RE: Administrative Conditional Use Permit PLN2018-00186, Meteorological Equipment Towers, on APNs 099B-6225-001-00 & 099B-6250-001-00 (property of Waste Management of Alameda County, Inc. or Oakland Scavenger Co.)

Dear Applicant:

Please find enclosed the conditions of approval for Administrative Conditional Use Permit PLN2018-00186, a request to allow installation of one meteorological equipment tower (MET), which was conditionally approved on September 25, 2018.

This action becomes final on October 5, 2018, unless prior to that date there is an appeal filed with the Board of Supervisors, Administration Building, 1221 Oak Street, Room 536, Oakland, California, 94612, or with the Planning Department, 224 W. Winton Avenue, Hayward, CA 94544.

If you have any questions concerning this matter, please free to contact Andrew Young at (510) 670-5400, or at andrew.young@acgov.org.

Sincerely,

Albert Lopez
Planning Director
Community Development Agency

Encl. Conditions of Approval—PLN2018-00186, Exhibit A (including letter, Project description and Best Management Practices), & Exhibit C, Alameda County Fire Department Requirements

cc: Aarty Joshi / Richard Davis, NRG Renew LLC, 100 California St., Ste. 400, San Francisco, CA 94111
James Wilson, Waste Management of Alameda County, Inc., 172 98th Ave., Oakland, CA 94603
Amy Fuller, Jacobs Engineering, 402 W. Broadway, Ste. 1450, San Diego, CA 92101
Alameda County Building Inspection Department
Alameda County Fire Department
CONDITIONS OF APPROVAL – PLN2018-00186

1. This Administrative Conditional Use Permit authorizes construction of two meteorological equipment towers (METs), approximately 60 meters in height and guy-wire supported, to be operated for a maximum period of one year (365 calendar days), with expiration of this Permit on September 25, 2019, unless an application for renewal of this Permit is submitted prior to that date. The METs may be built on two of four approximate locations shown on Exhibit “A” (Figure 1, Meteorological Tower Locations, Reclaimed Wind Met Tower Project), on two adjacent parcels (among several adjacent parcels owned by either Oakland Scavenger Company or Waste Management of Alameda County, Inc., operated as the Altamont Landfill and Resource Recovery Facility), said two parcels being located approximately a ¼ mile north of Altamont Pass Road and 1 mile east of Dyer Road, with gate access located on the north side of Altamont Pass Road, approximately 1.1 miles east of Dyer Road, unincorporated Livermore area of Alameda County, and bearing Assessor’s Parcel Numbers (APN) 099B-6225-001-00 & 099B-6250-001-00.

Construction of said METs is deemed categorically exempt from the provisions of the California Environmental Quality Act (CEQA), in accordance with state CEQA Guidelines, Section 15303 (Class 3), as the project consists only of a small accessory structure of a utility character, or may also be recognized as categorically exempt under Section 15306 (Class 6) of the CEQA Guidelines for data collection, research and resource evaluation activities which would not result in a serious or major disturbance to an environmental resource. The MET is also consistent with the Program Environmental Impact Report for the Altamont Pass Wind Resource Area Repowering Program, which encompasses the project site and anticipated new infrastructure such as METs to support the development of new and replacement wind turbines.

2. The Applicant (Reclaimed Wind LLC), owner or successor shall defend, indemnify, and hold harmless Alameda County or its agents, officers, and employees from any claim, action, or proceeding against Alameda County or its agents, officers, and employees to attack, set aside, void, or annul Administrative Conditional Use Permit PLN2018-00186 or any subsequent and directly related such Permit, or any combination thereof. Such indemnification shall include, but not limited to, an awards of costs and attorney's fees incurred by Alameda County in its defense. The County shall promptly notify owner or successor of any challenge.

3. The Applicant shall apply for and obtain approval of a Building Permit from the Building Inspection Department, 399 Elmhurst Street, Hayward, CA 94544, (510) 670-5440. The building permit application shall comply with building codes in effect at the time of submission, and a California licensed architect or engineer is to be designated as the
design professional responsible for the project design submittal. A soils report and geological study may be required. The MET tower will also be subject to review by the Alameda County Fire Department, which will assess specific fire and building code issues at the time of the building permit application and review.

4. The Applicant shall comply with all regulations of the Alameda County Fire Department, and the Applicant and property owner shall maintain Fire Department access roads to the MET site from the access gate. Permittee shall be responsible for compliance with Exhibit C, the Altamont Pass Windfarms Fire Requirements dated September 22, 2005. (Copy enclosed). The Applicant may contact the Department at 399 Elmhurst Street, Suite 141, Hayward, CA, 94544, or at (510) 670-5853.

5. The MET guy wires shall be equipped with bird-diverters spaced appropriately and according to recommendations of a qualified biologist. At least two photos of the installed bird diverters and a letter from the biologist, affirming that the diverters would be effective in minimizing avian collision, shall be submitted to the Planning Director prior to Final Inspection.

6. The MET shall be comply with any applicable FAA requirements for safety lighting. Although its height of approximately 198 feet is less than the 200-foot threshold to be subject to FAA lighting requirements, it may be subject to lighting requirements if determined to be appropriate by the Building Official.

7. The Applicant shall carry out the Best Management Practices listed in its application Attachment C, to the extent not modified by these conditions, such as conducting pre-construction on-site biological resource surveys to validate that special-status wildlife or plant species will not be adversely affected, construction worker training regarding the protection of protected or special-status wildlife, plants or habitat resources, and control of food or drink refuse.

8. No garbage, litter, or debris shall be allowed to accumulate on or near the MET site except as authorized under the approved Facility Permit, and the site shall be maintained in a manner appropriate to the site.

9. Any exterior lighting shall be installed in accordance with a permit issued for this purpose by the Building Inspection Department.

10. No signs are to be installed in conjunction with this permit except as required for the purpose of identification and or direction and shall otherwise be in compliance with the County Zoning Ordinance as to size, height, and location.
11. This permit shall expire on September 25, 2019. Applicant shall either remove the MET by that date, or shall have submitted an application for a new Administrative Conditional Use Permit to authorize its continued operation for an additional period of time, not to exceed one year.

12. Permittee shall provide written notification to the Planning Director upon cessation of operations on the site. The Applicant or his/her successor, or the property owner shall remove the MET and improvements authorized under this permit from the site and the property shall be returned to its pre-application condition within 30 days of cessation.

______________________________
ALBERT LOPEZ - PLANNING DIRECTOR
ALAMEDA COUNTY PLANNING DEPARTMENT
EXHIBIT C

ALTAMONT PASS WINDFARMs
FIRE REQUIREMENTS

ADOPTED 9-22-2005

I. APPLICABILITY

A. Intent. It is the intent of these conditions to provide a reasonable level of fire safety for the operations of wind turbines, related equipment and associated activities in fire hazardous areas.

B. Scope. These conditions shall apply to all property, buildings, structures, operations, and facilities which are owned, leased, operated, maintained or under your control.

C. Responsibility. It is the responsibility of the company to assure all employees and all contractors are informed and adhere to state and local codes and regulations and these conditions of approval.

II. DEFINITIONS

A. ACFD is the Alameda County Fire Department. ACFD is a local fire district governed by the Alameda County Board of Supervisors. This district has responsibility for preventing and suppressing fires within their jurisdiction which includes the majority of the unincorporated areas of Alameda County and includes lands which also fall within the responsibility of CDF.

B. CDF is the California Department of Forestry and Fire Protection. CDF is a state department having the financial responsibility of preventing and suppressing fires on lands defined by statute which includes the majority of wildlands in the unincorporated area of Alameda County.

C. SRA is State Responsibility Area. This is land which in CDF has the financial responsibility of preventing and suppressing vegetation fires as defined by statute.

D. Hazardous Fire Area is land which is covered with grass, grain, brush or forest, whether privately or publicly owned, which is typically referred to as rural or agricultural lands and includes all State Responsibility Areas.

E. Hazardous Operations are those operations and activities which occur anytime flammable vegetation exist and which normally produce sparks or flames such as welding, grinding, cutting, and mowing.
F. **High Fire Danger** exist anytime flammable ground vegetation exist and any one of the following conditions exist:

1. Air Temperature is 90 degrees Fahrenheit or greater.
2. Wind Speed is 8 miles per hour or greater.
3. Relative Humidity is 20% or less.

Exceptions:

(1) When wind speeds are 15 mph or less and the relative humidity is greater than 60%.

(2) When Wind speeds exceed 15 mph and the relative humidity is greater than 80%.

G. **Very High Fire Danger** exists during the declared fire season when any one of the following conditions exist:

1. Winds are 25 mph or more.
2. Relative humidity is less than 15%.

Exception: When relative humidity is greater than 80%.

### III. BUILDINGS AND STRUCTURES

A. **Clearances.** All buildings and structures which are owned, leased, operated, maintained or under your control which are upon or adjoining hazardous fire areas shall be maintained with an effective firebreak by removing and clearing away flammable vegetation and combustible growth from within 30 feet of such buildings or structures.

Additional clearances of up to 100 feet may be required by CDF or the ACFD if, after inspection, such clearances are deemed necessary.

B. **Clearances.** Where buildings or structures are located closer to property lines than the minimum clearances required, clearances shall be made up to the property line, and efforts shall be made to gain permission to clear flammable vegetation from the adjoining property line as necessary to meet the clearance requirements.

If permission is not granted by the adjoining property owner, proof that such permission was requested and denied shall be presented to the Alameda County Fire Department, along with the name, address and phone number of the adjoining property owner.
Note: Clearance requirements for wind turbines are in Section VI and requirements for electrical collection, transmission, and distribution lines are in Section IV.

C. Location. New buildings and structures shall be set back from property lines a distance equal to the minimum vegetation clearance distance requirement.

Reduction in setbacks may be permitted where the adjoining property owner has provided for an allowance which would permit proper clearances to be provided.

D. Chimneys. Chimneys and stovepipes used with fire places or heating appliances in which solid or liquid fuel is used shall be maintained with a spark arrester and, any portion of any tree or combustible vegetation which extends within 10 feet of the outlet of the chimney or stovepipe shall be removed.

Spark arresters shall have an area not less than four times the net free area of the chimney it serves. Spark arresters shall be constructed of a heavy wire mesh having openings which will not permit the passage of a sphere having a diameter larger than 1/2 inch nor block the passage of a sphere having a diameter less than 3/8 inch. Spark arresters shall be adequately supported and secured.

E. Roofs. The roof of any structure shall be maintained free of leaves, needles, or other dead vegetative growth, and any tree or other combustible vegetation which is adjacent to or overhangs any building shall be maintained free of dead or dying wood.

F. Roofs. All new roofs or re-roofing exceeding 50% of the roof area shall be done with a minimum Class B fire resistant roof assembly.

G. PRC 4290. All construction shall meet the requirements of the Public Resource Code 4290, Title 14, Division 1.5, Chapter 7, California Code of Regulations concerning but not limited to addressing, access roads and water supply. Where ACFD fire codes and standards are more restrictive, then their provisions shall apply.

IV. ELECTRICAL COLLECTION, TRANSMISSION AND DISTRIBUTION LINES

A. Pole and Transmission Tower Clearance. Electrical lines which are owned, leased, operated, maintained, or under your control which are located upon or adjacent to hazardous fire areas shall maintain around
and adjacent to poles supporting a non-exempt switch, fuse, transformer, lightning arrester, line junction, dead end, or corner pole, an area free of flammable vegetation for a distance of not less than 20 feet in diameter except as noted in the next paragraph.

A tear drop shaped clearance of 10 feet minimum, with 20 foot minimum down wind and/or up-slope from the pole is acceptable. Additional clearance may be required when conditions demonstrate that 20 feet in diameter is inadequate.

Where existing clearance practices are greater than 20 feet in diameter, the minimum clearances being provided by the current practice shall be maintained.

Lines used exclusively as telephone, telegraph, messenger call, alarm transmission or other lines classed exclusively as communication circuits are exempt.

B. **Conductor Clearances.** Conductors on poles or transmission lines, shall be provided with clearances as specified in the Public Resource Code, Section 4293. For conductors of 750 volts or less, a minimum clearance of two feet shall be maintained.

C. **Exempt Hardware.** Where exempt hardware exists as defined by Title 14, California Code of Regulations, Section 1258, such hardware shall be utilized on all new and replacement parts.

D. **Standards.** All new construction shall be constructed to the minimum requirements of the National Electrical Code and for overhead transmission lines the CA Public Utilities Commission General Order 95 and where financially and practically feasible, all electrical installation should go underground.

V. AVIAN ELECTROCUTION PROTECTION

A. **Existing Overhead Power Lines.** Riser poles, corner poles, poles with pole top transformers, capacitor banks and metering sets shall be equal to or exceed the following:

1. All jumper wires shall be insulated with a minimum 5 kV rating.
2. All exposed terminals shall be covered by approved wildlife boots.
EXHIBIT C

3. All straight combination arms on riser poles shall be made of non-conductive material. Aluminum type material is prohibited.

4. Bonding of pole top devices mounted on non-conductive arms shall be done with insulated wire.

5. Poles with a history of electrocutions shall be modified on a case by case basis within 30 days from the date of the electrocution event.

B. **New Overhead Power Lines.** New overhead power lines shall meet all the requirements noted in Section V-A items 1 through 5, and as follows:

1. Compliance with PG & E standard #061149 Raptor-Protected Primary Construction Wood Pole Distribution Lines except as modified herein to require bonding of pole top devices mounted on non-conductive arms with insulated wire.

C. **Additional Measures.** Where these measures or equivalent have not prevented bird electrocution, windfarm companies shall take additional measures, as necessary, to reasonably prevent the electrocution of birds.

D. **Alternate Means.** Alternate means of protection providing the same practical effect as these requirements may be utilized upon approval by the Zoning Administrator and fire authorities.

VI. WIND TURBINES

A. **New Windtowers.** Newly constructed windtowers which are not totally enclosed shall be provided with a yaw damper or other approved method which will prevent the over-twisting of pendent cables.

B. **Existing Windtowers.** Existing windtowers, which are not totally enclosed, shall be provided with a twisted pendent cable sensor shutdown or a yaw damper system whenever the windtower is re-deployed or rebuilt.

Existing windtowers which have a history of nine or more "visits/services" with 45 twists in any twelve month period shall have a yaw damper or twisted pendent cable sensor shutdown installed no later than August 1, 1994.

Existing windtowers which have a history of six to eight "visits/services" with 45 twists in any twelve month period not equipped with a yaw damper or twisted pendent cable sensor shutdown shall be maintained free of
flammable vegetation to a distance of not less than thirty feet from around
the base of the tower measured from the outer legs of the tower.

When a row of windtowers has a history of two or more pendent twist
visits/services with 45 twists in any twelve month period per windtower,
then every tower in the row shall have a yaw damper or a twisted pendant

C. Clearances. Vegetation clearances around wind turbines and their
associated electrical component such as panel boxes and transformers
may be required by CDF or the Alameda County Fire Department when
clearances are determined necessary by the fire agency because of actual
or potential fire risk associated with the equipment. Such clearances shall
be adequate to mitigate the risk which necessitate the clearances.

VII. MACHINES AND POWER TOOL USAGE, other than vehicles and turbines.

A. General Provisions. Any time flammable vegetation exist, no person
shall operate any motor, engine, welding, cutting, grinding, or other tool or
equipment from which a spark, fire or flame may originate without meeting
all of the following requirements:

1. Vegetation clearances of 15 feet shall be provided in all directions
   around the area of operation.

2. A serviceable round point shovel at least 46 inches in length and a
   minimum 5 gallon water backpack fire pump shall be maintained
   within 25 feet of the operation.

3. A radio or equivalent shall be available at the operation site in
   which to report emergences.

B. Hazardous Operations Prohibited. Any time flammable vegetation
exist, operations, such as welding, grinding, cutting, and mowing and
other activities which normally produce sparks or flames shall not be
permitted during periods of high or very high fire danger.

C. Hazardous Operations Precautions. Any time flammable vegetation
exists, and such hazardous operations are not prohibited because of high
or very high fire danger, such operations may be permitted if the
requirements of item VII-A are met as well as the following:
1. A fire watch shall be maintained on the ground within 25 feet of the hazardous operation. The function of this person during the hazardous operation is to watch for fires.

2. The person maintaining the fire watch shall be equipped with a radio or similar device for reporting emergencies, a minimum 46 inch long round point shovel, and a 5 gallon backpack water pump.

3. An additional round point shovel and 5 gallon backpack water pump shall be available within 50 feet of the hazardous operation.

4. In addition to the normal 15 foot clearance requirements, an additional 15 feet of clearance or wetting down of vegetation shall occur. The water utilized for wetting the area shall not be from water required for the backpack water pumps, and the area shall be maintained wetted throughout the operation. Where practical, welding curtains or screens shall also be utilized.

5. When possible, welding, cutting and spark producing operation shall occur at grade level. When such is not possible welding curtains or screens shall be used around the operation and so installed to prevent sparks or slag from traveling beyond the cleared area at ground level.

D. Spark Arresters. Spark arresters shall be installed and maintained on the exhaust system(s) of any internal combustion engine.

VIII. GENERAL FIRE SAFETY MEASURES

A. Vehicles. All field work vehicles, including sub-contractors, shall be provided with a means for reporting emergencies and shall have at least one round point shovel at least 46 inches in length, one 5 gallon backpack water pump, and a minimum 1A5BC fire extinguisher.

Vehicles not engaged in field operations and which do not routinely access the site need not comply.

B. Vehicles. Vehicles shall not travel off-road or upon roads which have not been maintained free of flammable vegetation during periods of very high fire danger except when necessary because of an immediate hazard to life or property. Vehicle travel during lesser levels of fire danger shall only occur when operationally necessary.
Vehicles which travel over flammable vegetation shall have adequate ground clearance so as to prevent any part of the exhaust system or exhaust emissions from coming in contact with the flammable vegetation. Vehicles shall not be parked "at idle" at any time over flammable vegetation.

C. **Vehicles.** Approved spark arresters shall be installed and maintained on the exhaust system of any internal combustion engine that is or will be used in a hazardous fire area unless such as a muffler as defined by the Vehicle Code, or has a turbo charge engine where all exhaust gases pass through the rotating turbo wheel, and there is no exhaust by-pass to the atmosphere, and the turbo charge is in effective mechanical condition.

D. **Fire Tools.** A fire tool cache shall be maintained at each maintenance or supply building as necessary to assure all vehicles, including sub-contractors' vehicles, are equipped with the fire protection items specified by these conditions of approval when entering a hazardous fire area.

E. **Orientation.** Prior to the fire season, and upon hire of new employees or sub-contractors, an orientation concerning fire hazards, fire safety, emergency notification procedures, use of fire safety equipment and fire safety rules and regulations, including those noted in the conditions of approval shall be provided by the company for those employees who may work in the fire hazardous areas.

F. **Smoking.** Smoking shall not be permitted in hazardous fire areas except in vehicles parked in areas cleared of flammable vegetation and in designated smoking areas at building sites.

G. **Debris Clearance.** All areas of the windfarms, except those areas specifically designated and maintained for such items, shall be kept clear of construction, maintenance, and miscellaneous parts and debris so as to minimize hazards to emergency vehicle operations and emergency personnel.

H. **Mowing.** Mowing is considered a hazardous practice when flammable vegetation exists and should only occur when vegetation is nonflammable.

I. **Unforeseen Problems.** Any installation which results in a fire hazard shall be addressed by the company and measures taken to prevent or mitigate the problem. The Alameda County Fire Department or CDF may require measures to mitigate or correct any such problems based on objective fact.
J. **Maintenance/Inspections.** Fire safety requirements and conditions shall be maintained at all times. Inspections and reviews shall be provided in order to maintain compliance with fire safety requirements and conditions.

K. **Reasonable Measures.** Nothing in these conditions are intended to diminish the responsibility of the windfarm companies from taking any additional reasonable and prudent measures necessary to preclude the ignition and rapid spread of fire.

IX. **IDENTIFICATION/SIGNAGE**

A. **Roads.** A road identification and mapping plan shall be developed and implemented in cooperation with the County, CDF, ACFD, landowners, and windfarm companies. Such mapping shall include water supply locations, buildings and other major features.

   All gates, main entrances, through roads, intersecting roads, road junctions, "y's", and "t's", shall be identified with approved signage. Identification of minor spur roads is optional and shall be determined in the field.

B. **Addresses.** All buildings or building groups shall be identified with addressing in accordance with the county address sequence. Addresses shall be clearly posted on buildings, entrance gates, or next to roadway entrances so as to be clearly visible from both travel directions along the roadway. Posting shall be as approved by the ACFD.

X. **ROAD ACCESS/FIRE BREAKS**

A. **Roads.** New access roads shall be provided in accordance with Public Resource Code 4290, Title 14, Division 1.5, Chapter 7, California Code of Regulations, and the ACFD codes and standards. Where possible, roads shall be placed so as to take advantage of the topography in order to maximize the effectiveness of the roads as a fire break.

B. **Approvals.** New roads shall have plans submitted to the ACFD for review and approval prior to construction.

C. **Clearances.** All main and through roads, and those roads designated as required fire breaks shall be maintained free of flammable vegetation.

D. **Maintenance.** All required roads shall be maintained accessible to fire apparatus, and shall be determined upon development of the mapping plan.
XI. WATER SUPPLIES.

A. Water Storage. Year-round water supplies of not less than 5000 gallons capacity shall be provided for fire fighting purposes in strategic locations within the site. Such locations shall be noted on the road map plan. The number and location of such water supplies shall be determined in cooperation with the landowners, CDF, ACFD, and windfarm company.

XII. ANNUAL FIRE PREVENTION PLAN.

A. Required Plan. On or before April 15th of each year the company shall file a current copy of its fire prevention plan with the ACFD and the Department of Forestry and Fire Protection. The ACFD and/or CDF may review this plan and if necessary require modification. The elements of the plan, as a minimum, shall include:

1. A description of the operating area along with a map showing major access routes, significant hazards, fire fighting water supply locations, and a 24 hour emergency contact phone number.

2. An analysis of fire causes going back a period of no less than two years. List any trends indicated by the fire causes along with a plan of correction/proposed solutions for preventing these fire causes. Provide an implementation and completion date for all plans of correction.

3. Procedures pertaining to reporting of emergencies, curtailment of hazardous activities during high and very high fire danger periods, weather monitoring for establishing the fire danger, and company action plan for fire suppression.

4. Your training/orientation program for your employees and contractors pertaining to fire safety, suppression, and emergency notification.

5. A list of state and local fire laws applicable to your operations, and any conditions of approval pertaining to fire safety along with your company operating procedures which indicate your compliance with these laws and/or conditions of approval.
6. Staffing and equipment assignment and inventories as follows:
   a. Company emergency incident manager and 24 hour contact phone number.
   b. General staff responsibilities and specialist responsibilities.
   c. Available motorized equipment for fire fighting and support operations.
   d. Location, type, and number of fire fighting tools and equipment.

XIII. FEES
   A. Existing Fees. Plan submittal and plan review; construction and installation inspections; permits; and regular inspections shall have fees paid to the County providing such services in accordance with the department’s adopted fee schedule.
   
   B. Water/mapping Fees. Fees, based on the reasonable costs, for developing and implementing the water supply plan and road mapping requirements, shall be provided for by the windfarm companies to the agency incurring the costs.

Exhibit C_2005 Fire Requirements
Attention: Andrew Young  
Alameda County Community Development Agency  
Planning Department  
224 West Winton Avenue, Room 111  
Hayward, CA 94544  
andrew.young@acgov.org  

August 31, 2018

Subject: Administrative Conditional Use Permit Application for Reclaimed Wind Met Tower Project in Alameda County, California

Dear Mr. Young,

On behalf of Reclaimed Wind LLC, a subsidiary of NRG Renew LLC (NRG), the enclosed application materials are being submitted to request issuance of an Administrative Conditional Use Permit (ACUP) from Alameda County for the Reclaimed Wind Met Tower Project (project), located at the Altamont Landfill and Resource Recovery Facility site owned and operated by Waste Management, in Alameda County.

Contents of this letter, including attachments and figures, are intended to provide required materials for issuance of an ACUP for the proposed project. As required, the following materials are enclosed:

- Attachment A: Alameda County Planning Department Standard Application form  
- Attachment B: Administrative Conditional Use Permit Application Supplement  
- Attachment C: Project Description  
- Attachment D: MET Schematic  
- Attachment E: Representative Site Photographs  
- Figure 1: Meteorological Tower Locations  
- $500 ACUP application filing fee (Credit Card Payment Authorization Form)

A hard copy of this application package with wet signatures will be sent Attn: to you via FedEx. If you require any additional information or have any questions, please feel free to contact me at (619) 994-2532.

Sincerely,

Amy Fuller  
Project Manager, Jacobs

Copies to: Aarty Joshi/NRG  
Richard Davis/NRG
Attachment C – Project Description

Project Name

Reclaimed Wind Meteorological Tower Project (Project)

Project Location and Directions to the Site

The Project is located at the Altamont Landfill and Resource Recovery Facility site owned and operated by Waste Management, in the Altamont Pass Wind Resources Area (APWRA) in Alameda County. The Altamont Landfill and Resource Recovery Facility address is:

10840 Altamont Pass Road
Livermore, California 94550

From Interstate 580 (I-580), take exit 59 for North Flynn Road. Continue onto Carroll Road, turn right onto Altamont Pass Road. After approximately 2.2-miles, turn left on a private-restricted usage road for entrance into the Altamont Landfill and Resource Recovery Facility.

Project Overview

The Project includes construction of up to two temporary meteorological equipment towers (METs) up to 50-meters in height, including guy wires, booms and instrumentation, logger and modem (see Attachment D, MET Schematic). The two METs are proposed to collect wind energy data in the area for one year, with the possibility of up to one additional year, upon approval of Administrative Conditional Use Permit renewal. The information collected by the METs will provide the necessary data needed to inform siting of a potential future wind energy project which, in turn, will provide an economically viable source of clean, renewable electricity generation that meets California’s growing demand for power and fulfills numerous State and national renewable energy policies as well as County’s goals to provide environmentally-sensitive, clean, renewable wind energy.

There are four locations currently under consideration for the two METs, as listed below and as shown on Figure 1 (Meteorological Tower Locations):

<table>
<thead>
<tr>
<th>Site Number</th>
<th>Latitude</th>
<th>Longitude</th>
</tr>
</thead>
<tbody>
<tr>
<td>MET 1</td>
<td>37° 45' 50.6&quot;</td>
<td>-121° 39' 31.4&quot;</td>
</tr>
<tr>
<td>MET 2</td>
<td>37° 45' 46.5&quot;</td>
<td>-121° 38' 45.4&quot;</td>
</tr>
<tr>
<td>MET 3</td>
<td>37° 45' 26.7&quot;</td>
<td>-121° 37' 58.9&quot;</td>
</tr>
<tr>
<td>MET 4</td>
<td>37° 45' 42.2&quot;</td>
<td>-121° 38' 01.5&quot;</td>
</tr>
</tbody>
</table>

Total temporary disturbance from project construction is anticipated to be approximately 0.023-acre. Disturbance is limited to ground compaction laying out the tower sections and excavation of the guy wire anchors. Project construction will be conducted over a two to four-week period. Each MET will take approximately three 8-hour days to construct utilizing a crew of 3 to 4 workers with 2 vehicles. Construction access will be provided via existing access roads for the existing landfill, and construction vehicles will utilize available parking areas within the landfill site. No new roads or road improvements will be required and no materials will be stored onsite. The Project does not include installation of new utilities. Data collected from the METs will be monitored remotely and will not require permanent onsite employees.

Site Conditions

As stated above, the Project is currently proposed on an active landfill site owned and operated by Waste Management. The site has also been previously developed as a wind energy facility and existing non-operational wind turbines remain within the boundaries of the landfill site.
Jacobs conducted a desktop review of the Project area for biological and cultural resources. Grassland habitat is found throughout the site; however, the site is generally disturbed due to existing landfill and wind facility development. The habitat is dominated by non-native annual grassland interspersed with seasonal drainages, intermittent creeks, and seasonal and perennial stock ponds. No vernal pools are known to exist in the project area and chaparral habitats that are indicative of higher elevations of the Diablo Range are also likely lacking. There are no aquatic resources present onsite including cattle stock ponds or state or federally jurisdictional drainage features. The closest potentially suitable breeding habitat to the Project occurs less than 500 feet from the MET-1 location. Proposed MET-2, MET-3, and MET-4 locations lie greater than 500 feet from aquatic breeding habitat. The waterbody in proximity to MET-1 appears to be an engineered earthen detention basin and its suitability as breeding habitat is unknown. Based on the habitat types present, and Jacobs’ knowledge of the California Natural Diversity Database (CNDDDB), and research of other available sources including the East Alameda County Conservation Strategy (EACCS), listed species San Joaquin kit fox, California red-legged frog, and California tiger salamander may be present onsite. In addition to these federal and state listed species, other special-status species could be present onsite, including but not limited to western burrowing owl, American badger, San Joaquin coachwhip, and coast horned lizard. Although the site is generally disturbed, special-status plant species could also be present.

Potential impacts to grassland habitat can be minimized by micro-siting MET locations in immediate area to previously disturbed areas and by adjusting disturbance areas, as needed, to avoid sensitive resources. Given previous disturbance as well as soil conditions at the site, it is unlikely that cultural and paleontological resources will be encountered. With implementation of the best management practices (BMPs) listed below, including conducting a pre-construction survey for biological resources and maintaining a biological resources monitor onsite during construction, impacts to sensitive resources are not anticipated.

In addition, as the METs are proposed inside an active landfill facility without presence of sensitive receptors, no impacts due to noise or light generation are expected. As MET construction will be limited in duration, and construction vehicles will utilize available parking areas within the landfill site, no traffic or parking-related impacts are expected.

CEQA Compliance

The proposed METs are categorically exempt from provisions of the California Environmental Quality Act (CEQA), in accordance with state CEQA Guidelines, Title 14 California Code of Regulations (CCR), Section 15303 and Section 15306:

- § 15303 New Construction or Conversion of Small Structures. Class 3 consists of construction and location of limited numbers of new, small facilities or structures; installation of small new equipment and facilities in small structures; and the conversion of existing small structures from one use to another where only minor modifications are made in the exterior of the structure.

- § 15306 Information Collection. Class 6 consists of basic data collection, research, experimental management, and resource evaluation activities which do not result in a serious or major disturbance to an environmental resource. These may be strictly for information gathering purposes, or as part of a study leading to an action which a public agency has not yet approved, adopted, or funded.

The Project qualifies under 14 CCRs § 15303 and § 15306 as the proposed METs are small accessory structures that collect meteorological wind data and will not result in a serious or major disturbance to an environmental resource.
Best Management Practices

All project-related activities will comply with standard BMPs, including the following:

- Guy wires will be equipped with bird-diverters, and spaced appropriately according to recommendations of a qualified biologist.
- The METs will comply with applicable FAA requirements for safety including having a painted tower and marker balls on guy wires.
- A pre-construction biological resources survey for special-status species will be conducted up to two weeks prior to ground disturbance.
- A Worker Environmental Awareness Training for all construction personnel and contractors, will be conducted prior to the start of construction to inform workers of their responsibilities for BMPs and other sensitive resources.
- During construction activities, a biological resources monitor will be onsite to monitor construction activities and minimize potential impacts to sensitive resources.
- All vehicle traffic will occur on established roads and will follow a 20 miles per hour speed limit on unpaved internal access roads.
- During construction, trash and construction debris will be removed from work areas daily. All food-related trash items, such as wrappers, cans, bottles, and food scraps, will be disposed of in closed containers and removed at the end of each workday from the Project site.
- All fueling and maintenance of vehicles and other equipment will occur offsite.
- As with any ground-disturbing Project, there is potential for discovery of buried cultural resources not detected through a surface observation. If new cultural resources or archaeological materials are discovered during ground-disturbing activities, all work within 100-feet of the discovery should cease, and the area should be protected until the find can be evaluated by a qualified archaeologist. If the find is determined to be potentially significant, the archaeologist, in consultation with the Native American representative (if appropriate), will develop a treatment plan that could include site avoidance, capping, or data recovery.
Tower Layout

TUBE SPECS (in order of assembly):

- **TOWER**
  - Base Tube (with pivot pin hole) 10" ø x 87'L (1 tube)
  - Plain Tubes: 10" ø x 87'L (4 tubes)
  - Plain Tube (short): 10" ø x 73'L (1 tube)
  - 10'-8" TRANSITION: 36'L
  - Plain Tubes: 8" ø x 87'L (15 tubes)

- **GIN POLE**
  - Base Tube (with pivot pin hole) 8' ø x 87'L
  - Plain Tubes: 8' ø x 87'L

"60m" OVERALL ERECTED HEIGHT: 60.26m (197'-8.25")

**LEVEL 6 (GREEN)**
- LABEL TEXT: 56.3m (183')
- ERECTED HEIGHT: 56.35m (185'-10.25')

**LEVEL 5 (BLUE)**
- LABEL TEXT: 46.5m (153')
- ERECTED HEIGHT: 46.57m (152'-9.25')

**LEVEL 4 (YELLOW)**
- LABEL TEXT: 38.7m (127')
- ERECTED HEIGHT: 38.74m (127'-1.25')

**LEVEL 3 (BLACK)**
- LABEL TEXT: 31m (101')
- ERECTED HEIGHT: 30.92m (100'-5.25')

**LEVEL 2 (WHITE)**
- LABEL TEXT: 23m (76')
- ERECTED HEIGHT: 23.11m (75'-9.75')

**LEVEL 1 (RED)**
- LABEL TEXT: 11.7m (38')
- ERECTED HEIGHT: 11.75m (38'-6.75')

(GIN POLE LENGTH SEE SITE LAYOUT MAP FOR ANCHOR LOCATIONS)

**THIRD LEVEL GUY PLACEMENT**

LOOP EACH GUY WIRE THROUGH ANCHOR EYE AND SECURE WITH 3 WIRE ROPE CLIPS. U-BOLTS TO BE ON DEAD END OF WIRE ROPE. TYPICAL 24 GUYS.

**EXHIBIT A**

RECEIVED
SEP 04 2018
BY: Acep
PEN 2018-00186
Site Layout

- TOWER
- BACK ANCHORS SHOULD BE UPHILL OR DOWNWIND

- SIDE GUY ANCHORS

- BASE PLATE
- SIDE GUY ANCHORS (INNER, CUTER)

- TURNING BLOCK
- BRIDLE ANCHORS
- WINCH ANCHOR

- DOWNHILL GUY ANCHORS

- 13.7m (45°)
- 30.48m (100°)
- 33.53m (110°)

- 47.42m (155.68°)
- 43.11m (141.52°)

- 14.94m (49°)

- 46m (.15') TYP
Notes:
- Met Tower setback assumed a tower height of 60 meters. Total setback is 221.85 ft.

Source:
1) Alameda County, 2017-2018; NRG Energy, 2018; USGS NAIP, 2016; USGS NHD, 2018; USFWS NWI, 2016; Waste Management, 2017-2018; ESRI World Topo Map

FIGURE 1
Meteorological Tower Locations
Reclaimed Wind Met Tower Project
<table>
<thead>
<tr>
<th>Representative Site Photographs</th>
</tr>
</thead>
<tbody>
<tr>
<td>MET 1: Photo looking northeast</td>
</tr>
<tr>
<td>MET 1: Gravel road adjacent to MET 1 location</td>
</tr>
</tbody>
</table>

MET 1: Gravel road adjacent to MET 1 location

MET 3: Photo looking southeast