

# Construction Waste Management Plan

**674 - Ocotillo Express LLC**

**Ocotillo, CA**

**For submittal to:**  
BLM / Imperial County

**Prepared by:**  
Blattner Energy, Inc.

**April 2011**

Date: 4-30-12

Name(s): BLM, Imperial County

**RE: Statement of Conformance with MM PHS-9 – Construction Waste Management / Reporting Plan**

Blattner Energy, Inc. (BEI) is knowledgeable of requirements listed in the Public Health and Safety Mitigation Measure PHS-9. BEI, on behalf of Ocotillo Express LLC, is hereby providing the County of Imperial and Bureau of Land Management (BLM) that we will implement the following Mitigation Measure (MM) for construction waste generated on the Ocotillo Express Wind Project.

**MM No. PHS-9**

- In order to eliminate the risk of generating disease vectors at the site, during project construction and operations, the Applicant shall ensure that trash is stored in closed containers and removed from the site at regular intervals. Open containers shall be inverted and construction ditches shall not be allowed to accumulate water. Construction and maintenance operations shall not generate standing water. Naturally occurring depressions, drainages, and pools at the site shall not be drained or filled without consulting with the appropriate resource agency (BLM, Imperial County, U.S. Army Corps of Engineers (ACOE), U.S. Fish and Wildlife Service (USFWS), California Department of Fish and Game (CDFG)) and obtaining the appropriate permits. The environmental monitor will ensure that standing water and large quantities of trash do not accumulate on site.

BEI has provided a Construction Waste Management / Reporting Plan (below) which outlines our procedure (s) for construction waste generated on the Ocotillo Express Wind Project.

Please contact me at with any questions or concerns.

Regards,

Field Engineer, Blattner Energy, Inc.

### INTRODUCTION

This Construction Waste Management (CMW) Plan was prepared by Blattner Energy, Inc. (BEI) to define our minimum practices which will be employed on the Ocotillo Wind Express Project to assure diversion of construction and land clearing (CDL) debris from landfill disposal and re-direct recyclable recoverable resources back into the manufacturing process.

### PROJECT DESCRIPTION

The Ocotillo Express Wind Project consists of installing 112 Siemens 2.3 MW wind turbine generators (WTG). The project is located approximately 3 miles north / northwest of Ocotillo, CA in Imperial County. The main construction activities on this project will include the following: building project roads, digging foundations, massive foundation concrete pours, trenching of electrical system, and installation of wind turbine generators.

### OBJECTIVES

Our primary objective of this plan is to limit the amount of generated construction waste through prevention by encouraging all material suppliers and subcontractors to evaluate required materials and limit the quantities of materials to those only required for this project. Excess materials brought to site that are not required for this project defeats the primary purpose of the CMW plan. An example of waste reduction is reducing unnecessary packaging from manufactured products. If excess packaging can be avoided, no one would have to be concerned with the cost and effort of collecting the excess packaging, separating it for recycling and transporting off-site. Our secondary objective of this plan is to divert recyclable construction waste materials from area landfills whenever possible. This goal will be accomplished by reusing materials to the greatest extent possible and recycling.

Recycling containers for construction waste such as wood, metal, concrete, cardboard, paper, plastic and aluminum will be provided. Employees must follow their due diligence for collecting, separating, sorting, and properly disposing of construction waste materials into corresponding receptacles on the project site.

During site-specific orientation for the project (required attendance before working on-site), our site management team will inform all employees, subcontractors, material suppliers, and visitors of our objectives for the CMW Plan. We will also make note of where current material receptacles are located on-site and pass this information on during orientation. Reference to the CMW Plan will be included in the Ocotillo Express Site Safety Program. Because a large part of the CMW pertains to taking appropriate management techniques, all supervisors shall read and be aware of the CMW. The orientation directed at the field crews will include the Waste Hierarchy Diagram with the following verbiage:

- Buy in bulk to reduce packaging
- Only buy what is needed
- Reuse construction materials when possible
- Use the Recycling Stations
- Don't litter
- Pick up trash even if it isn't yours.
- You see it, you own it!

### MATERIAL COLLECTION DETAILS

Below is a summary of materials BEI expects to encounter on-site during the construction of the Project. A description of how the material will be handled is included. The recycling and waste receptacles will be clearly labeled by BEI to prevent cross-contamination. It is the responsibility of each crew to sort and dispose materials at

the end of each shift and to dispose of properly. Waste segregation and disposal shall be overseen by the crew foreman.

Cardboard – A cardboard only dumpster will be provided in the laydown yard during the turbine installation phase of the project. Materials will be separated and placed in dumpster to be hauled away by processor.

LCD – Land clearing debris generated during the road construction phase will be mulched on-site and put in place to provide soil stabilization while also jump starting the re-vegetation process. BEI does not expect to haul any CDL off-site.

Concrete – Concrete wash dumpsters will be utilized during the foundation phase of the project. Excess concrete materials will be poured into wash dumpsters and hauled away by the processor. Processor will recycle material to be used in other aggregate products.

Metals – Steel dumpsters will be utilized during the foundation phase of the project. Excess rebar will be kept separate from other construction waste and be placed in the steel dumpster. Processor will haul away steel to be recycled. Copper, aluminum, brass, and stainless steel will also have a separate dumpster during the turbine installation and electrical system phase. These materials will be separated from other construction waste and be placed in marked dumpsters to be hauled / recycled by processor.

Plastic, paper goods, and aluminum cans – In areas where employees will typically convene for lunch, meetings, etc., Clearly labeled bins will be provided for each of the materials above. The bins shall be located indoors at the construction trailer. These materials will be separated to be hauled / recycled by processor. The receptacles will be emptied when full and at a minimum on a monthly basis.

Wood or Lumber – The project is expected to see limited quantities of both wood and lumber as they are typically not used in our construction activities. BEI will work with subcontractors and suppliers to limit the amount of wood and lumber materials to only those needed their scope of work. Additionally, BEI will coordinate with our processor to provide a separate wood only dumpster. Wood pallets are typically reused during construction for storage of construction supplies. Wood pallets will be collected in the laydown yard. When wood pallets are no longer in good condition, they shall be recycled in the wood dumpster.

Refuse – General construction waste will be collected by Allied Waste Services. The receptacles shall be covered and emptied regularly. BEI shall notify Allied Waste two days prior to the bin becoming full so that the waste collections provider can schedule accordingly so that overflow does not occur.

## **SEQUENCING AND TIMING**

Different phases of the project will require different types of materials, and thus a different approach from the waste management perspective. The general construction sequence would follow as such: Road Building → Turbine Foundations → Electrical Systems → Turbine Installation → Project Cleanup.

Road Construction – BEI will provide construction waste dumpsters in the laydown yard. Employee recycling for plastic, paper goods, and aluminum cans will be provided in areas where employees will typically gather (typically Office Trailer located in laydown yard). Waste dumpsters and employee recycling will continue through to the project cleanup phase.

Turbine Foundations – BEI will begin to utilize concrete waste dumpsters at each wind turbine foundation. These dumpsters will be moved / emptied as the project progresses. In addition the concrete waste dumpster, steel dumpsters will be brought on-site and staged in the laydown yard. Excess rebar from the foundations will be separated from general waste and put into the steel dumpster. Once the turbine foundation construction activities are complete, concrete waste dumpsters and steel dumpsters will have a final pickup by our processor.

Electrical Systems – Once our electrical subcontractor moves onto site, BEI will bring a separate metal dumpster for copper, aluminum, brass, and stainless steel. BEI will inform our electrical subcontractor of our CMW Plan objectives and we will expect them to follow our requirements.

Turbine Installation – When installation crews move on-site, BEI will bring cardboard dumpsters onto site. This dumpster is typically staged in the laydown yard but may be moved to strategic areas on-site as needed. Installation crews will be informed of our CMW Plan objectives and we will expect them to follow our requirements.

Project Cleanup – As part of the project closeout procedure, a general sweep of the entire project site is completed to ensure that no construction materials were left on-site. During this time, all construction materials will be cleaned up, separated, sorted, and placed into the proper receptacle. After the final cleanup, our processor will be notified to pickup and haul away all remaining dumpsters on-site.

## DUMPSTER MANGEMENT

BEI's management team will work our partnered processor / hauler to coordinate the delivery and removal of each material dumpster. Our project team will also be responsible for determining the placement of each specific dumpster and will work the processor / hauler, BEI employees, and subcontractors to inform them of the location / movement of dumpsters.

Each material dumpster (construction waste, concrete, metal – steel, metal – others, and cardboard) will be specifically marked by the processor / hauler to indicate exactly what material can be placed in each specified dumpster.

**BEI shall notify the processor/hauler at least two days prior to the receptacles becoming full so that they may be emptied timely. The following BEI contacts listed below may be contacted if receptacles need attention:**

## PROCESSOR / HAULER

BEI has begun the partnering process with area waste haulers / recyclers. We have identified the following as potential partners (this is preliminary and subject to change):

Allied Waste (Republic Services)  
Palo Verde Valley

Both offer separate material containers for the following: construction waste, metal – steel, metal – other, concrete, and cardboard. Additionally, both haul materials to the following locations:

Landfill  
104 Robinson  
Imperial, CA 92251

MRF – Recycling  
702 E Heil St  
El Centro, CA 92243

Our partner (s) may also be able to provide us with a breakdown of our waste diversion, if needed. Please see Exhibit 1 for an example report.

EXHIBIT 1

