

Gamesa Electric Supplier Quality Manual



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Gamesa Electric Supplier Quality Manual

1. Introduction

- Gamesa Electric Health, Safety , Environmental and Quality Policy
- Qualification Process

2. Supplier and Product Qualification

- Basic Qualification
- QEHS management systems
- Supplier Audit

3. Product and Service Qualification

- Product Approval

4. Serial Production

- Change Management
- Quality Control
- Continuous Improvement
- Risk & Opportunities
- Supplier Evaluation

5. General Issues

Contents

1.	Introduction.....	4
1.1	Gamesa Electric Quality Vision	4
1.2	Qualification Process.....	4
2.	Supplier Qualification.....	4
2.1	Basic Qualification.....	4
2.2	Required Systems for Quality, Environmental Protection, Health and Safety.....	5
3.	Product Approval.....	5
3.1	Product Approval.....	5
3.1.1	Product / Process Qualification process (PPQ).	6
3.1.1.1	Initial Samples Production	6
3.1.1.2	Process Audit and First Article Inspection	6
3.1.1.3	Supplier Test Result Approval and Acceptance.....	7
3.1.1.4	Definition of Packaging and Shipment.....	7
3.1.1.5	Reports of Assembly Try Out and Functional Testing.....	7
3.1.1.6	Validation Report by Technology Department	7
3.1.2	Product and Process Approval.....	7
3.1.3	Re-Approval	7
4.	Serial Production	8
4.1	Product and Process Change Management	8
4.1.1	Supplier Request for Change.....	8
4.1.2	Changes Initiated by Gamesa Electric	8
4.1.3	Change Implementation.....	9
4.2	Quality Control of the Product in Series Production	9
4.2.1	Deviations to Specifications Detected by Supplier	9
4.2.2	Product Deviations Detected by Gamesa Electric	9
4.2.3	Costs of Non-Quality	11
4.3	Continuous Improvement	11
4.3.1	Quality Audits and Inspection	11
4.3.2	Quality / Process Improvement Plan	11
4.4	Risk and Opportunities	12
4.5	Supplier Evaluation	12
5.	General Issues	12
5.1	Roles and Responsibilities	12
5.1.1	Quality Contact at Supplier	12
5.1.2	Gamesa Electric Contacts	12
5.2	Identification and Product Traceability	13
5.3	Special Processes.....	13
5.4	Sub-Tier Suppliers.....	13
5.5	Records Retention Requirements.....	13
5.6	Exceptions to Normal Procedures	14
5.6.1	Catalogue and Not Quality Relevant Components	14
5.7	Definitions and Abbreviations	15
5.8	Standards and Documents.....	15

1. Introduction

The purpose of this Supplier Quality Manual is to specify and explain the procedures and requirements that affect the cooperation between Gamesa Electric and its suppliers of materials and critical services with the goal to ensure excellent quality for our customers throughout the entire supply chain.

This manual describes the minimum requirements for doing business with Gamesa Electric- Any additional requirements will be communicated on a case by case basis and/or will be addressed in other business-related documents.

All communication, notifications and questions regarding the procedures and requirements in this document are to be reviewed and handled by the assigned supplier quality engineer(s).

1.1 Gamesa Electric Quality Vision



Gamesa Electric plans to maintain its business strength and create exceptional value for its customers through excellence in Quality, Health, Safety and Environment. A robust and adaptable supply base that understands Gamesa Electric's requirements and acts with similar urgency demanded by our customers is key part of this philosophy.

The objective of this plan is to make a difference and become a world-class player. Becoming an excellent company means not suffering accidents or incidents, maximizing customer satisfaction and minimizing our environmental footprint.

To this end, Gamesa Electric Quality Leader is articulated around three vectors: the customer, reduction of the non-conformity costs from all members of our value-added chain and procedural compliance.

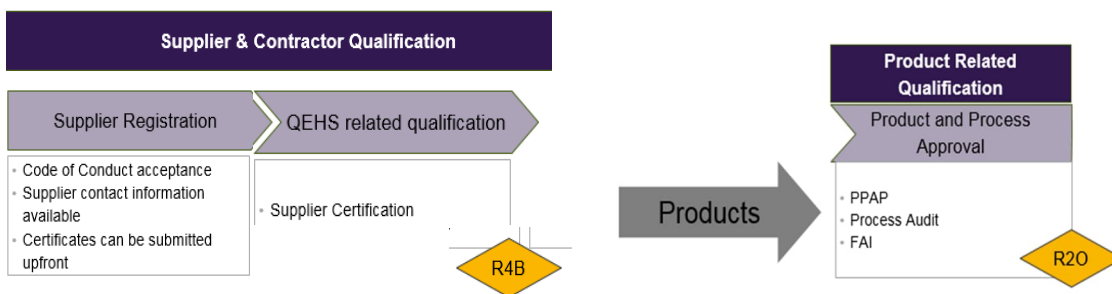
This vision is based on three simple principles:

- Do it right the first time by planning, preparing and being trained to supply quality products and services.
- Do it right every time by assuring consistent quality products and services through addressing all concerns.
- Continually improve by proactively improving the quality and value of products and services.

To assist our suppliers in helping us achieve these priorities and focus areas, Gamesa Electric will if deemed necessary deploy the necessary Supplier Quality; Quality and Processes Engineering Personnel. We recognize that Gamesa Electric cannot succeed without the right quality, cost, service and technology achieved by a close cooperation between Gamesa Electric and its Supply base.

1.2 Qualification Process

There are 2 phases in the process of qualification of suppliers/contractors of materials and critical services. The first phase, Supplier Qualification (chapter 2) is necessary to be able to nominate a supplier to any materials or critical service. After successful completion of the supplier qualification activities the supplier is granted the status R4B "Ready for Business" in the Gamesa Electric systems. The following phase, the Product/Service qualification (chapter 3), is used to validate the specific material or service the supplier is nominated to. After successful completion of the product/service qualification activities the supplier is granted the status R2O "Ready to Order" in the Gamesa Electric systems.



2. Supplier Qualification

All supplier production sites and locations must comply with the following requirements for Supplier Qualification before a Product/Service Qualification, as described in chapter 3 of this manual, can be initiated if not otherwise agreed with the responsible SQ.

2.1 Basic Qualification

The Basic Qualification is a company-wide, mandatory and standardized supplier-related qualification which serves as first release level for a potential Gamesa Electric supplier.

2.2 Required Systems for Quality, Environmental Protection, Health and Safety

ISO 9001: Gamesa Electric goal for all suppliers and contractors is to demonstrate compliance to ISO 9001. Unless otherwise specified, conformity must be demonstrated by third party certification. Alternatively, VDA 6.1 certification, ISO/TS 16949 etc. can be accepted.

ISO 14001: To ensure the environmental policy application throughout its supply chain, Gamesa Electric expects from its suppliers and contractors an active engagement in environmental concerns. This includes the establishment, and adherence to, an environmental management as per ISO 14001, or equivalent.

OHSAS 18001 / ISO 45001: Is a system for managing health and safety and promotes safe work environments. Gamesa Electric expects from its suppliers and contractors to have implemented a system to consistently identify and control risks to health and safety, reduce potential accidents, support enforcement and improve overall performance.

Applicability:

	SQ Risk	Certification Requirement		
		ISO 9001	ISO 14001	ISO 45001
Direct Material	Quality Relevant	Mandatory	Advisable or HSEQ Check-list (*)	Advisable or HSEQ Check-list(*)
Contractors	HSE Relevant	Advisable	Advisable or HSE Contractors checklist (**)	Advisable or HSE Contractors checklist (**)

In case of modifications of one of the above-mentioned certifications, the supplier shall immediately notify Gamesa Electric SQ responsible. Modifications include, but are not limited to, the following situations:

1. Any action by either the supplier or the supplier's certifier that limits or alters the condition or duration of the supplier's certification.
2. Renewal, upgrade, suspension, probation, expiration and termination of the mentioned certifications.

3. Product Approval

The purpose of the Product and Service Qualification is:

- To make sure that the process is well prepared and capable to meet the Gamesa Electric requirements and specifications
- To ensure stability in the process that allows for producing consistent quality over the lifetime of the product.
- To provide objective facts and evidences that demonstrate the above-mentioned capability and robustness of the process

3.1 Product Approval

All components are designed for the use with a lifetime of 25 years with maximum. For this purpose, it is important for the supplier to understand the environmental influences that affect the component in these conditions during this period. The supplier shall notify any wear and tear that can occur during the normal life cycle of the component as well as the maintenance to be performed to ensure the lifetime of 25 years.

The Product Qualification will be applied for the approval of new or modified critical products or processes. Examples are:

- New product to be produced
- Relevant process changes for the manufacturing to be implemented
- Moving existing process installations to new production site
- Implementation of modifications in drawings, specifications, materials

For critical materials, the product and process approval process, is a pre-condition for the product release and shall be used to determine if:

- All requirements of the Product Specification have been fulfilled by the Supplier.

- The production processes of the Supplier show the required process ability and capability to manufacture the Product according to the Specifications under serial conditions with the planned capacity.

Gamesa Electric reserves the right to take part in the release of production process at Supplier's premises.

Supplier shall document the production part approval process and submit to Gamesa Electric. The products are to be manufactured at the production site, using the production tooling, gauging, process, materials and operators planned for serial production.

3.1.1 Product / Process Qualification process (PPQ).

Gamesa Electric encourages its suppliers to adopt and implement the APQP (Advanced Product Quality Planning) methodology to ensure alignment in quality standards and continuous improvement across the supply chain

The supplier shall agree with the assigned SQ the documents and reports to be issued as a production validation report/As built documentation prior to shipping the parts. Nevertheless, the minimum requirements expected from our suppliers are:

- Feasibility Study
- Certification of compliance regarding prohibited substances
- Process control plan or similar document.
- Material certificates (if requested).
- Documentation for the first samples requested in the purchaser order, drawing and/or specification, for example : dimensional report or electrical test.
- Special Process (painting, crimping ,welding, etc) tests.

3.1.1.1 Initial Samples Production

Initial samples are to be produced sequentially, measured and tested with the final serial production processes, equipment, tooling, gauges, material and operators at the defined production rate and will be used to validate and approve the production process.

Initial samples are required, if not otherwise agreed:

- If a new Product is ordered for the first time,
- After any product modification initiated by Gamesa Electric,
- In case of any change by Supplier for which a Product Change Notification is required
- Following a delivery stop or an interruption of production for more than 18 months, unless otherwise defined by the commodity

Supplier shall provide initial samples and the initial sample inspection report prior to serial production deliveries to the assigned SQ at Gamesa Electric.

The supplier will enclose, with the initial samples, a record of inspection that must include results from the tests, inspections, certificates, etc. required in the applicable specifications in addition to the requirements agreed upon with the SQ responsible. If measurable, all values in the specifications must be specifically included in the inspection record with its nominal value.

In case of an assembly or a group of components, it will include the list of materials identifying the critical components, if applicable, and the supplier for each component.

All initial samples must be marked as initial samples.

3.1.1.2 Process Audit and First Article Inspection

Gamesa Electric may evaluate the performance of the supplier regarding manufacturing processes and aptitude to supply components to Gamesa Electric in accordance with Quality, Purchasing, Logistics and Engineering requirements through an audit of the process on site.

Gamesa Electric can also conduct a First Article Inspection at Supplier if required by the SQ. The supplier quality engineer also decides if process audits and/or First Article Inspections are to be carried out at supplier's sub-supplier.

Corrective actions resulting from this audit must be included in an action plan that include correction of all the detected deviations within the timetable established by the SQ. Each action must have a resolution date and responsible. Specific activities within the plan that must be concluded before finalizing the validation process must clearly be identified as such.

To continue with the approval, the action plan must be accepted by the SQ responsible.

3.1.1.3 Supplier Test Result Approval and Acceptance

The supplier must provide the reports with the tests carried out according to the test plan as required by Gamesa Electric Technology department. The report will be analyzed by Gamesa Electric Technology for acceptance prior to the serialization of the component.

Any deviation to the specifications shall be discussed and agreed in this phase.

3.1.1.4 Definition of Packaging and Shipment

When it requested, the supplier must prepare a packaging and transportation solution for Gamesa Electric acceptance.

The solution must fulfill Gamesa Electric's delivery conditions and packaging requirements and ensure that the packaging provides sufficient protection against damage during normal delivery, handling and storage to maintain the defined quality, safety and environmental requirements for the designated receiving location. The supplier should also include relevant data sheets for the packing material and physical data like weight and overall dimensions.

3.1.1.5 Reports of Assembly Try Out and Functional Testing

The initial samples must pass an assembly test in the Gamesa Electric production plant or site in conditions of serial production. This test is essential in ensuring the components delivered by the supplier will perfectly Gamesa Electric's manufacturing and/or installation process.

Additionally, to the verification of its integration in the process, certain components must pass a functional test to make sure that it fulfills the function it was designed for in a satisfactory manner.

3.1.1.6 Validation Report by Technology Department

In some cases, components will have to be validated by the Technology Department in Gamesa Electric. In this case it is necessary to perform this validation and to have a positive validation report before continuing to the next phase of the approval process. The validation report is submitted by the Technology Department.

3.1.2 Product and Process Approval

In this phase the supplier must complete the entire documentation package and submit to Gamesa Electric. The SQ will review the documentation and based on the internal approval results, decide whether:

- To release the Product,
- To conditionally release the Product (specific actions / corrections may be required from Supplier)
- To reject, and demand new samples and documentation.

Product approval is granted if all necessary defined approval steps have been successfully completed. This includes Gamesa owned approval processes as well as necessary approval processes at Supplier. If approved, the Cover Sheet (CS) or Part Submission Warrant (PSW) is signed. The CS or PSW is the official document that confirms the final qualification verdict for a given product. Gamesa Electric will inform Supplier in writing about the approval status of the Product and potential corrective actions required.

The product release refers always to the combination:

- Product
- Manufacturing site and
- Manufacturing facilities (e.g. assembly line, tool).

The delivery date is determined in consultation between Supplier and Gamesa Electric.

Gamesa Electric reserves the right to withdraw any acceptance or release granted, if it is determined that applicable Specifications or standards are violated, in a way that quality, reliability, processing or usability of the supplied Products could be affected.

Any approval or any release by Gamesa Electric shall not relieve Supplier from its responsibility for compliance with its contractual and legal duties. The releases and approvals detailed in this Supplier Quality Manual do not constitute an acceptance in a legal sense.

3.1.3 Re-Approval

If a certain component or material was not manufactured by a supplier location for a period exceeding 18 months (unless otherwise defined by the commodity), it will be necessary to review the validity of the original documentation. This is necessary to get evidences that the supplier has maintained the capability of the process and its controls at the initial approved levels.

A re-approval is also required in cases where supplier implements process changes, moves existing process installations to a new production site or changes sub suppliers of critical subcomponents, materials or processes.

Modifications in drawings, specifications or materials also require a re-submission of the documentation to demonstrate that the supplier has implemented the changes into its processes.

In the documentation re-submission, Supplier needs to document the change implementation by Purchase Order, updated Team Feasibility Commitment and other elements affected by the change. Finally, the Cover Sheet or Part Submission Warrant needs to be signed by supplier and approved by the SQ at Gamesa Electric.

In cases where the supplier is unable to satisfactorily resolve repetitive defects in any of the products supplied, the existing approval can be withdrawn. In this case serial orders will be cancelled, and supply will be stopped. The supplier must present a plan to correct the detected deviations. Based on this plan, the PPQ process must be successfully repeated before serial production can be relaunched.

4. Serial Production

4.1 Product and Process Change Management

4.1.1 Supplier Request for Change

Suppliers shall submit a written request prior the planned product or process change and obtain Gamesa Electric approval prior to implementing the change. Supplier shall notify Gamesa Electric at least 3 months prior to the planned change in written form (Product Change Notification -PCN). This time period can be removed, reduced or prolonged only with previous agreement with the SQ. Verbal requests are not accepted, and changes shall not be implemented prior to the receipt of written approval from Gamesa Electric SQ. This includes changes at suppliers of critical products throughout the supply chain.

A Product/Process Change Notification (PCN) is required with regards to the following planned changes:

- Product (e.g. form, fit, function and reliability)
- Specifications
- Materials or parts incorporated in the Products delivered from Supplier to Gamesa Electric.
- Change of manufacturing processes
- Change of production lines
- Relocation of production facilities
- Methods or facilities for the testing of the Products
- Changes in sub-suppliers of Supplier for parts, materials or services
- Export / customs relevant data
- Loss or change of official inspection mark or safety approvals
- Off-Line rework, not included in the original Control Plan, is also considered a process change

In so far, the agreed minimum notification period cannot be met in individual cases (e.g. Force Majeure), Supplier shall notify Gamesa Electric in writing without undue delay and determine together with Gamesa Electric the appropriate further proceedings.

The PCN shall consist of a detailed description of the intended changes. If not otherwise agreed, Supplier shall send the PCN to the responsible SQ.

The approval of the PCN does not release Supplier from its liability for any defect based on Product Specifications.

At request of Gamesa Electric, Supplier shall provide respective samples for qualification and technical validation to Gamesa Electric. Supplier is obligated to identify the first shipment including the change with proper identification, to be agreed upon between Supplier and the receiving Gamesa Electric location.

Consequences of non-communicated or unauthorized process changes at the supplier manufacturing facility or any sub-supplier facility could result in any or all following actions:

1. Issue of a Severe Deviation report.
2. Implementation of immediate Third-Party containment activities.

4.1.2 Changes Initiated by Gamesa Electric

In the event Gamesa Electric initiates a Product change, Gamesa Electric shall submit the request / notice for change to Supplier in written form, containing the following as a minimum:

- Revised drawing / specification illustrating the required change(s)
- Impacted Products and product properties
- Desired start date for the delivery of the changed Product (e.g. as of serial number, Batch number, order or production date)
- Contact person at Gamesa Electric, coordinating the dedicated change request

Supplier reviews the feasibility and consequences of the requested change and provides its related evaluation results to Gamesa Electric.

After review of the feedback, Gamesa Electric submits a change request in writing including necessary details for the change implementation (e.g. validation, initial sample requirements, dates, quantities etc.).

After common agreement between the Parties regarding the change request, Supplier will implement the product change and the qualification requirements defined by the SQ.

The start date for the delivery of the changed Products is determined in consultation between Supplier and Gamesa Electric.

4.1.3 Change Implementation

The supplier shall submit all the documents and information needed to show implementation of the change, including all supporting validation data (e.g. dimensional reports, performance testing) before/after process parameters demonstrating proper change control to manage the change. Affected P documents (e.g. control plan, etc....) must be updated and submitted to the Gamesa Electric SQ.

Gamesa Electric will submit the Supplier an official written approval or rejection.

4.2 Quality Control of the Product in Series Production

Unless otherwise indicated in the Specifications, product quality control measures during production shall be defined and established by Supplier to detect defects and failures as early as possible. If required by Gamesa Electric supplier must submit data on specific quality characteristics either ad hoc or on regular basis.

Supplier shall verify the achievement of quality targets with a final inspection in compliance with the established control and inspection processes prior to delivery.

The obligation to supply defect-free Products is the priority.

Gamesa Electric reserves the right to conduct inspections and audits at supplier's facility regarding processes related to Gamesa Electric products without restrictions. Upon request supplier must facilitate audits and inspections at sub-supplier if requested

4.2.1 Deviations to Specifications Detected by Supplier

Should Supplier detect, either in its own manufacturing process or from post-market surveillance data, a non-conformance with the product quality requirements, Supplier shall immediately inform Gamesa Electric identifying the possibly affected products supplied to Gamesa Electric and providing information about the remediation measures that have been taken.

Supplier is required to report immediately to Gamesa Electric, via the concession/deviation process, problems or non-conformances occurred or recognized to have or might have an impact on the required quality, reliability, processability, or application of previously delivered Products or Products to be delivered to Gamesa Electric.

Should the non-conformance be relatively minor, not affecting the form, fit or function of the item, Supplier may request a deviation from Gamesa Electric in writing prior to shipment.

For Products with deviations, Supplier submits a corresponding request for deviation approval to Gamesa Electric containing the following items:

- Type of quality deviation
- Frequency of the deviation / Quantity of effected Products
- Cause of the deviation
- Measures to eliminate the deviation and prevent recurrence.

Products with deviations are only allowed to be delivered with prior, written approval from Gamesa Electric.

The impacted Products must be clearly labelled and have a reference to the approved deviation number, so they can be identified as Products with deviation.

If there is a possibility that defective material may have been shipped to Gamesa Electric, Supplier shall inform Gamesa Electric without undue delay to prevent process breakdowns and additional costs at Gamesa Electric.

4.2.2 Product Deviations Detected by Gamesa Electric

If Gamesa Electric detects any deviation in a delivery lot or a production batch, Gamesa Electric may issue a complaint and return the complete delivery lot(s) affected, after upfront information of Supplier.

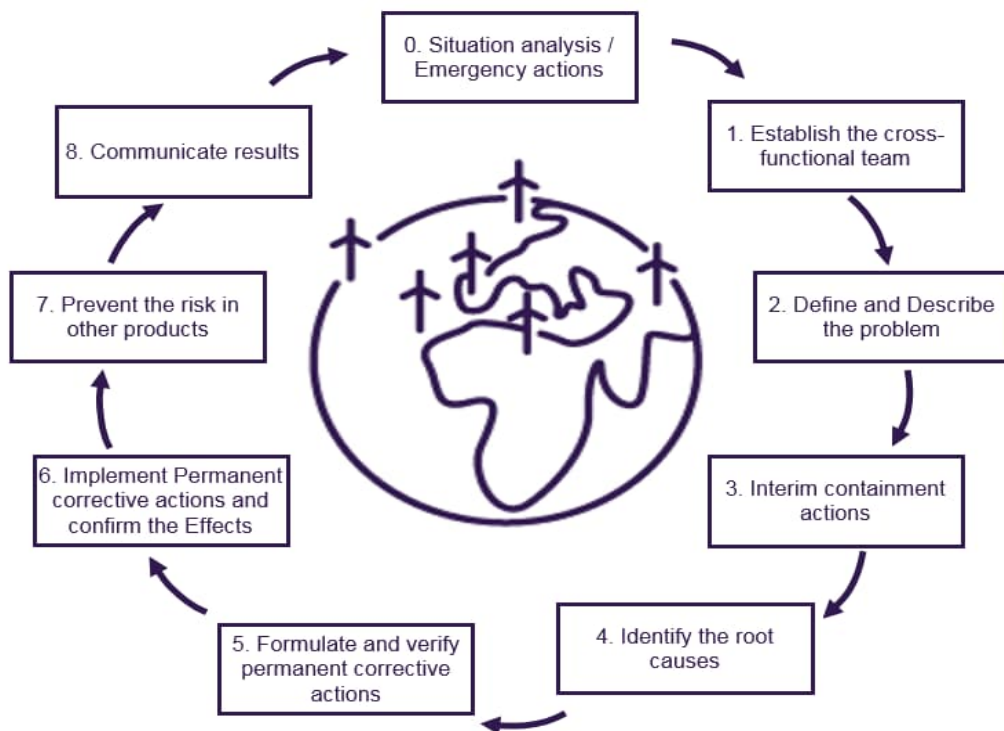
Supplier shall support the return process of non-conforming Products.

After consultations with Gamesa Electric, Supplier shall check all Products still situated at Gamesa Electric (including production inventory) which might be affected by the observed non-conformance. These measures may, when required, be extended to include inventory at Gamesa Electric's customers' site.

Supplier shall make experts available as necessary for on-site analysis at Gamesa Electric.

Supplier shall conduct a defect analysis for any quality defects, based on the provided information and / or samples as they relate to the Products delivered by Supplier to Siemens Gamesa.

At the request of Gamesa Electric, Supplier shall provide a report on defects in the format required by Gamesa Electric SQ (preferable 8D method) with details of the defects, the cause as well as any corrective or preventative measures.



The following are time frames for response to non-conformance's:

Implementation of short-term containment / immediate actions	Root Cause Analysis	Definition of permanent corrective action
2 working days ¹⁾	9 working days ²⁾	15 working days

1) On receipt of the quality complaint or due to a mutually agreed time-frame

2) After arrival of the Products at Supplier test facility if return is necessary.

If the time frame as defined cannot be fulfilled by Supplier due to technical reasons (e.g. tool changes etc.), Supplier shall proactively communicate this to Gamesa Electric and request a respective prolongation.

Supplier shall confirm the receipt of the faulty Product and inform Gamesa Electric regularly regarding the progress of the problem analysis.

Containment action must be maintained until the effectiveness of the implemented corrective actions has been verified.

If Supplier notices, that the problem was not caused by Supplier, the Products concerned shall be returned to the ordering location after prior consultations with Gamesa Electric SQ.

4.2.3 Costs of Non-Quality

Respective additional costs caused by the defective parts at Gamesa Electric or at the Gamesa Electric customer will be charged back to Supplier according to the responsible party principle.

Gamesa Electric reserves the right to take necessary containment actions and inspections to avoid any extra costs or image depreciation to Gamesa Electric customers.

Further definitions regarding handling of these additional costs must be defined in the respective Gamesa Electric Purchasing Conditions.

4.3 Continuous Improvement

4.3.1 Quality Audits and Inspection

Regular quality audits and inspections will be performed by Gamesa Electric SQs at supplier and/or supplier's sub-supplier. Audits and inspections may be performed upon request within 24 hours of notice from Gamesa Electric. The supplier shall cooperate in this and access will be granted to the SQ to all areas involved in the production of the Gamesa Electric component, material or service. Gamesa Electric may be accompanied by its clients and/or third-party consultants hired by Gamesa Electric clients in this kind of audits and inspections.

Exceptions to these conditions, because of confidentiality reasons, may be agreed upon in written between the supplier and Gamesa Electric SQ.

4.3.2 Quality / Process Improvement Plan

To be competitive, both Gamesa Electric as well as its suppliers are expected to continuously improve the quality and cost of its products. Gamesa Electric therefore expect its suppliers to work with continuous improvement processes and to be proactive in proposing improvements both in processes as well as in products.

In case of existing deviations in its products or processes, a specific Quality Improvement Plan will be agreed upon between the supplier and the SQ. This plan will include specific actions, dates and responsible persons to eliminate the cause of these deviations.

4.4 Risk and Opportunities

When planning for the integrated management system, Supplier shall include actions to address risks and opportunities.

Actions to address risks can include avoiding risk, taking risk to pursue an opportunity, eliminate the risk source, changing the likelihood or consequences, sharing the risk, or retaining risk by informed decisions.

Opportunities can lead to the adoption of new practices, launching new products, opening new markets, addressing new customers, building partnerships, using new technology and other desirable and viable possibilities to address the organization's or its customers' needs.

4.5 Supplier Evaluation

To monitor the Quality Profile of the supply situation, Gamesa Electric monitors continuously every external supplier, based on the deviations' indicator PPT (parts per thousand).

The PPT measures the quality performance of external Gamesa Electric Suppliers by calculating the rate of non-conforming parts in relation to the whole received quantity. It enables the identification of problematic suppliers and articles to implement appropriate counter-measures.

PPM index calculation method and unit

$$\frac{\sum \text{defective parts}}{\sum \text{received parts}} \times 10^3 \text{ [ppt]}$$

Defective parts: sum of the Parts recorded in the NCRs in the period

Received parts: sum of total parts received in the period.

This PPT index is calculated in a six-rolling month (6RM) basis and in two manners:

- Globally, in order to determine the overall Quality Performance of our suppliers
- Selecting most relevant suppliers

5. General Issues

5.1 Roles and Responsibilities

5.1.1 Quality Contact at Supplier

Supplier shall notify Gamesa Electric in writing of a central contact person responsible for coordinating the quality management and quality assurance measures at Supplier. Any change in the contact person shall be promptly notified in writing.

The supplier shall ensure that the contact person is able to communicate in English and that all official communication to Gamesa Electric is in English.

5.1.2 Gamesa Electric Contacts

Communication channels with Gamesa Electric are defined as follows:

Supplier Quality

- Supplier and Product qualification
- Point of contact for all quality incidences and its technical discussions
- Technical implementation of changes in process or product, both initiated by the Supplier as well as ones initiated by Gamesa Electric.
- Everything related to compliance of product specifications
- Improvement of the quality performance of the supplier
- Any event that has implications in the Quality of the product supplied

Commodity Management

- Contract negotiation
- Financial issues regarding Cost of Non-quality
- Everything regarding the supply conditions, including the re-negotiation because of product changes.

Supply Management

- Responsible for issuing purchase orders

Technology

- Feedback during product development (including product changes in Series life) to ensure the ability of manufacturing the product in accordance with the Specifications. The SQ is to be included in the dialogue.

5.2 Identification and Product Traceability

Supplier shall by way of labeling the products or, in case such is impossible or unreasonable, by way of other suitable means ensure that in case of any defect being detected in a product delivered to a Customer, Supplier can determine without undue delay which other products delivered to Customers could be affected.

If product specific requirements are not specified, Supplier shall contact Gamesa Electric to provide its proposal for the identification and traceability system.

5.3 Special Processes

Some processes fall in a category called Special Processes. These processes are subject to additional technical validations by Gamesa Electric and process audits as explained in this manual. To fit this category, the following three conditions must apply:

- The component or material undergoing this process is indicated as Critical by Gamesa Electric
- The process alters substantially the metallurgical, physical, chemical or metallurgical properties of the material or component
- The metallurgical, physical or metallurgical alteration can only be verified by destructive testing

5.4 Sub-Tier Suppliers

Sub-tier suppliers have a tremendous impact on the quality of the final product. Whether they provide raw materials, services or sub-components their influence is so profound that it is critical for each of Gamesa Electric's suppliers to have a supplier management system in place.

The supplier shall have a procedure within its Quality system to guarantee acceptable and stable quality from its sub suppliers.

Supplier shall implement for its sub-suppliers a reliable supplier qualification and product release process. It must be made sure that the sub-suppliers of critical components have satisfactorily passed this process before series production. Supplier shall use only released products from a qualified sub-supplier, according Supplier's own qualification and release processes. In case of changes of sub-supplier's products; requalification of sub-supplier's products is required based on the applicable specifications.

The supplier management system shall also include a function that tracks and reports on their supply base quality and delivery performance. Suppliers shall be able to demonstrate that they have a system implemented to manage their suppliers' issues through documented corrective actions and verification activities.

This system shall cover issues like the management of 8D's, components reception and supplier follow up.

Siemens Gamesa will audit and inspect the critical processes, when it deems necessary, of the second-tier suppliers to ensure that proper controls are in place throughout the entire supply chain.

5.5 Records Retention Requirements

In general, it is the obligation of Supplier to demonstrate with appropriate documentation that its Products fulfilled at the time of delivery all legal, statutory and product specific requirements.

Supplier shall keep records as to the carrying out of the quality management and quality assurance measures about the products supplied to Gamesa Electric. Upon request, Supplier shall allow Gamesa Electric access to such records to the necessary extent subject to a reasonable period of notice being given and Supplier shall make available copies of the records. The respective quality records shall be traceable to the individual shipments of Supplier to Gamesa Electric. This requirement applies, at a minimum, to the final and outgoing inspection results.

The supplier must keep the following information (records) in an orderly and readable form for the minimum period required below if not otherwise required in the Specifications and made available to Gamesa Electric when requested.

Minimum withholding period for Supplier Type of Information:

ID	Minimum withholding period at Supplier	Type of Information (documents or samples)
1	25 years	• Buying and selling contracts • Plans and specifications • Documentation for Official Approval/product release • Incidents reports with its 8D forms • Traceability information: Content of the 'journal' of Non-Conformity. Records concerning measurements and test results: • Internal failure statistics • Inspection records of incoming goods and during the production and assembly process • Outgoing test results for Products shipped to Gamesa Electric as quality control charts or • statistical process control charts • Failure statistics (complaints) as reported from Gamesa Electric including information regarding implemented corrective actions • Internal capability studies and results • Process capabilities (as required) • Calibration records of utilized measuring and test equipment • Other product-related records (e.g. drawings, specifications) incl. change history.
2	3 years	▪ Rest of the applicable documentation
3	To be agreed depending on the case	▪ Pattern samples that must be approved by Gamesa Electric and stored so that they keep the original approval conditions
4	5 years *)	▪ Representative pieces of the initial samples sent

*) In case of overlapping conditions in a component, the most restrictive retention requirements will be applicable. It is possible to have an alternative agreement between the supplier and Gamesa Electric SQ because of volume and size of the samples

5.6 Exceptions to Normal Procedures

5.6.1 Catalogue and Not Quality Relevant Components

The supplier will have to comply with all aspects of this Supplier Quality Manual except for the Production Part Approval Process.

Supplier bears the full responsibility for a sufficient internal approval / initial sample process. Supplier needs to be able to prove that functional and legal requirements of the Product have been met prior to market introduction. The initial sample / approval documentation shall be kept with Supplier and shall be made available to Gamesa Electric upon request.

For Not quality relevant Catalogue Products the planned change shall be deemed accepted by Gamesa Electric, if Gamesa Electric does not submit written objection stating the reasons of the objections within sixty (60) working days of the receipt of the information. The planned change shall not be introduced in case of written objection by Gamesa Electric within the above-mentioned time-period. Supplier shall archive all change related documentation (e.g. approvals, release, production start of change, implementation date of change, test results etc.) and shall make it available to Gamesa Electric upon request.

Independent from possible manufacturer's policies, Gamesa Electric will not accept standard failure rates in any component. In this perspective, the components will be undergoing procedures as described in chapter 4 of this manual.

5.7 Definitions and Abbreviations

The following abbreviations shall apply to this Supplier Quality manual:

APQP	Advanced Product Quality Planning
CS	Cover Sheet
FAI	First Article Inspection
FAIR	First Article Inspection Report
HSE	Health, Safety & Environment
ISIR	Initial Sample Inspection Report
ISO	International Organization for Standardization
OHSAS	Occupational Health and Safety Management System
PCN	Product Change Notification
PPQ	Product / Process Qualification process
PSW	Part Submission Warrant
R4B	Ready for Business
R2O	Ready to Order
REACH	Registration, Evaluation, Authorization and Restriction of Chemicals
RoHS	Restriction of Hazardous Substances
SQ	Supplier Quality
TS	Technical Specification

Critical materials/products/components Gamesa Electric specified products which are rated as critical.

Not Quality Relevant Catalogue Components are defined as the ones that are specified by Gamesa Electric through its commercial brand name, part name and/or part number and have no additional specification defined by Gamesa Electric. Examples are resistors, contactors, standard switches, specific brand materials, etc.

Product Complete scope of supplies Supplier is delivering to Siemens. This contains direct and / or indirect materials and / or services and / or software.

Specifications product specification including a potential supplier addendum mutually agreed between the Parties, by:

- Gamesa Electricspecification; or
- Manufacturer product specification; or
- Manufacturer datasheet

Purchase Agreement Any individual procurement contract between Gamesa Electric and Supplier related to Products (e.g. individual purchase orders, agreements etc.)

Sub-suppliers Any entity delivering material for the manufacturing of or providing manufacturing processes for Products of Supplier

8D-Method 8 disciplines - Team oriented problem-solving method

5.8 Standards and Documents

The following standards and documents shall form an integral part of this Supplier Quality Manual in their respectively valid version unless otherwise explicitly agreed below:

- ISO 9001 Quality Management Systems
- ISO 14001 Environmental Management System
- ISO 45001 Occupational Health and Safety Management System
- Purchase Specifications, Drawings and Commodity Specific Quality Requirement Specifications