponsored program per year.

The program is described at
http://www1.eere.energy.gov/femp/services/awards_fedshowcase.html

b. Energy and Water Efficiency Investments

(1) Capital Investment. DoD Components shall require that all large capital energy investments in existing buildings employ the most energy efficient designs, systems, equipment, and controls that are life cycle cost effective, in accordance with the requirements and provisions in paragraph 2.b.(1)(a)2 of this enclosure, and the requirements of Reference (c).

(a) Project Development

1. Life Cycle Cost Analysis. DoD Components shall continue to utilize life cycle cost analysis in making decisions about their investment in products, services, construction, and other projects to lower the Federal Government's costs and to reduce energy and water consumption. All projects with 10 years or less simple payback that fit within financial constraints shall be implemented. The DoD Components shall consider the life cycle costs of combining projects and encourage aggregating energy efficiency projects with renewable energy projects where appropriate. The use of passive solar design shall be required when cost effective over the life of the project. Sustainable development projects shall continue to use life cycle costing methodology and should follow all aspects of the Whole Building Design Guide (Reference (k)).

2. Facility Energy and Water Audits. Audits evaluate current energy usage and assist installations in determining the best locations to incorporate energy and water savings measures. Reference (c) requires Federal agencies to audit approximately 25 percent of their covered facilities each year. Since auditing 25 percent of DoD facilities each year may be cost prohibitive, the DoD Components are encouraged to use alternative financing through utility energy services contracts (UESCs) and energy savings performance contracts (ESPCs) to conduct their energy audits. In addition to facility audits, software such as renewables and energy efficiency planning and the Federal energy decision screening systems may be utilized to assist this process by determining the investment required to meet energy reduction goals. DoD Component energy managers are responsible for identifying facilities that are covered by the requirements of Reference (c) for purposes of planning and conducting audits, in accordance with applicable guidance. Each covered facility shall be audited at least once every 4 years. Results of audits must be entered and tracked via a DoE sponsored database in accordance with Reference (c).

3. Sustainable Building Design. Sustainability initiatives require an integrated design approach to the life cycle of buildings and infrastructures. The concepts of sustainable development as applied to DoD installations shall continue to be incorporated into the master planning process of each of the Services. MILCON and facility repair or sustainment projects shall include an energy analysis to show compliance with part 434 of title 10, Code of Federal Regulations (Reference (l)); relevant E.O.s; and other Federal energy conservation requirements, including the requirements in Reference (c). All new facility construction and major renovations shall perform 30 percent better than American Society of Heating, Refrigerating, and Air

Conditioning Engineers Standard 90.1-~~2004~~ *2013* (Reference (m)). All new construction and major renovations shall incorporate all five guiding principles from the 2006 Federal Leadership in High Performance and Sustainable Buildings Memorandum of Understanding (Reference (n)). Unified Facilities Criteria (UFC) 3-400-01 (Reference (o)) provides for definitions, design criteria, and life cycle cost analysis for sustainable development principles. Renewable energy systems shall be considered when cost effective through a life cycle cost analysis. The DoD Components shall obtain at least U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED) rating system (Reference (p)) silver level of performance or equivalent (based on ~~LEED 2.2~~ *the most current rating system aligning to DoD UFCs*). The DoD Components shall document sustainable development costs on DD Form 1391, "Military Construction Project Data (http://www.dtic.mil/whs/directives/forms/eforms/dd1391.pdf) ~~http://www.dtic.mil/whs/directives/infomgt/forms/formsprogram.htm),~~" and are encouraged to approach land use planning and urban design in a holistic manner and integrate it with energy planning. Additional information on sustainable design is in Reference (k). This intuitive, Internet-based tool serves as a portal to the design principles and other resources needed to construct cost effective, sustainable buildings.

(b) Project Execution. The DoD Components are encouraged to include cogeneration systems, fuel switching, high efficiency lighting, waste heat usage, and thermal storage units in new construction or retrofit projects when cost effective. The DoD Components are encouraged to incorporate energy saving technologies such as efficient thermal storage systems, chillers, boilers, lights, motors, energy management control systems (EMCSs), ground source heat pumps, and water reducing devices.

1. O&M. The DoD Components shall ensure that the energy efficiency measures are incorporated into repair and minor construction projects using available O&M funding. The DoD Components shall also ensure that sufficient O&M funding is available to support other projects using alternative financing vehicles such as UESC and ESPC.

2. ECIP. Congress appropriates funding for the ECIP to execute projects that save energy or reduce energy costs. Funds shall be allocated on a fair share basis based on the DoD Component's previous year reported facility energy use and factoring in their obligation rate for the last 5 years. This approach allows the DoD Components to manage the program with a degree of funding certainty and encourages timely execution. The DoD Components shall strive to obligate 100 percent of the ECIP funds provided by the end of the third quarter in the fiscal year in which the funds were issued. At the end of the third quarter, any unobligated funding at that point may, at the discretion of ~~DUSD(I&E)~~ *the ASD(EI&E)*, be withdrawn and redistributed to another DoD Component poised to obligate against a valid design-complete project, with priority given to renewable energy projects. ECIP funding should only be applied to projects that directly produce energy savings or cost reduction. However, ~~DUSD(I&E)~~ *the ASD(EI&E)* shall have the discretion to directly apply funding for other uses such as studies and assessments if deemed appropriate. Realized savings should not only be auditable, but the initial submission of proposed projects shall identify the method to be used for savings verification on the DD Form 1391. Project lists shall include project title, installation, savings to investment ratio (SIR), and pa0y1back, as well as the estimated project cost and annual energy savings in British thermal units and dollars. At the discretion of the DoD Component, up to 25 percent of

its annual ECIP target budget may be programmed against renewable energy applications that do not necessarily meet the SIR and payback period criteria in order to expand use of renewable energy applications and to meet the goals of References (c), (d), and (e). Each DoD Component should strive to attain an overall annual ECIP program SIR of 2:1 and must meet the minimum SIR of 1.25:1. Detailed ECIP program guidance can be found in the Assistant Secretary of Defense for Logistics Memorandum (Reference (q)).

3. Alternate Financing Mechanisms. Partnerships with the private sector through alternative financing (UESC and ESPC) are a crucial tool for financing energy efficiency measures and allow installations to improve their infrastructure. These contracts shall include infrastructure upgrades (e.g., new cogeneration, renewable systems, and ancillary structures) and new equipment (e.g., heating, ventilation, and air conditioning; lighting; motors; fixtures; and controls) to help the installations reduce energy and water consumption. Increasingly, projects with higher SIR should be first pursued using UESC and ESPC before consideration for ECIP, since these projects are typically more attractive to the commercial sector. Any funds paid by the DoD Component in the agreement pursuant to such a financed energy project shall be from funds made available through the same project's recurring or nonrecurring energy or water-related cost savings. Payments may be made only when the project is determined to be life cycle cost effective and when actual savings generated from the financed project exceed the payment amount in the same year. Non-recurring savings, or ancillary savings, are those such as utility rebates and avoided costs from repairs, replacements, retrofits, or capital improvements that have been budgeted for but are no longer required because of the financed energy project. Recurring savings are reductions in energy, water, or wastewater consumption; maintenance; or operations costs because of the financed energy project. The basis for all cost savings used to pay for these projects must be fully documented in the contract file.

4. Information Management. DoD Components shall track all estimated and actual costs, estimated and verified savings, interest rates, measurement and verification information, and mark-ups as well as any changes to project scope that may affect costs and savings. The DoD Components shall *track and store this information.* ~~make this information available on a central Web-based application once it has been established by DoE in accordance with Reference (c). Until that time, information shall be reported via spreadsheets provided by DUSD(I&E). Each DoD Component entering into a financed project agreement shall ensure that a qualified project facilitator is designated and assigned, that aggregate annual costs do not exceed the savings, and that contracts are only awarded and administered by teams with appropriately documented experience and training.~~

5. Expertise. Consistent with applicable law, activities not possessing the prerequisite expertise may use the contracting centers of the Air Force, Navy, Army, and DESC to ensure best value according to inter-Service support agreements or memorandums of understanding. Contracting agencies should ensure that multi-year indefinite delivery and/or indefinite quantity contracts are re-competed at regular intervals. Each DoD Component contracting center that awards or administers ESPC or task orders shall conduct internal audits at intervals not greater than every 5 years to ensure project performance and guaranteed savings. DoD Components may issue more detailed implementing guidance.

(2) EnergyStar® and Other Energy Efficient Products. The DoD Components shall select energy efficient standby power devices, EnergyStar®, Federal Energy Management Program-designated energy efficient products, and other energy efficient products when acquiring energy-consuming products when it is life cycle cost effective to do so. Guidance generated by the DoE, the GSA, and the DLA are continuously being incorporated into the sustainable design and development of new and renovated facilities. Information technology hardware, computers, and copying equipment shall be acquired under the EnergyStar® Program using GSA schedules, Government-wide contracts, or Service contracts. Computer equipment should be turned off at night or when not in use. The DLA distribution centers shall serve as the focal point for the DoD program to procure energy and water efficient products. DLA and GSA product catalogs shall be widely used, as well as the Construction Criteria Base (available on CD-ROM and the Internet). Procuring agents, including users of Government credit cards, shall procure EnergyStar® products and other products in the top 25 percent of energy efficiency.

(3) EnergyStar® Buildings. The DoD Components shall encourage participation in the EnergyStar® building program, developed by the U.S. Environmental Protection Agency, which promotes energy efficiency in buildings and requires measured building data and a comparison with archetypes in various regions of the country. EnergyStar® building criteria are based on a five-stage implementation strategy consisting of lighting upgrades, building tune-up, load reductions, fan system upgrades, and heating and cooling system upgrades.

(4) Solar Water Heating. In accordance with Reference (c) and where life cycle cost effective, a minimum of 30 percent of facility hot water demand in new construction or buildings undergoing major renovation shall be met with solar water heaters.

~~c. Energy Security and Flexibility. The DoD Components shall take necessary steps to ensure the security of energy and water resources.~~

~~(1) Vulnerability Assessments. Installations shall perform periodic evaluation of the vulnerability of basic mission requirements to energy disruptions and assess the risk of such disruptions, implement remedial actions to remove unacceptable energy security risks, and investigate off-base utility distribution and energy supply systems.~~

~~(2) Critical Asset Assurance Program. Subject to findings of vulnerability assessments, critical nodes of assessed systems with unacceptable risk implications to mission achievement shall be nominated for inclusion in the Defense Critical Infrastructure Program under DoD Directive 3020.40 (Reference (r)).~~

c. Energy Resilience. The DoD Components shall take necessary steps to ensure energy resilience on military installations. DoD Components shall plan and have the capability to ensure available, reliable, and quality power to continuously accomplish DoD missions from military installations and facilities. UFC 3-500 (Reference (r)) provides guidance to assist in the determination of power availability, reliability, and quality definitions that will impact design criteria for energy resilience. DoD Components shall protect any information or data on energy resilience in accordance with pertinent DoD issuances on operations security.

(1) Energy Resilience Requirements. DoD Components shall clearly define, identify, and update critical energy requirements that align to critical mission operations in collaboration with tenants, mission owners, and operators of critical facilities on military installations. DoD Components shall incorporate defense critical infrastructure (DCI) when developing critical energy requirements on military installations or facilities (Reference (s)).

(2) Critical Energy Requirements. DoD Components shall determine their critical energy requirements and conduct an engineering facility energy load analysis for these requirements when metering data is not available. These critical energy requirements shall be reviewed and updated on an annual basis. UFC 3-540-01 (Reference (t)) provides definitions and design criteria to assist in the determination of critical energy requirements and to conduct facility energy load analysis. The critical energy requirements and facility energy loads identified by DoD Components shall be used to comply with:

(a) Emergency Energy Preparedness. Critical energy requirements and facility energy loads shall be included into emergency preparedness and continuity of operations plans, communicated to utility providers for integration into service restoration plans, and communicated within the installations, as well as with other relevant federal, State, and local authorities. DoD Components shall ensure that:

1. Emergency preparedness and continuity of operations plans include an installation's plans to prioritize and restore power with local utilities; consider both host and tenant critical energy requirements; describe movements to alternate locations in the case of a power disruption; and ensure that existing utility contracts include emergency support contingency clauses in the case of an energy disruption.

2. Mutual aid agreements have been negotiated with State and local officials, as well as utility providers to assist in an installation's recovery and to minimize power disruption impacts to the outlying community. DoD Instruction 6055.17 (Reference (u)) provides policy to assist DoD installations to prepare, respond, and recover from emergencies.

(b) Energy Generation Systems, Infrastructure, Equipment, Fuel, and Testing. DoD Components shall identify, design, and install primary power and emergency energy generation systems, infrastructure, and equipment to support their critical energy requirements.

1. Energy resilience solutions are not limited to traditional standby or emergency generators. They can include integrated, distributed, or renewable energy sources; diversified or alternative fuel supplies; and movements to alternative locations, as well as upgrading, replacing, and maintaining current energy generation systems, infrastructure, and equipment on military installations and at facilities. Alternative locations that require a continuous supply of energy in the event of an energy disruption or emergency shall also be subject to energy resilience requirements.

2. When selecting distributed or renewable energy systems and emergency generators for energy resilience, they shall be properly designed to have the ability to prepare for and recover from energy disruptions that impact mission assurance. Their design shall

include automatic transfer switching, inverters, and black-start capabilities to minimize energy resilience risks. DoD Components shall also determine fueling or storage requirements for the selected energy generation systems. DoD Components shall follow relevant UFCs for safe and cost effective designs of energy generation systems that minimize risks to mission assurance when complying with energy resilience requirements stated in this instruction.

3. DoD Components shall ensure that primary power and emergency energy generation systems, infrastructure, equipment, and fuel that support their critical energy requirements receive the necessary maintenance. At a minimum, DoD Components shall maintain primary power and emergency generation systems according to their technical specifications and ensure that there is a trained operator assigned to maintain the energy generation system, infrastructure, equipment and fuel. DoD Components shall also develop and update fueling plans and ensure that fueling contracts are in place. The DLA should be considered by DoD Components to service their fueling requirements, as appropriate. Further guidance on energy generation systems, infrastructure, equipment, and fuel can be found in the Deputy Assistant Secretary of Defense for Logistics Memorandum (Reference (v)).

4. DoD Components shall conduct full-scale and routine testing of emergency and standby energy generation systems, infrastructure, equipment, and fuel that support their critical energy requirements. A full-scale test includes operating all associated emergency and standby energy generation systems, infrastructure, equipment, and fuel at full operational loads while completely separated from the primary source of power. DoD Components may also elect to substitute a black-start test for a full-scale test. Routine tests include operating all associated emergency energy generation systems, infrastructure, equipment, and fuel at full operational loads while still coupled with the primary source of power. At minimum, a full-scale test shall be conducted on an annual basis and routine tests shall be conducted semi-annually. Routine testing shall be conducted on a monthly basis for emergency and standby generation at DCI facilities.

(3) Execution and Implementation of Energy Resilience. DoD Components shall perform periodic vulnerability assessments and audits to assess the risk of energy disruptions on military installations, and implement remedial actions to remove unacceptable energy resilience risks. DoD Components shall also provide energy projects that align to energy resilience requirements during the planning, programming, budgeting, and execution process. These energy projects shall be pursued based on life cycle cost effectiveness or if they remove unacceptable energy resilience risks.

(a) DoD Components are encouraged to use alternative financing or utility privatization arrangements in the pursuit of energy resilience projects, when they are life cycle cost effective. In collaboration with DoD Components, the ASD(EI&E) shall issue supporting technical and budgetary guidance to assist DoD Components in prioritizing energy resilience decisions, and shall update and provide this guidance annually.

(b) In the pursuit of energy resilience projects, DoD Components shall use National Institute of Standards and Technology Handbook 135, Life Cycle Costing Manual (Reference (w)) to determine life cycle cost effectiveness. DoD Components shall pursue opportunities that

reduce life cycle costs, to the maximum extent practical, such as participation in peak shaving, demand response programs, ancillary services markets, and other financial incentive programs.

(~~3~~4) Renewable Energy. The Department of Defense is committed to creating opportunities to install renewable energy technologies and purchase electricity generated from renewable sources when it is life cycle cost effective to enhance energy ~~flexibility~~ *resilience*. Passive solar designs, such as building orientation and window placement and sizing, shall be implemented in a variety of building types and new facility construction.

(a) Purchases. The DoD Components shall purchase renewable energy generated from solar, wind, geothermal, and biomass sources when cost effective and any premium is considered fair and reasonable. The DoD Components are encouraged to aggregate regionally when considering renewable energy purchases to leverage DoD buying power and produce economy of scale savings. The DESC can act as a procurement agent for all renewable energy purchases.

(b) Generation. Exploration in efficiency opportunities in renewable energy technologies such as wind, biomass, geothermal, ground source heat pumps, and photovoltaics shall be pursued when life cycle cost effective. Self-generated power may be coupled with ground source heat pumps, solar water heating systems, and photovoltaic arrays to generate electricity at isolated locations, such as range targets, airfield landing strips, and remote water pumping stations.

(~~4~~5) Distributed Energy Generation. Distributed energy resources shall be used for on-site generation using micro-turbines, fuel cells, combined heat and power, and renewable technologies when determined to be life cycle cost effective or to provide ~~flexibility~~ *resilience* and security to mitigate unacceptable risk. In most cases, larger scale, off-grid, electrical generation systems should be non-DoD owned and operated. Off-grid generation systems owned and operated by the DoD Components may make sense for mission criticality and remote sites when it is life cycle cost effective. In these cases, innovative energy generation technologies such as solar lighting, large photovoltaic arrays, wind turbine generators, micro-turbines, and fuel cell demonstration projects shall be utilized.

(~~5~~6) Procurement Strategy. Reference (d) requires agencies to take advantage of competitive opportunities in the electricity and natural gas markets to reduce costs and enhance services. The DoD Components should partner with DESC, the single manager for acquisition of direct supply natural gas (DSNG) for delivery to DoD installations, to identify and develop risk mitigation strategies appropriate for the risk preference profile of the end user. The DoD Components are encouraged to aggregate demand across facilities or agencies to maximize the economic advantage.

(a) Electricity. The DoD Components should partner with DESC and aggregate regional electricity requirements (including renewable energy) to competitively procure electricity and ancillary and incidental services needed to meet the identified requirements. Award determinations shall be based on best value and, where applicable, compared to the applicable utility tariff available under a utility services contract to ensure economic value.

(b) Direct Supply Natural Gas Program (DSNGP). DoD Components shall competitively acquire DSNG under the DSNGP, managed by DESC, when cost effective and when the DSNG has the same degree of supply reliability as other practical alternative energy sources. All DoD installations that have the ability to compete natural gas requirements shall participate in the DSNGP. The DESC and the applicable DoD Component may mutually agree to exclude an installation from a DSNG contract under any one of these conditions:

1. An award is uneconomical.

2. The local distribution company (LDC) does not provide transportation from the city gate to the end use customer.

3. Ongoing or pending legal or regulatory action adversely impacts participation in the program.

4. The installation is impacted by base realignment and closure actions.

5. Existing contractual arrangements with the LDC or with existing multi-year DSNG suppliers offer better prices or have termination liabilities exceeding DESC direct supply contract cost benefits.

6. Loss of utility-sponsored demand side management program benefits is greater than the potential savings available through the DESC DSNGP. The DoD Components shall enter into and maintain all necessary LDC transportation agreements to support delivery to the burner tip and for ensuring that sufficient funding is available for payment. The DoD Components shall consult with DESC to ensure that the DSNG and LDC contracts are synchronized.

d. ~~Conservation~~*Efficiency* Measures

(1) EMCSs. The DoD Components are encouraged to apply EMCSs or other energy management technology on all new and existing system expansion applications subject to funding availability and cost effectiveness. The DoD Components shall ensure that installed systems are provided with the necessary O&M support to maintain efficiency and resultant savings. EMCS implementation using shared energy savings contracts, which provide continuous O&M through the contract term, is an option to assure adequate O&M support. DoD Component energy managers shall ensure compliance with the building benchmarking and reporting requirements for building energy usage required by Reference (c), by using the EPA's EnergyStar® benchmarking or similar tool.

(2) Metering. Application of meters and sub-meters are required for all appropriate facilities by References (c) and (d). Appropriate facilities are those for which the DoD Component has determined metering would be cost effective and practical as a management enhancement tool to identify energy cost savings attributed to conservation projects, energy systems maintenance activities, energy load management, command leadership, or other specific,

discrete measures implemented during the year. Usage shall be determined through engineering estimates only when metering proves to be cost prohibitive and shall be reported as required in paragraph 2.a. of this enclosure.

(a) By 2012 *and thereafter,* electricity, natural gas, and water shall be metered on appropriate facilities; steam will be metered at steam plants. Annually, installations should strive to install meters in at least 15 percent of facilities that are not in compliance with this guidance. Meters shall be installed in all MILCON, major renovation, and ESPC projects. DoD Components must document findings that support a determination that a given facility is not an appropriate facility to meter and, accordingly, is exempt from this guidance. Each DoD Component should establish policy and specific criteria for installations to establish a metering program. Each policy should address the process to be used for the Component's approval of exemptions. Final approval should reside at the DoD Component headquarters level. The Department of Defense Energy Manager's Handbook (Reference (sx)) is available to assist in the determination of cost effectiveness and practicality. For existing facilities, cost effectiveness can generally be achieved where the cost of the meter, installation, and ongoing maintenance, data collection, and data management does not exceed 20 percent of the yearly cost of the utility being metered. Digital meters with interval and remote reading capabilities are required when utility costs exceed the guidelines in Reference (sx).

(b) Meters with interval and remote reading capabilities are required on all new construction and utilities system renovation projects exceeding 200,000 dollars. The remote reading capability of meters can be considered as a part of a more progressive approach known as advanced metering infrastructure (AMI), where two-way communication is established with meters. By transmitting data to the meters, their functionality will be controlled through the configuration programs. In addition, communication should be established with selected building controls in order to effect energy consumption and take action such as load shedding, when necessary. Also in AMI process, the metering data and service information is retrieved from the meters to a meter data management (MDM) system where the information can be processed for various purposes such as billing, demand response, alarming service issues, estimation, validation, uniform energy management, and outage response.

(c) On a case-by-case basis, DoD Components may install simpler, locally read meters if it is determined that advanced meters are not practical. Safety switches will be required on all new electrical metering systems to facilitate meter replacement and maintenance. Besides utilizing the metering data in MDM systems through the implementation of AMI program, metering data will be incorporated into existing energy tracking systems and made available to facility and installation energy managers. While meters themselves do not constitute a direct energy conservation measure, it is expected that the management of data collected through metering will lead to energy and cost savings. Meter data should be collected, assimilated, interpreted, and made available to facility and energy program managers. This information should serve as the foundation to establishing facility energy efficiency relative to other facilities in the building inventory. It should also serve to identify and confirm opportunities for energy reduction or increased energy efficiency through improved operational procedures, best practices, or energy conservation and retrofit projects.

(3) Water Conservation. ~~Reference (e), which requires a reduction in water consumption intensity of 2 percent annually through 2015, or 16 percent by 2015.~~ Reference (e) requires *a reduction in water consumption intensity and* water efficiency improvement for Federal agencies, suggesting specific strategies that include development of a water management plan and adoption of Federal Energy Management Program water efficiency improvement best management practices (BMPs). The BMPs range from system-related (boiler, steam, cooling tower, faucets, showerheads, etc.) to public information and education programs. Installations shall incorporate water management plans in their existing O&M plans and shall focus on dissemination of information to all levels to educate personnel on water conservation practices. Audits shall be conducted to identify the best opportunities and, where economical, installations shall initiate water conservation projects using O&M, ECIP, UESC, or ESPC. The DoD Components shall continue to concentrate on water conservation methods such as public awareness programs, early leak detection and repair, and installation of low-flow water efficient fixtures in housing and administration buildings, consisting of electronic flush sensors, electronic sensor control valves for hand wash lavatories, and waterless urinals.

(4) Electrical Load Reduction Measures. As a result of the Presidential Memorandum (Reference (~~ty~~)), DoD installations' emergency load reduction plans were updated. The DoD Components shall continue to identify load shedding techniques to cut electricity consumption in buildings and facilities during power emergencies. Examples of these techniques include: EMCSs, sub-metering, cogeneration, thermal storage systems, duty cycling of air conditioning in military family housing by EMCSs, alternative energy sources for air conditioning, and turning off unneeded lights with motion sensors and separate lighting circuits. In addition, the Department of Defense continues to focus its energy conservation program on measures that reduce electric consumption.

e. Utilities Privatization. Historically, military installations have been unable to maintain reliable utility systems due to inadequate funding and competing installation management priorities. Utilities privatization is the preferred method for modernizing and recapitalizing DoD utility systems. By allowing military installations to focus on core defense missions and functions instead of the responsibilities of utility ownership, this program will transform how installations obtain utility services. Activities will benefit from innovative industry practices, the reliability of systems kept at current industry standards, and private sector financing and efficiencies. Following Deputy Secretary of Defense Memorandum (Reference (~~uz~~)) and supplemental guidance issued by USD(AT&L) Memorandums (References (~~vaa~~) and (~~wab~~)), the DoD Components shall complete privatization decisions on all electric, water, wastewater, and natural gas systems. Except where the Secretary of the Military Department has certified that the systems are exempt due to security reasons, or where privatization is uneconomical, the Military Services shall attempt to privatize those types of utility systems at every Active and Reserve Component installation within and outside the United States that is not designated for closure under a base closure law. Services must program sufficient funds to support privatization contracts.

(1) Margin of Error (MoE) Analysis. Due to a concern that the cost of continued Government ownership has been overestimated and the cost of privatization has been underestimated, DoD Components will incorporate MoE analysis in future utilities privatization

efforts. All feasible alternatives shall be evaluated in a manner that sustains the highest level of confidence using prudent business analysis and judgment. The analysis must consider quantifiable and non-quantifiable elements. The approach and assumptions used to conduct the analysis should be documented in a business case to include process, rationales, and conclusions that represent the most probable cost for the project. At a minimum, the DoD Components shall value the following elements when conducting MoE analysis:

(a) For the Government Estimate. O&M cost, recapitalization cost (if the privatization agreement requires recapitalization by the contractor), discount rate, and inflation rate (available from OMB Circular A-94 (Reference (*ac*))).

(b) For the Contractor Cost Estimate. Taxes paid to the Federal Government and inflation rate.

(c) For Cost Realism. Consistency of proposal to request for proposals specifications and predicted changes in future costs.

(d) For Risk Assessment. Technical capability, quality management plan, and overall impact on future funding.

(2) Post-Conveyance Reviews. Recognizing the value of comparing actual cost to projected results, DoD Components shall conduct a post-conveyance review of each privatized system. To ensure its value, a review shall be conducted 2 to 3 years after award or 1 year after the first price re-determination, whichever is later. This timeframe allows for proper contractor transition and steady state operation. A post-conveyance review shall include, at a minimum, joint detailed inventory, updated list of requirements reflecting changes, updated list of transition requirements, updated list of deficiencies, contract cost changes due to updated inventory, contract cost changes due to new connections or disconnects, and description of inventory changes due to connections and disconnects. Costs shall be summed over the period from award to analysis and compared to projections. Record of the original Government estimate and contract cost shall be maintained until the analysis is performed. Contract cost shall be normalized to the inflation factors in the Government estimate and any changes in mission or regulatory environment. All analysis results shall be maintained until analysis of all conveyances is complete.

(3) Cost Growth Control. Post conveyance reviews will provide data to verify whether there is a problem with cost growth on utilities' privatization contracts. Once a utility system has been privatized, the Government must enter into sole source negotiation for changes in inventory and future price. Cost growth not associated with increases in inventory or normal consumer prices will be readily identifiable through the post conveyance reviews. This information will place the Government in a better position to negotiate the future contract price.

GLOSSARY

PART I. ACRONYMS AND ABBREVIATIONS

AEMR	Annual Energy Management Report
AMI	advanced metering infrastructure
ASD(EI&E)	*Assistant Secretary of Defense for Energy, Installations, and Environment*
BMP	best management practices
DCI	*defense critical infrastructure*
DESC	Defense Energy Support Center
DLA	Defense Logistics Agency
DOE	Department of Energy
DSNG	direct supply natural gas
DSNGP	Direct Supply Natural Gas Program
~~DUSD(I&E)~~	~~Deputy Under Secretary of Defense (Installations, and Environment)~~
ECIP	Energy Conservation Investment Program
EMCS	Energy Management Control System
E.O.	executive order
~~EOEC~~	~~Executive Order Executive Committee~~
ESPC	energy savings performance contract
GSA	General Services Administration
IEM	*Installation Emergency Management*
LDC	local distribution company
LEED	Leadership in Energy and Environmental Design
MDM	meter data management
MILCON	military construction
MoE	margin of error
O&M	operation and maintenance
OMB	Office of Management and Budget
SIR	savings to investment ratio
SSC	*Senior Sustainability Council*
UESC	utility energy services contract
UFC	Unified Facilities Criteria

USD(AT&L)	Under Secretary of Defense for Acquisition, Technology, and Logistics

PART II. DEFINITIONS

These terms and their definitions are for the purpose of this instruction.

critical energy requirements. Critical mission operations on military installations or facilities that require a continuous supply of energy in the event of an energy disruption or emergency.

energy resilience. The ability to prepare for and recover from energy disruptions that impact mission assurance on military installations.

EXHIBIT F
to
NJ Land, LLC Declaratory Petition

JCP&L Applicable Tariff
Rate Classification Summary

Service Classification GT
General Service Transmission

APPLICABLE TO USE OF SERVICE FOR: Service Classification GT is available for general service purposes for commercial and industrial customers.

CHARACTER OF SERVICE: Three-phase service at transmission voltages.

RATE PER BILLING MONTH (All charges include Sales and Use Tax as provided in Rider SUT):
All charges are applicable to Full Service Customers. All charges, excluding Basic Generation Service (default service), are applicable to Delivery Service Customers.

BASIC GENERATION SERVICE (default service):

1) **BGS Energy, Capacity and Reconciliation Charges as provided in Rider BGS-CIEP (Basic Generation Service – Commercial Industrial Energy Pricing).**

2) **Transmission Charge: $0.003823** per KWH for all KWH on-peak and off-peak

DELIVERY SERVICE (Customer and Distribution charges include Corporation Business Tax as provided in Rider CBT):

1) **Customer Charge: $207.42** per month

2) **Distribution Charge:**

KW Charge: (Demand Charge)
$ 3.94 per maximum KW
$ 1.05 per KW High Tension Service Credit
$ 2.10 per KW DOD Service Credit

KW Minimum Charge: (Demand Charge)
$ 1.20 per KW Minimum Charge
$ 0.63 per KW DOD Service Credit
$ 0.50 per KW Minimum Charge Credit

KVAR Charge: (Kilovolt-Ampere Reactive Charge)
$0.37 per KVAR based upon the 15-minute integrated KVAR demand which occurs coincident with the maximum on-peak KW demand in the current billing month (See Part II, Section 5.05)

KWH Charge:
$0.002906 per KWH for all KWH on-peak and off-peak
$0.001031 per KWH High Tension Service Credit
$0.001540 per KWH DOD Service Credit

3) **Non-utility Generation Charge (Rider NGC):**
$ 0.003812 per KWH for all KWH on-peak and off-peak – excluding High Tension Service
$ 0.003733 per KWH for all KWH on-peak and off-peak – High Tension Service

4) **Societal Benefits Charge (Rider SBC):**
$ 0.007491 per KWH for all KWH on-peak and off-peak

Service Classification GT
General Service Transmission

5) **CIEP – Standby Fee as provided in Rider CIEP – Standby Fee** (formerly Rider DSSAC)

6) **System Control Charge (Rider SCC):**
$ 0.000055 per KWH for all KWH on-peak and off-peak

7) **RGGI Recovery Charge (Rider RRC):**
See Rider RRC for rate per KWH for all KWH on-peak and off-peak

8) **Storm Recovery Charge (Rider SRC):**
$ 0.002274 per KWH for all KWH on-peak and off-peak

MINIMUM CHARGE PER MONTH: The monthly KW Charge (Demand Charge) under Distribution Charge shall be the greater of (1) the product of the KW Charge per maximum KW provided above and the current month's maximum demand created during on-peak hours as determined below; or (2) the product of the KW Minimum Charge provided above and the highest on-peak or off-peak demand created in the current and preceding eleven months (but not less than the Contract Demand). When the maximum on-peak demand created in the current and preceding eleven months has not exceeded 3% of the maximum off-peak demand created in the current and preceding eleven months, the KW Minimum Charge specified above shall be reduced by the KW Minimum Charge Credit stated above.

DETERMINATION OF DEMAND: The KW during on-peak hours used for billing purposes shall be the maximum 15-minute integrated kilowatt demand created during the on-peak hours each billing month calculated to nearest one-tenth KW. The off-peak demand shall be the maximum demand created during the remaining hours. A Contract Demand not less than the actual monthly demands may also be specified for mutually agreeable contract purposes.

DEFINITION OF ON-PEAK AND OFF-PEAK HOURS: The hours to be considered as on-peak are from 8 AM to 8 PM prevailing time Monday through Friday. All other hours including weekend hours will be considered off-peak. The Company reserves the right to change the on-peak hours from time to time as the on-peak periods of the supply system change. The off-peak hours will not be less than 12 hours daily.

TERM OF CONTRACT: None, except that reasonable notice of service discontinuance will be required. Where special circumstances apply or special or unusual facilities are supplied by the Company, a contract of one year or more to supply such facilities or accommodate special circumstances may be required for any Full Service Customer and any Delivery Service Customer.

TERMS OF PAYMENT: Bills are due when rendered by the Company and become overdue when payment is not received by the Company on or before the due date specified on the bill. Overdue bills thereafter become subject to a late payment charge as described in Section 3.19, Part II.

SERVICE CHARGE: A Service Charge of **$14.00** shall be applicable for initiating service to a customer under any Service Classification (see Part II, Section 2.01). A **$54.00** Service Charge shall be applicable for final bill readings requested to be performed other than during the normal working hours of 8 AM to 4:30 PM, Monday through Friday. (See Part II, Section 3.13)

DISCONNECTION / RECONNECTION CHARGES: Charges for all disconnections and reconnections shall be based upon actual costs. (See Part II, Section 8.04)

RECONNECTIONS WITHIN 12-MONTH PERIOD: Customers who request a disconnection and reconnection of service at the same location within a 12-month period shall not be relieved of Minimum Demand Charges resulting from demands created during the preceding eleven months, even though occurring prior to such disconnection.

Service Classification GT
General Service Transmission

RECONNECTIONS WITHIN 12-MONTH PERIOD: (Continued)
Customers who request more than one disconnection and reconnection of service at the same location within a 12-month period shall be subject to the conditions specified above for the first such period of disconnection. In addition, for subsequent periods of disconnection, the customer shall be required to pay an additional Reconnection Charge equivalent to the sum of the Minimum Demand Charges, determined in accordance with the conditions specified in the preceding paragraph, for each month of that subsequent period.

SPECIAL PROVISIONS:

(a) **Commuter Rail Service:** Where service is supplied to traction power accounts for a commuter rail system, such accounts shall be conjunctively billed based upon coincident demands. This Special Provision also modifies the DEFINITION OF ON-PEAK AND OFF-PEAK HOURS for Demand Charge purposes only, such that the following Federal Holidays are considered off-peak the entire day: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day and Christmas Day. In addition, the periods from 8 AM to 10 AM and from 5 PM to 8 PM prevailing time Monday through Friday shall be considered as off-peak for Demand Charge purposes only. The Company reserves the right to change the on-peak hours from time to time as the on-peak periods of the supply system change.

Where traction power is supplied at high tension (230 KV) and such power is being provided during a limited period to supplant power normally supplied by another utility, that limited period shall be excluded for the purpose of determining billing demand.

(b) **High Tension Service:** Where service is supplied at 230 KV, the determination of KW and KVAR demands shall be modified to refer to 60-minute demands, and the Distribution KW and KWH Charges, except for KW Minimum Charge, shall be reduced by the High Tension Service Credits provided above to reflect the reduced line losses associated with service at this voltage level. Any Customer taking this Special Provision shall not be qualified for Special Provisions (c) and (d) below.

(c) **Department of Defense Service:** Where service is supplied to the major military installations of the United States Department of Defense at transmission voltages, the Distribution KW Charge, KW Minimum Charge and KWH Charge shall be reduced by the DOD Service Credits provided above.

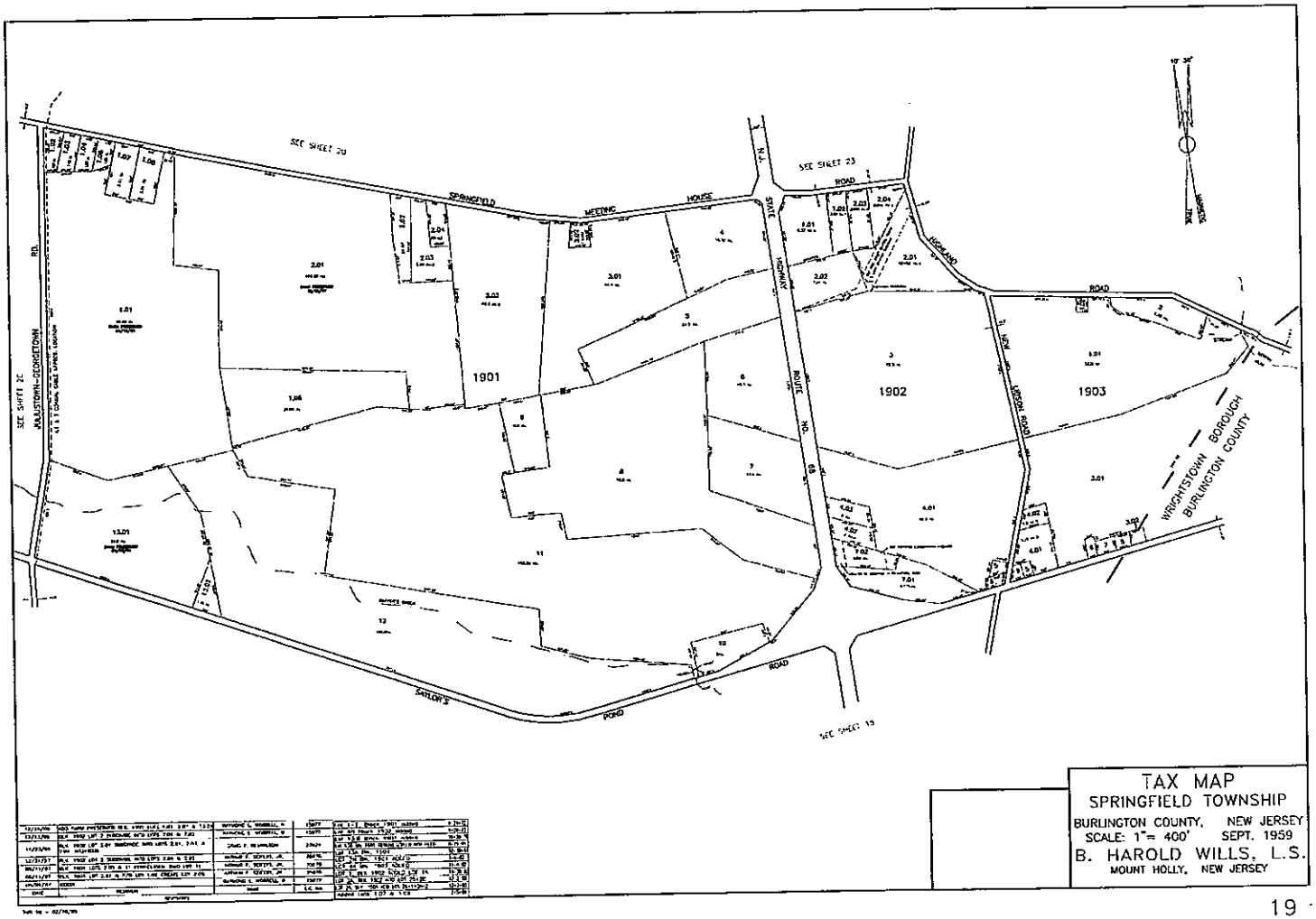
(d) **Closing of GTX Service:** Upon the closing of Service Classification GTX effective April 1, 2004, for any GTX customer as of August 1, 2003 where service is supplied at 230 KV, the monthly billing demand shall be the maximum 60-minute integrated kilowatt demand created during all on-peak and off-peak hours of the billing month and the Distribution KW Charge (Demand Charge) shall be $0.55 per KW ($0.59 per KW including SUT). The Distribution KW Minimum Charge, KVAR Charge and KWH Charge provided above shall not apply, and the Non-utility Generation Charge shall be the lesser of (1) $0.000312 per KWH ($0.000334 per KWH including SUT), or (2) the net of NGC – High Tension Service stated above and an NGC Credit of $0.009844 per KWH ($0.010533 per KWH including SUT), but not less than zero, for all KWH usage.

ADDITIONAL MODIFYING RIDERS: This Service Classification may also be modified for other Rider(s), subject to each Rider's applicability, as specified.

STANDARD TERMS AND CONDITIONS: This Service Classification is subject to the Standard Terms and Conditions of this Tariff for Service.

EXHIBIT G
to
NJ Land, LLC Declaratory Petition

Springfield Township, Burlington County, New Jersey
Tax Map
Showing Lot 11 in Block 1901
(the NJL Site)



TAX MAP
SPRINGFIELD TOWNSHIP

BURLINGTON COUNTY, NEW JERSEY
SCALE: 1"= 400' SEPT. 1959

B. HAROLD WILLS, L.S.
MOUNT HOLLY, NEW JERSEY

EXHIBIT H
to
NJ Land, LLC Declaratory Petition

NJDEP Letter dated March 11, 2011

State of New Jersey

CHRIS CHRISTIE
Governor

KIM GUADAGNO
Lt. Governor

OFFICE OF THE ATTORNEY GENERAL
DEPARTMENT OF LAW AND PUBLIC SAFETY
DIVISION OF LAW
25 MARKET STREET
PO BOX 093
TRENTON, NJ 08625-0093

PAULA T. DOW
Attorney General

ROBERT M. HANNA
Director

March 15, 2011

Via Electronic Mail and Regular Mail
Gary Rosensweig, Esq.
Archer & Greiner
700 Alexander Park
Suite 102
Princeton, NJ 08540

Re: EASTERN ORGANIC RESOURCES LLC
Docket No. 09-29013-MBK

Dear Mr. Rosensweig:

Representatives of the New jersey Department of Environmental Protection ("NJDEP" or the "Department") visited the property located at 2469 Saylors Pond Road, Springfield Township, Burlington County, New Jersey (the "Site").

In 2004 and 2005, the Department allowed U.S. Pipe & Foundry Company to place 30,000 pounds ("lbs.") of desulfurized slag, 27,000 lbs. of large aggregate cupola slag, and 200 tons of waste cement on the Site.

It is the Department's understanding that the Site owner is planning to use the Site as a solar panel farm. This is an acceptable use of the site provided a deed restriction, approved by the Department, is filed prior to commencement of any construction activity on the site.

Thank you for your attention to this matter.

Sincerely yours,

PAULA T. DOW
ATTORNEY GENERAL OF NEW JERSEY

By: _____
Raghu Murthy
Deputy Attorney General

c: Pat Ferraro, NJDEP
Bob Confer, NJDEP
Wolf Skacel, NJDEP

EXHIBIT I
to
NJ Land, LLC Declaratory Petition

William A. Slover, Esq.'s Report
(Lanciano & Associates, L.L.C.)
Regarding Property and Property Ownership
For NJL Site and JB-MDL
dated April 18, 2016

LANCIANO & ASSOCIATES, L.L.C.

COUNSELORS AT LAW
2 Route 31 North
Pennington, New Jersey 08534
Telephone (609) 452-7100 Facsimile (609) 452-7778
wslover@lancianolaw.com

Gaetano C. Lanciano *◊
Matthew T. Kelley

Larry E. Hardcastle, II *

Of Counsel

Michael W. Hoffman
William A. Slover •¤

◊ L.L.M. Taxation
* Also Admitted in Pennsylvania
• Also Admitted in Virginia
¤ Also Admitted in the District of Columbia

April 18, 2016

NJ Land Solar, LLC
c/o Howard O. Thompson, Esq.
Russo Tumulty Nester Thompson & Kelly, LLP
240 Cedar Knolls Road, Suite 306
Cedar Knolls, NJ 07927

Re: Clients: NJ Land Solar LLC and NJ Land LLC
Proposed Solar Wire Across Lands of Joint Base M-D-L
Ownership of Lots in Four Municipalities in Burlington Co.

Dear Howard:

I am advised that your firm represents NJ Land, LLC the owner of property abutting Saylors Pond Road in Springfield Township, Burlington, County (the "Solar Generation Site"). NJ Land Solar intends to lease the Solar Generation Site to erect and operate a solar generating facility. I am further advised that either NJ Land Solar, LLC or its assigns intends to run an electric distribution line from the solar facility, across part of the Solar Generation Site and across Saylors Pond Road, to property commonly known as Joint Base McGuire-Dix-Lakehurst ("JB-MDL"). The line then will traverse JB-MDL a distance of about four (4) miles to residences located on JB-MDL, which residences, I am advised, are known collectively as the "Falcon Courts North" portion of housing operated by the electricity customer: United Communities.

Expertise

A summary of my experience as a lawyer and title examiner is attached as Exhibit 1. As a result of my years working directly for and with title companies, I am fully familiar with property and title issues. It is my understanding that your clients seek my independent expertise and analysis with respect to ownership of the property where a customer or customers has a use for solar renewable energy. In short, on behalf of the NJ Land entities, you have asked me: (1) to

ascertain whether the solar generation site is contiguous[i] to JB-MDL; and (2) to review the route of the proposed solar distribution wire for the purpose of confirming that the wire remains within JD-MDL.

The Properties

According to a plan entitled "Solar Transmission Plan – Joint Base M-D-L, New Hanover Township, North Hanover Township, Springfield Township, and Wrightstown Borough, Burlington County, New Jersey," dated April 13, 2016, prepared by Taylor Wiseman & Taylor, consisting of seven (7) sheets (the Plan"), the solar panels will be located on Block 1901, Lot 11, Springfield Township. This tax lot is the Solar Generation Site noted above.

I confirm that the Springfield Township tax map shows that the Solar Generation Site is directly across the street (Saylors Pond Road) from JB-MDL. The Plan also shows that the distribution wire will remain within JB-MDL while running east for approximately four miles, through the following Blocks and Lots, West to East, as designated by the local governments:

Springfield Township:

1. Beneath Saylors Pond Road, a/k/a Burlington County Route 670, a 66' wide public R.O.W.

2. Block 1801, Lot 6.01; Owner, per tax map: U.S. Army.

3. Block 1802, Lot 1; Owner, per tax map: U.S. Army.

4. Block 1803, Lots 1 & 2; Owner, per tax map: U.S. Army.

Borough of Wrightstown:

4. Block 202, Lot 1; Owner, per tax map: U.S. Government Military Reservation.

5. Block 2000, Lot 3; Owner, per tax map: Jersey Central Power & Light.

Township of New Hanover:

6. Block 17, Lot 1: Owner, per tax map: U.S. Government.

7. Block 15, Lot 1: Owner, per tax map: U.S. Government.

Borough of Wrightstown:

8. Block 204, Lot 1: Owner, per tax map: U.S. Government Military Reservation.

Township of New Hanover:

9. Block 15, Lot 1: Owner, per tax map: U.S. Government.

10. Beneath County Route 680.

11. Block 16, Lot 1: Owner, per tax map: U.S. Government.

Township of North Hanover:

12. Beneath Jones Mill Road.

13. Block 802 Lot 2: Owner, per tax map: U.S. Government.

15. Block 802, Lot 13: Owner, per tax map: Jersey Central Power & Light.

16. Block 803, Lot 1: U.S. Government.

With respect to the lots in Springfield, New Hanover, and North Hanover townships, I ascertained the identity of the record owner by inspecting the official tax maps at the three municipal buildings. With respect to the lots in Wrightstown Borough, I ascertained the identity of the record owner by: (1) inspecting both the above referenced Plan and the Wrightstown Borough official tax map that had been forwarded to me electronically by the Borough Clerk; and then (2) accessing a database of New Jersey tax lot and block owners, maintained by Signature Information Solutions, LLC, using my account password. The Signature Information Solutions database is the New Jersey standard reference used by virtually all title agents and underwriters in the State of New Jersey.

Again, I confirm that once the anticipated distribution wire crosses Saylors Pond Road after leaving the Solar Generation Site, the route for said distribution wire remains within the boundaries of JB-MDL, which is a military base with restricted access.

JB-MDL is a United States Military installation in New Jersey's Burlington and Ocean counties. The 42,000-acre property, which stretches twenty miles wide and includes portions of eight municipalities, has housed military installations isnce 1917. Today it is home to more than eighty mission partners and forty mission commanders, and supports more than 40,000 military and civilian employees. It is the only installation in the United States Military that hosts units from all four military branches and the Coast Guard. JB-MDL is the result of the U.S. government's 2005 Base Realignment and Closure process that merged

McGuire Air Force Base, the U.S. Army's Fort Dix, and the U.S. Navy's Naval Air Engineering Station Lakehurst.

As indicated above, Jersey Central Power & Light ("JCP&L") owns two lots within JB-MDL that the distribution line will cross. The two lots consist of an abandoned railroad line. (The route of the proposed distribution line crosses the former railroad line at two points, each of which lies in a different municipality.) JB-MDL has fenced off the Wrightstown Lot from the public. JB-MDL has not not fenced off the North Hanover Lot; however, that Lot is within the perimeter of the Base. Military Police armed with automatic weapons patrol and guard JB-MDL and force all visitors to produce acceptable identification and obtain permission to enter the Base. As a result, JCP&L personnel are required to seek permission from JB-MDL to gain access to Block 2000, Lot 3, Wrightstown. Likewise, at any point in time, JB-MDL armed MPs can exercise that same authority with respect to JCP&L's property designated as Block 802, Lot 13 in North Hanover.

Additional Materials Considered

I also reviewed a copy of a document entitled "Memorandum Of Agreement Between United States Air Force, Supporting Component, And United States Army & United States Navy, Supported Components" (herein the "Military MOA"). You advised me that this Military MOA was provided to you by JB-MDL. The Military MOA confirms that all of the JB-MDL is owned by the United States Government and is consolidated into one Joint Military Base.

I also reviewed a written New Jersey Board of Public Utilities ("BPU") Decision And Order, Docket No. GE15040402, entitled "In the Matter of the Petition of New Jersey Natural Gas Company For Approval And Authorization To Construct And Operate the Southern Reliability Link Pursuant to N.J.A.C. 14:7-1.4," signed January 28, 2016 (the "NJNG Decision").

I also reviewed review the JB-MDL website, which provided information about the Base's consolidation and mission. From the Military MOA, the JB-MDL website, and the BPU's NJNG Decision, it is plain that JB-MDL is one property.[ii]

At your request, I reviewed N.J.A.C. §14:8-4.1. In relevant part, this New Jersey Administrative Code provision reads as follows:

> For purposes of this subchapter, class I renewable energy, that meets all of the following criteria shall be deemed to be generated on the customer's side of the meter: The renewable energy facility is located either: . . .; or (ii) Within the legal boundaries of a property, as set forth within the official tax map, that is contiguous to the property on which the energy is consumed . . .

Property Rights Discussion

Among a property owner's bundle of rights, the right to exclude others is essential. *See, e.g., Dolan v. City of Tigard*, 512 U.S. 374, 384 (1994) ("[The] right to exclude others . . . [is] "one of the most essential sticks in the bundle of rights that are commonly characterized as property.") (quoting *Kaiser Aetna* v. *United States,* 444 U.S. 164, 176 (1979)); *Loretto v. Teleprompter Manhattan CATV Corp.*, 458 U.S. 419, 433 (1982) (The right to exclude is "one of the most treasured" rights of property). Other important property rights include the right to use and enjoy property and the right to transfer property. *See, e.g. Loretto* 458 U.S. at 435 (1982) ("Property rights in a physical thing have been described as the rights 'to possess, use and dispose of it.'") (quoting *United States v. General Motors Corp.*, 323 U.S. 373, 378 (1945)); *see also Phillips v. Washington Legal Found.*, 118 S. Ct. 1925, 1933 (1998); *Ruckelshaus v. Monsanto Co.*, 467 U.S. 986, 1003 (1984). Nevertheless, the Supreme Court has not "singled out for such extravagant endorsement" any of these other property rights. Thomas W. Merrill, *Property and the Right to Exclude*, 70 Neb. L. Rev. 730, 735 (1998). As a result, while the right to exclude is not necessarily absolute, the extent to which one can exclude another from property increases one's interest in property and, conversely, one's inability to exclude decreases one's interest in property. *Id.* at 753.

The United States Congress has delegated to the Secretary of Defense the burden of securing "property that are under the jurisdiction, custody, or control of the Department of Defense and the persons on that property." 10 U.S. Code § 2672. Furthermore, Congress has made it a federal offense to trespass onto a military base. A person is prohibited from entering any military installation for any purpose prohibited by law. 18 U.S.C. § 1382. In addition, any officer or person in command of a military installation may remove or order any individual on the military installation not to reenter the military installation. *Id.*

Conclusions

As noted above, part of the land on which the Solar Generation Site sits is directly across Saylors Pond Road from part of the land owned and operated by the JB-MDL. A portion of each of these two properties would be contiguous but for the existence of Saylors Pond Road.

Further, based upon my review of the documents, and my research into the ownership of the blocks and lots listed above, I conclude that the proposed four-mile wire to be constructed, maintained and operated by NJ Land Solar, LLC or its assigns, complies with the above quoted subsection of the New Jersey Administrative Code regarding "on-site" generation. The renewable energy generation facility will be located on Block 19.02, Lot 11, Springfield Township

(the Solar Generation Site). The wire then will cross Saylors Pond Road onto JB-MDL. The wire then will run across land owned exclusively by the federal government; i.e. JB-MDL. As per the Military MOA, the United States Government has unified the entire JB-MDL into one facility. [iii] United Communities, as the intended customer, operates its facilities on JB-MDL. I further note that the New Jersey Administrative Code provision focuses on reaching the abutting property where the customer is located, not on the existence of public thoroughfares or utility-owned rights-of-way on the abutting property where the customer is located. Therefore, the existence of roads or rights-of-way on JB-MDL is not relevant. Moreover, I respectfully conclude that the military's control, when exercised, extends to any thoroughfares and rights-of-way within or partially traversing JB-MDL. This unique situation buttresses my conclusion that the real property on which the renewable energy generation facility is located, and the real property on which the meter is located, are contiguous, because it is the JB-MDL that is contiguous to the Solar Generation Site; it is JB-MDL through which the distribution wire will run for its entire four-mile length; and it is JB-MDL land on which United Communities, the customer, operates the facilities, which will be served by the solar renewable plant and wire. The United States of America owns all of the JB MDL, and United Communities is a tenant on the JB-MDL land.[iv]

Finally, notwithstanding any interests JCP&L may have in the former railroad line that the distribution line crosses, the distribution line remains on a contiguous property. JB-MDL has a substantial property interest in the former railroad line wherever that line lies within JB-MDL, including Block 2000, Lot 3, Wrightstown, and Block 802, Lot 13, North Hanover.

JD-MDL is a military installation. The United States Congress has charged the Department of Defense to secure its military installations and has made it a federal offense to trespass on a military installation. The power to secure is the power to exclude. JB-MDL. JB-MDL is surrounded by fences and patrolled by armed guards. Far from being able to exclude others, I submit that representatives of JCP&L need permission from JB-MDL to access any tax lots JCP&L owns within JB-MDL.

Furthermore, JB-MDL has used Block 2000, Lot 3, and Block 204, Lot 1, both in Wrightstown, for nearly a century since the military started to use the land as a military base in 1917. It has enjoyed exclusive use of the Wrightstown Lots since it erected a fence to keep the public out.

Because JB-MDL has the power to exclude others from the lots in questions and because JCP&L does not have that same power, and because JB-MDL has used the property, JB-MDL has a substantial property interest in the lots in question. As a result, the distribution lines cannot be said to leave JB-MDL's property; instead the lines remain on a property contiguous to the Solar Generation Site.

Summary

In the State of New Jersey, given its comparatively small size versus many other states, the circumstances are somewhat unusual. With few exceptions, only the federal government and the State of New Jersey have contiguous land holdings where the areas of such holdings can be measured in square miles rather than acres or square feet. By New Jersey standards, JB-MDL is a large tract of land, but the Military MOA makes clear that JB-MDL is one property. I conclude that the Solar Generation Site is contiguous to JB-MDL and its distribution wire directly crosses onto JB-MDL, remains on JB-MDL (but for crossing roads and rights-of-way that JB-MDL controls) and serves a customer that is on JB-MDL. As such, the generation is contiguous and is, therefore, "on-site" generation for renewable interconnection by NJ Land Solar, LLC to United Communities.

Should you have any questions or comments, do not hesitate to contact me.

Very truly yours,

William A. Slover

William A. Slover

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[i] Black's Law Dictionary, Seventh Edition, defines contiguous as "touching at a point or along a boundary <Texas and Oklahoma are contiguous>" [The angle brackets indicate a "contextual illustrative" according to the Guide to the Dictionary.

[ii] It is noted that title to certain locally designated lots are in the name of the U.S. Government and some are in the name of the U.S. Army. Not only is it self-evident that the U.S. Army and the U.S. Air Force are agencies of the United States, but the Military MOA that I have reviewed demonstrates that the U.S. Army and the U.S. Air Force are under the complete control of the federal government. The Memorandum acknowledges that an act of Congress, and several Department of Defense documents are "expressly made a part of" the Memorandum, and that the purpose of the Memorandum is to comply with the various directives contained in the statute and the DOD documents, requiring maximum savings by consolidation of various military functions. Furthermore, the Memorandum states that the Air Force will administer the various directives set forth in the federal documents, and that the Army and the Navy will accede to the Air Force's administrative directives. Of course, there is no consideration recited in the Military MOA (i.e., no money changed hands), leading inescapably to the conclusion that it was signed by the various branches of the United States military, because they were ordered to do so by the Department of Defense, which in turn was obligated to follow the law, as set forth in the act of Congress cited in the Military MOA.

The only possible conclusion to be drawn from the Military MOA is that the United States Government owns all of the land between the Solar Generation Site and its connecting wire's termination at a meter located on U.S. Government land, as shown by the above-referenced Plan.

[iii] Page 8 of the NJNG Decision contains a discussion of the various possible routes for the 30-mile long, 30-inch diameter natural gas transmission pipeline that would run from Chesterfield Township in Burlington County to Manchester Township in Ocean County. Most of the possible routes, including the one that was approved in this NJNG Decision, traverse a portion of JB-MDL. When describing the route that is being approved in this NJNG decision, the BPU identifies the

various public streets that would be impacted as the route travels in an easterly direction, and states:

> Just before the border between Jackson and Manchester, the route will turn east into the fenced portion of the Joint Base and follow the base's southern fence line along access roads, East Boundary Road, East Clubhouse Lake Road, Lakehurst Naval Air Center Taxiway, Broome Road, Lakehurst Naval Air Center Access Road, and Lakehurst-Whitesville Road, before exiting the base along CR [County Route] 547.

In my opinion, this language makes clear that the BPU believes that the path of the pipeline runs through the JB-MDL, which is owned by the federal government. Had the BPU thought that any part of the described land ran through any private property, or even other governmental entities, it would have said so when describing the approved route. It appears that the BPU takes it as a given that JB-MDL is owned solely and completely by the federal government. This conclusion is consistent with the view, stated above, that the federal government owns the JB-MDL as a unified property under the Military MOA.

[iv] I have been advised that NJ Land Solar LLC proposes to run a second wire along the same proposed route, beginning at the Solar Generation Site in Springfield Township, but terminating at the "Existing Substation" as shown on Page 1 of the Plan. The existing substation is located on Block 15, Lot 1, New Hanover Township. This second wire will cover the same route as the wire under consideration in this Report, but will be about one mile shorter in length. Therefore this wire also will conform to the standards requiring "contiguity", as described in this Report.

EXHIBIT J
to
NJ Land, LLC Declaratory Petition

Aerial Maps
and
Engineering Drawings Showing Property

Note: due to size, printed versions of PDFs are not included.
PDFs are provided in electronic versions that can be opened.
Hard copies of drawings are provided.