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NEEDLES, CA

January 4, 2012

Jose Najar, Realty Specialist  
Bureau of Land Management  
California Desert District  
Needles Field Office  
1303 S. Hwy 95  
Needles, CA 92363

**RE: Standard Form 299 Application for Installation of Meteorological (MET) Towers**

Dear Mr. Najar:

Desert Air Renewables, LLC (Desert Air), an affiliate of First Wind Holdings, LLC, is submitting a Standard Form (SF) 299, Application for Transportation and Utility Systems and Facilities on Federal Lands, for a Federal Land Policy and Management Act (FLPMA) Type II right-of-way grant (Project Area Grant for Testing and Monitoring) to install up to nine MET towers within the identified project boundary in San Bernardino and Riverside counties. The application includes the following:

- SF 299 Application Form
- Supplemental Information Form
- Map Identifying the Proposed Project Boundary , MET Tower Locations, and Proposed Access Routes
- Maps Illustrating Each MET Tower Location and Access
- Desert Air Renewables, LLC Certificate of Formation

It is Desert Air's understanding that the June 28, 2011 meeting serves as the first pre-application meeting and that a second meeting will not be required prior to issuance of the ROW Grant. Please feel free to contact me with any questions you may have. I look forward to speaking with you soon.

Sincerely,

Ben Fairbanks  
Director, Business Development  
Direct Line: 971.998.1411  
Email: bfairbanks@firstwind.com

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2012 JAN -9 PM 1:47

NEEDLES FIELD OFFICE  
NEEDLES, CA

STANDARD FORM 299 (5/2009)  
Prescribed by DOI/USDA/DOT  
P.L. 96487 and Federal  
Register Notice 5-22-95

**APPLICATION FOR TRANSPORTATION AND  
UTILITY SYSTEMS AND FACILITIES  
ON FEDERAL LANDS**

FORM APPROVED  
OMB NO. 1004-0189  
Expires: April 30, 2012

**FOR AGENCY USE ONLY**

Application Number

Date filed

NOTE: Before completing and filing the application, the applicant should completely review this package and schedule a preapplication meeting with representatives of the agency responsible for processing the application. Each agency may have specific and unique requirements to be met in preparing and processing the application. Many times, with the help of the agency representative, the application can be completed at the preapplication meeting.

<p>1. Name and address of applicant (include zip code)</p> <p><b>Ben Fairbanks Desert Air Renewables, LLC 179 Lincoln Street, Suite 500 Boston, MA 02111</b></p>	<p>2. Name, title, and address of authorized agent if different from Item 1 (include zip code)</p> <p><b>Hilary Bird, HDR Engineering 8690 Balboa Ave, Suite 200 San Diego, CA 92123</b></p>	<p>3. TELEPHONE (area code)</p> <p>Applicant <b>971-998-1400</b></p> <p>Authorized Agent <b>858.712.8229</b></p>
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<p>4. As applicant are you? (check one)</p> <p>a. <input type="checkbox"/> Individual</p> <p>b. <input type="checkbox"/> Corporation*</p> <p>c. <input checked="" type="checkbox"/> Partnership/Association*</p> <p>d. <input type="checkbox"/> State Government/State Agency</p> <p>e. <input type="checkbox"/> Local Government</p> <p>f. <input type="checkbox"/> Federal Agency</p> <p><i>* If checked, complete supplemental page</i></p>	<p>5. Specify what application is for: (check one)</p> <p>a. <input type="checkbox"/> New authorization</p> <p>b. <input type="checkbox"/> Renewing existing authorization No.</p> <p>c. <input type="checkbox"/> Amend existing authorization No.</p> <p>d. <input type="checkbox"/> Assign existing authorization No.</p> <p>e. <input type="checkbox"/> Existing use for which no authorization has been received*</p> <p>f. <input type="checkbox"/> Other*</p> <p><i>*If checked provide details under Item 7</i></p>
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6. If an individual, or partnership are you a citizen(s) of the United States?  Yes  No

7. Project description (describe in detail): (a) Type of system or facility, (e.g., canal, pipeline, road); (b) related structures and facilities; (c) physical specifications (length, width, grading, etc.); (d) term of years needed; (e) time of year of use or operation; (f) Volume or amount of product to be transported; (g) duration and timing of construction; and (h) temporary work areas needed for construction (Attach additional sheets, if additional space is needed.)

Please see attached document.

8. Attach a map covering area and show location of project proposal

9. State or local government approval:  Attached  Applied for  Not required

10. Nonreturnable application fee.  Attached  Not required

11. Does project cross international boundary or affect international waterways?  Yes  No (If "yes," indicate on map)

12. Give statement of your technical and financial capability to construct, operate, maintain, and terminate system for which authorization is being requested

**Desert Air Renewables, LLC (Desert Air), a subsidiary of First Wind Holdings, LLC (First Wind) is an independent North American wind energy company focused on the development, ownership and operation of wind energy projects. First Wind currently operates eleven wind energy facilities with 735 megawatts (MW) of capacity installed and 141 MW more presently in construction. First Wind is the developer and owner of the 300 MW Milford Wind Corridor project located on land managed by the BLM in the State of Utah. As such, Desert Air, as a subsidiary of First Wind, has the technical and procedural understanding of working collaboratively with the BLM to complete this proposed project. For more information regarding First Wind's qualifications and experience, please see www.firstwind.com.**

13a. Describe other reasonable alternative routes and modes considered.

Please see attached document

b. Why were these alternatives not selected?

Please see attached document

c. Give explanation as to why it is necessary to cross Federal Lands

Please see attached document

14. List authorizations and pending applications filed for similar projects which may provide information to the authorizing agency. (Specify number, date, code, or name)

The following are authorizations through BLM for subsidiaries of First Wind, LLC: UTU-82996, Wind Testing ROW, Cedar City Field Office, Utah (April 2008); UTU-82972 - ROW Grant for Milford Wind Corridor 1 (October 2008); UTU-83210; Wind Testing ROW for MWC 3 Project (October 2010)

15. Provide statement of need for project, including the economic feasibility and items such as: (a) cost of proposal (construction, operation, and maintenance); (b) estimated cost of next best alternative; and (c) expected public benefits.

The purpose of the proposed project is to collect sufficient wind speed, direction and other meteorological data to ascertain whether there is sufficient and sustained wind energy to develop a renewable wind energy project capable of generating marketable electrical energy for commercial purposes. Please see attached document for additional information.

16. Describe probable effects on the population in the area, including the social and economic aspects, and the rural lifestyles.

The MET locations are within BLM land. There are no rural residences within the area. There are currently no BLM grazing permits or mining claims in the area that would be impacted by the placement of METs. Traffic to and from the site will be limited to construction and occasional maintenance (every six months).

17. Describe likely environmental effects that the proposed project will have on: (a) air quality; (b) visual impact; (c) surface and ground water quality and quantity; (d) the control or structural change on any stream or other body of water; (e) existing noise levels; and (f) the surface of the land, including vegetation, permafrost, soil, and soil stability.

Please see attached document.

18. Describe the probable effects that the proposed project will have on (a) populations of fish, plantlife, wildlife, and marine life, including threatened and endangered species; and (b) marine mammals, including hunting, capturing, collecting, or killing these animals.

Please see attached document

19. State whether any hazardous material, as defined in this paragraph, will be used, produced, transported or stored on or within the right-of-way or any of the right-of-way facilities, or used in the construction, operation, maintenance or termination of the right-of-way or any of its facilities. "Hazardous material" means any substance, pollutant or contaminant that is listed as hazardous under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended, 42 U.S.C. 9601 et seq., and its regulations. The definition of hazardous substances under CERCLA includes any "hazardous waste" as defined in the Resource Conservation and Recovery Act of 1976 (RCRA), as amended, 42 U.S.C. 9601 et seq., and its regulations. The term hazardous materials also includes any nuclear or byproduct material as defined by the Atomic Energy Act of 1954, as amended, 42 U.S.C. 2011 et seq. The term does not include petroleum, including crude oil or any fraction thereof that is not otherwise specifically listed or designated as a hazardous substance under CERCLA Section 101(14), 42 U.S.C. 9601(14), nor does the term include natural gas.

The project will not use any hazardous materials during construction of the METs, during meteorological testing, or during the removal of the METs. With respect to non-hazardous materials, typical substances associated with construction vehicles and generators are motor oil and gasoline. The vehicles used to transport materials to the MET locations will be filled with fuel prior to travelling to the MET locations. It is not anticipated that the construction vehicles would require refueling on-site.

20. Name all the Department(s)/Agency(ies) where this application is being filed

U.S. Bureau of Land Management (BLM) Needles Field Office  
1303 S. Hwy 95  
Needles, CA 92363

Desert Air Renewables, LLC By: First Wind California Holdings, LLC, its Member

I HEREBY CERTIFY, That I am of legal age and authorized to do business in the State and that I have personally examined the information contained in the application and believe that the information submitted is correct to the best of my knowledge.

Signature of Applicant

 Arthur J. Snell, Assistant Secretary

Date

12-21-11

Title 18, U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious, or fraudulent statements or representations as to any matter within its jurisdiction.

(Continued on page 3 )

(SF-299, page 2)

APPLICATION FOR TRANSPORTATION AND UTILITY SYSTEMS  
AND FACILITIES ON FEDERAL LANDS

GENERAL INFORMATION  
ALASKA NATIONAL INTEREST LANDS

This application will be used when applying for a right-of-way, permit, license, lease, or certificate for the use of Federal lands which lie within conservation system units and National Recreation or Conservation Areas as defined in the Alaska National Interest Lands Conservation Act. Conservation system units include the National Park System, National Wildlife Refuge System, National Wild and Scenic Rivers System, National Trails System, National Wilderness Preservation System, and National Forest Monuments.

Transportation and utility systems and facility uses for which the application may be used are:

1. Canals, ditches, flumes, laterals, pipes, pipelines, tunnels, and other systems for the transportation of water.
2. Pipelines and other systems for the transportation of liquids other than water, including oil, natural gas, synthetic liquid and gaseous fuels, and any refined product produced therefrom.
3. Pipelines, slurry and emulsion systems, and conveyor belts for transportation of solid materials.
4. Systems for the transmission and distribution of electric energy.
5. Systems for transmission or reception of radio, television, telephone, telegraph, and other electronic signals, and other means of communications.
6. Improved rights-of-way for snow machines, air cushion vehicles, and all-terrain vehicles.
7. Roads, highways, railroads, tunnels, tramways, airports, landing strips, docks, and other systems of general transportation.

This application must be filed simultaneously with each Federal department or agency requiring authorization to establish and operate your proposal.

In Alaska, the following agencies will help the applicant file an application and identify the other agencies the applicant should contact and possibly file with:

U.S. Department of Agriculture  
FOREST SERVICE (USFS)  
Alaska Regional Office (Region 10)  
*Physical Address:*  
Federal Office Building  
709 West 9th Street  
Juneau, Alaska 99801  
*Mailing Address:*  
P.O. Box 21628  
Juneau, Alaska 99802  
Telephone: 907-586-8806

U.S. Department of the Interior  
BUREAU OF INDIAN AFFAIRS (BIA)  
Alaska Regional Office (Juneau)  
*Mailing/Physical Address:*  
P.O. Box 25520  
709 West 9th Street  
Juneau, Alaska 99802  
Telephone: 800-645-8397

U.S. Department of the Interior  
BUREAU OF LAND MANAGEMENT (BLM)  
Alaska State Office  
*Mailing/Physical Address:*  
222 West 7th Avenue #13  
Anchorage, Alaska 99513  
Telephone: 907-271-5960

U.S. Department of the Interior  
NATIONAL PARK SERVICE (NPS)  
Alaska Regional Office (Anchorage)  
*Mailing/Physical Address:*  
240 West 5th Avenue, Room 114  
Anchorage, Alaska 99501  
Telephone: 907-644-3501

U.S. Department of the Interior  
FISH AND WILDLIFE SERVICE  
Alaska Regional Office (Region 7)  
*Mailing/Physical Address:*  
1011 East Tudor Road  
Anchorage, Alaska 99501  
Telephone: 907-271-5011

Note: Filings with any Department of the Interior agency may be filed with any office noted above or with the:

U.S. Department of the Interior  
OFFICE OF ENVIRONMENTAL POLICY AND COMPLIANCE  
Alaska Regional Office (Anchorage)  
Regional Environmental Officer  
1689 C Street, Room 119  
Anchorage, Alaska 99501  
Telephone: (907) 271-5011

U.S. Department of Transportation  
FEDERAL AVIATION ADMINISTRATION  
Alaska Regional Office (Anchorage)  
222 West 7th Avenue, #14  
Anchorage, Alaska 99513  
Telephone: 907-271-5269

*NOTE* - The Department of Transportation has established the above central filing point for agencies within that Department. Affected agencies are: Federal Aviation Administration (FAA), Coast Guard (USCG), Federal Highway Administration (FHWA), Federal Railroad Administration (FRA).

*OTHER THAN ALASKA NATIONAL INTEREST LANDS*

Use of this form is not limited to National Interest Conservation Lands of Alaska.

Individual departments/agencies may authorize the use of this form by applicants for transportation and utility systems and facilities on other Federal lands outside those areas described above.

For proposals located outside of Alaska, applications will be filed at the local agency office or at a location specified by the responsible Federal agency.

**SPECIFIC INSTRUCTIONS**

*(Items not listed are self-explanatory)*

- Item*
- 7 Attach preliminary site and facility construction plans. The responsible agency will provide instructions whenever specific plans are required.
  - 8 Generally, the map must show the section(s), township(s), and ranges within which the project is to be located. Show the proposed location of the project on the map as accurately as possible. Some agencies require detailed survey maps. The responsible agency will provide additional instructions.
  - 9, 10, and 12 - The responsible agency will provide additional instructions.
  - 13 Providing information on alternate routes and modes in as much detail as possible, discussing why certain routes or modes were rejected and why it is necessary to cross Federal lands will assist the agency(ies) in processing your application and reaching a final decision. Include only reasonable alternate routes and modes as related to current technology and economics.
  - 14 The responsible agency will provide instructions.
  - 15 Generally, a simple statement of the purpose of the proposal will be sufficient. However, major proposals located in critical or sensitive areas may require a full analysis with additional specific information. The responsible agency will provide additional instructions.
  - 16 through 19 - Providing this information in as much detail as possible will assist the Federal agency(ies) in processing the application and reaching a decision. When completing these items, you should use a sound judgment in furnishing relevant information. For example, if the project is not near a stream or other body of water, do not address this subject. The responsible agency will provide additional instructions.
- Application must be signed by the applicant or applicant's authorized representative.

If additional space is needed to complete any item, please put the information on a separate sheet of paper and identify it as "Continuation of Item".

SUPPLEMENTAL

NOTE: The responsible agency(ies) will provide additional instructions	CHECK APPROPRIATE BLOCK	
I - PRIVATE CORPORATIONS	ATTACHED	FILED*
a. Articles of Incorporation	<input type="checkbox"/>	<input type="checkbox"/>
b. Corporation Bylaws	<input type="checkbox"/>	<input type="checkbox"/>
c. A certification from the State showing the corporation is in good standing and is entitled to operate within the State.	<input type="checkbox"/>	<input type="checkbox"/>
d. Copy of resolution authorizing filing	<input type="checkbox"/>	<input type="checkbox"/>
e. The name and address of each shareholder owning 3 percent or more of the shares, together with the number and percentage of any class of voting shares of the entity which such shareholder is authorized to vote and the name and address of each affiliate of the entity together with, in the case of an affiliate controlled by the entity, the number of shares and the percentage of any class of voting stock of that affiliate owned, directly or indirectly, by that entity, and in the case of an affiliate which controls that entity, the number of shares and the percentage of any class of voting stock of that entity owned, directly or indirectly, by the affiliate.	<input type="checkbox"/>	<input type="checkbox"/>
f. If application is for an oil or gas pipeline, describe any related right-of-way or temporary use permit applications, and identify previous applications	<input type="checkbox"/>	<input type="checkbox"/>
g. If application is for an oil and gas pipeline, identify all Federal lands by agency impacted by proposal.	<input type="checkbox"/>	<input type="checkbox"/>
II - PUBLIC CORPORATIONS		
a. Copy of law forming corporation	<input type="checkbox"/>	<input type="checkbox"/>
b. Proof of organization	<input type="checkbox"/>	<input type="checkbox"/>
c. Copy of Bylaws	<input type="checkbox"/>	<input type="checkbox"/>
d. Copy of resolution authorizing filing	<input type="checkbox"/>	<input type="checkbox"/>
e. If application is for an oil or gas pipeline, provide information required by Item "I-f" and "I-g" above.	<input type="checkbox"/>	<input type="checkbox"/>
III - PARTNERSHIP OR OTHER UNINCORPORATED ENTITY		
a. Articles of association, if any	<input type="checkbox"/>	<input type="checkbox"/>
b. If one partner is authorized to sign, resolution authorizing action is	<input type="checkbox"/>	<input type="checkbox"/>
c. Name and address of each participant, partner, association, or other	<input type="checkbox"/>	<input type="checkbox"/>
d. If application is for an oil or gas pipeline, provide information required by Item "I-f" and "I-g" above.	<input type="checkbox"/>	<input type="checkbox"/>

\* If the required information is already filed with the agency processing this application and is current, check block entitled "Filed." Provide the file identification information (e.g., number, date, code, name). If not on file or current, attach the requested information.

**Desert Air Renewables, LLC Organization:**

**Desert Air Renewables, LLC is a limited liability company. A copy of the Desert Air Renewables, LLC Certificate of Formation is attached. The name and address of Desert Air Renewables, LLC's member is:**

**First Wind California Holdings, LLC  
179 Lincoln Street, Suite 500  
Boston, MA 02111**

## NOTICES

NOTE: This applies to the Department of the Interior/Bureau of Land Management (BLM).

The Privacy Act of 1974 provides that you be furnished with the following information in connection with the information provided by this application for an authorization.

**AUTHORITY:** 16 U.S.C. 310 and 5 U.S.C. 301.

**PRINCIPAL PURPOSE:** The primary uses of the records are to facilitate the (1) processing of claims or applications; (2) recordation of adjudicative actions; and (3) indexing of documentation in case files supporting administrative actions.

**ROUTINE USES:** BLM and the Department of the Interior (DOI) may disclose your information on this form: (1) to appropriate Federal agencies when concurrence or supporting information is required prior to granting or acquiring a right or interest in lands or resources; (2) to members or the public who have a need for the information that is maintained by BLM for public record; (3) to the U.S. Department of Justice, court, or other adjudicative body when DOI determines the information is necessary and relevant to litigation; (4) to appropriate Federal, State, local, or foreign agencies responsible for investigating, prosecuting violation, enforcing, or implementing this statute, regulation, or order; and (5) to a congressional office when you request the assistance of the Member of Congress in writing.

**EFFECT OF NOT PROVIDING THE INFORMATION:** Disclosing this information is necessary to receive or maintain a benefit. Not disclosing it may result in rejecting the application.

The Paperwork Reduction Act of 1995 requires us to inform you that:

The Federal agencies collect this information from applicants requesting right-of-way, permit, license, lease, or certifications for the use of Federal Lands.

Federal agencies use this information to evaluate your proposal.

No Federal agency may request or sponsor and you are not required to respond to a request for information which does not contain a currently valid OMB Control Number.

**BURDEN HOURS STATEMENT:** The public burden for this form is estimated at 25 hours per response including the time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding the burden estimate or any other aspect of this form to: U.S. Department of the Interior, Bureau of Land Management (1004-0189), Bureau Information Collection Clearance Officer (WO-630) 1849 C Street, N.W., Mail Stop 401 LS, Washington, D.C. 20240.

A reproducible copy of this form may be obtained from the Bureau of Land Management, Division of Lands, Realty and Cadastral Survey, 1620 L Street, N.W., Rm. 1000 LS, Washington, D.C. 20036.

## Attachment to Form 299

### 7. Project Description

Desert Air Renewables, LLC (Desert Air), a subsidiary of First Wind Holdings, LLC is proposing to install up to nine meteorological monitoring towers (METs) at nine different locations within the project area shown on Figure 1. The METs are designed to collect data on wind patterns, which will be used to determine whether the area is suitable for the installation of a wind-power generating facility.

#### Project Location

The project area is located in a rural part of southeastern San Bernardino County and northeastern Riverside County. The primary access routes to the project area are State Route 62 (SR 62), the Colorado River Aqueduct access road, and State Route 177 (SR 177). In addition, there are numerous unnamed dirt roads within the northern and southern portion of the project area (Figure 1).

The project area is composed of approximately 63,354 acres of land managed by the Bureau of Land Management (BLM) and is within the jurisdiction of two BLM field offices: Needles Field Office and Palm Springs Field Office. Approximately 37,713 acres of land and METs 1 – 5 are within the Needles Field Office jurisdiction and 25,641 acres of land and METs 6 – 9 are within the Palm Springs Field Office jurisdiction. Table 1 describes the proposed MET locations as identified on the USGS 7.5 Minute Topographic Map, as well as the township, range, section, and latitude and longitude in which each MET is located.

The proposed MET locations were chosen because they would provide a geographic sample of the wind data in the region at points on existing topography where wind is unobstructed. The presence of existing access roads to the proposed MET locations was also considered in the location selection process to reduce ground disturbance. Further, the locations were chosen because they are outside BLM areas of concern such as BLM wilderness and conservation study areas, desert tortoise critical habitat areas, Senator Feinstein's Sand to Snow National Monument Bill, and Twenty-nine Palms Military Base expansion.

#### 60-Meter Meteorological Towers

Desert Air proposes to install up to nine 60-Meter METs at the locations identified in Table 1. Each MET is 197 feet (ft) (60.1 meters [m]) tall, with a 10 inch (in) (25.4 centimeters [cm]) diameter tower. The towers will be constructed of steel tube sections that slide together without the use of bolts or clamps. Each MET base is mounted on a nine square foot (sf) steel plate that rests on the surface of the ground. For installation of each MET a gin pole will be used to tilt the tower up using a portable gasoline or a direct current-powered motorized winch. The winch will use less than a gallon of fuel for the tower erections and, therefore, will not require refueling on BLM managed lands. Each tower will be equipped with anemometers and wind vanes at several different heights, which are installed prior to raising the tower. A data logger inside a closed case is located at the base of the towers to record the wind data. The logger is powered by a small solar panel and a small dry cell battery package. The data will be transmitted via a cellular antenna located in the logger.

Each 60-Meter MET is supported by a system of guy wires attached to various heights of the tower and fixed at the ground in four equally spaced locations around the circumference of the tower, at a distance of approximately 166 ft (50.8 m) from the tower base. The use of anchors to properly secure the METs is required. Each anchor would be sunk to a depth of three to four feet into the soil. When installing the

anchors, an angled hole is dug, the anchor is set in place, and the original earth is back-filled over the anchor. Upon removal of the METs, the anchor holes will be filled and recontoured. An illustration of a 60-Meter MET assembly is provided below.

**Table 1. Proposed MET Locations**

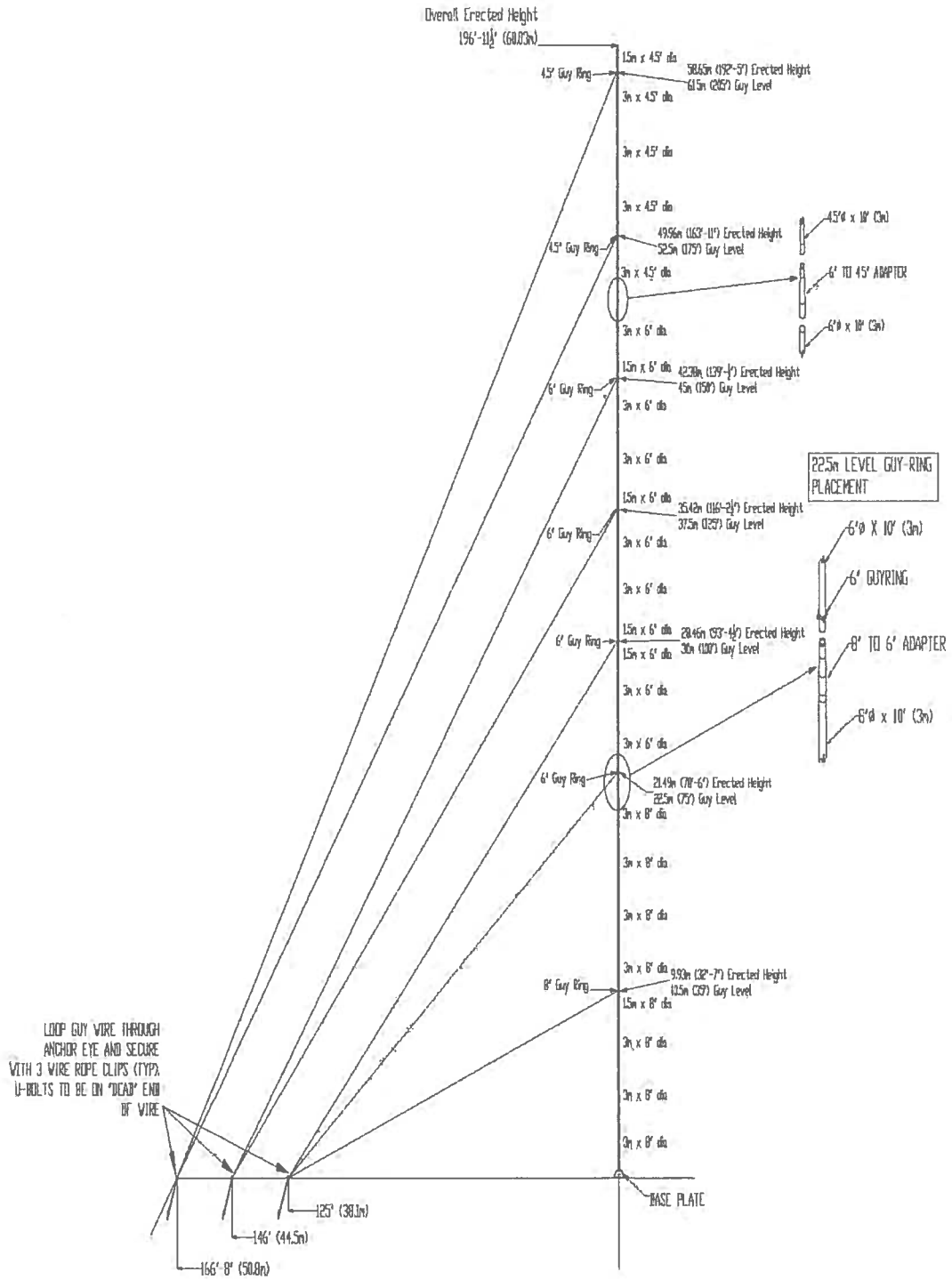
Met Monitoring Station Location	USGS Topographic Map Quadrangle	Township	Range	Section	Approximate Elevation	Lat/Long
<b>Needles Field Office</b>						
MET – 1	Cadiz Valley northeast	2N	15E	22	581 ft	34° 14' 36.599" N / 115° 23' 16.440" W
MET – 2	Cadiz Valley northeast	1N	15E	2	743 ft	34° 12' 7.560" N / 115° 23' 7.440" W
MET – 3	Cadiz Valley northeast	1N	15E	24	890 ft	34° 9' 11.880" N / 115° 21' 49.679" W
MET – 4	Cadiz Valley northwest	1N	15E	17	674 ft	34° 10' 4.799" N / 115° 19' 14.520" W
MET – 5	Cadiz Valley southeast	1N	16E	11	950 ft	34° 10' 51.240" N / 115° 16' 39.360" W
<b>Palm Springs Field Office</b>						
MET – 6	Granite Pass	1S	16E	14	969 ft	34° 5' 13.200" N / 115° 16' 0.840" W
MET – 7	West Palen Pass	1S	17E	30	1,254 ft	34° 3' 7.919" N / 115° 14' 4.920" W
MET – 8	West Palen Pass	2S	17E	18	1,086 ft	34° 0' 13.679" N / 115° 14' 15.360" W
MET – 9	West Palen Pass	2S	17E	31	756 ft	33° 56' 58.200" N / 115° 14' 31.559" W

**MET Safety Measures**

As a safety measure, fluorescent guy guard covers would be placed on every guy wire that would be attached to the tower to help prevent injuries to the public and wildlife. These fluorescent guy guard covers would be placed on every guy wire, at least 10 ft from the ground up. The tower will be painted white and red from the top going down, approximately 30 ft to make the tower more visible to flying aircraft and birds. Additionally, the placement of four high visibility orange balls as near to the top of the tower as possible will ensure visibility of the tower to flying aircraft and will avoid avian collisions. Desert Air will comply with all applicable Federal Aviation Administration (FAA) requirements for lighting, painting, or marking of the METs. MET safety measures are illustrated below. Additionally, Desert Air will comply with BLM’s November 2010 Instruction Memorandum No. CA-2011-003 *Guy Wire and Lighting Requirements for Tall Structures*.



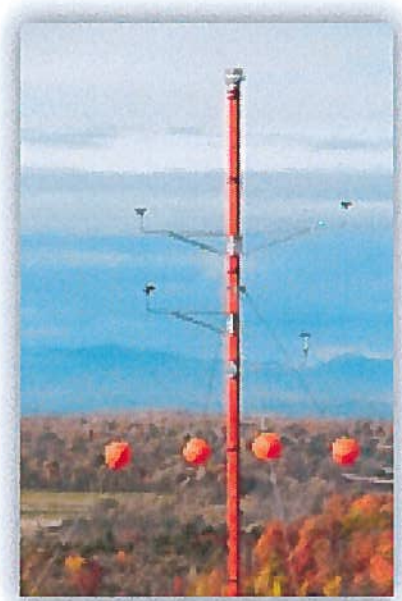
Type II Right of Way Grant Application – Wind Testing



60-Meter MET Assembly

NRG Systems Tall Tower Manual (July 2011)

*MET Safety Measures Illustrated<sup>1</sup>*



*Site Access*

A system of public roads allows access to the project area as a whole, including SR 62 from the west and SR 177 from the north and south. Baseline Road off of SR 62 west of the project area allows entry to the western portion of the project area. Power Line Road off of SR 177 east of the project area allows entry to the eastern portion of the project area. Coxcomb Monument Road allows access to the southern portion of the project area. A network of unnamed smaller roads and trails provide additional entry to more remote locations within the project area as indicated in Figure 1. To the extent practicable, MET locations have been selected to be as close as possible to existing access roads and trails to minimize off road travel ground disturbance and established vegetation wherever possible.

The access routes to each MET location can be seen in the attached figures Road improvements are not necessary to any of the existing roads/trails in the project area. As shown in Figure 1, the majority of the access roads are unnamed. Installation of the 60-Meter MET's will require minimal off road vehicle travel to the MET location. Figures 2 through 10 illustrate the distance of the MET locations from the existing road or trail.

In the locations where vehicle travel off of existing routes/trails are proposed, an eight foot wide off road access route will be clearly marked with flags to ensure that all vehicles stay within the proposed footprint of disturbance. Dense vegetation and rock outcrops will be avoided; however, it is anticipated that minor impacts such as crushed vegetation and soil disturbance will occur during the off road transport. The same off road route used to access the MET locations will be used for egress. No shrub vegetation will be cleared/bladed using machinery; however minimal shrub vegetation will be impacted during off road travel to install and later remove equipment. Any vegetation knocked over by the vehicles will then be used to cover the trail.

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<sup>1</sup> Example NRG Systems MET Towers

### *Construction*

Erection of each MET is expected to take up to two days and involve two to four people, one truck, and one ancillary vehicle that will be left on an existing road. Erection of the METs does not require the use of heavy equipment or machinery. Each MET and associated equipment will be assembled on the ground at the site. Minimal or no surface grading, or vegetation clearing is required to install or uninstall the METs. The METs are expected to be in place for a minimum of one year, with a possibility of up to three years depending on the quantity and quality of data collected by the device. Dismantling of the METs would involve the same process and would take approximately two days to complete.

### *Maintenance*

Desert Air staff will visit the MET locations approximately twice per year to conduct maintenance and/or repairs on the device, test the equipment to see if the device is working correctly, address vandalism issues, address problems caused by weather and the environment, check the guy wires, and check the safety measures on the METs. Desert Air staff will walk to each MET location to perform maintenance checks. Off road vehicle travel will only be used if deemed necessary for MET maintenance (i.e. equipment malfunction/repair).

### **Surface Area Disturbance Associated with Installation of the METs**

Table 2 shows the potential temporary and permanent surface area disturbance associated with the installation of the METs. The disturbance area includes the off road travel required for installation. The installation of nine 60-Meter METs within the project area would require temporary minor grading at the tower center and guy wire locations, which may result in crushed vegetation along the off road access route and MET installation locations.

### **13 (a). Describe other reasonable alternative routes and modes considered.**

Desert Air evaluated numerous 60-Meter MET locations within the project area prior to selecting the nine proposed locations. Siting considerations included accessibility, potential environmental impact and quality of meteorological data collection. Desert Air is proposing to reduce disturbance by utilizing existing access roads and trails to the greatest extent feasible.

### **13 (b). Why were these alternatives not selected?**

The MET locations were selected to reduce the total off road travel required to access each site. Micro-siting of the METs included consultation with a biologist in the field to determine locations with the least amount of disturbance necessary. The locations identified in Figures 1 through 10 represent the optimal locations determined for the METs.

### **13 (c). Give explanation as to why it is necessary to cross Federal Lands**

The Energy Policy Act of 2005 directs BLM and other agencies within the U.S. Department of the Interior to study and to take steps in support of increasing renewable energy production on federal lands. BLM's 2005 Programmatic Environmental Impact Statement (PEIS) lays the groundwork for wind energy development on BLM lands. This project will help BLM fulfill its role in implementing the Energy Policy Act, and allow California to meet its goal of supplying more of the state's energy from renewable sources through wind testing and monitoring for future development of a wind energy facility.

Table 2. Proposed Temporary and Permanent Surface Area Disturbance: 60-Meter METs

MET Locations	Temporary						Permanent	
	Installation Disturbance <sup>1</sup>		Off Road Access Disturbance		Meter Tower Disturbance <sup>2</sup>		Acres	Square Feet (sf)
	Acres	Square Feet (sf)	Acres	Square Feet (sf)	Acres	Square Feet (sf)		
<b>BLM Needles Field Office</b>								
MET - 1	1.99 acres	86,569.65 sf	0.076 acres	3,304 sf	0.00021 acres	9.00 sf		
MET - 2	1.99 acres	86,569.65 sf	0.063 acres	2,744 sf	0.00021 acres	9.00 sf		
MET - 3	1.99 acres	86,569.65 sf	0.035 acres	1,536 sf	0.00021 acres	9.00 sf		
MET - 4	1.99 acres	86,569.65 sf	0.22 acres	9,576 sf	0.00021 acres	9.00 sf		
MET - 5	1.99 acres	86,569.65 sf	0.22 acres	9,704 sf	0.00021 acres	9.00 sf		
<b>Total</b>	<b>9.95 acres</b>	<b>432,848.25 sf</b>	<b>0.61 acres</b>	<b>26,864 sf</b>	<b>0.0011 acres</b>	<b>45.00 sf</b>		
<b>BLM Palm Springs Field Office</b>								
MET - 6	1.99 acres	86,569.65 sf	0.36 acres	15,488 sf	0.00021 acres	9.00 sf		
MET - 7	1.99 acres	86,569.65 sf	0.069 acres	2,984 sf	0.00021 acres	9.00 sf		
MET - 8	1.99 acres	86,569.65 sf	0.032 acres	1,400 sf	0.00021 acres	9.00 sf		
MET - 9	1.99 acres	86,569.65 sf	0.19 acres	8,080 sf	0.00021 acres	9.00 sf		
<b>Total</b>	<b>7.96</b>	<b>346,278.60 sf</b>	<b>0.65 acres</b>	<b>27,952 sf</b>	<b>0.00084 acres</b>	<b>36.00 sf</b>		
<b>Overall Project Site Total</b>	<b>17.91</b>	<b>779,126.85 sf</b>	<b>1.26 acres</b>	<b>54,816 sf</b>	<b>0.0019 acres</b>	<b>81.00 sf</b>		

1. Assumes dimensions identified in the illustration provided within the text.
2. Assumes 9 square foot base plate and 10-in diameter tower.

**15. Provide statement of need for project, including the economic feasibility and items such as: (a) cost of proposal (construction, operation, and maintenance); (b) estimated cost of next best alternative; and: (c) expected public benefits**

- (a) The cost of the proposed wind testing campaign will vary based on the number of METs installed, each MET cost approximately \$20,000.
- (b) Installing the METs at alternative locations will not have a significantly different cost.
- (c) There are no immediate public benefits from the wind testing, although the long-term benefits of the development of renewable energy generation from wind includes production of energy without the emissions of greenhouse gases. This project will assist the State of California with laws and policies that have been implemented to reduce greenhouse gas levels by 21.3 million metric tons (State Bill 32) and to increase renewable energy by 33 percent by the year 2020 (Executive Order S-21-09). Furthermore, Executive Order (S-3-05) requires California to reduce greenhouse emissions to 80 percent below 1990 levels by the year 2050.

**17. Describe likely environmental effects that the proposed project will have on: (a) air quality; (b) visual impact; (c) surface and ground water quality and quantity; (d) the control or structural change on any stream or other body of water; (e) existing noise levels; and (f) the surface of the land, including vegetation, permafrost, soil, and soil stability.**

- (a) **Air Quality:** Installation vehicles involve approximately two to three four-wheel drive trucks and small sport utility vehicles that weigh between 0.5 and 1.0 tons, along with a single installation truck weighting approximately 4.0 tons. Emissions from the use of these vehicles for the short installation duration would be negligible and would not result in air quality impacts. Additionally, as shown in Table 2, the area to be disturbed (e.g. MET locations and off road areas) is minimal in size. Dust emissions during installation activities will further be minimized by the following best management practices: limiting the speed at which vehicles travel to 15 miles per hour (mph) or less and limiting earthmoving activity to days when wind speeds do not exceed 25 mph.
- (b) **Visual Impact:** The site activity is considered short-term. The MET locations are proposed in remote areas that have limited usage and where no permanent housing exists. The locations are not within designated areas (such as Wilderness) where viewshed protection is mandated. No sensitive viewers would be impacted by the METs; therefore, no visible impacts are identified.
- (c) **Surface and Ground Water Quality and Quantity:** The METs are proposed in areas away from surface waters. Installation is anticipated to be limited to an area of 0.04 acres to a depth of up to four feet. This depth would not intersect with an identified ground water table as the ground water in this area is contained in fractured rock at greater depths. Travel will not impact surface waters. Therefore, no impacts to surface and groundwater will occur.
- (d) **The Control or Structural Change on any Stream or Other Body of Water:** The METs are proposed to be located to avoid impact to streams or other bodies of water. The only contact that may occur is during travel over dry washes across existing access roads and trails to access the MET locations. However, the proposed off road access areas are in locations that avoid large potential streams and large washes.
- (e) **Existing Noise Levels:** The MET locations are proposed on BLM land and there are no permanent residences (e.g., sensitive receptors) within the area. Installation activities will consist of temporary

noise from vehicles accessing the sites, and installation activities. Operation of the METs would not result in noise emissions other than maintenance activities when personnel would travel to the site to verify equipment twice per year. Therefore, noise impacts will not occur.

- (f) **The Surface of the Land, Including Vegetation, Permafrost, Soil, and Soil Stability.** As identified in Table 2, installation of the METs will result in a temporary disturbance to approximately 7.96 acres of land. Once installed, the permanent disturbance area is approximately less than one acre. As discussed previously and shown in the illustrations above, the use of anchors to properly secure the METs is required. Each anchor would be sunk to a depth of three to four feet into the soil. When installing the anchors, an angled hole will be dug, the anchor set in place, and the original earth will be back-filled over the anchor. Upon removal of the METs, the anchor holes will be filled and recontoured. Therefore, impacts to soil and vegetation are minimal.

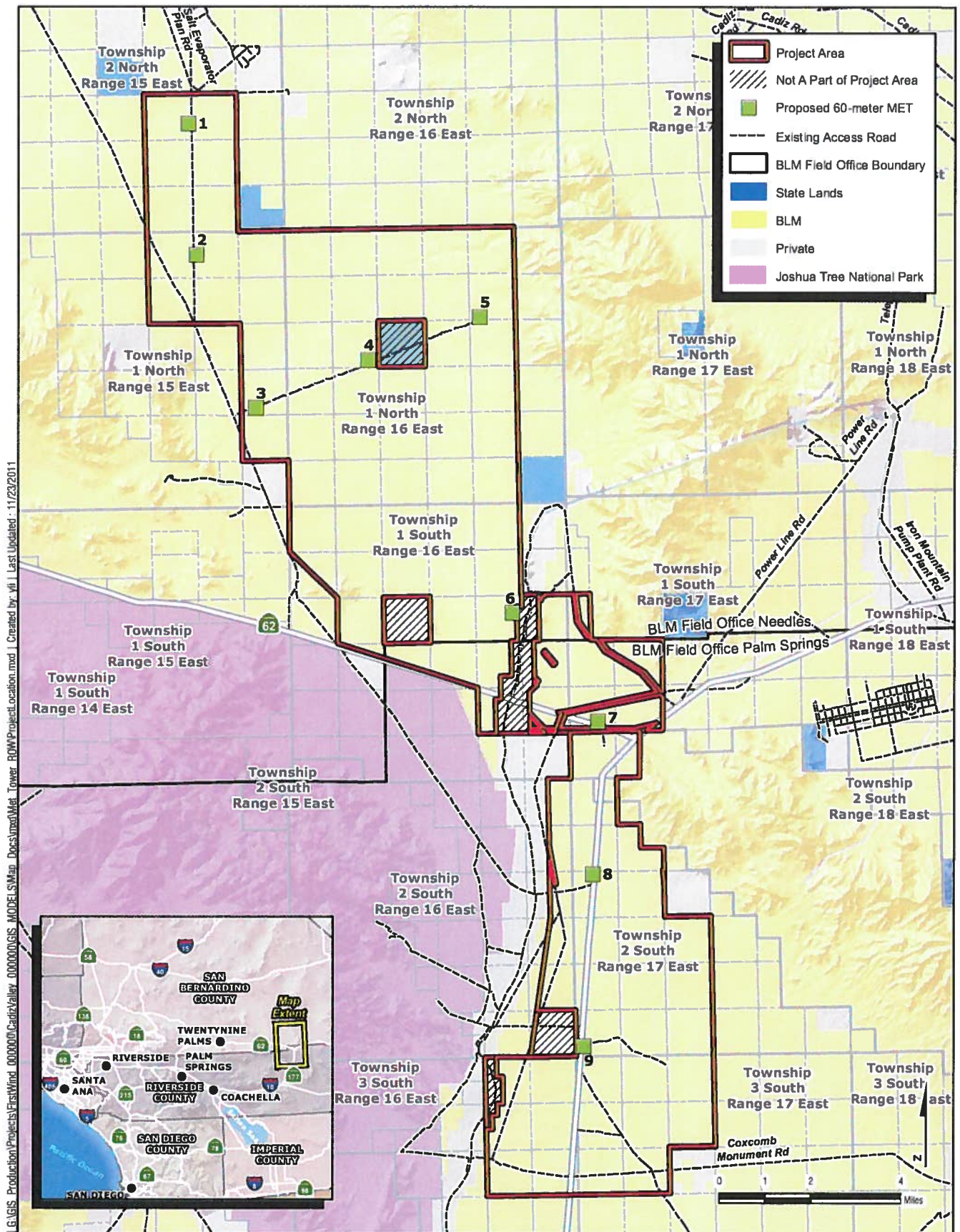
**18. Describe the probable effects that the proposed project will have on: (a) populations of fish, plant life, wildlife, and marine life, including threatened and endangered species; and (b) marine mammals, including hunting, capturing, collecting, or killing these animals.**

- (a) **Fish:** The project area is located in the desert and is not adjacent to bodies of surface water. The METs would be located to avoid impacts to streams or other bodies of water that would eventually flow to areas of fish populations. The only contact that may occur is travel over dry washes across existing access roads and trails to access the MET locations. Therefore, no impacts to fish will occur.

**Plant Life:** Installation of the METs will require minimal off road vehicle travel which could affect plant life. The eight foot wide off road access routes will be clearly marked with flagging to ensure that all vehicles stay within the proposed areas. Dense vegetation will be avoided; however, it is anticipated that minor impacts such as crushed vegetation and soil disturbance will occur during the off road transport. The dominant vegetation includes Sonoran Desert Scrub and Mohave Desert Scrub. The same off road route used to access the monitoring stations will be used for egress. No shrub vegetation will be cleared/bladed using machinery; however minimal shrub vegetation will be impacted during off road travel to install and later remove equipment. Temporary impacts to plants will occur during installation.

**Wildlife:** As mentioned above, installation of the METS will require minimal off road vehicle travel which could affect habitat for wildlife. The eight foot wide off road access routes will be clearly marked with flags to ensure that all vehicles stay within the proposed areas. The area will be surveyed for presence of listed species prior to installation activity.

- (b) **Marine Life:** The project site is not located near the ocean. No impacts to marine mammals would occur.







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## Project Location

FIGURE 1

Desert Air Wind Energy Project

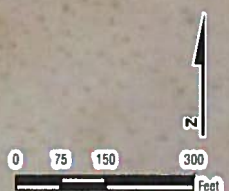
BLM Field Office Needs

-  Project Area
-  Proposed 60-meter MET
-  Existing Access Road
-  Off Road Vehicle Path

Township 2 North  
Range 15 East  
Section 22

1 413 ft

Township 2 North  
Range 15 East  
Section 23







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**Proposed MET Locations**

**Figure 2**



BLM Field Office Needs

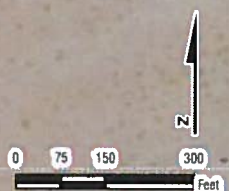
-  Project Area
-  Proposed 60-meter MET
-  Existing Access Road
-  Off Road Vehicle Path

Township 1 North  
Range 15 East  
Section 3

Township 1 North  
Range 15 East  
Section 2





343 ft

2



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**BLM Field Office Needs**

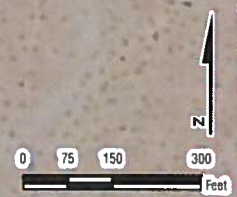
-  Project Area
-  Proposed 60-meter MET
-  Existing Access Road
-  Off Road Vehicle Path

Township 1 North  
Range 15 East  
Section 24

192 ft  
3



Township 1 North  
Range 15 East  
Section 25



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BLM Field Office Needs

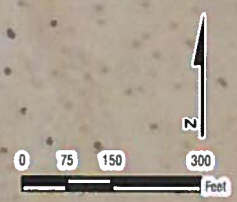
- Project Area
- Proposed 60-meter MET
- Existing Access Road
- Off Road Vehicle Path

Township 1 North  
Range 16 East  
Section 17

4





1,197 R

Township 1 North  
Range 16 East  
Section 20



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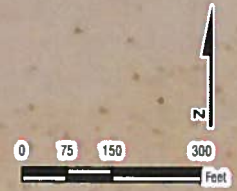
BLM Field Office Needs

-  Project Area
-  Proposed 60-meter MET
-  Existing Access Road
-  Off Road Vehicle Path

Township 1 North  
Range 16 East  
Section 11





5  
1,213 ft

Township 1 North  
Range 16 East  
Section 14



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**BLM Field Office Needs**





-  Project Area
-  Proposed 60-meter MET
-  Existing Access Road
-  Off Road Vehicle Path

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**Proposed MET Locations**  
Figure 7

BLM Field Office Palm Springs

-  Project Area
-  Proposed 60-meter MET
-  Existing Access Road
-  Off Road Vehicle Path

Township 1 South  
Range 17 East  
Section 30





7  
373 ft  
62

Township 1 South  
Range 17 East  
Section 31



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BLM Field Office Palm Springs


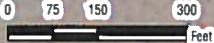
-  Project Area
-  Proposed 60-meter MET
-  Existing Access Road
-  Off Road Vehicle Path

Township 2 South  
Range 17 East  
Section 7

Township 2 South  
Range 17 East  
Section 18





8  
175 ft

177

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BLM Field Office Palm Springs

-  Project Area
-  Proposed 60-meter MET
-  Existing Access Road
-  Off Road Vehicle Path

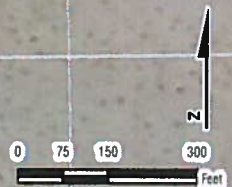
Township 2 South  
Range 16 East  
Section 36

1,010 ft 9

Township 2 South  
Range 17 East  
Section 31



Township 3 South  
Range 17 East  
Section 6



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# Delaware

PAGE 1

*The First State*

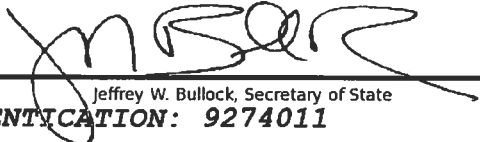
I, JEFFREY W. BULLOCK, SECRETARY OF STATE OF THE STATE OF DELAWARE, DO HEREBY CERTIFY THE ATTACHED IS A TRUE AND CORRECT COPY OF THE CERTIFICATE OF AMENDMENT OF "CADIZ VALLEY WIND, LLC", CHANGING ITS NAME FROM "CADIZ VALLEY WIND, LLC" TO "DESERT AIR RENEWABLES, LLC", FILED IN THIS OFFICE ON THE TWENTY-FIRST DAY OF DECEMBER, A.D. 2011, AT 6:37 O'CLOCK P.M.

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You may verify this certificate online  
at [corp.delaware.gov/authver.shtml](http://corp.delaware.gov/authver.shtml)



  
Jeffrey W. Bullock, Secretary of State  
AUTHENTICATION: 9274011

DATE; 01-05-12

**STATE OF DELAWARE  
CERTIFICATE OF AMENDMENT**

1. Name of Limited Liability Company: Cadiz Valley Wind, LLC
2. The Certificate of Formation of the limited liability company is hereby amended as follows:

The name of the entity is changed from Cadiz Valley Wind, LLC to Desert Air Renewables, LLC

IN WITNESS WHEREOF, the undersigned have executed this Certificate on the 22 day of December, A.D. 2011.

By:



Authorized Person(s)  
Elizabeth Weir, Assistant Secretary  
of First Wind California Holdings, LLC.

Name: the Member of Cadiz Valley Wind, LLC

Print or Type