QUALITY MANUAL
FOR THE ENERGY SECTOR
## Contents

I. **GENERAL INFORMATION** .................................................................................................................. 5
   1. AIM AND SCOPE ..................................................................................................................................... 6
      1.1. General ............................................................................................................................................... 6
      1.2. Application ....................................................................................................................................... 6
   2. REFERENCE STANDARDS ................................................................................................................... 6
   3. DEFINITIONS .......................................................................................................................................... 7
   4. QUALITY MANAGEMENT SYSTEM .................................................................................................... 8
      4.1. General requirements ...................................................................................................................... 8
      4.2. Requirements relating to documentation ....................................................................................... 9
      4.2.1. Control of records ................................................................................................................... 10
   5. MANAGEMENT RESPONSIBILITIES .................................................................................................. 10
      5.1. Management Commitment ........................................................................................................... 10
      5.2. Attention focused on the customer .............................................................................................. 11
      5.3. Quality Policy ................................................................................................................................ 12
      5.3.1. Vision ........................................................................................................................................ 12
      5.3.2. Values ........................................................................................................................................ 12
      5.3.3. Organisational Model and Code of Ethics .............................................................................. 14
      5.4. Planning .......................................................................................................................................... 15
      5.4.1. Quality objectives ..................................................................................................................... 15
      5.4.2. Planning of the quality management system ........................................................................... 15
      5.5. Responsibility, authority and communication ........................................................................... 16
      5.5.1. Responsibility and authority .................................................................................................. 16
      5.5.1.1. Renewable Energy .............................................................................................................. 17
      5.5.1.2. Fossil Power Generation Instrumentation & Electrical .................................................. 17
      5.5.1.3. Service .................................................................................................................................. 18
      5.5.1.4. Transmission High Voltage ................................................................................................... 18
      5.5.1.5. Power Distribution Medium Voltage .................................................................................. 18
      5.5.1.6. Power Distribution Energy Automation ............................................................................. 18
      5.5.1.7. Transmission & Distribution Service ................................................................................... 18
      5.5.1.8. Export Sales & Execution ...................................................................................................... 19
      5.5.1.9. Sales & Marketing .................................................................................................................. 19
      5.5.1.10. Procurement ........................................................................................................................ 19
      5.5.1.11. Key Management & Support Functions Energy Sector ..................................................... 19
      5.5.1.12. Export Control and Customs (ECC) .................................................................................... 20
      5.5.1.13. Compliance ........................................................................................................................ 20
      5.5.1.14. Business Planning & Control / Credit Management ............................................................ 20
      5.5.1.15. Business Administration .................................................................................................... 20
      5.5.2. Sector .......................................................................................................................................... 21
      5.5.3. Internal communication ............................................................................................................ 21
      5.6. Management Review ................................................................................................................... 21
   6. RESOURCE MANAGEMENT ............................................................................................................ 22
      6.1. Provision of resources ................................................................................................................... 22
      6.2. Human resources .......................................................................................................................... 22
      6.2.1. General ....................................................................................................................................... 22
      6.2.2. BU skills, awareness and training ............................................................................................. 23
   6.3. Infrastructures .................................................................................................................................... 23

7 PRODUCT EXECUTION ............................................................................................... 24
7.1. Planning of product execution ............................................................................. 24
7.1.1. Structure of sub-processes ............................................................................... 25
7.1.2. Map of sub-processes .................................................................................... 26
7.2. Customer-related processes ................................................................................ 27
7.2.1. Determining product-related requirements ...................................................... 27
7.2.2. Review of product-related requirements ......................................................... 27
7.2.3. Communications with the customer ................................................................. 28
7.3. Design and Development .................................................................................... 28
7.4. Procurement ......................................................................................................... 29
7.5. Production and delivery of services ..................................................................... 30
7.5.1. Supervising the activities involved in production and delivery of services .... 30
7.5.2. Validation of the processes of production and delivery of services .......... 30
7.5.3. Identification and traceability ......................................................................... 31
7.5.4. Customer property ........................................................................................ 31
7.5.5. Storage of products ....................................................................................... 31
7.6. Ongoing checking of monitoring and measuring devices ................................... 31
8 MEASURING, ANALYSIS AND IMPROVEMENT ......................................................... 32
8.1. General .................................................................................................................. 32
8.2. Monitoring and measuring ................................................................................... 32
8.2.1. Customer satisfaction .................................................................................... 32
8.2.2. Internal Quality Audits .................................................................................. 32
8.2.3. Monitoring and measurement of processes .................................................... 33
8.2.4. Monitoring and measurement of products ..................................................... 33
8.3. Control of non-conforming products ................................................................. 33
8.4. Analysis of results ............................................................................................... 34
8.5. Improvement ........................................................................................................ 34
8.5.1. Continuous improvement ............................................................................... 34
8.5.2. Corrective action ........................................................................................... 34
8.5.3. Preventive action ............................................................................................. 35
## I. REVISION STATUS

<table>
<thead>
<tr>
<th>Edition</th>
<th>Date</th>
<th>Issued by</th>
<th>Checked by</th>
<th>Approved by</th>
<th>Reason for revision</th>
<th>Distribution</th>
</tr>
</thead>
<tbody>
<tr>
<td>01</td>
<td>20.06.03</td>
<td></td>
<td></td>
<td></td>
<td>New issue due to harmonisation with UNI EN ISO 9001:2008 and Siemens S.p.A. Quality Management System</td>
<td></td>
</tr>
<tr>
<td>02</td>
<td>10.09.04</td>
<td></td>
<td></td>
<td></td>
<td>Revised further to updating of the organisational structure of BU PTD and PG (see Circular 06/04 of 14.11.03).</td>
<td></td>
</tr>
<tr>
<td>03</td>
<td>02.05.06</td>
<td></td>
<td></td>
<td></td>
<td>Updated to harmonise Supply Chain Management (SCM) processes with SPIRIDON</td>
<td></td>
</tr>
<tr>
<td>04</td>
<td>05.10.07</td>
<td></td>
<td></td>
<td></td>
<td>Updating of quality policy. Revision of Chap. 5 and 8</td>
<td></td>
</tr>
<tr>
<td>05</td>
<td>20.10.08</td>
<td></td>
<td></td>
<td></td>
<td>Updating to assimilate new organisation Cancels and supersedes PG-PDT Manual with same numbering</td>
<td></td>
</tr>
<tr>
<td>06</td>
<td>05.07.09</td>
<td><strong>Issued by</strong></td>
<td><strong>Checked by:</strong></td>
<td><strong>Approved by:</strong></td>
<td>Updating to assimilate new organisation Cancels and supersedes Energy Manual with same numbering</td>
<td>Company Intranet</td>
</tr>
<tr>
<td></td>
<td></td>
<td>QM</td>
<td>BD&amp;QM QM QM</td>
<td>Head_Energy</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>G.Peluso</td>
<td>M. Tresoldi</td>
<td>H. Reuter</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Head_BA Energy</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>L. Velati</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
II. GENERAL INFORMATION

The ENERGY sector covers the market for electricity generation, transmission and distribution and the oil & gas industry, through the design, sale, installation, assistance and maintenance of plants, systems and devices.

The solutions offered are innovative and eco-sustainable, and in addition to components for energy generation, the sector executes conventional and renewable power plants, instrumentation and control systems, fuel cell technologies and a wide range of services to complete its portfolio. Energy is transmitted from power generation plants to users reliably, efficiently and eco-sustainably thanks to innovative, customised components and solutions such as high- and medium-voltage switchgear, transformers and substations, automation systems for electricity grids and first-class services.

The Siemens Energy sector is a worldwide leader in the supply of energy-related products and services, and constitutes a dependable partner for the supply of customised products and solutions and for ensuring that its customers obtain the maximum return on their investments.

Its registered office is at No. 10, Viale Piero e Alberto Pirelli, Milan, Italy, and it has the following operational sites in Italy:

Via Vipiteno 4 - 20128 MILAN (MI)
Via Scarsellini 119 - 16148 GENOA (GE)
Via Laurentina 455 - 00142 ROME (RM)
Via Volta 34 - Scorzè (VE)

With reference to the Business Areas of Siemens AG (the parent company) and the sectors of Siemens S.p.A., the ENERGY Sector is positioned as shown in Fig.1.
AIM AND SCOPE

1.1. General

The aim of this manual is to disseminate the quality policy formulated by the Company Management, describe the procedures for conducting activities aimed at achieving quality objectives, demonstrate the company’s ability to supply products which meet customer requirements and the applicable regulatory requirements, and define the criteria that govern the company’s approach to continuous improvement and monitoring of customer satisfaction.

1.2. Application

The quality manual applies to the ENERGY Sector and defines the processes adopted for the purpose of generating value for customers.

The quality manual applies to all processes relating to the supply of system solutions and the sale, installation, assistance and maintenance of plants and systems falling within the scope of the ENERGY Sector.

The ENERGY Sector undertakes no production processes whose final results cannot be verified by subsequent monitoring. As such, paragraph 7.5.2 of UNI EN ISO 9001:2008 does not apply.

2 REFERENCE STANDARDS

UNI EN ISO 9000:2005 Quality management systems - Fundamentals and vocabulary
QS1_01QM Siemens S.p.A. Quality Manual
QS6_01QM Document List_Siemens S.p.A.
QE6_01QM Document List_Energy Sector
BD&QM_RL_003 Managerial Documentation Central Function
QS2_01QM Company documentation: Job description and responsibilities
QS2_02QM Issue of quality management system documents
3 DEFINITIONS

The definitions refer to terms and/or acronyms and do not include quality-related terminology, as the latter is already included in the reference document UNI EN ISO 9000:2005.

SPA Siemens S.p.A.
SAG Siemens Aktiengesellschaft (parent company)
BA Business Administration
BTA Business Target Agreement
SEC Sector
DIV Division
QM Quality Manager
SGQ Quality Management System
CF Central Function
MQ_SEC Sector Quality Manual
PR_MQ Quality Manual Reference Procedure
PR_AR Procedure: Activities and Responsibilities
PR_P_C Procedure: Operating Processes
PR_P_M Procedure: Management Processes
PR_P_S Procedure: Support Processes
PO_IL Operating Procedure and Work Instructions with general validity
DL_SPA Document List Siemens S.p.A.
FIE Fossil Power Generation Instrumentation & Electrical
S Service
D SE Power Distribution Service
TH Power Transmission High Voltage
Exp S&E Export Sales & Execution
S&Mkt Sales & Marketing
E K M&S F Key Management & Support Functions
E P Procurement
D MV Power Distribution Medium Voltage
D EA Power Distribution Energy Automation
E Energy
GPD Geschäfte Politische Durchsprache
4 QUALITY MANAGEMENT SYSTEM

4.1. General requirements

Siemens S.p.A. has developed its Quality Management system (SGQ) and is committed to maintaining and improving it, for the purpose of ensuring that the internal processes and products of each Sector comply with the specified requirements and meet the expectations of the Customer.

Since Siemens S.p.A. and, more generally, all the organisations within the Siemens Italia Group belong to a wider international Group, the Quality Management System (SGQ) is implemented in line with the directions set out in the Siemens Quality Management System (SQM).

In order to ensure that the SQM System covers the contents of ISO 9001:2008 in its entirety, a “Correlation Matrix” has been prepared, which identifies the relationship between the various elements of ISO 9001:2008 and the 9 mandatory elements of the SQM System.

The ENERGY Sector has defined its processes in accordance with the guidelines defined in the Siemens S.p.A. Quality Manual (QS1_01QM), the operating procedures of the Business Area to which it belongs, and its own organisational requirements (Fig. 4_1).

---

**Fig. 4_1**
A MAP OF THE PROCESSES applicable to the ENERGY Sector is shown in Fig. 4.2.

<table>
<thead>
<tr>
<th>Sector</th>
<th>S&amp;Mk</th>
<th>Exp S/E</th>
<th>T H</th>
<th>B MV</th>
<th>B EA</th>
<th>B SE</th>
<th>R</th>
<th>FIE</th>
<th>S</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>CUSTOMER RELATIONSHIP MANAGEMENT asks</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Sell</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Jobs</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>SUPPLY CHANGE MANAGEMENT</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Proc</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Source</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Deliver</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Return</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
</tbody>
</table>

Fig. 4.2

4.2. Requirements relating to documentation

The documentation for the ENERGY Sector Quality Management System consists of the following type of documents:

- Siemens S.p.A. Quality Manual;
- Quality Manual reference procedures;
- Process procedures: Key, Management and Support;
- ENERGY Sector Quality Manual;
- Procedures for Process Activities and Responsibilities;
- Operating Procedures/Work Instructions.

The above documentation is controlled in accordance with the criteria set out in the corresponding paragraph in the Siemens S.p.A. Quality Manual and with the following procedures:

- “MANAGERIAL DOCUMENTATION CENTRAL FUNCTION”;
- “COMPANY DOCUMENTATION: JOB DESCRIPTION AND RESPONSIBILITIES”;
- “ISSUE OF QUALITY MANAGEMENT SYSTEM DOCUMENTS”.

The reference documents for the ENERGY Sector Quality Management System are listed in the DOCUMENT LIST_ENERGY (QE6_01QM) in paragraph 2.

Management of documentation of external origin relating to customers, product technical standards, EU Directives and laws for CE marking is the responsibility of the ENERGY Sector, whereas responsibility for managing documentation relating to management standards (ISO, UNI, etc.), Italian laws governing environmental protection and work safety and other binding laws is shared with the central functions of Siemens S.p.A.
4.2.1. Control of records

The control of quality system records is governed by the QUALITY RECORDS procedure, which defines the procedures for identifying, filing and retaining the quality record documents necessary for providing evidence of conformity with regulatory requirements and the effectiveness of the SGQ.

Quality records include the following types of document:

- Supplier Assessment and Monitoring;
- Reviews, Verifications, Validations, Checks and Tests relating to projects/products;
- Reviews of quotes and orders;
- Monitoring and measurement of processes and products/services;
- Non-conforming products;
- Products supplied by the Customer;
- Identification and traceability;
- Monitoring and measuring devices;
- Customer complaints;
- Corrective and Preventive Action;
- Internal Audits;
- Training and instruction;
- Quality Management System Assessment and Review;
- Sector Quality Plan;
- Company Quality Plan.

These documents are for internal use and are available for viewing if evidence is requested by third parties, such as customers, suppliers, auditing authorities, etc.

5 MANAGEMENT RESPONSIBILITIES

5.1. Management Commitment

The Company Management of Siemens S.p.A. establishes quality policy and objectives, prepares the organisation for achieving them and reviews the quality management system. The quality objectives and measurements for assessing their achievement are defined in line with the 9 Mandatory Elements set down in the Siemens Quality Management System (SQM). The constant commitment of the Management in monitoring these objectives is ensured through discussions of the objectives at specific Management Meetings and through systematic follow-up activities.

It is the responsibility of the Sector/Division Management, with the guidance of the MANAGEMENT PROCESSES (Fig. 5.1), to define and plan their objectives in accordance with those set by the Management of Siemens S.p.A and by the corresponding Business Area of Siemens AG, to verify the results obtained and take any additional action necessary for achieving them.

These processes are specified in the procedure MANAGEMENT PROCESSES.
On an annual basis, as part of the process of STRATEGIC PLANNING and CONTROLLING, a Business Target Agreement (BTA) is defined, which harmonises the planning activities of the ENERGY Sector with the directions of the Parent Company.

In order to ensure that the objectives set in the BTA are achieved, the results attained by the respective profit centres are periodically monitored within the framework of the CONTROLLING process and any action to be taken is identified during the course of MANAGEMENT REVIEW meetings.

Furthermore, a Strategic Plan is drawn up in accordance with the Parent Company’s methodology, known as GPD, for the purposes of outlining a medium- and long-term forecast of business results.

5.2. Attention focused on the customer

The ENERGY Sector aims to meet the requirements of the customer by supplying:

- **Products/Systems/Solutions** produced and distributed in accordance with the requirements of the market and/or customer;
- **Services** aimed at optimising the value chain;
- **Partnerships** with customers aimed at identifying, developing and producing integrated solutions.

In order to achieve these objectives, the ENERGY Sector uses the CUSTOMER RELATIONSHIP MANAGEMENT processes shown in Fig. 5.2 to identify market requirements, tailor its offering to the customer, ensures the necessary technical support and assesses the requirements and quality perceived by the customer.

These processes are described in the respective procedures PROCESS ACTIVITIES AND RESPONSIBILITIES.
5.3. Quality Policy

The Management ensures that the Quality Policy, a breakdown of which is shown below, is appropriate to the aims of the organisation, meets the needs of satisfying the requirements specified by the customer and ensuring continuous improvement, and is periodically reviewed to determine its continued fitness for purpose.

5.3.1. Vision

The vision of Siemens Italia, as a Group, is to:
- generate profit and deliver the highest sustainable value to customers;
- be one of the most successful Groups in the world; be the first or second ranked player in each of its businesses;
- be capable of setting technological trends;
- be capable of generating the highest value for its shareholders;
- be capable of attracting the best professional talent;
- be committed to upholding a shared code of values in all its actions.

5.3.2. Values

Siemens has defined the principles on which to base its ethics in the activities which it undertakes. Our values: Highest Performance with the Highest Ethics. Excellent performance and ethical conduct are the two pillars of sustainable success. In the long term, Siemens will remain competitive only if each of us is capable of meeting these two requirements simultaneously.

For this reason, Siemens must be:

1. Responsible
2. Excellent
3. Innovative

Responsible: to act ethically and responsibly

At Siemens, we are profoundly committed to complying with all legal and ethical requirements and upholding the highest ethical and professional standards in the day-to-day running of our business.

There is no tolerance for conduct in breach of laws, standards and codes of ethics.

The principles associated with the concept of responsibility constitute the compass which guides us in the running of our business, and we must encourage our partners, suppliers and all those who come into contact with us to adopt similar standards of conduct.

Our principles:

- We obey the law.
- We respect the dignity of the individual.
- We encourage health and safety.
- We manage our business transparently and honestly.
- We act fairly in our relations with competitors and stakeholders.
- We honour our commitments.
- We respect property.
- We strive to protect the environment.
- We play an active civic and social role.
- We are committed to achieving the best results.

Excellent: to achieve excellent performance and results

At Siemens, we set ourselves ambitious objectives and we work with commitment towards achieving them. We support our customers in the search for perfection by proposing solutions which exceed expectations.

The pursuit of excellence requires that we define a systematic approach towards continuous improvement, challenge existing processes and embrace change, so as to reap new opportunities as they arise.

Excellence also means being able to attract the most talented human resources and equip them with the necessary tools and skills to become excellent. We are committed to promoting a high-performance culture on a day-to-day basis.

Our principles:

- We set ourselves challenging objectives and we achieve them.
- We are passionate about our work.
- We are always willing to go the extra mile (we stay the course).
- We are disciplined and we act swiftly and decisively.
- We strive to achieve perfection.
- We have a profound understanding of the needs of our customers and the challenges that they set us.
- We systematically develop our skills and make full use of our potential.
- We interact efficiently and pragmatically.
- We embrace change in order to ensure that we remain competitive in the future.

Innovative: to create sustainable value

Innovation lies at the root of Siemens’ success. We constantly align our Research & Development activities with our business strategies, we hold the most important patents and we are leaders in both emerging and mature markets. Our goal is to be trendsetters in all our business areas.

We give free rein to the creativity and energy of our partners, and promote all that is new and different. We are ingenious and we recognise this quality in all its forms: originality, inventiveness and enterprise.
We are entrepreneurs and we develop our innovations on a global scale. We measure the success of our innovations through the success of our customers and we constantly refresh our product portfolio to meet the needs of the Company and create sustainable value.

Our principles:

- We create innovations which deliver a competitive advantage to our customers.
- We act as entrepreneurs.
- We are creative and open to new ideas.
- We are ingenious and we have vision.
- We are trendsetters.
- We constantly challenge the status quo.

5.3.3. Organisational Model and Code of Ethics

In order to assure the best conditions of integrity and transparency in the running of its business and company activities, Siemens S.p.A. decided, in keeping with its company policies, to adopt, as well as a Code of Ethics, an Organisational Model in line with the prescriptions of Legislative Decree 231/2001*. The Model adopted was drawn up on the basis of the guidelines issued by Confindustria.

This initiative was taken in the firm belief that adopting this Model provides a valid means of raising the awareness of all company employees and all other stakeholders in their various capacities (customers, suppliers, partners, and contractors), so that as they go about their work, they behave in a fair and straight manner, in such a way as to prevent the risk of committing crimes.
5.4. Planning

5.4.1. Quality objectives

The Management teams of Siemens S.p.A. and of the respective Sectors ensure, in partnership with the Quality Function and in line with the objectives set by the parent company (Siemens AG), that quality objectives are set for their own organisation, including the necessary objectives for meeting product requirements, and that these objectives are measurable and coherent with Quality Policy.

5.4.2. Planning of the quality management system

In order to ensure the integrity and application of the Quality Management System (SGQ), the Management of Siemens S.p.A. and of the respective Sectors, supported by the Quality Function, plan and monitor adherence to the SGQ, in accordance with the procedures specified in the process of QUALITY MANAGEMENT, belonging to the SUPPORT PROCESSES Fig. 5_3.

The process of QUALITY MANAGEMENT is divided into the following four sub-processes: “Plan”, “Prepare”, “Realize” and “Check”.

Essentially, the structure reflects the “Plan-Do-Check-Act” (PDCA) model defined in ISO 9001:2008; this model is particularly well-suited to supporting the “process-based approach”, which is one of the core concepts of the standard. The PDCA model, like the structure adopted by Siemens to describe the process of Quality Management, makes it possible to:

- establish the necessary objectives and procedures for achieving results in line with the requirements expressed by the customer and with the organisation’s policies (Plan);
- implement the processes (Do);
- monitor and measure the processes against the objectives and requirements expressed (Check);
- take action to improve the performance of processes continuously (Act).
5.5. Responsibility, authority and communication

5.5.1. Responsibility and authority

The Company Management, in line with the strategies disseminated by the parent company, sets the objectives for each Business Area, identifies the most appropriate organisational structure for achieving them and assigns the respective mandates to each company function (Sector, Central Functions).

It is also the responsibility of the Company Management, through the HR CB/OD Function, to communicate defined authorities and responsibilities within the organisation.

Figure 5_4 shows the organisational structure of Siemens S.p.A. within which the ENERGY Sector is positioned. The organisational structure of the ENERGY Sector is shown in Fig. 5_5.

---

**Fig. 5_4**

**SIEMENS S.p.A. Management**

- **Industry Sector**
  - Industry Automation (IA)
  - Drive Technologies (DT)
  - Industry Solutions (HS)
  - Building Technologies (BT)
  - Mobility (MC)

- **Energy Sector**
  - Fossil Power Generation
  - Instrumentation & Electrical (IE)
  - Renewable Energy (ER)
  - Energy Service (ES)
  - Power Distribution Energy Automation (DEA)
  - Power Distribution Medium Voltage (DMV)
  - Transmission & Distribution Services (DSC)
  - Energy Transmission High Voltage (TH)
  - Export Sales & Execution (E S&E)

- **Healthcare Sector**
  - Imaging & IT (IM)
  - Health Services & Workflow Design (HSD & WSD)

- **Central Functions**
  - GSS
  - Global Shared Services
  - SRE
  - Real Estate

---

Numero d’Oggetto/Document Number | Edizione/Issue | Data/Date  
---------------------------------|---------------|-----------
QE1_01QM                          | 06            | 06.07.2009

Quality Manual  
Energy Sector

Siemens S.p.A.  
© Copyright Tutti i diritti riservati - All rights reserved 2009
The specific mandates, assigned to each Division/Functional Department of the Energy Sector, are set out below.

5.5.1.1. **Renewable Energy**

The work of the RENEWABLE ENERGY Division (R) involves the sale, design, installation and assistance of systems for generating electricity from renewable sources. It applies the processes of SELL, DELIVER SOLUTION and DELIVER SERVICE.

5.5.1.2. **Fossil Power Generation Instrumentation & Electrical**

The FOSSIL POWER GENERATION INSTRUMENTATION & ELECTRICAL (F IE) Division handles the marketing and sale of monitoring, control, process supervision and service supervisions systems in the industrial automation sector. It applies the processes of SELL, DELIVER SOLUTION and DELIVER SERVICE.
5.5.1.3. Service

The SERVICE (S) Division is responsible for selling services relating to plants and components in operation on the Italian market in accordance with the DELIVER SERVICE process.

5.5.1.4. Transmission High Voltage

The TRANSMISSION HIGH VOLTAGE (TH) Division undertakes the sale, design and installation of high-voltage electricity transmission and distribution systems. The Division uses the SALES & MARKETING (S & Mkt).

5.5.1.5. Power Distribution Medium Voltage

The POWER DISTRIBUTION MEDIUM VOLTAGE (D M) Division undertakes the sale, design and installation of medium-voltage electricity transmission and distribution systems. The Division uses the SALES & MARKETING (S & Mkt).

5.5.1.6. Power Distribution Energy Automation

The POWER DISTRIBUTION ENERGY AUTOMATION (D EA) Division undertakes the sale, design and installation of power quality, protection, supervision and remote control plants and automation systems, using the SALES & MARKETING (S & Mkt) Functional Department for the activities defined as UNDERSTAND and SELL.

5.5.1.7. Transmission & Distribution Service

The TRASMISSION & DISTRIBUTION SERVICE (D SE) Division carries out the following service activities on the grids:
- Auditing of substations, maintenance, plant management;
- Turnkey substations;
- Protection and automation systems;
- Renewal/extension of substations;
- Assembly, retrofitting and commissioning of equipment;
- Global service contracts.

on products:
- Replacement parts, product training and support, renewal, workshop-based repair, maintenance, retrofitting, monitoring of conditions, customer assistance, updating/execution of equipment no longer in production.
5.5.1.8. Export Sales & Execution

The EXPORT SALES & EXECUTION (Exp S&E) Division undertakes the activities defined as UNDERSTAND and SELL transversely on behalf of the Divisions for foreign customers. It also handles the sale, design and installation of high-voltage electricity transmission and distribution systems for the geographical areas of Uganda, Djibouti and Ethiopia.

5.5.1.9. Sales & Marketing

The SALES & MARKETING (S&Mkt) Functional Department undertakes the activities defined as UNDERSTAND and SELL transversely on behalf of the Divisions.

5.5.1.10. Procurement

The PROCUREMENT (E P) Functional Department handles the procurement of a vast and varied range of direct materials/services for the Divisions of the Energy Sector, and monitors developments on the procurement market and the global price levels of the aforementioned materials/services.

The specific mandates of Energy Procurement are:
- To define and implement the purchasing strategies for all “Direct Materials” pertaining to the sales activities of the Energy Sector Departments.
- To develop cross-functional sourcing and pooling strategies.
- To implement and verify the application of the framework agreements with third parties relating to supplies aimed at business.
- To promote and deliver improvements in operating profit for the Sector’s Divisions.
- To ensure the availability and suitability (in terms of quality and delivery times) of the supply market to the requirements expressed by the Divisions.
- To support the Energy Divisions in Project Management through early involvement in the process of preparing quotes and negotiating contracts.
- To develop the strategy of Procurement in line with Siemens’ policies (approach, methods, instruments and ethics), for the purpose of ensuring the competitiveness of the Energy Sector’s offering in terms of both Commodity Management and Contract Management.
- To analyse the global purchasing market and related sourcing processes.
- To develop a Supplier Management strategy in line with the Contract Risk and Quality Management strategy.

5.5.1.11. Key Management & Support Functions Energy Sector

The KEY MANAGEMENT & SUPPORT FUNCTIONS ENERGY SECTOR (E K M&S F) Function Department is tasked with:
- Harmonising integration between the various Business Areas in the Sector.
- Developing and sharing Best Practices in the Sector.
- Managing processes in accordance with the Reference Process House of the parent company.
5.5.1.12. Export Control and Customs (ECC)

The main tasks and responsibilities of the EXPORT CONTROL AND CUSTOMS function of the INDUSTRY Sector are:

- To implement, maintain and monitor the Siemens internal Control Program for Export Control and Customs (ICP) within the company;
- To apply Siemens' internal rules governing ECC within the scope of the rules of the company;
- To promote a specific culture and awareness within the Sector/Divisions relating to Export Control issues, with particular reference to compliance with laws and internal rules and to the training of contractors within the Sector / Divisions;
- To ensure the effectiveness of end-use and end-user checks in company processes, in accordance with Export Control and Customs guidelines.

5.5.1.13. Compliance

The SUBSIDIARY OFFICER for COMPLIANCE is responsible for implementing the "Compliance Program" of Siemens SpA, i.e. preparing all the necessary measures for preventing possible violations of laws which may result in civil or criminal sanctions, with particular reference to anti-trust and anti-corruption laws.

5.5.1.14. Business Planning & Control / Credit Management

Business Planning & Control / Credit Management is responsible for monitoring the running of the sector, ensuring application of the rules of reporting and management control, ensuring that the sector meets the deadlines in terms of consolidated financial statements, and supporting the Management in reporting activities.

It is also responsible for ensuring the recovery of credit and the application of the Credit Policy.

5.5.1.15. Business Administration

Business Administration is responsible for the Sector's economic and financial management, with particular reference to the following:

- Sharing, within the framework of the guidelines defined by the Company Management and the relevant Business Areas (SAG), Sector plans and strategies, by coordinating the activities of management and control.
- Ensuring that the Sector’s profitability objectives are achieved, by monitoring economic and financial performance, proposing and taking the necessary corrective action in the event of discrepancies between objectives and results, and keeping the Company Management and corresponding Business Area informed on matters of management performance.
5.5.2. Sector Management Representative

The Sector Management Representative is the Quality Manager (QM), who is assigned responsibility and authority for ensuring the application and maintenance of the prescriptions of the reference standard and ensuring the promotion of awareness of compliance with customer requirements.

This manager reports to the Management on the performance of the SGQ, so that the latter can review it and set objectives for improvement.

Quality Management activities are handled entirely by the central function of Quality Management, which includes figures specifically dedicated to the Sectors.

5.5.3. Internal communication

Siemens Spa implements an effective process for communicating company strategies and objectives, both by means of communications distributed via the company intranet and through targeted meetings at company, sector and divisional level, and ensuring communication to all levels.

Communication within the company at a general level is handled by the Communication (CC) Function, while communications relating to the Quality Management System are disseminated by the Business Development & Quality Management (BD&QM) Function, by means of systematic monthly meetings attended by all the Quality Managers of the various organisations within the Siemens Italia Group (QM Community Meetings).

5.6. Management Review

The Company and Sector Management teams review the SGQ annually or in response to major organisational changes or other significant events, with a view to ensuring that it remains effective and fit for purpose.

Assessment of the SGQ and subsequent monitoring of the objectives set in the Quality Plan are undertaken in line with the 9 Mandatory Elements of the Siemens Quality Management System and in accordance with the sub-process of the QUALITY MANAGEMENT process entitled “Implementation of the Siemens Quality Management System (SQM)”, and on the basis of the results obtained in relation to:
- Internal Quality Audits;
- Information from customers;
- Process performance;
- Corrective and Preventive Action;
- Conformity of products;
- Quality objectives.

The Management Review must result in:
- improvement of the SGQ;
- improvement of the effectiveness of company processes;
- improvement of supplies in relation to customers’ requirements;
- analysis from which to assess any resource requirements.
6 RESOURCE MANAGEMENT

6.1. Provision of resources

The resources necessary for pursuing company strategies, business objectives and quality objectives are identified by each Sector in agreement with the respective Business Area to which they belong and with the Central Functions of Siemens S.p.A. These resources are planned within the framework of the annual budget.

When identifying resources, particular attention is paid to human resources, infrastructures and the work environment, in full compliance with company policy, with maximum attention focused on customers and personnel, and in accordance with legal and environmental obligations.

6.2. Human resources

6.2.1. General

The Human Resources (HR) Function ensures that personnel engaged in activities that influence product quality achieve the necessary level of skill.

Human resources are managed, in partnership with the Sectors/Divisions to which the personnel in question is assigned, in conformity with the HUMAN RESOURCES process, which falls into the SUPPORT PROCESSES category (Fig. 6_1).

The HUMAN RESOURCES MANAGEMENT process, which is the responsibility of the Human Resources Function of Siemens S.p.A. encompasses the following activities:

- Ensuring the recruitment of the necessary personnel for performing the envisaged activities;
- Attending to the training and professional development of personnel;
- Ensuring that the performance of personnel is assessed;
- Ensuring that the regulatory standards relating to the work place are adhered to.
6.2.2. BU skills, awareness and training

The activities aimed at equipping personnel with the necessary skills are carried out in accordance with the HUMAN RESOURCES process, which defines the operating procedures for ensuring the necessary skills, instruction and assessment of the effectiveness of the action taken.

Training can also be delivered in the form of technical and specialised instruction, for which record-keeping and management are in line with the HUMAN RESOURCES process, but are managed directly by the Sector/Division.

6.3. Infrastructures

The company management is responsible for defining, preparing and maintaining infrastructures such as:

- Buildings, work areas and related services, with the aid of the services provided by Real Estate (SRE);
- Information systems and office automation (PROCESS & INFORMATION MANAGEMENT), with the aid of the services provided by Siemens IT Solutions & Services (SIS), a Siemens Italia Group company;
- Administrative and accounting services relating to the management of infrastructures (FINANCIAL MANAGEMENT), with the aid of the Accounting & Finance Central Function.

These services are specified in the processes belonging to the category SUPPORT PROCESSES, shown in Fig. 6_2.
7 PRODUCT EXECUTION

7.1. Planning of product execution

The processes described below refer to the execution of products/services and belong to the category BUSINESS PROCESSES, described in paragraph 4.1.

They were planned for the purpose of effectively executing the products and services sold by the ENERGY Sector.

Dedicated procedures specify the objectives, inputs, outputs, operating phases, monitoring phases, responsibilities and resources for each process.

Within the framework of these planned processes, the following types of activity are carried out where applicable:

- Review for the activities of sales, design and development;
- Checking and validation for the activities of design and development;
- Checks and tests and respective acceptance criteria for the activities of production and supply of the product/service to the customer;
- Forms, in printed or electronic format, for the purposes of record-keeping relating to points set out above;
- Monitoring of processes for the purpose of checking their effectiveness.

The BUSINESS PROCESSES of the ENERGY Sector are divided into two types of key processes, each of which has the aims set out below (Fig. 7_1).

![Fig. 7_1](image)

Each of the PROCESSES identified in the various types is divided into SUB-PROCESSES, which specify the various operational phases of the process to which they belong.

The SUB-PROCESSES applicable to the ENERGY Sector and belonging to the processes of Customer Relationship Management and Supply Chain Management are shown in Fig. 7_2.
7.1.1. Structure of sub-processes

Each sub-process specifies the fundamental activities or phases, indicating the Function responsible, the operating flows, the correlations with other processes or sub-processes, the documents developed within the sub-process and those necessary for its performance.

These contents are set out in the procedures PROCESS ACTIVITIES AND RESPONSIBILITIES, which are valid for all departments in the Sector.

Specifically:

- UNDERSTAND QE2_01QM
- SELL QE2_02QM
- CARE QE2_03QM
- SOURCE QE2_04QM
- PRODUCT/SYSTEM QE2_05QM
- SOLUTION QE2_06QM
- SERVICE QE2_07QM
- SELL FIE QE2_01EF
- SOLUTION FIE QE2_02EF
- PROCUREMENT QE2_02PR
- SUPPLIER MANAGEMENT QE2_01PR
### 7.1.2. Map of sub-processes

The MAP OF SUB-PROCESSES applicable to the ENERGY Sector, and the respective Function responsibilities are shown in Fig. 7.2.

<table>
<thead>
<tr>
<th>Sector Energy</th>
<th>Divisions / Functional Departments</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Business Processes</strong></td>
<td><strong>SA/ME</strong></td>
</tr>
<tr>
<td>CRM ITALY</td>
<td></td>
</tr>
<tr>
<td>UNDERSTAND</td>
<td></td>
</tr>
<tr>
<td>Customer Analysis</td>
<td>[E]</td>
</tr>
<tr>
<td>Competitor Analysis</td>
<td>[E]</td>
</tr>
<tr>
<td>Promotion</td>
<td>[E]</td>
</tr>
<tr>
<td><strong>SELL</strong></td>
<td></td>
</tr>
<tr>
<td>Sell Plant Solution Project</td>
<td>[E]</td>
</tr>
<tr>
<td><strong>SELL PROJECT</strong></td>
<td></td>
</tr>
<tr>
<td>Perform pre-acquisition</td>
<td>[E]</td>
</tr>
<tr>
<td>Perform project acquisition</td>
<td>[E]</td>
</tr>
<tr>
<td>Perform bid preparation</td>
<td>[E]</td>
</tr>
<tr>
<td>Perform contract negotiation</td>
<td>[E]</td>
</tr>
<tr>
<td>Perform project handover</td>
<td>[E]</td>
</tr>
<tr>
<td>CRM ITALY</td>
<td></td>
</tr>
<tr>
<td>CARE</td>
<td></td>
</tr>
<tr>
<td>Customer Complaint Management</td>
<td>[E]</td>
</tr>
<tr>
<td>Customer Satisfaction Measurement</td>
<td>[E]</td>
</tr>
</tbody>
</table>

**SOURCE**

**SOURCE ENGINEERS-TO-ORDER PRODUCT**

Individual Sourcing

Operate MRP/purchase order/release order

Release material/service (shipment vs. order)

Inspect material/service

**DELIVER**

**DELIVERANCE TO ORDER PRODUCT**

Individual Processing Local Company

Ruscio, enter and validate order

Plan and schedule order, determine delivery date

Consolidate Orders

Perform transportation planning

Pack, pack and provide product for shipping

Load Vehicle, Generate Shipping Documents and Ship Products

Release and verify product at Customer site

Install Product/Initial acceptance

Generate invoice & secure payment

**DELIVER ENGINEER TO ORDER PRODUCT PROJECT**

Plant solution Project processing

Perform Project opening and Clarification

Trigger commercial process

Perform detailed planning

Perform purchasing & manufacturing

Perform dispatch

Perform construction/installation

Perform commissioning

Perform acceptance

Close project

Perform warranty

**DELIVER SERVICE**

Maintenance Operations

Maintenance strategy set-up

Maintenance plan set-up

Ticket Creation

Clarification

Job Planning & Dispatch

Maintenance Solution Finding & Repair

Reporting & Ticket Closure

Invoicing

Evaluation


Fig. 7.2
Customer-related processes, whose objective is to achieve the Business objectives set by the Sector Management, belong to the category of CUSTOMER RELATIONSHIP MANAGEMENT (CRM) processes and in particular to the processes defined as UNDERSTAND and SELL specified in the PROCESS ACTIVITIES and RESPONSIBILITIES procedure for which such processes are applicable.

### 7.2.1. Determining product-related requirements

Product-related requirements are determined within the framework of the UNDERSTAND and SELL processes. Fig.7_3.

The aim of the UNDERSTAND process is to monitor the national market in order to keep abreast of market trends in quantitative and qualitative terms, and thus define which of the parent company’s products are saleable in Italy. The aim of the SELL process, by contrast, is to define sales strategies, manage the product, formulate quotes and negotiate and conclude sales contracts.

Both in the first process and more specifically in the second, activity is aimed at fully identifying the product/system requirements, including those specified by the customer, the applicable regulatory requirements, which are verified once the decision is taken to offer the product for sale in Italy; implicit requirements and any requirements that the Sector may deem essential to the correct operation and reliability of the product/system.

### 7.2.2. Review of product-related requirements

A review of product requirements is conducted as part of both the SELL and DELIVER processes.

The aim of the quote review is to check that the quote has been prepared on the basis of the previously established requirements and that the organisation has the capacity to meet both product-related requirements and requirements relating to the conditions of supply. Evidence of the positive outcome of the review typically takes the form of approval of the quote by the manager in charge.

A review of product requirements is also conducted at the time of processing the order, with a view to ensuring that the customer’s order conforms with the stipulations of the contract. Any changes to the contract/order are managed according to the procedures envisaged for drawing up the contract (Fig. 7_4).
7.2.3. Communications with the customer

Communications with the customer are made both as part of the UNDERSTAND process, which involves communicating information about new products and their performance characteristics, and the SELL process, through meetings with the customer, quotes and contracts.

The DELIVER process also involves communications with the customer relating to the state of progress of the supply. (Fig. 7_5).

7.3. Design and Development

The activities relating to the design and development of the products/systems covered by the ENERGY Sector are specified in the SELL process and in the DELIVER process (Fig. 7_6).

In particular, design and development are carried out in accordance with contractual requirements and the characteristics of the product in question, and involve the following:

- The planning of the design and development phases, monitoring, resources and responsibilities.

- Review inputs, in the form of inputs from the customer, binding regulatory requirements and other implicit requirements that the Sector deems essential to the reliability and correct operation of the solution/system.

- Checking of developments to ascertain that the results are consistent with the inputs and to approve the outputs and respective documentation produced for the purpose of procurement, checking and testing, and for the customer.
- Validation at the end of the design and development phase, to ascertain that the resulting solution/system meets the functional specifications. This activity typically coincides with acceptance testing by the customer.

Modifications to design and development, whether requested by the customer or for the purpose of making improvements, are examined, approved and applied by the project manager, while record-keeping relating to planning, reviews, checks and validation is managed in accordance with the QUALITY RECORDS procedure.

7.4. Procurement

At Siemens S.p.A., the products required for executing orders are procured directly from Siemens AG or, in the event of special supply requirements, from other approved suppliers.

The Sector ensures that the products procured conform with the requirements specified for the procurement and that criteria are established for the selection, assessment and development of suppliers (Ref QE2_01PR).

These activities are carried out in accordance with the requirements specified in the process and in the reference tools (Clik4Suppliers), which prescribe:

- Initial assessment of suppliers for the purpose of approving them on the basis of their technical, production and managerial capacities, and their quality, flexibility, reliability and competitiveness, and entering them in the list of approved suppliers;
- Periodic re-assessment of suppliers with reference to their performance during the period in question, further to which they are confirmed, downgraded or deleted from the list of approved suppliers;

and in accordance with the requirements specified in the SOURCE and DELIVER processes (Fig. 7_7):

- Purchase orders must include a detailed description of the products required and any special conditions or references;
- Checks carried out at the time of receipt must ensure that the products received meet the requirements specified in the purchase order.
7.5. Production and delivery of services

7.5.1. Supervising the activities involved in production and delivery of services

The conditions for supervising the activities involved in production and in the delivery of services, such as information describing product characteristics, the availability of work instructions, the use of appropriate instruments and the implementation of monitoring and measuring activities are carried out in the DELIVER process for aspects relating to the supply of products, and in the DELIVER SERVICE process for those relating to the delivery of services (Fig. 7_8).

In the DELIVER process, the following activities are monitored:

- Deployment of the customer order;
- Issue of purchasing orders;
- Installation and activation of the plant on the customer’s site.

In the DELIVER SERVICE process, the following activities are monitored:

- Scheduled preventive maintenance and modifications.

7.5.2. Validation of the processes of production and delivery of services

In the ENERGY Sector, no processes exist whose end results cannot be verified through subsequent monitoring and measuring activities.
7.5.3. Identification and traceability

The products/systems sold by the ENERGY Sector are identified and made traceable, generally in accordance with the procedures of the parent company.

7.5.4. Customer property

If, for the purposes of executing a supply or making a repair, the contract requires the availability of parts owned by the customer, the ENERGY Sector ensures that such property is correctly managed and maintained. Any constraints on the use of such property must be highlighted in the contractual documents.

In the case of loss, damage or unfitness for use, the ENERGY Sector notifies the customer accordingly in writing.

7.5.5. Storage of products

The procedures for ensuring that products are handled, packaged, stored and shipped in such a way that their characteristics are not impaired and that contractual obligations are met, are undertaken in accordance with the criteria specified in the Warehousing processes, developed in the SPIRIDON IT application, through the use of external suppliers.

7.6. Ongoing checking of monitoring and measuring devices

The ENERGY Sector identifies and plans the necessary monitoring and measuring activities and respective instruments, for providing evidence of products’ conformity with given requirements. These activities are carried out as part of the DELIVER process.

The process of checking equipment is conducted in accordance with the procedure DEVICES FOR TESTING, MEASURING AND COMMISSIONING (704). This procedure classifies the devices as follows:

- measuring instruments;
- indicator instruments;
- auxiliary equipment.

Procedures for the control and storage of the relevant documentation are defined for each of the three categories.
8 MEASURING, ANALYSIS AND IMPROVEMENT

8.1. General

The activities of measuring, analysis and improvement are carried out both within the framework of MANAGEMENT PROCESSES aimed at monitoring the results of each Sector by measuring the effectiveness of the OPERATING PROCESSES, and as part of the QUALITY MANAGEMENT process, aimed at ensuring the integrity and application of the SGQ.

Improvement programmes are systematically defined within the various organisations of Siemens Italia Group. These are suitably monitored using performance indicators and in line with the operating indications set out in the Siemens Quality Management System.

8.2. Monitoring and measuring

8.2.1. Customer satisfaction

Customer satisfaction is measured by means of interviews with the customer, recorded on an appropriate questionnaire, or by means of questionnaires sent to the customer on completion of the supply. These activities are carried out within the framework of the CARE process (Fig. 8.1).

8.2.2. Internal Quality Audits

Internal quality audits aimed at establishing whether the quality management system conforms with the requirements of UNI EN 9001:2008 and the requirements set down by Siemens S.p.A. and by each Sector/Division and whether it has been effectively implemented and kept up to date, are carried out in accordance with the operating procedure INTERNAL AUDITS OF THE QUALITY MANAGEMENT SYSTEM, which prescribes the following activities:

- Planning of Internal Audits
- Programme of Internal Audits
- Selecting auditors
- Audit Plan
- Performing the Internal Audit
- Audit Report
- Identifying areas for improvement;
- Defining Corrective Action;
- Storing documentation.
8.2.3. Monitoring and measurement of processes

The applicable processes are monitored and corrective action to be taken in order to achieve planned objectives is defined by the Sector Management in accordance with the criteria specified in MANAGEMENT PROCESSES (Fig. 8_2).

8.2.4. Monitoring and measurement of products

Monitoring and measuring of products, for the purpose of checking that requirements have been met, is carried out as part of the DELIVER process.

The acceptance criteria and results achieved in the monitoring and measuring of products are suitably documented and the products are released on completion of the planned activities (Fig. 8_3).

8.3. Control of non-conforming products

Non-conforming products are managed in accordance with criteria specified in the processes belonging to Supply Chain Management (SCM) shown in (Fig. 8_4) and in accordance with the Operating Procedure MANAGEMENT OF NON-CONFORMITY, CORRECTIVE ACTION, PREVENTIVE ACTION.

Fig. 8_2

Fig. 8_3

Fig. 8_4
8.4. Analysis of results

The results relating to the effectiveness of processes are analysed by the Divisions within the framework of the STRATEGIC PLANNING & CONTROLLING process. Results relating to the integrity and application of the Quality Management System, by contrast, are analysed within the framework of the QUALITY MANAGEMENT process, shown in fig. 8_5.

8.5. Improvement

8.5.1. Continuous improvement

The ENERGY Sector strives to improve continuously the effectiveness of the quality management system, through the quality policy and objectives and the management review.

Improvement is implemented in accordance with the STRATEGIC PLANNING & CONTROLLING process for aspects relating to the performance of the Divisions, and in accordance with the QUALITY MANAGEMENT process (100_343) for aspects relating to the integrity and application of the Quality Management System.

8.5.2. Corrective actions

Corrective action aimed at eliminating the causes of non-conformity, including customer complaints, are managed in accordance with the processes belonging to SUPPLY CHAIN MANAGEMENT (SCM) shown in Fig. 8_7 and in accordance with the Operating Procedure MANAGEMENT OF NON-CONFORMITY, CORRECTIVE ACTION, PREVENTIVE ACTION.
8.5.3. Preventive actions

Preventive action to eliminate the causes of potential non-conformity and prevent its recurrence is managed in accordance with the CONTINUOUS IMPROVEMENT process belonging to QUALITY MANAGEMENT, shown in Fig. 8_8 and in accordance with the Operating Procedure MANAGEMENT OF NON-COMFORMITY, CORRECTIVE ACTION, PREVENTIVE ACTION.

"Analysis of results and planning of improvement action"

Fig. 8_8