

**Baron Winds Project**  
**Preliminary Quality Assurance and Quality Control Plan**

**August 2017**

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## **SECTION 1: STATEMENT OF AUTHORITY AND RESPONSIBILITY**

EverPower recognizes that in today's competitive marketplace, effective quality systems are essential when developing, constructing, and operating wind powered electricity generating facilities. Therefore, it is the policy of EverPower, its contractors, and affiliates to adhere strictly to this quality control program on each project that is executed.

Full authority for the implementation and administration of the quality controls described in this plan has been delegated to the Quality Control Manager (QCM). The QCM has the responsibility and organizational freedom to identify quality control problems, stop work, recommend solutions and verify resolution of such problems. The QCM shall also have the responsibility of documenting the established Quality Assurance / Quality Control (QA/QC) Programs in a manner that strives to comply with applicable Quality Standards.

Construction Site Managers are responsible for their assigned project's QA/QC activities. They may delegate the performance of their assigned duties to qualified individuals, but they shall retain full responsibility for completing their projects in strict accordance with this QA/QC Plan and any project-specific plans and specifications.

The quality of all subcontractors and vendors shall be the joint responsibility of the QCM and the applicable Construction Site Manager. All projects will be executed in a manner that emphasizes safety, quality, schedule and maximum cost effectiveness.

## **SECTION 2: ORGANIZATION**

EverPower management has the responsibility to define and document its policy and objectives for, and commitment to, quality. Management will ensure that its policy is understood, implemented, and maintained at all levels of the organization.

All employees have the responsibility and authority for implementation of established QA/QC activities. Resolution of conflicts in QA/QC policies shall flow through the organizational chain of command as follows:

1. Field Employees
2. Craft Leaders
3. General Foreman
4. Field Superintendents
5. General Superintendent

6. Project QA/QC Manager
7. Construction Site Manager
8. Quality Control Manager
9. President

It is the responsibility of any employee that manages, performs, or verifies work affecting quality to:

- a) Initiate action to prevent the occurrence of work or service nonconformity;
- b) Identify and record any quality problems;
- c) Initiate, recommend, or provide solutions through designated channels;
- d) Verify the implementation of solutions;
- e) Control further processing, delivery, or installation of non-conforming work until the efficiency or unsatisfactory condition has been corrected.

### **SECTION 3: SAFETY**

The EverPower QA/QC Plan requires that all contractors submit prior to execution of a Construction Services Agreement (CSA) a preliminary site-specific safety and health plan for review and comment.

EverPower places safety at the highest priority and intends for all construction projects to be carried out accident and injury free. Each contractor shall be responsible for all aspects of health and safety of all its personnel and those of its subcontractors during the design, construction, commissioning and handover of the project.

Upon signing a CSA and prior to the commencement of construction, EverPower requires that all contractors produce a site-specific construction safety and health plan conforming to the requirements of the Occupational Safety and Health Administration (OSHA), the U.S. Environmental Protection Agency (EPA), the Americans with Disabilities Act (ADA) and relevant regulations of the State in which the project is located, and good industry practice. Such plan shall be updated on a regular and frequent basis to reflect the progress and changes as the project progresses.

The EverPower plan stipulates that each contractor is required to safety train any and all personnel, including subcontractor employees, who work on the project jobsite. Each contractor will maintain logs of the names of personnel who are safety trained on site. Each contractor will provide a hard hat sticker or some other methodology for identifying personnel at the site who have been safety trained.

EverPower and/or its designated contractor(s) shall erect and maintain such danger signs, signals, lights, guards, and notices as may be necessary to adequately protect all construction work and all site personnel

against injury or property damage. The following signage and/or notices will be established at the commencement of construction:

- a) Personal Protective Equipment (PPE) requirements for access to the site (where hard hats, safety glasses, safety vests, and harnesses must be worn).
- b) Permanent "No Unauthorized Entry" signs on site gates and project entrances.
- c) Temporary speed limit signs at road entry points to the Project Site and at other locations as may be required.
- d) Stop signs at road entry points from the construction site to the public road junction.
- e) All temporary safety signage shall be in English and Spanish.
- f) Overhead line identification signs shall be placed at each access road intersection with overhead lines, each approximately fifty (50) feet prior to the crossing in each direction.

The project construction site shall provide and maintain for the protection of its employees and the public such safety equipment, safety kits, guarding, and personal protective apparel as is prescribed for safety practices or as required by any law, ordinance, rules, or the exercise of ordinary prudence for the type of work being performed. EverPower requires that all people, when out on the construction site, wear hard hats, safety glasses, and high-visibility vests (or other outer-layer) with reflective striping.

EverPower and/or its designated contractor(s) will strictly implement and enforce the following electrical safety requirements:

- a) Lock Out-Tag Out program and project start-up procedures for all equipment furnished under the construction agreement.
- b) Locks for isolators and circuit breakers to maintain safe working conditions.
- c) Sufficient grounding straps/clamps and cables to allow the safe isolation of each electrical circuit.
- d) A laminated electric schematic to assist with isolation and switching to be mounted in each wind turbine and the substation.

Safety audits are a necessary and integral part of the safety component of this QA/QC Plan. EverPower mandates that contractors conduct regular safety audits of the site in line with the best practice and guidelines from OSHA and the State in which the project is located. Each contractor shall be responsible for all postings required by OSHA, EPA, Department of Labor, the State in which the project is located, and any other postings required by parties with jurisdiction.

EverPower strictly requires all construction contractors to maintain OSHA logs as required by OSHA regulations. A copy will be turned over to EverPower at the completion of the work.

## **SECTION 4: QUALITY ASSURANCE PROGRAM**

The EverPower QA/QC Plan is not a controlled document. A copy is available to all employees through their immediate supervisor. The Plan is designed to convey basic QA/QC procedures, guidelines, and instructions that must be followed by all employees, consultants, and contractors.

The EverPower Quality Assurance program and any program set forth by any approved Balance of Plant (BOP) Contractor working on behalf of EverPower shall consist of the following key components;

- a) Established QA/QC procedures and instructions that comply with generally accepted industry standards, federal, State, and local regulating authorities, and the project specifications and standards established by the client;
- b) The identification and timely issuance to the project team any required controls, processes, inspection equipment, fixtures, tools, materials and labor skills needed to properly execute the project;
- c) Updating, as necessary, of quality control, inspection, and testing techniques, including the development of new methods and procedures;
- d) Identification of any commitments made which exceeds available resources in sufficient time to properly acquire the required resources;
- e) Clarification of the standards of acceptability as required to support the overall QA/QC program;
- f) Review of the project process, construction, installation, inspection, and test procedures to ensure that applicable documentation reflects how activities are actually performed;
- g) Effective maintenance of quality records to document and track performance and improvement.

## **SECTION 5: PROJECT COMMUNICATION**

Management shall identify in-house requirements and provide adequate resources and trained personnel as needed to promote the communication of QA/QC plans and procedures through the organization.

The requirements for inspection, testing and monitoring of the construction / installation processes and audits of the quality control and quality assurance plans shall be communicated to all personnel independent of whether they having direct responsibility for the project being executed.

## **SECTION 6: DOCUMENT CONTROL**

Project-specific QA/QC procedures and instructions for individual activities are maintained by the QCM and issued to Construction Site Managers as controlled documents. It is the Construction Site Manager's responsibility to ensure specific activity QA/QC procedures and instructions are conveyed to the individuals or subcontractors performing the specified tasks.

For construction projects, prior to the commencement of construction, the Construction Site Manager creates a "Project Job File". This file shall contain a complete set of all project related contract documents, specifications, drawings, etc. All information generated during the life of the project shall be maintained in this job file in both paper and electronic formats.

A listing shall be made of all drawings, specifications, vendor data, etc. that are received and submitted to EverPower for review and approval. A copy of all documents returned as either approved, or approved as noted, shall be maintained in the job file.

Any revisions to the contract documents shall be date stamped on the date received and reviewed by the Construction Site Manager for any possible impact to the project. All changes after contract award shall be properly documented and any associated addition or deduction to the contract price shall be immediately identified and submitted to the EverPower for review and approval.

A complete set of all documents required for proper execution of the work shall be maintained at the project site. Any revisions received shall be immediately forwarded to the project site for use while executing the project. Any field changes to the work shall be properly noted on the project site set of the drawings. The project site set of the drawings shall show the work exactly as the work is ongoing and will be hereinafter referred to as the "As-Built" set of drawings.

## **SECTION 7: CONTROL OF CONTRACTOR SUPPLIED MATERIAL AND SERVICES**

The EverPower QA/QC Plan provides a basis for the review of materials and services that are either delivered or provided by the BOP or other contractor. Conformance to specified requirements can easily be confirmed or confuted while providing certainty to management, agencies, and stakeholders. Proper control of materials and services shall include:

- a) The requirements and acceptance specifications of EverPower are adequately defined and documented.
- b) Documented quality system procedures and instructions to ensure that all activities are performed in accordance with established requirements.
- c) Effective management support to ensure compliance and the use of the QA/QC procedures and instructions.

d) Client/Customer interfaces, communications, and review meetings shall be well defined, documented and maintained for future reference.

## **SECTION 8: INSPECTIONS AND TESTING CONTROL**

All materials and equipment shall be inspected and tested to ensure conformance with the project requirements before they are released for use. Verification that all items conform to specified requirements of the quality plan shall be documented and filed in the project QA/QC file. In determining the amount and nature of inspections, consideration should be given to the control exercised at the manufacturing source and documented evidence of quality conformance provided from the supplier.

Where incoming materials are released for urgent construction purposes, the action shall be positively identified and recorded in order to permit immediate recall and replacement in the event of nonconformance to specified requirements.

During actual construction of a project, the Construction Site Manager shall ensure that:

- a) All inspection and testing activities are performed in accordance with the quality plan and documented procedures;
- b) Ensure specification and drawing conformance by the use of established process monitoring and control methods;
- c) Ensure that all required inspections and tests have been completed and necessary reports have been received and verified before the finished work is released to EverPower.
- d) Identify and correct any nonconforming work.

The EverPower QA/QC plan and any accepted project-specific BOP contractor QA/QC programs shall include documented procedures for final inspection and testing requirements including those specified either by established quality procedures or EverPower.

The Construction Site Manager shall ensure that all final inspections and testing activities are in accordance with the quality plan and documented procedures. Upon completion, all associated data and documentation shall be properly filed in the project QA/QC file and submitted to EverPower as required.

## **SECTION 9: NON-CONFORMANCE REPORTING**

The Construction Site Manager shall ensure that all materials, products, equipment, and workmanship that are furnished, installed, and/or delivered to EverPower meet the project specifications. Any non-conforming products, equipment, materials, or items of work shall be documented, recorded and reported to EverPower immediately.

Proper notification to the EverPower of any unsuitable materials, equipment, or workmanship shall be subject to the following non-conformance reporting procedures:

- a) To the extent that traceability is a specified requirement of the contract, individual products or product batches shall have a unique identification. This identification shall be recorded in the Job File and maintained in the project "As-built Drawings."
- b) The inspection and test status of the non-conforming work product or work item shall be identified by using markings, authorized stamps, tags, labels, routing cards, inspection records, test software, physical location, or other suitable means, which indicate the nonconformance of work with regard to inspections and tests performed.
- c) Records shall identify the inspection authority responsible for the identification of the non-conformance.
- d) The identification of inspection and test status shall be maintained, as necessary, throughout the project to ensure that the corrective actions have passed the required inspections and testing specified.
- e) The Construction Site Manager shall ensure that all records which gave evidence that materials, testing, and work initially identified as non-conforming have passed specified re-inspection and/or testing acceptance criteria and that these records/documents are maintained in the project QA/QC file for future reference.

## **SECTION 10: CORRECTIVE AND PREVENTATIVE ACTION AND CONTINUAL IMPROVEMENT**

The established QA/QC policies and procedures shall be reviewed at appropriate intervals by management to ensure continuing suitability and effectiveness. These reviews will include assessment of the results of field audits (See Section 12) and shall assess overall conformance to EverPower requirements and expectations. Records of such reviews and audits shall be maintained.

All employees of EverPower shall strive to improve the quality of work. The QA/QC program is a process of continuous improvement which requires input from everyone in our organization. Everyone in our organization shall comply and endeavor to improve the process where possible.

## **SECTION 11: DOCUMENTATION**

Specific QA/QC procedures and instructions for individual activities are maintained by the QCM and issued to Construction Site Managers as controlled documents. It is the Construction Site Managers' responsibility to ensure that QA/QC procedures and instructions for specific activities are conveyed to the individuals or subcontractors performing those activities.

Revisions to the QA/QC documents shall be by section and approved for adequacy by authorized personnel prior to issue. A revised table of contents indicating the newly issued approved and accepted

revision shall accompany the revised sections. In the case of sample forms, a revised "Listing of Exhibits" shall indicate the latest exhibit revisions.

## **SECTION 12: FIELD AUDITS AND SURVEILLANCES**

A critical element of the EverPower QA/QC Plan involves conducting field audits and surveillances.

Conducting field audits provides EverPower management and other stakeholders with a means of reviewing the established QA/QC procedure to ensure ongoing suitability and effectiveness.

Additionally, field audits are necessary for the following purposes:

- a) Verifying the manner of executing the work to ensure that an acceptable level of safety and quality is maintained at all times.
- b) Monitoring and control of suitable process and work characteristics during execution of the work.
- c) Establishing or reviewing criteria for workmanship which shall be stipulated, to the greatest practicable extent, in written standards or by means of representative samples.
- d) Clear identification of the required approval of processes.

Field surveillance is integral to the QA/QC process since certain aspects of work cannot be fully verified by subsequent inspection and testing. Accordingly, continuous monitoring through surveillance provides a means for verifying compliance with documented procedures and/or specifications.

## **SECTION 13: SECURITY**

Another critical element of the EverPower QA/QC Plan is security. While it is impractical to protect a construction site against every conceivable threat, the EverPower strategy is based on an assessment of the risk of each form of threat considered against the relative costs of protection. In general, the highest concentration of security measures employed at the construction site reflects the time when the site is most at risk.

The site-specific security plans established by EverPower's contractors places significant emphasis on deterrence and mitigation.

Deterrence takes many forms on a construction site. A ramshackle site will appear easier to break into and may imply less protection. Alternatively, EverPower construction sites include the fitting of solid fencing, high quality locks, intruder alarms, closed-circuit television (CCTV) and signs advertising guard patrols. These measures show a potential thief or vandal that EverPower takes the issue of security seriously with the ultimate goal of deterring would-be criminals.

EverPower mitigation strategies employed during construction include the following:

- a) Restriction of access to site

- b) Surveillance of persons on site
- c) Protection of site assets
- d) Site safety provisions
- e) Provision for controlled and monitored site evacuation
- f) Liaison with police, local authorities and other stakeholders

A typical construction site will have some, or all of these measures applied. Particular characteristics of greenfield and brownfield sites will influence which measures are applied. Greenfield (new build) sites can be laid out and designed in such a way as to maximize advantage from, perimeter fencing, or surveillance and thus provide good security at minimum cost.

During construction, EverPower and/or its contractors apply security measures through a combination of physical and operational measures.

In general, physical measures are infrastructure designed and deployed to support security; operational measures are those human activities and processes designed and performed to support security.

### **13.1 Physical Security Measures**

These fall generally into the following fields:

- a) Containment and Obstacles (fences, barriers, bollards, gates, secure storage, etc.)
- b) Technical Systems (lighting, CCTV, access control systems, intruder detection, asset management and control systems, etc.)

Containment is applied to the perimeter of construction sites, to delineate the area under control, prevent accidents to non-site personnel and to deny access to unauthorized personnel. Gates and other perimeter openings are designed in such a way as to permit control – and blocking – of inbound and outbound foot and vehicular traffic.

High-value assets are sometimes temporarily left on site when the site is unmanned or partially manned. Wind projects are typically constructed in remote areas. Accordingly, a containment area is established at each job site for high-value tools and equipment and for control and secure parking of high-value equipment and components.

Technical Systems may also be utilized during construction and can be an important part of the overall site security plan. Surveillance systems (i.e., CCTV) can have a deterrent effect and can be used to good effect for forensic purposes and for monitoring of the site for health and safety purposes. Surveillance systems also require lighting to be effective – and lighting also has a key role to play in supporting security operations as well as site health and safety. Due to the temporary nature of construction sites including issues such as lack of continuous electric service and high speed internet, the need for battery-powered devices and the use of wireless equipment is quite common. Wireless systems can also be quicker to deploy and easier to move as the site develops.

## **13.2 Construction Operations Security Measures**

Construction operations security measures generally consist of a two areas: guarding activities and security policies.

Security guards are typically provided by a third party under contract to the site or Construction Site Manager. Site security guards are thoroughly trained and qualified to operate all site security equipment. Site security guards' activities typically include patrolling, static guarding, in- and out-processing of personnel and vehicles, management and operation of technical systems, preliminary response to incidents and issues, and liaison with the site or Construction Site Manager. On larger sites, the use of 24-hour guards may be appropriate whereas on smaller sites the use of guard patrols, particular night patrols can be implemented successfully. Prior to construction, EverPower will determine the appropriate level of security guarding activities for the site.

All EverPower construction sites implement site security policies. Site security guards receive training and testing on the site-specific security policy before they can assume duty. The site-specific security policy is owned and administered by the site and Construction Site Manager. The construction contractor will be required to develop a site security policy prior to the start of construction.

EverPower acknowledges that a number of different activities could cause disruption to a construction site and increase the likelihood of a security risk. Therefore, EverPower maintains a good liaison with the local police force during construction who can alert site managers and security guards to potential problems.