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UNITED STATES ARMY LEGAL SERVICES AGENCY
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Arizona Corporation Commission

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REPLY TO
ATTENTION OF
Regulatory Law Office

April 23, 2013

DOCKETED BY 

Subject: DoD's Response to Joint Request to Modify Proceedings
Arizona Corporation Commission Docket Nos. E-01345A-10-0394, E-01345A-12-0290, E-01933A-12-0296, E-04204A-12-0297. \

VIA FEDERAL EXPRESS
Chairman and Commissioners
ARIZONA CORPORATION COMMISSION
1200 West Washington Street
Phoenix, Arizona 85007-2927

Dear Commissioners:

Please find attached hereto the U.S. Department of Defense and all other Federal Executive Agencies' (DoD) Notice of Filing Direct Testimony on behalf of DoD in the above captioned consolidated matter.

Thank you in advance for your attention to this important issue. Please call if there are any problems or if any further action is needed. I can be reached at (703) 693-1274 or by E-mail at kyle.j.smith124.civ@mail.mil.

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Regards,

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Enclosure: Notice of Filing with attached Direct Testimony

Cc: See Service List

BEFORE THE ARIZONA CORPORATION COMMISSION

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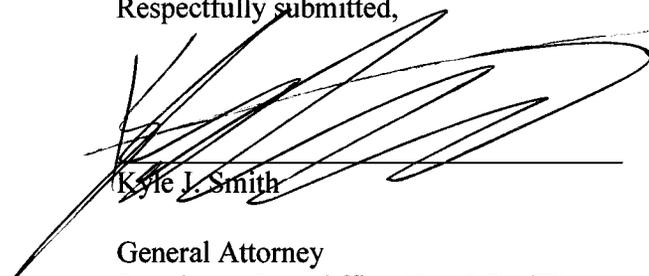
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IN THE MATTER OF ARIZONA PUBLIC SERVICE COMPANY REQUEST FOR APPROVAL OF UPDATED GREEN POWER RATE SCHEDULE GPS-1, GPS-2, AND GPS-3.	DOCKET NO. E-01345A-10-0394
IN THE MATTER OF THE APPLICATION OF ARIZONA PUBLIC SERVICE COMPANY FOR APPROVAL OF ITS 2013 RENEWABLE ENERGY STANDARD IMPLEMENTATION FOR RESET OF RENEWABLE ENERGY ADJUSTOR.	DOCKET NO. E-01345A-12-0290
IN THE MATTER OF THE APPLICATION OF TUCSON ELECTRIC POWER COMPANY FOR APPROVAL OF ITS 2013 RENEWABLE ENERGY STANDARD IMPLEMENTATION PLAN AND DISTRIBUTED ENERGY ADMINISTRATIVE PLAN AND REQUEST FOR RESET OF ITS RENEWABLE ENERGY ADJUSTOR.	DOCKET NO. E-01933A-12-0296
IN THE MATTER OF THE APPLICATION OF UNS ELECTIC, INC. FOR APPROVAL OF ITS 2013 RENEWABLE ENERGY STANDARD IMPLEMENTATION PLAN AND DISTRIBUTED ENERGY ADMINISTRATIVE PLAN AND REQUEST FOR RESET OF ITS RENEWABLE ENERGY ADJUSTOR.	DOCKET NO. E-04204A-12-0297

**NOTICE OF FILING DIRECT TESTIMONY ON BEHALF OF THE
U.S. DEPARTMENT OF DEFENSE AND
ALL OTHER FEDERAL EXECUTIVE AGENCIES**

The United States Department of Defense and all other Federal Executive Agencies (collectively referred to herein as "DoD"), through undersigned counsel, hereby file the Direct Testimony of Cynthia J. Córdova and Kathleen K. Ahsing.

Respectfully submitted,



Kyle J. Smith

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For
The United States Department of Defense
And
All Other Federal Executive Agencies

SERVICE LIST

The original and thirteen (13) copies of the foregoing, together with the attachments mentioned therein, is being transmitted Federal Express overnight delivery this 23rd day of April, 2013 to be received and filed on the 24th day of April, 2013 with:

Docket Control Division
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Phoenix, Arizona 85007

A copy of same is being served by e-mail or first class mail on 24th day of April, 2013, the date of filing, with:

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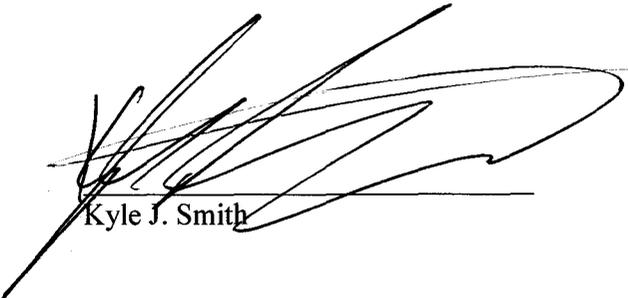
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BEFORE THE ARIZONA CORPORATION COMMISSION

DOCKET NO. E-01345A-12-0290

DOCKET NO. E-01345A-10-0394

DOCKET NO. E-01933A-12-0296

DOCKET NO. E-04204A-12-0297

Direct Testimony of Cynthia J. Córdova

On Behalf of

The Department of Defense and All Other Federal Executive Agencies

Track and Record Renewable Energy Certificates Proposal

April 24, 2013

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III. The Department’s Position on “Track and Record”2

1 **I. INTRODUCTION**

2

3 **Q. Please state your name, employer, and business address.**

4 A. Cynthia Córdova, Department of Veterans Affairs (VA), 810 Vermont Avenue NW,
5 Washington, D.C. 20420.

6

7 **Q. What is your role at the VA?**

8 A. I am the director of the Green Management Program – the office within VA responsible
9 for all Department level sustainability and environmental programs.

10

11 **Q. What is your education and professional experience?**

12 A. I earned a bachelor’s degree in economics from the University of Michigan in 1981 and a
13 joint master of science degree in industrial administration and public policy and
14 management from Carnegie Mellon University in 1987. I served as Vice President,
15 Market Development and held various other positions at the American Gas Association,
16 provided energy consulting services to public and private sector clients at several energy
17 and economic consulting firms, and was a market analyst at Washington Gas, a natural
18 gas distribution company.

19

20 **Q. What is the purpose of your testimony?**

21 A. The purpose of my testimony is to explain the potential impact of “Track and Record” on
22 VA and its mission to serve our nation’s Veterans, and to propose alternatives that could
23 meet the needs of Arizona utilities and the Department, while furthering the goals of the
24 Commission.

25

26 **II. BACKGROUND**

27

28 **Q. Why has VA become a distributed generator?**

29 A. In 2005 Congress passed the Energy Policy Act of 2005. This Act created requirements
30 for Federal agencies to derive a certain percentage of their energy from renewable
31 sources. Executive Order (EO) 13423 § 2(b), signed in 2007, requires that at least half of

1 that required renewable energy come from new renewable energy sources, and that to the
2 extent feasible, come from generation sources on Federally owned property. The
3 implementation instructions for EO 13423 state that where possible, agencies should rely
4 on distributed generation (DG). This is a particularly salient point for VA, because as a
5 healthcare provider, energy reliability and security are critical to its mission. As a result,
6 VA made significant investments in solar projects in Arizona.

7
8 **Q. What kind of renewable energy investments has VA made in Arizona?**

9 A. VA has made a considerable investment in renewable energy at its facilities in Arizona.
10 In total, at its sites in Phoenix, Prescott, and Tucson, VA has invested over \$50 million,
11 and built over 10.6 MW of capacity, with future investments planned. These investments
12 were paid for completely with VA funds.

13
14 **III. DEPARTMENT'S POSITION ON "TRACK AND RECORD"**

15
16 **Q. What are VA's concerns with "Track and Record?"**

17 A. As originally proposed, "Track and Record" deprives VA of its ability to sell or claim
18 solar generation from its own facilities. Under EO 13423, Federal facilities are required
19 to own renewable energy attributes to meet renewable energy and greenhouse gas
20 reduction goals. Pursuant to the Department of Energy's *Renewable Energy Requirement*
21 *Guidance for EPACT 2005 and Executive Order 13423*, Federal agencies may not retain
22 credit for Renewable Energy Certificates (RECs) if they are counted towards another
23 entity's renewable energy requirements. Under the "Track and Record" proposal, certain
24 Arizona electric utilities (Affected Utilities) would claim VA's generated RECs towards
25 their Annual Renewable Energy Requirement. Thus, VA would be unable to use its RECs
26 to meet Federal mandates. From VA's perspective, this plan would invalidate the
27 viability of the REC system and would set a dangerous precedent if approved. VA's
28 renewable energy investments in Arizona would be devalued, and the policy will deter
29 future renewable energy investments in the State of Arizona.

1 VA's solar projects and other energy projects help meet policy mandates, further the
2 mission of caring for Veterans, and save taxpayer money that can be used in other aspects
3 of its operations. "Track and Record" would require VA to divert resources away from
4 other priorities to new energy projects that satisfy these policy mandates.

5
6 **Q. Does VA have any concerns with the testimonies provided by Mr. Gregory L.**
7 **Bernosky on behalf of Arizona Public Service Company, and that provided by Mr.**
8 **Carmine Tilghman on behalf of Tucson Electric Power Company and UNS Electric,**
9 **Inc.?**

10 A. Yes it does. The companies represented in the testimonies asked the Commission to
11 waive the Distributed Renewable Energy Requirement (DRER). VA applauds the
12 Commission's effort in promoting renewable energy in Arizona, and believes that
13 waiving the DRER will discourage the growth of distributed renewable energy
14 production in Arizona. VA suggests that Affected Utilities purchase the RECs needed to
15 comply with the DRER. This will ensure appropriate compensation to the current REC
16 owner and uphold the integrity of the REC system, while appropriately incentivizing
17 further investment in renewable energy generation in the Affected Utilities' service
18 territories.

19
20 **Q. Does VA have any other concerns with the testimonies?**

21 A. VA is concerned by the alternatives proposed within the testimonies. VA is concerned
22 with Mr. Bernosky's response to the question "[w]hat alternatives did APS consider?"
23 Mr. Bernosky responded that "[o]ne solution involved keeping APS's DE requirements
24 and simply requiring that customers surrender their RECs in exchange for
25 interconnecting to APS's system." *Testimony of Gregory L. Bernosky, page 9, lines 11-*
26 *13.* VA believes that this solution would not only deprive VA of the value of its RECs for
27 all the reasons listed above, but also runs counter to the Customer Rights and
28 Responsibilities as described in the "Interconnection Document," adopted by the
29 Commission as an interim guide until final rules are published. *Docket No. E-0000A-99-*
30 *043, Decision No. 69674.* The Interconnection Document states that "[a] Customer has
31 the right to interconnect a Generating Facility" and "[a] Utility is obligated to

1 interconnect Generating Facilities” That right and obligation, as described in the
2 preceding quote, does not involve a Customer being required to surrender or otherwise
3 lose the sole benefit of their RECs as part of the interconnection process. Thus, by
4 demanding VA, and those entities similarly situated, to relinquish ownership of its RECs
5 in exchange for an interconnection agreement, APS’s proposed solution is anything but a
6 viable solution. Mr. Tilghman proposed a similar alternative, but only in regards to net-
7 metering agreements. *Testimony of Carmine Tilghman, page 8, lines 1-5.* VA believes
8 such a rule would disincentivize DG, and would preclude VA from utilizing net-metering
9 in the future.

10
11 Additionally, both Mr. Tilghman and Mr. Bernosky propose a “track and reduce” type
12 alternative. *Testimony of Tilghman, page 8, lines 8-9; Testimony of Bernosky, page 9,*
13 *lines 22-25.* VA believes this proposed solution is unacceptable, and would amount to a
14 form of double counting that would unfairly and unjustifiably deprive VA of the value
15 and benefit of its RECs, and adversely affect VA and other entities’ efforts to achieve
16 renewable energy mandates and objectives.

17
18 **Q. Does that conclude your direct testimony?**

19 **A.** Yes it does. Thank you.

BEFORE THE ARIZONA CORPORATION COMMISSION

DOCKET NO. E-01345A-12-0290

DOCKET NO. E-01345A-10-0394

DOCKET NO. E-01933A-12-0296

DOCKET NO. E-04204A-12-0297

Direct Testimony of Kathy Ahsing, P.E.

On Behalf of

The Department of Defense and All Other Federal Executive Agencies

Track and Record Renewable Energy Certificates Proposal

April 24, 2013

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1 **I. INTRODUCTION**

2

3 **Q. PLEASE STATE YOUR NAME AND PLACE OF WORK.**

4 A. Kathy Ahsing, 2530 Crystal Drive, Arlington VA 22202.

5 **Q. BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?**

6 A. I am employed by the U.S. Department of the Army. I currently serve as the Director of
7 Planning and Development for the Energy Initiatives Task Force (EITF) in the Office of the
8 Assistant Secretary of the Army for Installations, Energy and Environment.

9 **Q. PLEASE DESCRIBE YOUR BACKGROUND AND WORK EXPERIENCE.**

10 In Sept 2011, I was designated Director for Planning and Development for the EITF, responsible
11 for the identification and analysis of large scale renewable energy opportunities, and the
12 management of the Army's large scale renewable energy project pipeline.

13 Prior to this position, I served as the Executive Strategic Initiatives Advisor to the Assistant
14 Chief of Staff for Installation Management and Commander Installation Command working on a
15 wide range of issues related to the organization and managerial policies, practices, and
16 procedures governing Installation Management programs for more than one hundred and fifty
17 Army installations across the country.

18 I have 30 years of service as a government employee with extensive knowledge of the
19 Department of Defense, Army installation management, organizational performance, and
20 program/project management. I have held leadership positions at various levels of the Army's
21 Installation Command leading business transformation and organizational performance efforts at
22 headquarters and various regions. I have been responsible for oversight of facilities and
23 construction programs with the Deputy Chief of Staff for Engineering at U.S. Army Pacific and
24 oversight of information management operations for U.S. Army Garrison Hawaii. I have also
25 served as a program/project manager with the U.S. Army Corps of Engineers.

26 I am a licensed professional engineer in the State of Hawaii. I hold an M.S in Resourcing
27 National Security Strategy from the Industrial College of the Armed Forces, and a B.S. in Civil
28 Engineering from University of Hawaii.

29 **Q. WHAT IS THE EITF?**

30 A. The EITF was established by the Secretary of the Army on Sept. 15, 2011, to serve as the
31 central management office for partnering with Army installations, to implement cost-effective,
32 large-scale renewable energy projects, leveraging private sector financing. The task force
33 focuses on wind, solar, biomass, and geothermal large-scale renewable energy projects that are

1 10 megawatts or greater located on Army installations in the United States. Currently, the EITF
2 is evaluating potential renewable energy project opportunities in Arizona, including at Fort
3 Huachuca and Yuma Proving Ground (YPG).

4 5 **II. BACKGROUND**

6 **Q. WHAT IS THE CURRENT STATUS OF ARMY OPERATIONS, GENERALLY?**

7 A. The United States remains a Nation at war. Army installations, such as Fort Huachuca and
8 YPG, support our Soldiers through critical missions to train, equip, mobilize, deploy, recover and
9 reset our forces. In 2012, we continued the repositioning of over 40% of our combat units by
10 reassigning significant force structure from Europe to the U.S., while simultaneously executing a
11 Base Realignment and Closure (BRAC) program, whose most recent actions were initiated in
12 2005. As a result, the population of Soldiers and Families on our installations is growing and
13 many of our remaining missions are being run from U.S. installations.

14 **Q. WHAT IS THE CURRENT STATUS OF ARMY OPERATION IN ARIZONA?**

15 A. There are several military bases in Arizona. The Air Force operates the Barry M. Goldwater
16 Range, Davis-Monthan Air Force Base, and Luke Air Force Base. The Navy operates Marine
17 Corps Air Station Yuma. The Army operates Fort Huachuca and YPG. The Arizona National
18 Guard operates Camp Navajo as a National Guard training site and munitions storage depot.

19 Fort Huachuca is a major Army communications and intelligence center. It is home to the Army
20 Intelligence Center, the Army Information Systems Command, and the Joint Interoperability
21 Test Command. Also at Fort Huachuca are field test facilities and test ranges for
22 communications systems and equipment, including an electronic proving ground complex,
23 associated with White Sands Missile Range, New Mexico, and Aberdeen Proving Ground,
24 Maryland. Fort Huachuca has a population of 6,222 active duty soldiers, 7,434 family members
25 and 4,394 civilians, supporting these critical missions.

26 YPG is one of the largest military installations in the world, covering over 1300 square miles.
27 YPG's mission is to serve as a test facility for the Army. YPG manages testing in three different
28 environmental extremes; desert (Yuma Test Center), tropic (Tropic Regions Test Center), and
29 cold (Cold Regions Test Center). The large acreage allows for testing of a huge variety of
30 weapon systems and munitions including: long range artillery; missile firing aircraft; cargo and
31 personnel parachutes; direct fire weapons; unmanned aerial systems; technologies to defeat
32 roadside bombs. Additionally, YPG has a population of 1,771 active duty soldiers and civilians.

1 **Q. HOW ARE ENERGY PRIORITIES IN THE ARMY SHIFTING?**

2 A. The Army is a major energy customer and along with the rest of the Department of Defense
3 make up approximately 80% of the federal government expenditures on energy. In fact, the
4 Army spends nearly \$5 billion dollars a year on all energy costs. While much of that is for fuel,
5 the Army is the largest facilities energy user in the federal government.

6 What these numbers do not show, however, is the way that the Army uses energy, and its energy
7 intensity is changing. Today's military installations are playing an increasing role in testing and
8 training, and also in theater operations. Additionally, military installations are playing an
9 increased role in disaster relief as we saw from Hurricane Sandy that hit the east coast this past
10 fall. The Army's ability to accomplish our mission on a global scale depends on secure,
11 uninterrupted access to power and energy.

12 All of this has created increased demand for energy on our US installations and resulted in an
13 enhanced vulnerability for the Army. The installations on which soldiers live and train are almost
14 completely dependent on commercial power grids. These grids can be disrupted by weather,
15 nature and acts of terrorism. Layer on top of this the financial risk posed by volatile energy
16 markets and uncertain future fuel supply, and energy reliance becomes a key area of risk to the
17 Army.

18 **Q. HOW HAS THE ARMY RESPONDED TO THESE THREATS TO ENERGY**
19 **SECURITY?**

20 A. Ensuring that Army installations have the ability to perform their mission in the face of the
21 threats to energy security is a top priority for the Army. This priority is reflected in the Army's
22 highest level strategic planning document, the Army Campaign Plan, with an objective to
23 Adapt/Execute Installation Energy Security and Sustainability Strategies. This objective is
24 overseen by the Army's Senior Energy and Sustainability Council (SESC). The SESC tracks the
25 Army's progress on the goals, tasks and metrics to improve energy security by (1) reducing
26 energy consumption, (2) increasing energy efficiency, (3) increasing use of renewable/alternative
27 energy, (4) assuring access to sufficient energy supplies and (5) reducing adverse impacts on the
28 environment.

29 **Q. WHAT IS THE ROLE OF RENEWABLE ENERGY IN THE ARMY'S ENERGY**
30 **SECURITY STRATEGY?**

31 A. Rather than pursuing purchases of renewable energy from off-installation sources, the Army
32 focuses on implementing on-site energy conservation and energy efficiency measures and
33 increasing renewable energy production to provide enhanced energy security to our installations.
34 The Army has made renewable energy a key component to meet this objective, and it, as well as
35 the Navy and Air Force, have each set an ambitious goal for deploying one gigawatt (GW) of
36 renewable energy by 2025.

1 To address these challenges and fulfill statutory requirements during these times of fiscal
2 constraint, the Army must increase efforts to leverage private sector investments in energy
3 projects. In FY12, the Army contracted for or began installation on 16.3 MW of new renewable
4 electrical capacity nationally, 14.1 MW from privately financed projects. These projects
5 included awarding the largest PV solar project in the Army with 4.1 MW at White Sands Missile
6 Range and a total of 11 MW of renewable energy generation including major projects at Fort
7 Bliss, Texas, and Fort Buchanan, Puerto Rico.

8 A key part of the Army's strategy for installation renewable energy projects is that they address
9 energy security requirements for the installation. This means that at a minimum, the switch must
10 be on the installation's side of the meter in the event of grid outage. Consistent with the long
11 term vision, they also must be compatible with storage and microgrid technologies, as they
12 become available.

13 **Q. ARE THERE STATUTORY OR OTHER REQUIREMENTS FOR THE ARMY TO**
14 **INCREASE ITS RENEWABLE ENERGY USE?**

15 A. In addition to improving energy security, the Army must meet the requirements of numerous
16 federal statutes and executive orders that require reductions in our energy consumption and
17 greenhouse gas (GHG) emissions and set targets for renewable energy production. The Army
18 must strive to attain the energy targets outlined in the Energy Policy Act of 2005 (EPAAct 2005),
19 which requires 7.5 percent of the total electricity consumed by the federal government shall
20 come from renewable energy sources by fiscal year (FY) 2013. Under Executive Order 13423, at
21 least 50 percent of the renewable energy used must come from "new renewable sources" placed
22 in service after January 1, 1999. The National Defense Authorization Act of 2007 also requires
23 that 25 percent of the U.S. Department of Defense's (DoD's) total electric energy consumption
24 come from renewable sources by 2025.

25 **Q. WHAT SPECIFIC RENEWABLE ENERGY GOALS HAS THE ARMY SET?**

26 The Army has committed to deploy one GW of renewable power generation on Army
27 installations by 2025. However, for large projects, the Army will not own the generation assets
28 and must leverage private sector investments. Installations will continue to develop smaller scale
29 projects to meet their goals for energy efficiency and renewable energy implementation.

30 **Q. HOW DOES THE EITF EVALUATE RENEWABLE ENRERGY PROJECTS?**

31 The EITF employs an enterprise wide approach to developing a project portfolio. The EITF
32 implements a rigorous five phase analysis to identify potential projects and then transition them
33 from planning through execution. Each project opportunity in the EITF's pipeline is measured
34 against eight different factors including specific installation mission and energy security
35 requirements, the project's economic viability, regulatory compliance, and integration into the

1 distribution grid. During the planning phase, projects can be delayed or advanced due to
2 market conditions, regulatory hurdles, or technical obstacles.

3 **Q. IS THE ARMY LOOKING TO DEVELOP RENEWABLE ENERGY PROJECTS IN**
4 **ARIZONA?**

5 A. The Army is planning solar energy projects in Arizona at Fort Huachuca in Tucson Electric
6 Power (TEP) territory and at Yuma Proving Ground in Arizona Public Service (APS) Company
7 territory. Arizona offers one of the best locations in the U.S. for solar energy projects due to the
8 abundant solar insolation. The Army is eager to tap this rich resource as a means of expanding its
9 renewable energy portfolio and progressing towards the federal mandates for renewable energy
10 set forth in EPAct 2005 and the NDAA.

11

12 **III. RENEWABLE ENERGY CREDITS**

13 **Q. WHAT IS THE ROLE OF RENEWABLE ENERGY CREDITS (RECs) IN MEETING**
14 **THE ARMY'S RENEWABLE ENERGY REQUIREMENTS?**

15 A. RECs are not required for the Army to meet the NDAA goal of 25% of the Army's energy
16 coming from renewable sources. That goal requires the Army to produce or procure 25% of its
17 energy from renewable energy resources, but retaining RECs is not necessary for compliance.
18 RECs are required to meet the renewable energy mandates outlined in both EPAct 2005 and
19 EO13423. EPAct requires that in FY2013 and beyond, 7.5% of the Army's energy come from
20 renewable sources, while EO 13423 requires that at least half of renewable energy used by the
21 federal government must come from "new" renewable sources in service after January 1, 1999.
22 Per EPAct and the EO, RECs must be retained by the Army to meet either of these goals.
23 Retention of a REC means the Army retains or precludes transfer to other parties of all
24 renewable energy and non-energy attributes of the project, and it is the best evidence of meeting
25 these standards.

26 The Department of Energy established these goals to expand federal renewable energy use under
27 EPAct 2005 and EO13423 beyond the existing state renewable portfolio standard (RPS) goals.
28 This is to prevent federal agencies from claiming credit for renewable energy attributes that are
29 also claimed by other parties such as states or corporations. Therefore, federal agencies are
30 required to retain ownership of the RECs in order to count them towards the EPAct 2005 or EO
31 13423 requirements.

32 **Q. WHAT IS THE RELATIONSHIP OF RENEWABLE PORTFOLIO STANDARDS**
33 **AND RECs?**

34 A. A RPS usually requires utilities to generate a certain portion of energy from renewable
35 sources. RECs are a "renewable attribute" of electricity, and represent one megawatt-hour of

1 energy. The RECs can be sold separately from the electricity and the value of a REC is
2 determined by the market subject to supply and demand constraints. RECs can be sold to
3 electrical utilities needing to meet their mandatory RPS requirements. In states without a RPS,
4 projects can generate RECs for sale in voluntary markets, however, these RECs are typically
5 valued far less. Assessing the immediate and long-term value of any RECs is an important part
6 of the policy and financial analysis of any potential renewable energy project.

7 **Q. HOW ARE RECs IMPORTANT TO THE ARMY?**

8 A. RECs play a critical role in the Army's program to make renewable energy development
9 economically attractive to private developers and for ensuring Army compliance with its EPAct
10 2005 and EO 13423 requirements.

11 The Army has a stated policy that it will no longer be a purchaser of RECs on the open market to
12 meet EPAct 2005 and EO 13423 goals. When the Army pays to build a project, the Army wants
13 to retain the RECs to support compliance with these goals. For projects developed on Army land
14 using private financing, it is the Army's preference to retain some or all of the RECs. However,
15 the Army recognizes that an inflexible requirement that it retain all RECs would make many
16 renewable energy projects financially unviable. RECs play a key role in helping such developers
17 to secure private financing by providing a potential extra source of revenue from the sale of the
18 RECs.

19 While the Army prefers to retain ownership of RECs whenever possible, due to the current rate
20 structures and electricity costs in Arizona, the Army will likely utilize the RECs associated with
21 projects on its land to attract project developers. Without RECs, these projects will become
22 untenable, and the Army will be forced to look elsewhere for its renewable energy projects.

23 **Q. WILL THE ARMY KEEP ALL OF THE RECs WITH A PROJECT?**

24 A. Not necessarily. Where the cost to produce renewable energy is higher than the cost to
25 produce conventional energy, the value of RECs will be a critical component of the economic
26 viability of potential renewable energy projects. Generally, if the compliance price is
27 significantly greater than voluntary prices, then it is worth considering a REC sale by the
28 renewable developer. This sale would translate into savings by the Army in a long-term power
29 purchase contract, making the price for renewable energy more cost competitive with
30 conventional energy. The Army will evaluate each project on individual economics and make a
31 decision in the best interest of meeting the Army's energy security goals.

32 **Q. ARE THERE ANY EXAMPLES OF HOW THE ARMY HAS USED RECS TO MAKE**
33 **PROJECTS ECONOMICALLY VIABLE?**

1 A. In the Energy Saving Performance Contract at Fort Bliss (114kW solar arrays at the ranges),
2 the RECs generated remain with El Paso Electric. Fort Bliss gets none of these RECs, and they
3 are used to make the system viable and are part of the positive cash flow equation.

4 **Q. ANY OTHERS?**

5 A. For the 2 MW PV array at Fort Carson, the RECs were sold to Xcel Energy per a 20 year
6 contract. This allowed Fort Carson to get a fixed, non-escalating energy rate for 17-years with a
7 three year option.

8 **Q. WHAT ROLE WILL RECs HAVE AT ANY RENEWABLE ENERGY PROJECTS**
9 **AT FORT HUACHUCA OR YPG?**

10 A. At a number of Army base locations, including those in Arizona, the cost of electricity is such
11 that if a solar project was built and electricity was charged at that current rate, the project would
12 not be economically feasible. Adding the RECs to the revenue stream for the project helps the
13 developer be competitive with a low electricity rate and helps the project become more
14 financially attractive for the developer.

15 RECs are vital to the viability of potential renewable energy projects the Army is considering at
16 Fort Huachuca and YPG. The RECs enable the Army to work with private developers on
17 projects by providing a source of revenue from the RECs, which should increase the likelihood
18 that the projects are financially attractive. One of the key goals defining the economic viability
19 of a project is whether the Army can reduce or stabilize costs for the lifecycle of the renewable
20 energy project. RECs make this a possibility in Arizona. Without RECs, the projects will not be
21 as feasible and the Army may need look to other locations where projects are supported by
22 RECs.

23

24 **IV. TRACK AND RECORD PROPOSALS**

25 **Q. HOW WOULD THE INITIAL TRACK AND RECORD PROPOSAL AFFECT ARMY**
26 **PROJECTS?**

27 A. The initial Track and Record proposal would interfere with the Army's ability to comply
28 with federal mandates requiring DoD to obtain a certain amount of RECs each year. Specifically,
29 the Army would not be able to use Arizona RECs to meet the EPAAct 2005 and the EO 13423
30 requirements. Both these mandates require RECs for compliance. Since the Army, by policy,
31 does not purchase RECs on the open market, the only way the Army can meet these mandates is
32 with the retention of RECs associated with renewable energy projects on Army land.

1 Additionally, the initial Track and Record proposal presented a potential negative impact to
2 making renewable project economically viable. The distributed energy (DE)¹ carve-out allows
3 for a REC price to accommodate the higher renewable energy development costs. The initial
4 Track and Record proposal presented a situation where the utilities would automatically receive
5 the RECs for all projects interconnected to their systems, without payment or consideration to
6 the developer, negating any potential value private developers would see from RECs. For
7 example, a photovoltaic (PV) project costing \$0.08/KWh at an installation currently paying
8 \$0.06 for conventional electricity would need RECs of \$0.02/KWh, retained by the private
9 developer, to make the project economically viable. Even if the price for RECs continued to
10 decrease, the value of RECs, driven by current Arizona market conditions, would help support
11 making Army renewable energy projects economically viable.

12 **Q. CAN YOU BE MORE SPECIFIC?**

13 A. The REST requires utilities to source 15% of their energy portfolios from renewable sources
14 by 2025, with 30% of the total 15% coming from DE. The Track and Record proposal would
15 allow APS or TEP to comply with the REST by tracking and recording all distributed energy
16 (DE) production that is interconnected within its service territory, regardless of REC ownership.
17 The federal government cannot use “double counted” RECs to meet EPCAct 2005 or and EO
18 13423 mandates. Pursuant to U.S. Department of Energy (DOE) guidance, allowing the
19 renewable energy aspect of the project to be counted by APS or TEP toward the REST would
20 make RECs, even if retained by the Army, ineligible to contribute to the Army’s federal
21 requirements. For these reason, DoD opposed the Track and Record proposal as stated in its
22 comment letters to the ACC dated January 17, 2013.

23 **Q. HAVE YOU EVALUATED THE UTILITIES CURRENT ALTERNATIVE**
24 **PROPSOSAL TO ELIMINATE THE EXISTING DISTRIBUTED ENERGY**
25 **REQUIRMENT?**

26 A. Yes. A proposal made by both APS and TEP in their separately filed Direct Testimony
27 provides for the removal of the DE “carve-out” without changing the overall 15% REST
28 requirement. This proposal would allow the utilities to track DE generation "for information
29 purposes only - not compliance purposes". This proposal would end the requirement that TEP
30 and APS satisfy 30% of their total RES requirement through DE but retain the obligation to serve
31 15% of its retail load with energy produced by renewable energy. According to APS, under this
32 proposal, utilities would be able to:

¹ TEP has defined Distributed Generation (DG) as electric generation sited at a customer premises, providing electric energy to the customer load on that site or providing wholesale capacity and energy to the local Utility Distribution Company for use by multiple customers. The generator size and transmission needs shall be such that the plant or associated transmission lines do not require a Certificate of Environmental Compatibility from the Arizona Corporation Commission (general anything up to 100MW). APS uses the term Distributed Energy (DE) to refer to residential or non-utility owned installations and the specific set asides provided in the REST. For purposes of this testimony, the terms DE and DG are considered synonyms and the term DE is used.

- 1 - Retire any DE RECs currently in its possession to meet REST
- 2 - Acquire new DE RECs to satisfy those obligations
- 3 - Have no further obligation to obtain and retire new DE RECs.

4 This proposal will likely negatively affect the value of RECs and viability of renewable energy
5 projects in Arizona. This would then negatively impact the economic evaluation of renewable
6 energy projects by EITF.

7 **Q. HAVE YOU CONSIDERED OTHER ALTERNATIVES PUT FORWARD BY THE**
8 **UTILITIES TO THE INITIAL TRACK AND RECORD PROPOSAL?**

9 A. A second alternative proposal by TEP provides for eliminating the DE requirement from the
10 REST and reducing the overall REST obligation. For example, the overall REST target would be
11 reduced by the 30% DE requirement. The result would be that by 2025, the utilities would only
12 need to serve 10.5% (the elimination of the 30% DE of the REST 15% goal would reduce the
13 REST by 4.5% to 10.5%) of its retail load from renewable sources. The RECs in Arizona only
14 have value on the open market as they are needed to meet the REST. If the REST is reduced,
15 there will likely be negative impacts on the price of RECs and associated negative implications
16 for renewable energy development in Arizona. The negative impacts are likely to be greater than
17 those resulting from the utilities' alternative that eliminates the DE requirement but keeps the
18 current REST unchanged.

19 **Q. ARE THERE ANY OTHER PROPOSALS YOU EVALUATED?**

20 Yes. A third alternative proposal by TEP maintained the DE requirements and required
21 customers to surrender their RECs in exchange for interconnecting to a utility system. This
22 proposal, as with the initial Track and Record proposal would result in a situation where REC
23 values would be negated. This would prevent the Army from meeting federal mandates by
24 developing projects in Arizona and market conditions from supporting renewable energy
25 development in the state. For example, should TEP or ACS fund development of a project, they
26 would retain the RECs under the proposed alternative. However, under this proposal, if a
27 private developer were to fund a project on Army land that connected to the utility's system, the
28 "credit" for renewable energy generation would be claimed by TEP or APS. This means the
29 ability of the private developer to own the RECs and sell them to the utility to meet its REST
30 targets would be eliminated, and make the RECs valueless for either Army goal compliance or
31 project economics. Any additional proposals, such as the TEP Track and Reduce mechanism,
32 that allow the utilities to claim RECs or track them for their compliance purposes have the same
33 effect.

34

35

1 **V. CONCLUSION**

2 **Q. DO YOU HAVE ANY CONCLUDING REMARKS?**

3 A. Energy is very important to the Army, and the Army has a very specific strategy, programs,
4 initiatives, and management oversight to ensure that the Army of today and tomorrow has the
5 necessary access to energy to be effective in all anticipated scenarios both in the field and at
6 home in our installations. Securing our installations with renewable energy is a key component
7 of this strategy to meet federal mandates and provide diversified supply to our installations.

8 The EITF was established as the central management office for executing large scale renewable
9 energy projects that leverage third party financing and streamline the execution of large scale
10 renewable energy projects. The EITF is currently acquiring energy from privately financed
11 projects on Army land and evaluating over 700 MW of projects, including potential projects at
12 Fort Huachuca and YPG. Each project will be evaluated pursuant to the governing regulatory
13 environment and prevailing market conditions. The Army will pursue projects across the U.S.
14 that continue to present the best value. Arizona has been a leader in development of renewable
15 energy. We look forward to working with the ACC and other stakeholders to ensure the market
16 for renewable energy in Arizona remains strong and can play a key role in meeting the Army's
17 installation energy needs. I appreciate the opportunity to testify and welcome any questions.
18 With a strong Army presence, enviable renewable energy resources, and progressive
19 requirements, like the REST, Arizona can continue to be an attractive environment for renewable
20 energy development.

21 **Q. DOES THAT CONCLUDE YOUR DIRECT TESTIMONY?**

22 A. Yes.

23