This CSR report is dedicated to illustrating State Grid's will, action and accomplishment in creating integrated economic, social and environmental value in a systematic way.

Statement

State Grid Corporation of China declares that all information of the CSR report is substantive, balanced, true, objective and comprehensive. We insist on systematically illustrating the complete logic of creating integrated economic, social and environmental value as a standard to define the content scope in this report. We hope, by means of publishing the CSR report, to strengthen the communication with stakeholders and the society, establish mutual trust, form a consensus on sustainable development, and bring the potential of the company's overall value creation into full play.

February 2011
Main innovations:
- Initiate a complete logic that the primary criterion for content selection is to help illustrate State Grid’s creation of integrated economic, social and environmental value.
- Illustrate the relations between CSR and integrated value creation from 12 aspects for the first time.
- Explain the complete logic of the company’s CSR implementation, including its concept, strategy, institutional arrangement and performance evaluation for the first time.
- Disclose major CSR topics in the form of features.

Extended reading:
For information related to corporate governance, stakeholder participation mechanism, and index calculation, please visit http://csr.sgcc.com.cn.

How to get a copy:
Please send an email to csr@sgcc.com.cn or call at 86-10-66598394 for a hard copy.


Note on the data:
The data for 2010 used in this report are preliminary statistics. They may be slightly different from the final results. The data for 2009 are final statistics, part of which differs slightly from the 2008 CSR Report.

Language of the report:
The CSR Reports are available in both Chinese and English, including paper and electronic versions.

Standards followed by the report:
State Grid CSR Performance Guide
References:
- Guidelines to the State-owned Enterprises Directly under the Central Government on Fulfilling Corporate Social Responsibilities by SASAC;
- Guidance on Chinese Enterprises’ Corporate Social Responsibility, by Research Center for Corporate Social Responsibility, Chinese Academy of Social Sciences;
- CSR Guide for China’s Industrial Enterprises and Industrial Associations by China Industrial Economic Federation
- Sustainability Reporting Guidelines (2006 Version) by Global Reporting Initiative
- AA 1000 Assurance Standards by Accountability Institute, Britain

Procedure for Report Preparation

Collect Topics:
Collect CSR topics from all levels of the company and external stakeholders; benchmark at CSR standards and best practices.

Review Topics:
Evaluate the importance and relevance of specific issues and integrated value creation; assess stakeholders’ degree of concern on related topics; review the relevance of specific topics and domestic and international standards.

Identify Topics:
Prioritize substantive topics, such as:
- Topics related to the efficiency and effect of corporate integrated value creation;
- Topics concerned by key stakeholders;
- Topics about social issues of common concern;
- Topics emphasized by domestic and international standards and best practices;
- Topics embedded with distinct corporate characteristics.

Unified Deployment:
Determine the reports overall framework according to the common framework and compilation objective.

Decide on the narrative logic in accordance with the causal chain on the company’s integrated value creation.

Choose the right narrative style based on stakeholders’ habits and degree of concern.

Require relevant internal departments to participate in the preparation of the CSR Report.

Collect its feedback;
- Raise further suggestions to refine the report;
- Help to identify with the value of the power grid and corporate development;
- Guide to adjust stakeholders’ expectations on fulfilling the company’s responsibilities.

Feedback after the Release:
- Hold a press conference on the report release;
- Organize the distribution and dissemination of the report;
- Collect its feedback;
- Edit and improve the report;
- Consult with external stakeholders;
- Ask for the company’s internal review;
- Go through the final approval from the corporate management;
- Review by a third party.

Collect its feedback;
- Raise further suggestions to refine the report.
Fulfilling both the common and specific responsibilities are the two principle ways for the company to create integrated value.

Common responsibilities refer to the responsibilities to the whole society (including stakeholders). They are related to the company’s core social function of “guaranteeing safer, more economical, cleaner and sustainable energy supply”.

Specific responsibilities refer to the ones, apart from common responsibilities, endured to every stakeholder. They are associated with the company’s general social function to deal with each stakeholder responsibly. The number of stakeholders means determines the number of specific responsibilities that they should bear.

Table of Contents

- Message from President
- Corporate Profile
- Corporate Values
- Corporate Strategic Objectives of Development
- Strategy for Sustainable Development

Features
- Responsibility Relay
  - Serving the Overall Economic and Social Development
- Ignite the Dreams
  - Serving the World Expo 2010 Shanghai
- Bright Backbone
  - Responding to the Challenges of Major Natural Disasters

Common Responsibilities
- Responsibilities on Scientific Development
- Responsibilities on Secure Power Supply
- Responsibilities on Management Excellence
- Responsibilities on Technical Innovation
- Responsibilities on Communication and Cooperation
- Responsibilities on Global Vision

Specific Responsibilities
- Fulfill Responsibilities on Quality Service to customers
- Responsibilities in Serving Agriculture, Countryside and Farmers
- Responsibilities on Employee Development
- Responsibilities on Win-win Partnership
- Responsibilities as Corporate Citizen
- Responsibilities on Environmental Protection and Energy Conservation
2010 was a critical year for State Grid to fulfill its social responsibilities and its objectives of the “11th Five-Year Plan”. The past five years have seen us implement the Scientific Outlook on Development and carry futher forward the corporate spirit of “In search of excellence, In pursuit of outperformance”. To serve the country, customers, generations, as well as the economic and social development, we have implemented the sustainable development strategy of building a modernized company with “A Strong Grid, Excellent Assets, Services and Performance”, further strengthened the “Two Transformations”, and maximized the integrated economic, social and environmental value creation. After five years’ unmitting efforts, the overall size of State Grid has been doubled; the level of equipment, technology and safety has edged into the advanced ranks in the world. The comprehensive quality of the company has been greatly enhanced with the transformation of enterprise development mode to support green economy, and help develop strategic new industries. Only accelerate the transformation of China’s power and resource development, ease coal-fired power shortage, ensure reliable power supply and maintain national power security, but also further upgrade the power industry and equipment manufacturing industry, support green economy, and help develop strategic new industries.

In the last five years, we have concentrated on the transformation of enterprise development in search of a sustainable development path for central government-owned enterprises. Taking into consideration the rules of resource allocation for power grid companies and SOEs’ development, we initialized the strategy of “Four Endeavors” (conglomerate operation, intensive development, lean management and standardized construction). Transforming from a traditional company into a modernized enterprise, State Grid has greatly improved our management, corporate resource allocation efficiency, and integrated value creation ability. The company became one of the first “Innovative enterprises” in China, obtaining a large number of advanced grid technological achievements with independent intellectual property rights. We have won 22 prizes of National Award for Science and Technology Progress (including 4 first prizes). In the field of UHV, we have also applied for 211 patents, among which 45? have been authorized. By implementing the SG186 IT Project, we have built the world’s largest integrated enterprise information platform, raising our information technology to a leading place in China and edging our way to an advanced level in the world. We have also built industrial clusters with clear interface and optimized layout, as well as integrated financial platform. The profits from financial business and directly owned businesses accounted for one fourth of the company’s overall earnings. More encouraging news is our success in overseas business, acquiring National Grid Corporation of the Philippines and seven transmission lines businesses in Brazil. This is a milestone of our exporting of advanced power grid technology and management expertise as well as enhanced company image and prestige.

In the last five years, we have not only striven to create material wealth for the society, but also a wealth of knowledge and spirit. With a deep understanding of SOEs’ mission, we advocated the CSR with a pioneering spirit, publishing the first CSR Report in China, the first Corporate CSR Performance Guide, and the first Corporate White Paper on Green Development, and led the exploration on how to better implement CSR management among domestic companies. Our practice has won the first prize of the 15th National Business Management Modernized Innovation Achievement. We have fought against natural disasters such as storm, ice and snow disasters and Wenchuan earthquake in 2008, as well as Yatu hurricane and South China flood in 2010. Our 1.5 million employees confronted all these disasters and extreme conditions with their strong shoulders and selfless devotion. We initiated “Power for All” Project, investing 15.86 billion Yuan and providing power to 1,340,000 households and 5,090,000 people without electricity in remote areas. We have continued pushing forward poverty relief efforts in Tibet and Xinjiang regions. 1.5 billion Yuan has been donated during the “11th Five-Year Plan” Period. During the past 5 years, we have enhanced our soft power, becoming one of the top 100 brands in the world. The Corporate Spirit of “In search of excellence, In pursuit of outperformance” was selected as one of the Top 10 Most Influential Entrepreneurs of New China. The brand “State Grid” was honored as one of the Top 60 Most Influential Brands of China.

Energy is an essential foundation and guarantee for modern economic and social development. Major changes on how to utilize the energy often lead to a great leap in social production pattern. The “12th Five-Year Plan” is a strategic period for State Grid to promote the sustainable development of itself, the industry and the society at large. We will continue upholding the Scientific Outlook on Development, transforming our development mode, and striving to build State Grid into a world-class energy group with power grid as its core business, together with an overall development of the financial business, branch industries and international business. Besides, we also aim to develop ourselves to possess strong core competitiveness, sustainability, sense and soft power. We will become a harmonious corporation with excellent culture and we will advance with our employees and the society. By 2015, we will basically establish a modern corporation with "A Strong Grid, Excellent Assets, Services and Performance”, and shape into a world-class power grid and world-class utility. By leveraging the driving force in and out of the industry, we will bring all forces for sustainable development into full play and make further contributions to building up a harmonious society.

February 2011

Mt Liu Zhenya, President of State Grid Corporation of China

Message from President
State Grid was established on December 29th, 2002. The mission of the company is to provide safer, more economical, cleaner and sustainable electric power. Our core businesses are construction and operation of power grids that cover 26 provinces, autonomous regions and municipalities, serving 88% of the national territory. Supported by more than 1,500,000 employees, we provide power to a population of over one billion.

State Grid also operates the National Grid Corporation of the Philippines and seven transmission lines in Brazil. In 2010, State Grid as the largest utility in the world ranked the 8th on Fortune Global 500.

Key Performance Indicators 2006 2007 2008 2009 2010

Electricity sales (TWh) 1,709.7 1,974.2 2,123.5 2,274.8 2,689.1
Length of transmission line * (km) 413,219 457,104 496,332 561,456 618,837
Transforming capacity ** (MVA) 1,137,790 1,342,700 1,601,420 1,886,540 2,131,930
Revenue (RMB billion Yuan) 854.5 1,010.7 1,140.7 1,258.0 1,542.7
Total assets (RMB billion Yuan) 1,212.8 1,361.8 1,643.5 1,841.9 2,119.2
Reliability of urban power supply (%) 99.839 99.880 99.865 99.903 99.906
Line loss (%) 6.40 6.29 6.10 6.12 5.98

A-Class Enterprise by SASAC Evaluation on Operation Performances for 6 consecutive years
First Prize of the 15th National Business Management Modern Innovation Achievement
Top 60 Most Influential Brands of China
First Prize of National Award for Science and Technology Progress (4 times)
First Prize of China Standard Innovation Award (Once)
Gold Prize of China Patent Award (Twice)
National Gold Prize for Excellent Project (Once)
China Construction Project Luban Award (14 times)
First Prize of China Power Science and Technology (21 times)
National Environmental Friendly Project Award (Multiple times)
A-Class Enterprise by SASAC Evaluation on Informatization (Multiple times)
Excellent Enterprise Citizen of China (Multiple times)
China Red Cross Special Medal (Multiple times)
China Charity Award (3 times)
Special Honor Award of Beijing Paralympic Games
Advanced Group for the World Expo 2010 Shanghai
Advanced Group Against Storm, Ice and Snow Disasters
National Heroic Organization for Earthquake Disaster Relief
UN Global Compact Chinese Network Report—Good Examples
Chinese CSR Report Leadership Enterprise Award

Honors and prizes in 2010
A-Class Enterprise by SASAC Evaluation on Operation Performances
First Prize of National Award for Science and Technology Progress
Gold Prize of Chinese Patent Award
National Gold Prize for Excellent Project
Second Place of Chinese Top 500 Most Valuable Brands
First Place of Top 500 Chinese Service Enterprises
Low-Carbon China,Top 10 Innovative Technology Product Award

Top 10 Most Influential Entrepreneurships of New China
China Charity Award
Advanced Group for the World Expo 2010 Shanghai
National Heroic Organization for Earthquake Disaster Relief
Organization with Outstanding Contributions to Western China’s Development
Outstanding Achievement Award of Chinese CSR “Model Report”
Special Contribution Award for Development of Chinese CSR Report
First Place of “2010 Chinese CSR Ranking” Among Domestic Enterprises

Corporate Profile
Organizational Structure—Corporate headquarters

1. General Office
2. Research Office
3. Department of Strategic Development and Planning
4. Department of Finance
5. Department of Safety Supervision
6. Department of Production & Technology
7. Department of Marketing
8. Department of Rural Electrification
9. Department of Science & Technology
10. Department of Construction
11. Department of Operation
12. Department of UHV Construction
13. Department of Smart Grid
14. Department of Information Technology
15. Department of Supply Chain Management (Bidding Management Center)
16. Department of Affiliates Management
17. Department of Public Relations (Brand Building Center)
18. Department of International Cooperation
19. Department of Auditing
20. Department of Legal Affairs
21. Department of Personnel
22. Department of Human Resource
23. Restructuring Office
24. Department of Retirement Affairs
25. Department of Logistics
26. Department of Corporate Culture
27. Supervision Office (Anti-Corruption Team)
28. National Power Dispatching Center
29. SGCC Power Exchange Center
30. Labor Union
31. Association of Enterprise Management

Organizational Structure—Subsidiaries directly managed by State Grid

1. State Grid Operation Branch
2. State Grid DC Engineering Construction Branch
3. State Grid AC Engineering Construction Branch
4. State Grid Xin Yuan Co., Ltd.
5. State Grid Energy Development Co., Ltd.
6. Shandong Luneng Group Co., Ltd.
7. State Grid Information & Telecommunication Company
8. State Grid International Development Limited
11. Yingda Media Investment Group Co., Ltd.
12. China Electric Power Research Institute
13. State Grid Electric Power Research Institute
14. State Grid Energy Research Institute
15. Grid Power Economic Research Institute, Beijing
16. Smart Grid Research Institute of State Grid
17. State Grid Management School
18. State Grid Institute of Technology (Youth League and Party School)
19. Yingda International Holdings Group Limited
21. Yingda Tailfe Property Insurance Co., Ltd.
22. Yingda Tailfe Life Insurance Co., Ltd.
23. Yingda International Trust Co., Ltd.
24. Yingda Security Corporation Ltd.
25. Yingda Chang'an Insurance Brokers Co., Ltd.
26. Yingda Futures Co., Ltd.
27. China Anneng Construction Corporation

Main Associations and Organizations State Grid Participated

<table>
<thead>
<tr>
<th>Associations / Organizations</th>
<th>State Grid’s Role</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. China Enterprise Confederation</td>
<td>Vice Chairman</td>
</tr>
<tr>
<td>2. China Federation of Industrial Economics (CIFE)</td>
<td>Chairman</td>
</tr>
<tr>
<td>3. China Business Council for Sustainable Development</td>
<td>Councilor</td>
</tr>
<tr>
<td>4. China Association of Work Safety</td>
<td>Vice Chairman</td>
</tr>
<tr>
<td>5. China Association for the Promotion of Industrial Development</td>
<td>Councilor</td>
</tr>
<tr>
<td>6. China Accounting Society</td>
<td>Standing Councilor</td>
</tr>
<tr>
<td>7. China Audit Institute</td>
<td>Councilor</td>
</tr>
<tr>
<td>8. China Supervision Society</td>
<td>Councilor</td>
</tr>
<tr>
<td>9. Chinese National Committee on Large Dams</td>
<td>Vice Chairman</td>
</tr>
<tr>
<td>10. Committee of Labor Standards, China Association for Labor Studies</td>
<td>Councilor</td>
</tr>
<tr>
<td>11. China Electricity Council</td>
<td>President</td>
</tr>
<tr>
<td>12. China Society for Electrical Engineering</td>
<td>Vice President</td>
</tr>
<tr>
<td>13. China Society for Hydropower Engineering</td>
<td>Vice President</td>
</tr>
<tr>
<td>14. China Electric Power Construction Association</td>
<td>Vice Chairman</td>
</tr>
<tr>
<td>15. China Electric Equipment Management Association</td>
<td>Vice Chairman</td>
</tr>
<tr>
<td>16. China Bidding Association</td>
<td>Standing Councilor</td>
</tr>
<tr>
<td>17. China International Contractors Association</td>
<td>Councilor</td>
</tr>
<tr>
<td>18. OGRE</td>
<td>OGRE C2 Member</td>
</tr>
<tr>
<td>19. ASEEAP</td>
<td>Member</td>
</tr>
</tbody>
</table>
Corporate Values

**Corporate Philosophy**
- Oriented to people, loyal to company and committed to serving the society

**Corporate Tenet**
- To serve the country
- To serve the customers
- To serve the power generation enterprises
- To serve the economic and social development

**Corporate Mission**
- Ensure safer, more economical, cleaner and sustainable energy supply
- Promote healthier development, a more harmonious society and a better life

**Corporate Strategy**
- Build a modernized corporation with "A Strong Grid, Excellent Assets, Services and Performance"
- Transform the development mode of the power grid
- Transform the development mode of the corporation

**Core Values**
- Integrity, commitment, innovation and dedication

**Corporate Vision**
- A Modernized Company
  - Strong Grid
  - Excellent Service
  - Quality Assets
  - Outstanding Performance

**Corporate Social Responsibility Concept**
- Develop the company to serve the society
  - Human-oriented for mutual development

**Objectives: Develop the corporation and serve the society**
- Develop the company together with the employees, satisfy our customers, and assure the government for the economic development and social harmony.

**Principles: Human-orientation and mutual improvement**
- Treat employees, customers and partners wholeheartedly, provide sincere service, seek common development, and realize coordinated interests of the company, the industry and the society. We develop ourselves for the company to sustain. We serve the industry for it to develop. We fulfill our citizenship to promote the sustainable economic and social development.

**Corporate Strategic Objectives of Development**

**A modernized company:**
should not only acquire a modern legal person governance structure, world-class power grid technology and equipment, energy distribution function, and economic efficiency with advanced management ability and level, but also lead the global industry trend with first-class brand image, outstanding moral appeal, and social influence.

**Emphasize both tangible strength and intangible social understanding**
- Build strong grids to realize safe and efficient technical functions.
- Develop the power grid to satisfy the needs for sustainable development, fulfill expectations from stakeholders, win understanding and support from the society.

**Emphasize both hard power and comprehensive strength**
- Improve the quality of tangible assets, reduce bad assets and enhance asset operational efficiency and hard power.
- Pay attention to intangible assets, such as the brand image, value recognition and soft power. Cultivate human resources and increase social and moral assets.

**Emphasize both internal standards and external expectations**
- Enhance internal work efficiency and quality to improve electricity and service quality.
- Create value for customers and stakeholders to upgrade company quality and comprehensive social satisfaction.

**Emphasize both financial value and social value**
- Pursue financial performance and accomplish the goal to increase the value of state-owned assets.
- Seek the maximization of integrated economic, social and environmental value and strive to become an "Excellent Organization for Integrated Value Creation".
Strategy for Sustainable Development

Sustainable development meets the needs of the present generation without compromising the ability of future generations to meet their own needs.

Note: sustainable development implies a stable relation between objectives of high-quality life, health and prosperity, and social justice, as well as the ability of preserving the environment for other species. These social, economic and environmental objectives are inter-independent and mutually reinforcing. Sustainable development can be regarded as an expression more expected by the society.

——Excerpt from The ISO 26000:Standard on Social Responsibility (2010)

Connotation of Strategy for Sustainable Development

Integrate multiple interpretations on sustainable development

Meet the demands of contemporary people but also those of our future generations
Reach an agreement among economic prosperity, social justice and environmental protection
Ensure the corporation’s sustainable survival and sound development

Propose the core connotation of State Grid’s sustainable development

Coordinate and promote the sustainable development of the company and the society by adhering to:

- Considering the contemporary needs and future interests comprehensively;
- Promoting coordinated development of the economy, the society and the environment;
- Maximizing the integrated economic, social and environmental value.

Structure of Sustainable Development Strategy

Strategic Objectives
Coordinate and promote the sustainable development of the company and the society. Maximize the creation of integrated economic, social and environmental value.

Strategic Focuses
Transform the development mode of the power grid, build up a world-class Strong and Smart Grid as well as the most powerful green platform for energy distribution in the world
Change the development mode of the company, create a world-class energy enterprise with outstanding value creation capability and modern civilization

Strategic Measures
Promote management innovation, explore a way to develop a top energy corporation with Chinese characteristics
Promote technical innovation, provide strong technical support for the establishment of a first-class Strong and Smart Grid
Promote cultural innovation, become a top-notch model SOE with integrated value creation capability

Implementation of Strategy for Sustainable Development

Strive to promote sustainable development of State Grid, industry and society

Maximize Integrated Value
Comply with the bottom line of the law and moral obligation
Realize Win-win partnership with stakeholders

Implement comprehensive CSR management, coordinate and promote the sustainable development of the company and the society
State Grid during the “11th Five-Year Plan” Period

Promote the transformation of power grid’s development mode
- Realize “Created by China” and “Led by China” in the scientific field of power grid in the world
- Establish a principal position regarding smart grids worldwide
- Double the overall size of the grid
- Visibly strengthen ability to optimize the allocation of resources

During the “11th Five-Year Plan” Period, the development of the grid met the power demand for rapid national economic development.

<table>
<thead>
<tr>
<th>Key Performance Indicators</th>
<th>By the end of the “10th Five-Year Plan” Period</th>
<th>By the end of the “11th Five-Year Plan” Period</th>
<th>Average annual growth rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>National GDP (Trillion)</td>
<td>18.49</td>
<td>39.80</td>
<td>11.20%</td>
</tr>
<tr>
<td>Maximum load within State Grid’s service area (MW)</td>
<td>297,990</td>
<td>525,080</td>
<td>12.00%</td>
</tr>
<tr>
<td>Electricity sales (TWh)</td>
<td>1,500</td>
<td>2,689.1</td>
<td>12.92%</td>
</tr>
<tr>
<td>Installed capacity within State Grid’s service area (MW)</td>
<td>394,880</td>
<td>759,760</td>
<td>14.00%</td>
</tr>
<tr>
<td>Transmission lines at 110(66) kV and above (km)</td>
<td>381,764</td>
<td>618,837</td>
<td>10.14%</td>
</tr>
<tr>
<td>Transformation capacity of 110 (66) kV and above Transformation Equipment (MVA)</td>
<td>983,380</td>
<td>2,131,930</td>
<td>16.74%</td>
</tr>
</tbody>
</table>

Implement green development strategy, promote the green development of self, industry and society.

We have made 1.2 trillion Yuan’s investment in the power grid, got Level A in Central Enterprise Performance Evaluation Review for 6 consecutive years, rose to the 8th on the Fortune Global 500 ranking at the end of the “11th Five-Year Plan” Period, up from the 40th position at the end of the “10th Five-Year Plan” Period.
- The total assets reach 2.1192 trillion Yuan in 2010, increased by 81.2% from the end of the “10th Five-Year Plan” Period.
- The total productivity reaches 403,000 Yuan / (person-year) in 2010, up by 91% than the end of the “10th Five-Year Plan” Period.
- Revenue is 1.5427 trillion Yuan in 2010, increased by 116% than the end of the “10th Five-Year Plan” Period.
- Accumulated profits during the “11th Five-Year Plan” Period are 133.6 billion Yuan with nearly 500 billion Yuan’s taxes paid.

Economic Value
- The average annual blackout time for urban power users reduced to 8.234 hours by the end of the “11th Five-Year Plan” from 21.5 hours at the end of the “10th Five-Year Plan”.
- The comprehensive voltage qualification rate in urban area rose from 99.136% at the end of the “10th Five-Year Plan” to 99.498% at the end of the “11th Five-Year Plan”.
- Enabled power access for 1.34 million households and 5.09 million people without electricity.
- Total Donation of over 1.5 billion Yuan.
- No large-scale blackouts occurred during the “11th Five-Year Plan”, ensuring safe and reliable power supply to the Beijing Olympics and Shanghai Expo. We withstood tough tests such as ice disasters and earthquakes, and ensured the public safety.

Social Value
- Enable power access for 1.34 million households and 5.09 million people without electricity.
- Total Donation of over 1.5 billion Yuan.
- 2.97 million man-times of employees’ volunteer activities.
- Company’s brand value increased from 39.6 billion Yuan at the end of the “10th Five-Year Plan” to 126 billion Yuan at the end of the “11th Five-Year Plan”.

Environmental Value
- Reduce power transmission losses, saving 49.5 TWh power in total.
- Environmental impact assessment rate reached 100% for power grid construction projects of 110kV and above.
- Promote typical design, and reduce land occupation for transmission and transforming facilities by 2% to 3% on average.
Responsibility Development Principles

Always put safe and reliable power supply on top of the agenda
Always meet the needs of economic and social development as the center of the responsibility relay
Always promote economic development patterns as the gene of the responsibility relay
Always follow the objective law of energy development as the core of the responsibility relay
Always put accomplishing the 2020 national goal as the criterion of the responsibility relay

Corporate Development Objectives

Build a world-class energy group with power grid as its core business, together with an overall development of the financial business, branch industries and international business

Build a harmonious company that is culturally strong and develops together with its employees and the society

State Grid during the “12th Five-Year Plan”

Fully support the accelerated development of China's low-carbon economy and strategic new industries
Fully support the industry upgrade and the internationalization of China's power equipment manufacturing industry
Fully support the advancement of China's power grid technology to ascend to the leading place in the international arena
Fully support the optimization of energy allocation in China or in a large scale
Fully support the strong demand for power from China's rapid economic and social development
Fully support the development of large-scale energy bases of coal-fired power, hydropower, and nuclear power

Key Performance Indicators

<table>
<thead>
<tr>
<th>Indicator</th>
<th>By the end of the “11th Five-Year Plan”</th>
<th>By the end of the “12th Five-Year Plan”</th>
<th>Growth rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transmission lines of 110 (66) kV and above (km)</td>
<td>618,837</td>
<td>Over 1,000,000</td>
<td>Over 50%</td>
</tr>
<tr>
<td>Transformation capacity of 110 (66) kV and above transmission lines (MVA)</td>
<td>2,131,930</td>
<td>Over 4,000,000</td>
<td>Over 80%</td>
</tr>
<tr>
<td>Electricity sales (TWh)</td>
<td>2,689.1</td>
<td>3,900</td>
<td>42%</td>
</tr>
<tr>
<td>Cross-regional resource allocation ability (MW)</td>
<td>40,200</td>
<td>250,000</td>
<td>Over 5 times</td>
</tr>
<tr>
<td>Revenue (RMB billion Yuan)</td>
<td>1,542.7</td>
<td>over 2,000</td>
<td>Over 40%</td>
</tr>
<tr>
<td>Total assets (billion Yuan)</td>
<td>2,119.2</td>
<td>more than 3,000</td>
<td>Over 42%</td>
</tr>
</tbody>
</table>

Expectations of the “12th Five-Year Plan”

Build a modern company with strong core competitiveness, sustainable development capability, service maintenance capability, and soft power

Build a harmonious company that is culturally strong and develops together with its employees and the society

Corporate Development Objectives

Features 01 Responsibility Relay

Serving the Overall Economic and Social Development
Ignite the Dreams
Serving the 2010 Shanghai World Expo

An unprecedented mission to ensure power supply for the Shanghai Expo

- High-risk Challenges for power supply:
  - 30 days of extremely high temperature in Shanghai
  - 37 days of stormy weather in Shanghai
  - 210 days of non-occurrence of damage resulted from external forces

- Unprecedented Challenges in the Shanghai Expo
  - Large-scale and long-span power supply
    - 436 power distribution stations and substations
    - 17 thousand kilometers’ transmission lines (including power cables)
    - 4 cross-regional power grids and 11 provincial grids
  - High-standard Requirement
    - The Grand Opening and Closing Ceremonies of Shanghai Expo
    - 169 activities of National Pavilion Day
    - 47 foreign state leaders’ visits to Shanghai

- Intensive Task
  - 269 National Pavilions
  - 533 VIP clients
  - 20,000 expo activities

The best performance to ensure power supply in the history of the World Expo

- Leading groups have been set up at different levels from the top leadership to ensure the power supply for the Expo, strengthening organizing and coordinating work

- 15.5 billion Yuan has been invested to construct power grids for the Shanghai Expo. 28 construction projects for its power supply have all been put into operation as planned, with improved power supply capacity and equipment reliability

- 24-hour on-duty system has been practised in management offices at all levels. 27,908 employees have been organized to inspect and watch over power supply equipment at essential times. It has been standardized that two people responsible for one grid pole and one person responsible for one cable draw pit

- During the peak load time in summer, State Grid has organized dispatch of 9.82 GW power from other provinces and regions to Shanghai, more than one third of the city’s maximum load

- It’s the best power supply execution in the history of the World Expo with zero power supply accident and zero fault in the Expo garden.

“State Grid has provided powerful support with the right measures.”

- Yu Zhengsheng, Member of the Political Bureau of the CPC Central Committee and Secretary of the Shanghai Municipal Party Committee
Construct and operate the “State Grid Pavilion” to showcase our dream for sustainable development

Present the concept of sustainable development through the Shanghai Expo

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Customer reception was customized. Visitors didn’t have to wait for more than 1.5 hours to get into the State Grid Pavilion, which received 30,000 visitors a day on average. It became the only pavilion with 30,000 visitors daily, but with less than 1.5 hours’ queuing time. State Grid was the first pavilion to adopt online reservation and third party evaluation, organize a medical service team, and introduce denoter system. The pavilion has been honored with Shanghai Golden Steel Award for Quality Project, Expo Pavilion of Civilization, and Low-Carbon Transportation Pavilion.

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Showcase the State Grid Pavilion with the theme that “Innovation Ignites Dreams”

The “Magic Box” became the first in China to introduce the cube high-tech presentation. 112 pieces of LED display covered a 720-degree space of a total area of more than 1,100 square meters. Visitors could feel that they were fully immersed. In the pavilion, visitors would “meet with” the electricity. They would then “get to know” and further be “intensely linked” with electricity. The Box uses astounding visual and sound effects to depict the close relationship between natural energies and the sustainable development of the human society.

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Focus on one theme, integrate two brands, realize three objectives, execute four key paths, and implement five plans.

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“State Grid Pavilion is both a guardian and a presenter”.

—— Ding Hao, deputy director general of the Bureau of Shanghai World Expo Coordination
It is State Grid’s great responsibility to respond to droughts, floods, blizzards, lightning, typhoons, and other natural disasters, and to sustain the community safety.

“China is one of the few countries that most severely suffer from natural disasters of all countries.”

—the report of the UN Committee on Disaster Risk Reduction (CDRR)

The natural disasters in China, which are common, persistent, continuous, frequent, destructive and widely spread, come with severe impacts and damages to the people’s lives and properties, and to the safe and stable operation of the power grid as well. In 2010, State Grid dealt with 10 severe disasters.

Early 2010, the snow and ice disasters tripped the transmission line up to 397 times.

The continuous drought in the first quarter of 2010 caused insufficient output from some hydropower stations.

- After the earthquake in Yushu, Qinghai in April, State Grid repaired and newly built 346 towers and 51 kilometers transmission lines.
- From June to August, the lightning attacks monitored in the service area were 3,697,000 times, causing the transmission lines of 10(66) kV and above to trip 806 times and to stop transmitting 73 times.
- The summer floods damaged 287 35kV and above lines, and 6,398 distribution lines at 10kV and above.
- In August, the deadly landslide in Zhouqu, Gansu, stopped 1 10kV line and 1 6kV line from working, affecting 172 distribution stations and 11 thousand households.
- In August, the landslide in Minjiang, Sichuan, caused 2 220kV lines, 4 35kV transformation substations, 7 35kV lines, and 24 10kV lines to stop working, affecting 1,072 distribution stations and 90,900 households.

State Grid’s reaction speed, repair efficiency and effectiveness in responding to the disasters interpret the connotation of the central SOE’s CSR

- Launch the Emergency Plan A.S.A.P.
  - An emergency plan will be fully launched within half an hour of the disaster.

- Arrive at the Scene A.S.A.P.
  - All levels have established an emergency system to ensure to arrive at the scene and deal with the disaster immediately, if any in the service area.

- Immediate Group Rescue
  - A conglomerate operation system has been set up to cope with natural disasters, realizing “overall coordination, regional interaction, centralized resource planning, rapid reaction, and group rescue”.

- Most Effective Rush Repairs
  - The same day afternoon right after the mudslide in Zhouqu, Gansu, the power supply was recovered for the emergency headquarters, the temporary shelters, hospitals, and other important premises at the scene.

- Shortest Time to Recover
  - Quite a few provinces suffered from the natural disasters during the summer peak load time. State Grid rushed to repair 116 35kV and above substations, 287 lines, and 6,398 10kV distribution lines, restoring the power supply in the shortest time.

- Organize Donations at the Soonest
  - State Grid rapidly organized its employees, including the retired, to donate for the disaster-hit area.
  - In 2010, State Grid donated 10 million Yuan to Southwest China suffering from drought, 20 million Yuan to Yushu, Qinghai, and 5 million Yuan to Zhouqu, Gansu...
Common Responsibilities

Fulfill the common responsibility, and achieve the company’s core social functions

Guarantee safer, more economical, cleaner and sustainable energy supply

Fully create the integrated value of the economy, society and environment

Construct a powerful green energy allocation platform (Five Tasks)

- Push forward the construction of the UHV power grid as the backbone
- Construct a powerful green energy allocation platform
- Coordinate its subordinate networks with the economy and the society
- Full exert the function of the electricity market system
- Develop world-class grid equipment technology

Strong ability to optimize the energy allocation (Three Abilities)

- Fully meet the function of the electricity market system
- Develop world-class grid equipment technology
- Ability to efficiently allocate the power resources
- Support the large-scale interconnection of clean energy
- Improve the power utilization efficiency in the whole industry
- Promote the development of the new strategic industries

Support the healthy and rapid economic development

- Ability to expansively allocate the energy
- Promote large-scale development and expansive accommodation of new energy
- Promote regional development and expansive accommodation of large-scale hydro power stations
- Promote the optimized development of inland power construction and cooperation
- Large grid’s ability for safe and stable operation
- Achieve large-scale Modernization
- Increase large grid’s ability of peak shaving and frequency modulation
- Improve large grid’s self-healing capability

Support the construction of the integrated transportation system and the sustainable energy supply

Support the sustainable economic and social development and the need of electric power in the service area

Support further change in China’s economic development and the green transformation

Maximally create the integrated value for the society by responsible corporate actions

Follow the universal law of corporate development
- Fulfill the responsibilities on management excellence
- Fulfill the responsibilities on technical innovation

Realize the core social functions
- Fulfill the responsibilities on scientific development
- Fulfill the responsibilities on secure power supply

Follow the rule of creating integrated value by cooperation
- Fulfill the responsibilities on communication and cooperation
- Follow the rule of economic globalization
- Fulfill the responsibilities on global vision
Common Responsibilities
Responsibilities on Scientific Development

Based on the conditions of China and the rules of the world energy development, the responsibilities on scientific development are to strive to build State Grid into a powerful green energy allocation platform in order to enhance the optimized allocation of energy, to guarantee safer, more economical, cleaner, and sustainable power supply, and to enhance healthier development, a more harmonious society and a better life.

The overall guideline of fulfilling the responsibilities on scientific development

“One Focus, Three Paths, Six Tasks”

Six Tasks

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Promote the construction of the UHV power grid, and serve the development strategy of “One Ultra, Four Larges”

Promote the construction of the Smart Grid, and take the lead in the world

Coordinate the development of grids at all levels

Promote the construction of three-tier electric market

Implement the projects to improve the transmitting capacity of the power grid, and fully extend the potential of the grid’s resources allocation

Implement the projects to control the investment and cost of the grid construction

The relationship between fulfilling the responsibilities on scientific development and creating integrated value

"One Focus, Three Paths"
As of late 2010, the Southeast Shanxi-Nanyang-Jingmen 1000kV UHV AC Pilot Project has been running safely despite severely harsh conditions, such as wind, storm, high temperature, thick fog, and freezing weather. It had also passed the tests of different operation methods and fault disturbances. All performance indicators met the design requirements. The actual transmission loss rate was 1.7%, about a third of that of 500kV projects. All those made this project an important energy transmit channel between the South and the North.

The Xiangjiaba - Shanghai ±800kV UHV DC Transmission Demonstration Project was put into operation on July 8, 2010. Domestically researched, developed, designed and constructed, this project is the world’s most advanced UHV DC transmission project with the highest capacity, furthest-reaching lines, most-advanced technology and highest voltage.


The UHV grid construction is a landmark in the world’s transmission technology development

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Comparing to conventional ±500kV DC projects, the ±800kV DC project’s transmission capacity per unit increased by 35%, the inversion capacity per unit area increased by 25%, the transmission loss rate per unit distance decreased by 50%, and the cost of transmission capacity per unit distance decreased by 21%. The Xiangjiaba-Shanghai Project’s maximum output is about a third of Shanghai’s peak load in 2009. It is able to transmit 35 TWh clean energy each year to Shanghai, about 30% of the city’s power consumption in 2009. It also saves 17 million tons of raw coal and reduces carbon dioxide emission by over 33 million tons each year.

Scientific Development
Common Responsibilities
Responsibilities on Scientific Development

6.4GW
3.15GW
1.92GW
1.62GW
600MW
20MW
100KV
270KV
450KV
533KV
600KV
800KV
DC Voltage
Power Output
China: Xiangjiaba-Shanghai: 7.05TWh/year.
Brazil: Itaipu Project: 7.54TWh/year.
Africa: Cahora Bassa Project: 1.08TWh/year.
Canada: Nelson River Project: 1.66TWh/year.
America: New England grid Project: 1.02TWh/year.
6.4GW
3.15GW
1.92GW
1.62GW
600MW
20MW
100KV
270KV
450KV
533KV
600KV
800KV
DC Voltage
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America: New England grid Project: 1.02TWh/year.

More Options
More ways to use power
More experience about consumer rights

More Economical Electric Power Use
Reduce cost by intelligent two-way services
Reduce cost by monitoring home appliances
Decrease the power bill by participating in peak shaving
Comprehensive diagnosis and accurate bill charge

More Convenient to Utilize Electric Power
Efficient interactive online services
More personalized services
Easy access to plug-in charging and discharging
Automatic settlement

Greener Lifestyle
More efficient to use clean energy
Save more energy
Coordinate grid development at all levels, and enhance resource allocation platform

- Comprehensively accelerate the construction of cross-regional transmission projects.
- Fully improve the construction of the main networks of provincial grids.
- Continuously enhance the resource allocation capacity of the grids.
- Further accelerate the construction of power grids in the West.
- Give full play to the market to allocate the power resources.
- Rationally lower the investment cost of the power grid.
- Intensify the budget management of project construction.

In 2010, State Grid accomplished 4,437 projects on the grid technology renovation, with a total investment of 15.299 billion Yuan. It renovated 12.3 thousand kilometers' transmission lines with transformation capacity of 22,770 MVA. The company also finished 145 projects to upgrade transmission capacity by 16.977 GW.

The National Power Market shows significant efficiency in optimized resource allocation.

The Ningdong-Shandong ±660kV DC Project was launched to fully take the advantage of the large grid, to completely solve the power shortage in Shandong, and to effectively protect its natural and cultural heritage.

The Qinghai-Tibet Interconnection Project was launched to fully take the advantage of the large grid, to completely solve the power shortage in Shandong, and to effectively protect its natural and cultural heritage.

The Qingshui-Changjiang ±500kV DC Project Single Polar began operation, sending out coal-fired power from East Ningxia and hydropower from Upper Yellow River to Shandong Province, providing dependable power for Shandong's strategic development.

From 2006 to 2010, the company launched 2,203 projects to upgrade the grid’s transmission capacity, which has increased by 143,297 MW, equivalent to that of 7 Three-Gorge Dams.

State Grid enabled 358.5 TWh of national power transaction in the market, up by 21.77%. The inter-regional and inter-provincial transaction reached 484.1 TWh, 16.17% higher than that of the same period of the last year.

Guarantee the needs of power for the Shanghai World Expo and the Guangzhou Asian Games. During the Shanghai World Expo, the inter-regional and inter-provincial transmission capacity was up to 9.82 GW, more than a third of Shanghai’s maximum load. 1.426 TWh electricity was traded in order to meet the power needs of China Southern Power Grid.

Expansive accommodation of hydropower. Accommodated hydropower in the National Power Market was accumulated to 126,320 TWh, accounting for 34% of the total transaction volume in the market, saving 61,400,000 tons of standard coal and reducing carbon dioxide emission by 108 million tons.

Effectively relieve the seasonal power shortage in central China. State Grid sent out electric power to central China during the dry season, transmitting 20.086 TWh, equivalent to 10 million tons of standard coal.

Initiate the inter-regional generation rights transactions in the National Power Market to further enhance energy conservation and emission reduction, and improve energy efficiency.

State Grid enabled 358.5 TWh of national power transaction in the market, up by 21.77%. The inter-regional and inter-provincial transaction reached 484.1 TWh, 16.17% higher than that of the same period of the last year.
The responsibilities on secure power supply are to follow the principle of “safety first with emphasis on prevention and overall control”, to implement the work philosophy of production safety from all aspects, involving all staff members, throughout the whole process and in an all-round way, to unite the efforts of safe power supply from inside and outside the company, to avoid large-scale blackout, and to ensure the safe and stable operation of the grid.

**Common Responsibilities**
**Responsibilities on Secure Power Supply**

The overall guideline of fulfilling the responsibilities on secure power supply

"One Focus, Three Principles, Eight Tasks"

**Eight Tasks**
- Work Philosophy
- Strategic Plan
- System Guarantee
- Process Control
- Competency Cultivation
- Culture Warranty
- Emergency Reliance
- Continuous Improvement

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Maximize the creation of integrated economic, social and environmental value

- Avoid huge economic losses by power outage
- Avoid enormous social cost by power outage
- Avoid significant environmental damage by power outage

The safe power supply can be controlled and is in control.

Controllability is decided by the implementation of the work philosophy “from all aspects, involving all staff members, throughout the whole process and in an all-round way.”

The core of the work philosophy can effectively unite internal and external parties to secure safe power supply.

Prioritize the safe power supply guarantee in the company’s responsibility and task.

Continue improving the long-term mechanism to ensure that safe power supply is “controllable and in control”.

Stimulate the potential of all employees to secure safe power supply.

Unite the enthusiasm and efforts from all walks of life to secure safe power supply.

Focus on understanding and following safe power supply laws, and upholding scientific outlook on safe power supply.

Adhere to the construction of a cooperation mechanism for internal and external stakeholders to ensure safe power supply.

Secure Power Supply

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Maintain a favorable condition of secure power supply

Following the principle of “safety first with emphasis on prevention and overall control”, State Grid ensures absolute power grid safety with appropriate use of personnel, time and force. Aiming at “no large-scale blackout, no human casualty accident, no diaspersion accident, and no major equipment damage”, the company accomplishes important power supply guarantee, safeguards stable operation of power grid despite of natural disasters, meets the demand on power from social and economic development, and maintains social public safety.

Keeping to the work philosophy of production safety from all aspects, involving all staff members, throughout the whole process and in an all-round way, State Grid implements its safe power supply requirements in the development strategy, planning and design, technical innovation, equipment purchase, construction and operation, and staff training. By strengthening the implementation, supervision and evaluation of responsibilities on safe operation, the company has further improved its long-term mechanism of safe operation.

Thoroughly conduct special action on checking and controlling potential dangers
- Carry out safety inspection according to the policy, training, execution and preplan.
- Draw up the action proposal, and introduce 12 key measures to effectively conduct “A Hundred Days’ Safety” activity.
- Control infrastructure security risks; organize themed activities of “taking control of the infrastructure and risk and preventing accidents”.
- Comprehensively sort out 831 major risks that would affect power grid safety, deepen the investigation on and management of security risks.

Carry out safety training
- Conduct 2,938 emergency training with a total of 213,299 participants.
- Establish an emergency training base in Longqian, Sichuan Province.
- 20 organizations from the corporation have won Outstanding Organization Award of The National Knowledge Contest on Work Safety and Emergency Rescue held by All-China Federation of Trade Unions and the State Administration of Work Safety.
- 60 papers are selected into Excellent Papers of the Modern Theories on Construction of the National Disaster Emergency Response System with Chinese Characteristics organized by the National Disaster Reduction Center of Ministry of Civil Affairs, and the Military Academy of Sciences. They account for one fourth of the total selected papers.

Ensure power supply guarantee for major events and disaster relief work
- Successfully accomplish the power supply work for the Shanghai Expo, as well as the power supply task to China Southern Power Grid during the Asian Games.
- Complete disaster relief and power guarantee work during major disasters, such as the severe drought in Southwest China, the earthquake in Yushu, Qinghai, the floods, and the landslide in Zhumo, GanSu.

Actively participate in emergency relief work
Bring the advantages of the corporation’s conglomerate operation and the professional advantages of power grid maintenance into full play, participate in handling emergencies and safeguarding the social stability. The emergency relief State Grid has took part in in 2010:
- Wangjiaqiao mine disaster
- Daqin oil pipeline explosion
- Nanjing chemical plant explosion
- …...

Types of disaster
- Storm, Ice and Snow Disaster
- Flood
- Typhoon
- Blizzard
- Earthquake
- Geological Hazard

Occurring places
- Hunan Province, Sichuan Province, Jiangxi Province, Anhui Province, Zhejiang Province, Hebei Province, Liaoning Province, Henan Province, Hebei Province, Jiangsu Province, Zhejiang Province, Hunan Province, Sichuan Province.
- The Yangtze River catchment, the Yellow River catchment, the Huaihe River catchment, and the northern area.
- Qinghai Province, Tibet Autonomous Region, Xinjiang Autonomous Region, Sichuan Province, and North China.
- The Loess Plateau and the Sichuan basin

Occurring time
- Winter and early spring
- Spring and summer
- Summer and autumn
- Winter and early spring
- Unpredictable
- Unpredictable

Analysis of main natural disasters in State Grid’s operation area

Enhance the company’s overall ability of responding to natural disasters and emergency management
Based on risk management, the company employs process control as a means to prevent accidents, set safety and reliability as its goal, sort practical experiences, and perfects the workflow and regulations for emergency management.

Establish the “Five Emergency Management Mechanisms”. State Grid builds an emergency demand center involving the corporation headquarters, provincial companies, prefecture-level companies and county-level companies. The center is equipped with 6,047 full-time and part-time emergency management staff. It has released 16 specific emergency plans regarding natural disasters, accidents, public health, and social security.

Establish “Five Emergency Management Mechanisms”
- Emergency organization mechanism
- Training mechanism
- Emergency preplan mechanism
- Emergency technical support mechanism
- Regulatory mechanism for emergency management

Enhance “Four Capabilities”. The company sets up a professional emergency repair team of nearly 8 million people in provincial and prefecture-level companies to improve the emergency responding capability assessment system, emergency material storage system and emergency power system. The corporation also establishes a helicopter company, and formulates a routine information release mechanism and rapid response system for disasters.

Perfect “Two Systems”, State Grid actively promotes the application of early warning techniques, such as online monitoring of icing-thickness on transmission lines. Apart from establishing a routine communication system with meteorological departments, the company also builds an emergency demand center of the corporation headquarters and provincial companies, as well as an emergency demand center involving 176 prefecture-level companies and 347 county-level companies.

Exercises emergency drills. Based on the grids characteristics, seasonal features, and major events, State Grid develops an annual emergency drilling plan to continuously check and improve the adaptability and ability to handle emergencies of different levels within the company. 6,279 drills were organized in 2010 and participated by 255,205 people.

Upgrade the emergency management comprehensively
- Orderly conduct emergency drills
- Develop an annual drilling plan
- Carry out emergency drills
- Improve “Two Systems”
- Forecasting Apreventing and monitoring early-warning system
- Emergency information and command system
- Enhance “Four Abilities”
- Emergency team’s ability
- Communication ability
- Comprehensive support ability
- Reconstruction ability

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Improve “Two Systems”
- Forecasting Apreventing and monitoring early-warning system
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Common Responsibilities
Responsibilities on Management Excellence

Responsibilities on excellent management are to follow the law of optical allocation of resource among power grid enterprises and the law of SOE management, to promote the reform of corporation management, to minimize the economic, social and environmental cost for constructing and operating the grid, to conglomerate various forces for the grid and corporation development, and to maximize the efficiency and effectiveness of integrated economic, social and environmental value creation.

The overall guideline of fulfilling the responsibilities on management excellence

“Two Objectives, Three Principles, Two Tasks”

Two Tasks

- Follow the laws of optical allocation of resources for power grid companies, and deepen the implementation of conglomerate operation, intensive development, lean management and standardized construction
- Abide by the implementation law of scientific decisions for power grid companies and SOEs’ management law, and execute comprehensive social responsibility management

The relationship between fulfilling the responsibilities on management excellence and creating integrated value

Fulfilling the responsibilities on management excellence

- Provide management support to the construction of Strong and Smart Grid
- Minimize the economic, social and environmental cost for constructing Strong and Smart Grid
- Amplify the company’s operational efficiency and effectiveness
- Agglomerate internal and external forces together for creating the integrated economic, social and environmental creation

Ensure corporate development forces and the safer, more economical, cleaner and sustainable power supply network with minimum economic, social and environmental cost and least resource input

Maximize the creation of integrated economic, social and environmental value

Two Objectives, Three Principles

- Realize the flow and optimized allocation of various internal resources of the company
- Support the construction of the Strong and Smart Grid with minimum economic, social and environmental cost
- Maximize the operational efficiency and the integrated economic, social and environmental benefit
- Agglomerate internal and external forces together for creating the integrated economic, social and environmental creation

Push to form a consensus on the development of the grid and the corporation both inside and outside the company.
Upgrade intensive HR management.

Further "conglomerate operation, intensive management by reforming organization structure, improving fragmented governance to centralized and conglomerate maintenance, and marketing elevate the transformation from mechanism regarding planning, construction, operation, forward the innovation of management system and working efficiency and supporting capability. Explore and implement large-scale planning, construction, operation efficiency and supporting capability, and improve the development, lean management and standardized construction", improve the operation efficiency.

Further "conglomerate operation, intensive development and lean management”

Upgrade intensive HR management. State Grid unifies HR planning and management system and labor management system, pushes forward HR management standardization, optimizes the staff structure, and initially achieves flattened management of the organization, professional management of the operation, intensive resource allocation, and standardized labor and employment.

Promote conglomerate financial management. State Grid implements “Six Unifications”, that is, unified accounting system, accounting subjects, information standard, cost standard, operation flow and organization system. Besides, the company also centralizes its accounting, capital management and operation, budget control, and online risk monitoring. A unified corporate financing application platform is set up for unified financial operation and management.

Enhance conglomerate material management. State Grid exercises an overall material planning management, setting up a standardized system for material procurement. It innovates two centralized bidding modes characterized by “unified management by Headquarters and implementation by provincial companies” and “execution by provincial companies with centralized control from the Headquarters”. Strengthening the organizational structure of “2-level material management department and 3-level logistics center”, the company reinforces quality supervision and builds a modern logistic system, with obviously upgraded scale merit of material management, efficiency and supporting capability.

Construct a corporate conglomerate information management platform. The accomplishment of SG186 IT Project enables the biggest corporate information system in the world, with 8 application systems and 6 supporting systems covering the Headquarters, provincial companies, and prefecture-level companies. It signifies that the informatization level is leading in China and advances into the forefront position internationally.

Advocate standardized construction. State Grid intensifies the standardized construction of projects, and implements unified design, equipment, and price and standardized construction technology. In an effort to strengthen informatization to boost standardized construction, the company also advocates standardized management system and daily work.

State Grid forms 8,389 sample files for provincial companies, and refines 1,647 business directories.

Stick to “conglomerate operation, intensive development, lean management and standardized construction”, improve the operation efficiency.

Explore “Big Five “ Managements

Explore and implement large-scale planning, construction, operation, production and marketing management; push forward the innovation of management system and working mechanism regarding planning, construction, operation, maintenance, and marketing. Elevate the transformation from fragmented governance to centralized and conglomerate management by reforming organization structure, improving business process, innovating management method.

Promote conglomerate financial management. State Grid unifies HR planning and management system and labor management system, pushes forward HR management standardization, optimizes the staff structure, and initially achieves flattened management of the organization, professional management of the operation, intensive resource allocation, and standardized labor and employment.

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Common Responsibilities
Responsibilities on Technical Innovation

Responsibilities on technical innovation are to speed up the construction of a world-class power grid and an outstanding enterprise in the world, to ensure the supply of safer, more economical, cleaner and sustainable power, and to provide solid technical support, by adhering to the guideline of “independent innovation with breakthroughs in key areas, leading the future while supporting the development”, and serving innovative national construction.

The overall guideline of fulfilling the responsibilities on technical innovation

“Two Objectives, Six Principles, Six Tasks”

Six Tasks

- Build a world-class team of technical innovation
- Build a world-class core R&D system
- Build a world-class experiment and study system
- Build a world-class cooperation innovation system
- Build a world-class achievement popularization system
- Build a world-class industry cultivation system

The relationship between fulfilling the responsibilities on technical innovation and creating integrated value

Maximize the creation of integrated economic, social and environmental value

Two Objectives, Six Principles

- Impetus
  - Fully support the transformation and upgrade of the electric power industry
  - Continue obtaining a leading place in the world’s grid technology development; promote China to be a real “powerful” country
- Human-oriented
  - Build a first-class talent team
- Leadership strategy
  - Take the lead in the world’s grid technology
- Focal points
  - Focus on critical production, market demand and new technologies
- Input-based
  - Stick to large scientific research, large input and large output
- Resource integration
  - Integrate the corporation’s scientific and technical resources
Master core UHV technologies and become a leader in this field internationally

The Research on Magnetic and Insulating Properties of UHV AC / DC Transmission System has been set up as a National Basic Research Program of China (“973” Program). The overall technical indicators of independently researched a ±800 kV / 4750A and ±500kA UHV DC converter valves have reached an advanced level in the world. 63kA four-fracture UHV GIS breakers and 1000 MVA UHV single-phase transformers have passed the prototype test. UHV step-up transformer and large-capacity transformer have completed designing and started prototyping. UHV series compensation research has been advanced ahead. Researches on UHV multi-terminal DC transmission technology and the critical technology and equipment of ±1000kV and above DC transmission have been launched. During the 11th Five-Year Plan, 711 UHV patents have been applied, among which 457 authorized. In addition, State Grid set up 4 international standards, released 16 domestic standards, 10 industrial standards, and 130 corporate standards.

Accurate breakthroughs in Smart Grid's critical technologies, take the lead in the international power grid technology

Smart control technology of the power grid is leading in the world
- Breakthroughs have been made in independently developed smart grid dispatching technologies. Grid dispatching technical supporting system of the new generation has been developed and now gone through trial application.
- State Grid has acquired the critical technologies in grid safety regarding on-time digital simulation, load model, and stability manipulation, putting self-developed large-scale grid safety stability control and defense system into operation.
- State Grid has fully grasped the critical technologies of flexible AC/DC transmission

Core technology of new energy interconnection has made important progress
- State Grid has acquired the core technology of doubly-fed and directly-driven wind power generators’ interconnection and control, putting domestically developed wind power monitoring system and reactive power control devices into operation.
- Wind power generation output prediction technology with independent intellectual property right has been successfully put into use, with advanced prediction precision in the world.
- The Wind Solar Energy Storage Demonstration Project has been constructed and in operation.

Significant Technical Prizes During the “11th Five-Year Plan” Period

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<th>Award</th>
<th>2006</th>
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<th>2008</th>
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<td>First Prize</td>
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</tr>
<tr>
<td>China Electric Power Science and Technology Award</td>
<td>42</td>
<td>50</td>
<td>57</td>
<td>59</td>
<td>61</td>
<td>267</td>
</tr>
<tr>
<td>First Prize</td>
<td>6</td>
<td>4</td>
<td>5</td>
<td>4</td>
<td>2</td>
<td>21</td>
</tr>
<tr>
<td>Standard Innovation Award</td>
<td>4</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>11</td>
</tr>
<tr>
<td>First Prize</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>China Patent Award</td>
<td>1</td>
<td>3</td>
<td>-</td>
<td>2</td>
<td>6</td>
<td>12</td>
</tr>
<tr>
<td>Gold Prize</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>173</td>
<td>202</td>
<td>224</td>
<td>221</td>
<td>243</td>
<td>1088</td>
</tr>
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</table>

Cumulative Patents

<table>
<thead>
<tr>
<th>Project</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>Total</th>
</tr>
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<tbody>
<tr>
<td>Patents applied for</td>
<td>212</td>
<td>685</td>
<td>2362</td>
<td>2528</td>
<td>3992</td>
<td>9779</td>
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<tr>
<td>Invention</td>
<td>59</td>
<td>239</td>
<td>812</td>
<td>1068</td>
<td>1596</td>
<td>3774</td>
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<tr>
<td>Patents granted</td>
<td>146</td>
<td>333</td>
<td>567</td>
<td>1517</td>
<td>2826</td>
<td>5389</td>
</tr>
<tr>
<td>Invention</td>
<td>17</td>
<td>56</td>
<td>57</td>
<td>105</td>
<td>289</td>
<td>524</td>
</tr>
<tr>
<td>The cumulative patents</td>
<td>1012</td>
<td>1427</td>
<td>1994</td>
<td>3511</td>
<td>6528</td>
<td>14472</td>
</tr>
<tr>
<td>Invention</td>
<td></td>
<td>196</td>
<td>253</td>
<td>358</td>
<td>634</td>
<td>1441</td>
</tr>
</tbody>
</table>
Responsibilities on communication and cooperation are, refer to stick to transparent and open operation, to intensify the communication with key stakeholders in order to establish mutual trust, to achieve a consensus on the laws of technical development and enterprise operation, and to concentrate composite forces to ensure safer, more economical, cleaner, and sustainable power supply with lowest economic, social, and environmental cost.

Common Responsibilities
Responsibilities on Communication and Cooperation

The relationship between fulfilling the responsibilities on communication and cooperation and creating integrated value

Three Objectives, Four Methods

Win the trust of key stakeholders and the society by transparent and open operation
Push forward the value recognition from the society by in-depth communication
Efficiently concentrate composite scientific development forces of key stakeholders by creating cooperation mechanisms

Three Tasks

Information Notification
(corporation → stakeholders)

Feedback Acceptance
(corporation → stakeholders)

Joint Action
(corporation → stakeholders)

Dialogue and Communication
(corporation → stakeholders)

Support the scientific decision-making for the grid development
Support the scientific decision-making for the corporate development
Construct and operate the power grid with lowest social, economic and environmental cost
Maximize the creation of integrated economic, social and environmental value

Sustain and develop a harmonious relationship with key stakeholders

Push forward to achieve a consensus on the direction and the law of grid development and the value recognition with key stakeholders
Push forward to achieve a consensus on the rule and efficiency of enterprise operation and the value recognition with key stakeholders
Guarantee safer, more economical, cleaner and sustainable power supply by cooperating with key stakeholders

The overall guideline of fulfilling the responsibilities on communication and cooperation

“Three Objectives, Four Methods, Three Tasks”
Establish a regular discussion system with provincial governments in the service area

Achieve an extensive consensus on accelerating the construction of Strong and Smart grid, and supporting the local economic and social development with provincial governments.

- Count the grid planning into the overall planning of local economic and social development.
- Assist local governments on the power resources development planning centered with electric power.
- Strengthen local legislation to protect power facilities, and fight against power-related crimes.
- Promote the grid projects to be listed as key projects of the local economic and social development.
- Assist local governments on the power resources development according to the national economic and social development planning centered with electric power.
- Assist local governments to accomplish the goal of energy conservation and emission reduction.

Systematize the information submission to all levels of government departments

Establish a regular communication mechanism to all levels of government departments and industry regulators regarding significant issues and suggestions in forms of information reports, major issue presentations, suggestions about major decisions, and research reports.

Construct an information submission mechanism

- Frame the information management
- Establish an information team with 210 members covering all levels.
- Report on power supply situation to the central government every 10 days and every month.
- Establish a report mechanism about the corporation’s accomplishment in the national significant decision arrangements.
- Constitute an emergency real-time report mechanism.

Jiangsu Wuxi Power Supply Company

- “Electricity advisor” for the mayor’s office
- Publish the weekly reports, monthly reports, and special reports about power for the city council and other relative departments; provide references for the government.
- Give rational suggestions on the green development of the city and the grid, according to the city planning, construction and the key projects.
- Collect opinions from stakeholders, and then give suggestions on public management system that improves the service quality of the grid.

State Grid won the first place in the information work assessment from the SASAC.

State Grid was awarded as “the Excellent Corporation in Information Work” by the State Council.

Activate the role of the company in Information Work

The company has strengthened the communication with various media, holding more than 200 press conferences and 40 big themed promoting activities, and releasing millions of corporate news and reports.

Research on Enhancing Clean Energy Development and “Research on the Relations Between Energy Resource Consumption and Power Consumption”, were respectively awarded the first prize and the third prize of 2008-2009 Outstanding Soft Science Research Achievement by the National Energy Administration on Oct. 27th.

Issue the First Corporate White Paper on Green Development

The corporation issued the State Grid White Paper on Green Development in April 2010, in which it is expected to reduce carbon dioxide emission by 10 billion tons in the next 10 years, making State Grid the first domestic enterprise to set a quantitative goal for reducing carbon emission. The White Paper also explains that the construction of Strong and Smart Grid is the key to China’s green transformation, and that “Strong and Smart Grid is a green platform to promote intensive development of clean energy, clean exploration of coal resources, and efficient consumption of electric power, and to cope with challenges posed by the ecological environment and climate change.”

Enhance the soft power by focusing on branding construction.

Implement State Grid Branding Strategic Plan, integrate branding resources, launch “the Year of Brand Promotion”.

- Bring up the strategic objective of “Implementing leading brand strategy and build up core competence”.
- Set up a special organization responsible for publicity, external communication, brand building, CSR, and charity foundation. A centrally commanded brand building working system with clear work division and high operation efficiency has preliminarily come into being.
- Popularize the communication involving all employees. A three-level press spokesperson working system, composed of the headquarters, the regional and provincial grid companies, and the prefecture-level companies, has been established, with explicit responsibility definition for each department, unit, and post on communication and cooperation with the stakeholders.
- Actively promulgate the brand connotation of “credibility, commitment, reliability and trustworthiness”.

Actively give suggestions on the energy development to all levels of governments

Actively participate in the energy and power legislation. In 2010, State Grid submitted over 30 legislation replies to relevant national authorities, and undertook national significant subjects, such as the Research on the Problems of the Energy Law and the Electric Power Law (amendment) and the Research on the Regulations and Policies of Smart Grid.

Actively participate in constituting the national energy strategy. Advise on the scientific development of the power industry and the grid, push forward to include the development of UHV grid into the national energy strategy.

Actively participate in compiling the national energy planning. Submit opinions and suggestions on the National Energy Medium-and-Long-Term Planning Guidelines (2011-2030) and the Ideas of State Grid’s Medium-and-Long-Term Development; organize experts and scholars to attend the “12th Five-Year Plan” Grid Medium-and-Long-Term Development; present the power demand expectations and power balancing suggestions for the “12th Five-Year Plan” to all levels of governments, include Strong and Smart Grid construction into the local economic and social development planning.

Actively participate in the local government’s energy planning for the “12th Five-Year Plan”. Submit the power demand expectations and power balancing suggestions for the “12th Five-Year Plan” to all levels of governments, include Strong and Smart Grid construction into the local economic and social development planning.

Normalize the daily communication with the media

Insisting on transparent and open operation, the company has strengthened the communication with various media, holding more than 200 press conferences and 40 big themed promoting activities, and releasing millions of corporate news and reports.
Common Responsibilities
Responsibilities on Global Vision

Responsibilities on global vision are to actively participate in the economic globalization, to advance to the mission of “building a world-class grid and a world-class enterprise”, to push forward the international cooperation on energy resources and the globalized operation, to exploit the global resources to improve the corporation’s ability of ensuring safer, more economical, cleaner, and sustainable power supply, and to respond, along with the international community, to the common challenges of sustainable economic, social, and environmental development.

Three Tasks

1. Carry out the international benchmarking, exploit the global resources to cast a first-class enterprise and the power grid as well integrate in the economic globalization, implement the globalization strategy
2. Respond to the global challenges, contribute to the world’s sustainable development

The overall guideline of fulfilling the responsibilities on global vision

“Two Objectives, Five Requirements, Three Tasks”

The relationship between fulfilling the responsibilities on global vision and creating integrated value

Maximize the creation of integrated economic, social and environmental value

Forging a world-class brand

Leverage global resources to improve the corporation’s ability of ensuring safer, more economical, cleaner, and sustainable power supply

Respond to the common challenges on the sustainable economic, social and environmental development in the world

World-class ability to create social value

Business Globalization

Two Objectives, Five Requirements

Maximize the creation of integrated economic, social and environmental value

Leverage global resources to improve the grid development

Improve the ability to create integrated value by globalized operation

Construct and operate the grid with lowest economic, social and environmental cost

Guarantee safer, more economical, cleaner, and sustainable power supply

Globalized resource allocation

World-class equipment and technology
Operate National Grid Corporation of the Philippines (NGCP)

Since State Grid officially operated NGCP on Jan. 15th, 2009, we began to cooperate with local partners and enhanced its overall operation based on the Philippines’ condition and needs, as well as technical, management and capital advantages. The index of power failure in the Luzon grid was decreased from 2.87 times per 100 kilometers to 1.99, with 100% frequency qualification rate.

Abiding by the ten principles of the UN “Global Compact”, State Grid complied with the international norms and Philippines’ law, respected the local tradition and religion, protected staff’s safety and health, safeguarded their rights and dignity, and enhanced the development of local employment, community, and society in a broader sense.

NGCP Events in 2010

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>May</td>
<td>Ensure the safe and stable operation of the power grid during the Philippine presidential election</td>
</tr>
<tr>
<td>May</td>
<td>Organize employees from the Philippines to learn and exchange experience on responding to typhoons and other big natural disasters in China</td>
</tr>
<tr>
<td>July</td>
<td>Successfully withstand the second typhoon “Conson”*, Resume power supply three days earlier than the government’s request, with orderly black start</td>
</tr>
<tr>
<td>October</td>
<td>Successfully withstand the thirteenth typhoon “Juan”. The efficient emergency repair received highly positive feedbacks</td>
</tr>
</tbody>
</table>

Push forward the globalization strategy and the international energy cooperation

State Grid successfully acquired seven Brazilian power transmission companies, and the State Grid Brazil Holding S.A. started to run, delivering personnel and assets, integrating management system and corporate culture, and ensuring a stable transition and safe operation.

We carried out international trade and cooperation with responsibility. In 2010, our overseas project and service totaled a volume of 18.9 billion USD. We continued to push forward the power cooperation project with Mongolia, with first phase project already under negotiation.

Under the Sino-Russia energy cooperation, State Grid promoted the electric power cooperation, and constructed Phase 1 power transmission and transformation project. The company participated in the modernized upgrade of Russia’s grid, and explored the cooperation on power transmission technologies, equipments and power resources. The cross-border energy trade reached 983 GWh in 2010.

Respond to the challenges of sustainable development along with the world

State Grid strengthens the exchanges on experience, technology and management about sustainable development with its counterparts in the world. It participates in the establishment of the international standards, and carries out in-depth international benchmarking on the grid development and the enterprise operation. In 2010, the corporation attended activities organized by the International Electrotechnical Commission (IEC), the International Council on Large Electric Systems (CIGRE), the International Institute of Electrical and Electronic Engineers (IEEE), the Very Large Power Grid Operators Association (VLPGO), and the International Conference on Electricity Distribution (CIRED). 90 senior managers participated in exchange programs in world-class companies in other countries. From October 2009 to September 2010, the Chinese National Committee of IEC made 23 new work proposals, the second highest among other members, of which eight proposal were from State Grid.

<table>
<thead>
<tr>
<th>Time</th>
<th>Location</th>
<th>Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>July 27th</td>
<td>China</td>
<td>IEC Market Strategy Bureau Technology Foresight Special Working Group Meeting</td>
</tr>
<tr>
<td>August 22nd-27th</td>
<td>France</td>
<td>The 2010 43rd Annual Meeting of CIGRE and Special Committee Meeting</td>
</tr>
<tr>
<td>October</td>
<td>The United States</td>
<td>The 74th General Meeting of IEC</td>
</tr>
<tr>
<td>October 25th-26th</td>
<td>Spain</td>
<td>The 7th Annual Meeting of VLPGO</td>
</tr>
</tbody>
</table>

Major International Conferences attended in 2010

- State Grid is appointed as the project leader in the “Large-Capacity Power Storage” Project
- We communicate with the international electrotechnical community about the achievements made in UHV and Smart Grid. We launched two working group proposals: “UHV-AC Substation Field Test Technology” and “EHV/UHV AC Switch Equipment Cut-Off Characteristics and Test Requirements”, both of which had been approved
- We organized over 40 experts from 20 countries to attend the 2nd plenary meeting of TC 115HV DC Standard Committee as its secretariat unit
- State Grid highlighted the challenges of the UHV DC transmission project and the expansive implant of wind power. It introduced the basic situation of Strong and Smart Grid dispatching technology

Major International Exchanges in 2010

- In May, State Grid signed the Cooperation Memorandum of Understanding with IEEE, including the joint standard development.
- In May, State Grid was first invited to the 2010 e8 Tokyo Summit. In-depth communication was carried out regarding the development of Strong and Smart Grid, energy conservation and emission reduction, and coping with the global climate change.
- In July, State Grid held the international forum themed with “Smart Grid, Prosperous Life”. Some 150 representatives from 9 countries and regions discussed about the latest development on Smart Grid.
- In September, State Grid, along with Chinese committee of CIGRE, held the 2010 China International Conference on Electricity Distribution (CIED 2010). In September, State Grid attended the World Energy Congress, and gave a keynote speech titled “Strong and Smart Grid: the Driving Force to Energy Reform in the 21st Century”.
- In October, State Grid attended the Conference of the Electric Power Supply Industry (CEPSI) 2010 & the Cross-Strait Power Summit, under the patronage of the Association of the Electric Power Supply Industry of East Asia and the Western Pacific (AEPSEA).
- In November, State Grid officially joined the World Business Council of Sustainable Development (WBCSD).
- State Grid: Corporate Social Responsibility was selected into the global case Binary of Harvard Business School, becoming the first selected Chinese CSR case.
Common Responsibility Indicators

<table>
<thead>
<tr>
<th>Types of Responsibilities</th>
<th>Indicator</th>
<th>Unit</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scientific Development</td>
<td>Electricity sales growth rate</td>
<td>%</td>
<td>13.6</td>
<td>16.7</td>
<td>15.5</td>
<td>7.5</td>
<td>7.1</td>
<td>18</td>
</tr>
<tr>
<td></td>
<td>GDP growth rate</td>
<td>%</td>
<td>10.4</td>
<td>11.6</td>
<td>11.9</td>
<td>9.6</td>
<td>9.2</td>
<td>10.3</td>
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<tr>
<td></td>
<td>Investment in power grid construction</td>
<td>RMB Billion Yuan</td>
<td>116.0</td>
<td>176.9</td>
<td>213.0</td>
<td>249.7</td>
<td>303.16</td>
<td>264.37</td>
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<tr>
<td></td>
<td>Accumulated increment of existing transmitting capacity of the power grid</td>
<td>GW</td>
<td>44</td>
<td>85</td>
<td>120</td>
<td>154</td>
<td>171</td>
<td>188</td>
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<tr>
<td></td>
<td>Length of transmission lines of 110(66) kV and above in operation</td>
<td>km</td>
<td>32,000</td>
<td>45,000</td>
<td>54,000</td>
<td>57,000</td>
<td>53,000</td>
<td>57,000</td>
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<tr>
<td></td>
<td>Transformation capacity of 110(66) kV and above in operation</td>
<td>GVA</td>
<td>130</td>
<td>180</td>
<td>210</td>
<td>270</td>
<td>280</td>
<td>250</td>
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<tr>
<td></td>
<td>Electricity power trading volume at the national power market</td>
<td>TWh</td>
<td>77.5</td>
<td>168.5</td>
<td>213.0</td>
<td>263.89</td>
<td>294.4</td>
<td>358.5</td>
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<tr>
<td>Secure Power Supply</td>
<td>Peak load in the service area</td>
<td>MW</td>
<td>261,579</td>
<td>306,516</td>
<td>342,755</td>
<td>370,224</td>
<td>424,900</td>
<td>484,100</td>
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<tr>
<td></td>
<td>Number of equipment accidents</td>
<td>Number</td>
<td>208</td>
<td>102</td>
<td>75</td>
<td>32</td>
<td>27</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>Number of power grid accidents</td>
<td>Number</td>
<td>63</td>
<td>48</td>
<td>27</td>
<td>23</td>
<td>10</td>
<td>2</td>
</tr>
<tr>
<td>Management Excellence</td>
<td>Revenue</td>
<td>RMB billion Yuan</td>
<td>712.7</td>
<td>854.5</td>
<td>1010.7</td>
<td>1140.7</td>
<td>1258.0</td>
<td>1542.7</td>
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<tr>
<td></td>
<td>Total asset turnover days</td>
<td>Day</td>
<td>589</td>
<td>507</td>
<td>468</td>
<td>493</td>
<td>514</td>
<td>445</td>
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<tr>
<td></td>
<td>Taxes Paid</td>
<td>RMB billion Yuan</td>
<td>60.355</td>
<td>83.296</td>
<td>114.222</td>
<td>86.800</td>
<td>65.750</td>
<td>122.740</td>
</tr>
<tr>
<td></td>
<td>Overall productivity</td>
<td>RMB Yuan per person per year</td>
<td>211,000</td>
<td>244,000</td>
<td>278,000</td>
<td>296,000</td>
<td>296,300</td>
<td>403,000</td>
</tr>
<tr>
<td></td>
<td>Total Profit</td>
<td>RMB billion Yuan</td>
<td>14.4</td>
<td>27.0</td>
<td>47.1</td>
<td>9.8</td>
<td>4.6</td>
<td>45.09</td>
</tr>
<tr>
<td></td>
<td>Return on equity</td>
<td>%</td>
<td>2.11</td>
<td>4.02</td>
<td>6.86</td>
<td>0.81</td>
<td>-0.39</td>
<td>4.87</td>
</tr>
<tr>
<td>Technical Innovation</td>
<td>Total Technical Funding</td>
<td>RMB billion Yuan</td>
<td>4.82</td>
<td>6.74</td>
<td>10.17</td>
<td>14.49</td>
<td>14.69</td>
<td>*</td>
</tr>
<tr>
<td></td>
<td>Technical R&amp;D input</td>
<td>RMB billion Yuan</td>
<td>2.001</td>
<td>2.836</td>
<td>4.559</td>
<td>5.055</td>
<td>5.138</td>
<td>6.129</td>
</tr>
<tr>
<td>Communication and Cooperation</td>
<td>Number of press conferences</td>
<td>Number of times</td>
<td>9</td>
<td>11</td>
<td>16</td>
<td>16</td>
<td>18</td>
<td>22</td>
</tr>
<tr>
<td></td>
<td>Power dispatching and transaction information release times</td>
<td>Number of times</td>
<td>390</td>
<td>480</td>
<td>510</td>
<td>521</td>
<td>540</td>
<td>552</td>
</tr>
<tr>
<td></td>
<td>Information Submitted to the government by the Headquarters</td>
<td>Piece</td>
<td>105</td>
<td>166</td>
<td>164</td>
<td>259</td>
<td>313</td>
<td>329</td>
</tr>
<tr>
<td></td>
<td>Portal Website Traffic</td>
<td>Times</td>
<td>1,756,000</td>
<td>2,121,000</td>
<td>2,315,000</td>
<td>2,616,000</td>
<td>2,124,000</td>
<td>5,531,000</td>
</tr>
<tr>
<td>Global Vision</td>
<td>Total overseas executive trainings</td>
<td>Number of persons</td>
<td>30</td>
<td>93</td>
<td>145</td>
<td>145</td>
<td>190</td>
<td>280</td>
</tr>
<tr>
<td></td>
<td>Accumulated contract volume of technical services for overseas projects under construction</td>
<td>USD billion</td>
<td>1.926</td>
<td>-0.035</td>
<td>8.176</td>
<td>13.1</td>
<td>17.9</td>
<td>18.9</td>
</tr>
</tbody>
</table>

*These data are not subject to changes with adjustment of statistic methods.*
Specific Responsibilities

Fulfill specific responsibilities, realize general social functions

- Responsibly treat every stakeholder
- Maximize the integrated economic, social and environmental value

Type of Responsibilities

- Bear as many responsibilities as the number of the stakeholders

Contents of Responsibilities

- Fulfill the basic responsibilities and the responsibilities on Win-win partnership to the stakeholders

Logic of Responsibility Fulfillment

- Recognize and Manage the Influences
  - Understand and Respond to the Expectations

Mechanism of Responsibility Fulfillment

- Continue re-understanding, re-deploying, rethinking and further improving the daily management of the enterprise

Customers
- Responsibilities on Quality Service

Agriculture, Countryside and Farmer
- Responsibilities in Serving Agriculture, Countryside and Farmers

Employees
- Responsibilities on Employee Development

Partners
- Responsibilities on Win-win Partnership

Communities and the society in a broad sense
- Responsibilities as Corporate Citizen

Natural Environment
- Responsibilities on Environmental Protection and Energy Conservation

Win-win Partnership Responsibility
- Concentrate the composite forces from stakeholders to create integrated value

Win-win Responsibility
- Perform Legal Obligations
  - Stick to the Moral Basis

Multi-win Responsibility
- Recognize Influences
  - Recognize the influence of its decisions and activities on stakeholders and the natural environment

- Manage Influences
  - Concentrate the composite forces from inside and outside the company to maximize positive influences and minimize negative impacts

- Understand Expectations
  - Understand the key expectations of key stakeholders and the general expectations for sustainable social development

- Respond to Expectations
  - Benchmarking responses are the best practice to answer stakeholders’ expectations and the expectations on sustainable development in the world
Fulfill Responsibilities on Quality Service to customers

**Philosophies**

- Start from customers’ need, and end at customers’ satisfaction
- Endless services, 100% endeavor
- To create value for customers is to create value for the company
- Supervision intensity determines service quality
- Safety, convenience, reassurance, and satisfaction of power consumption

**Topics**

- Maintain customers’ rights of power consumption
- Guarantee transparent services of power supply
- Ensure the efficient services of power supply
- Guarantee accurate electricity metering
- Serve the national policy on electricity pricing
- Serve the safety of power consumption
- Serve the efficiency of power consumption
- Handle complaints promptly
- Protect customers’ privacy

**Strategies**

- Customer Value Creation Strategy
- Service Efficiency Enhancement Strategy
- Service Resource Integration Strategy
- Service Branding Strategy

**System Guarantee**

- Carry out “Ten Commitments” for power supply and “Ten Prohibitions” for employees’ service conduct
- Unify the brand connotation, service window logos, and service resources allocation
- Carry out the evaluation of power supply services
- Exercise the first inquiry responsibility system and “one-stop” services
- Establish the management for industrial moral complaints, and set up awarding fund for reports and complaints
- Implement the policy of “Three Non-Specifications (non-specified project design organization, non-specified construction group, and non-specified equipment and materials); carry out all-process supervision of the workflow of business extension and application for installation, and 100% follow-up system

**Major Actions in 2010**

- Push forward the construction of large-scale marketing system, deepen the intensive management of marketing
- Promote the construction of the smart power consumption system, perfect the marketing IT application
- Carry out special control of “Three Specifications” (specified project design organization, specified construction group, and specified equipment and materials); deepen quality services of power supply
- Intensify the management of orderly power consumption to ensure its orderly supply
- Accelerate the construction of electric vehicles’ recharging facilities, support the policies of low-carbon economy
The customer-side safety checking rate, supervision rate and the filing rate all reach 100%.

The customer-side safety checking rate, supervision rate and the filing rate all reach 100%.

Carry out provincial “95598” service center pilot program. By enhancing central command and all-process monitoring, the power supply service is further catered to meet the customers’ needs. And the responding speed is also optimized to deal with customer complaints.

Expand the payment methods. More convenient payment methods are available. Besides the conventional methods of the counter charge, the bank approved deduction, and the bank counter charge, customers can pay their bills at self-served bank outlets, websites, supermarkets, community payment outlets, and self-served payment terminals. Or they can use prepaid cards. More self-helped and mobile charging cars are added to satisfy the customers.

Concern about the safe power supply and use

- Organize the compilation of Customer Safe Power Management.
  - Unfold power safety check in the spring and autumn; identify and resolve hidden risks for high-risk and major customers; supervise and direct customers to rectify in time. The user-end accidents have been significantly reduced.
  - Establish power supply guarantee mechanism for major events. The success rate reaches 100% for big events.

State Grid Shanghai Company spared no efforts to ensure power supply for the Shanghai World Expo. The 24-hour repair agents were assigned to the Expo Garden. The application of TCM improved the repairing speed. The company also directed and assisted 156 volunteer booths outside the Garden to accomplish electricity connection. The Junge company integrated the service improvement program into the provincial government’s activity of “the Year of Businesses and Services”, bringing up 20 pertinent measures for the constructions of Poyang Lake eco-economic zone and other major projects. The Beijing company comprehensively sorted the marketing system, and worked out the Beijing HV Customer Security Standards as a local standard. The Tibet company, based on the actual condition, standardized the marketing business and the window construction by “Three Close Atentions”. Thus, it ensured the safe power supply during the sensitive period and for the high-risk or important customers as well. The Shaanxi company vigorously carried out marketing activity of “the Year of Law-Based Corporate Governance”. It made an effort to eliminate the weak sectors of power supply service, and strived to realize the “Zero Illegal Services” Objective. The Shandong company, wholeheartedly casted the “Ten Minutes” billing service zone, and actively expanded the payment methods. In order to effectively solve the payment problems, it opened charging services in 12 banks, and adopted the Alipay system. The automatic payment machine and the prepaid card were in use for the convenience of the customers.

The “95598” Service Hotline

258 million
Served customers

The third “Star of Top Quality Service” of the State Grid Corporation

<table>
<thead>
<tr>
<th>Name</th>
<th>Statement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zeng Lingle</td>
<td>As a staff of power supply, the only way to be tempered and cultivated is to be part of the corporation</td>
</tr>
<tr>
<td>Hong Suyun</td>
<td>There is always a way to improve your job</td>
</tr>
<tr>
<td>Su Zhangjie</td>
<td>The moment I accepted the prize at the podium, I just represented all those who are working hard and quietly</td>
</tr>
<tr>
<td>Shi Xinlin</td>
<td>Honor is not only an approval of the past, but also a new standard for the future</td>
</tr>
<tr>
<td>Li Weijun</td>
<td>Set up a higher standard for myself, and strive to be the best</td>
</tr>
<tr>
<td>Yi Bin</td>
<td>An ordinary job can also shine</td>
</tr>
<tr>
<td>Xin Xin</td>
<td>Adherence of empathy achieves ultimate services</td>
</tr>
<tr>
<td>Zhou Haiping</td>
<td>We are on the way to success, with flowers and applause behind us</td>
</tr>
<tr>
<td>Cheng Jinyan</td>
<td>My goal is to get absolute satisfaction from my customers every year</td>
</tr>
<tr>
<td>Wei Huiying</td>
<td>No pains, no gains. The key to success is persistence</td>
</tr>
</tbody>
</table>
Strictly carry out the special control on “Three Specifications”

Improve the system. State Grid continuously strengthens the standardized management of the business extension workflow. It publishes the Workflow Standards of Business Extension and Application of Installation and Business Extension Guide on Power Supply Program. It also unifies the standards for every procedure in the workflow.

Optimize the procedure. State Grid strictly implements the requirements of “consistency, convenience, and high efficiency” on the workflow of business extension, and shortens the installation time. The time of replying to customers on power supply program is reduced by 2 days on average, and the project power interconnection time on business extension is reduced by 3 days on average.

Establish a customer evaluation mechanism. The power supply corporations, customers, and the supervision institutions will comprehensively evaluate the design and construction enterprises, and the equipment and material suppliers based on their security management, projects and equipment quality, and the services provided. That takes care of both the grid security and customers’ benefits.

Guarantee the Fair and Just Metering

Found the metering center to ensure the effective operation of quality system. The metering center passes the two-in-one assessment of laboratory metering accreditation from the China National Accreditation Service for Conformity Assessment. The company strengthens the supervision of smart meters’ life-cycle quality throughout the whole process. That helps establish a quantitative indicator system for the evaluation. The corporation also strengthens the construction of metering standards, and compiles the Technical Specifications of Low-Voltage Measuring Power Transformers. A relatively complete system of technical standards of measurement has come into being.

Strengthen Management of Orderly Power Consumption

The corporation insists on building a routine mechanism for orderly power consumption, and compiles the annual orderly electricity use scheme. It realizes the restricted load capacity of 77.63GW, safeguards the order of social power use, and contributes to the stable economic and social development. In 1020, under the impacts of the severe shortage of coal-fired power supply and the summer peak load, State Grid started the orderly power consumption scheme to limit the industrial load, which ensured the residential power supply, and then sustained the stable economic and social operation.

During the "Eleventh Five-Year Plan” Period, the average power failure for urban power users reduced by more than 13.27 hours. In 2010, the capacity for new installation increased by 242790MVA.
Responsibilities in Serving Agriculture, Countryside and Farmers

Topics

- Comprehensively push forward the common services of power supply
- Guarantee the quality of power supply and the services
- Ensure “one grid, one tariff” policy for both city and countryside
- Rationally reduce the farmers’ burden of electricity charges
- Comprehensively implement the requirements of safety and health
- Safe, conservative, efficient, and scientific power consumption
- Construct rural power supply infrastructure
- Comprehensively Serve Agriculture, Countryside and Farmers
- Actively promote the overall development of the city and countryside

Philosophies

Construct a new socialist countryside
Adhere to the policies of “industry supporting agriculture, city supporting countryside” and “giving more, taking less and loosening control”
No gap left in common services; burden reduced by “one grid, one tariff” policy.
All for the prosperity of rural areas, development of agriculture and affluence of farmers
Give full play to the advantage of conglomerate operations, and make unified planning for the construction of rural and urban grids

Strategies

- The “New Countryside, New Power and New Service” Development Strategy
- The rural “Power for All” Project
- The development strategy of new rural electrification
- Strategy of the same development, management and standards for both urban and rural power supplies.
- Construction of highly qualified rural electrician team

System Guarantee

Prepare the medium-and-long-term plan for the development of the “New Countryside, New Power and New Service.”
Publish the approach of constituting rural power standards and quality service normalized standards
Issue the construction outline of new rural electrification and the project planning of “Power for All”
Apply the rural power personnel qualification program and capability improvement plan
Implement the “one grid, one tariff” management method
Prepare protection measures for major physical accidents in the typical operation of rural power distribution

Major Actions in 2010

- Accomplish “Power for All” Project in rural areas
- Continuously implement the rural grid improvement projects to expand domestic demands
- Start a new run of reconstruction and upgrade of rural power grid
- Carry out the rectification of “Low Voltage” in rural areas
- Strengthen the power supply security management for high-risk customers and promote power utilization safety in rural areas
- Unfold rural power benchmarking with first-class counterparts, strengthen standardized management of rural power enterprises
- Push forward the standardized construction of power stations
- Select “the Star of Rural Power” of State Grid

During 2006 and 2010, State Grid has accumulatively solved the electricity availability problem for 5.09 million people without electricity
Realize the “Power for All” Project in all service area

On September 20th, 2010, with the completion of the “Power for All” Project in Tibet, the objective of this project proposed in 2006 was fully achieved. From 2006 to 2010, the corporation solved the power supply problem for 1,340,000 households and 5,090,000 people without electricity.

The “Power for All” Project in rural areas brought up a strong sensation in the society, getting favorable policy and financial support from local governments. A large number of enterprises and social organizations also participated in relevant businesses.

During the process, State Grid also helped cultivate a group of new-style farmers in the remote area and the minority-group region.

Accomplish the “11th Five-Year Plan” objective of new rural electrification

After 5 years’ efforts, 25.3% counties, 19.1% towns, and 17.7% villages met the construction standards of new rural electrification in the service area, which means 407 counties, 4991 towns and 90053 villages.

Increase of owned appliances, comparing to that before the project implementation

<table>
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<tr>
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<td>64.5%</td>
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Serve for the upgrade of medium-and-low-yield farmlands, improve the agricultural irrigation, and increase the crop yields.

Ensure disaster-relief and harvest on agriculture. There were frequent extreme weathers in 2010 such as strong snowfalls, strong storms, droughts, and typhoons, which significantly affected the agricultural production. State Grid recovered the power supply safely, swiftly and satisfactorily.

Promote “one grid, one tariff” policy. Up to the end of 2010, 1,683 counties in 26 provinces (autonomous regions and municipalities) in the company’s service area have been practising this policy.

Serve and push forward “home appliances going to the countryside”, vigorously promote safe, scientific and economical power utilization, expand service measures, and cast a harmonious environment for power supply and utilization.

Vigorously strengthen the construction of rural power supply infrastructure

Investment into the rural grid has been increased year after year, and the amount climbed to 307.5 billion Yuan during the Eleventh Five-Year Plan Period.

Accomplish the construction of the rural grid expansion. The voltage qualification rate for rural end-users and the reliability rate of rural grid power supply have both been steadily increased.

There are 448,000 rural electricians working in 19,217 rural stations under 26 provincial companies. State Grid strictly maintains the rural electricians’ legal rights and benefits, requires all of them to have qualification certificates for their posts, and pays the basic social insurance for them.

Serve Agriculture, Countryside and Farmers

The “Power for All” Project opens the window of modern civilization for farmers and herders.

After 5 years’ efforts, 25.3% counties, 19.1% towns, and 17.7% villages met the construction standards of new rural electrification in the service area, which means 407 counties, 4991 towns and 90053 villages.

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Responsibilities on Employee Development

Topics

- Guarantee employees’ health and safety
- Maintain employees’ legal rights and benefits
- Ensure fairness and justice in employment and career development
- Provide salaries and payments in accordance with the actual condition
- Ensure the training and the development rights for all employees
- Implement the rights of democratic management and supervision
- Avoid the violation of human rights
- Protect employees’ privacy
- Maintain workforce diversity

Philosophies

Be human-oriented. Talent being is the foremost resource and the fundamental purpose for the development of the company
Respect and cultivate people, support the development of the company, and realize employees’ value
Adhere to legal and moral basis, respect human rights, and maintain employees’ legal rights and benefits
Ensure employees’ health and safety, smoothen the communication channels for employees, and stimulate employees’ creativity
Encourage all employees to fulfill their responsibilities, and integrate everyone’s sustainable development force

Strategies

Strategy of vitalizing the company by human resource development; staff safety and health management strategy; democratic management strategy, corporate culture construction strategy

System Guarantee

Establish rules and regulations to protect employee’s rights and benefits
Implement “Safety Project” and the management mechanism of occupational health and safety
Compile the team building and the all-staff training program
Establish democratic management system such as the Workers’ Congress and operation transparency mechanism
Establish fair and just employment policy
Establish the planning and method of corporate culture construction

Major Actions in 2010

- State Grid compiled the State Grid HR Planning 2010-2020, Opinions on State Grid’s Support on Tibet Power Supply Development and Major Events, the Outline of State Grid Democromatic Management of Employees, Headcount Labor Management for Power Supply Enterprises, Power Supply Enterprises Headcount Performance Evaluation (trial), and the Opinions on Expediting to Solve the Structural Labor Shortage Problem on the Production Line for Power Companies
- Expedite the construction of training bases, establish the State Grid Management School, and the Youth League School, and accelerate the construction of State Grid Institute of Technology
- Carry out the all-staff training program, and steadily increase the training coverage rate
- Continuously implemented the “1551” talent cultivation project, which helps train excellent personnel and experts
- Import high-end talents by the “Thousand Talents Program”
- Select Outstanding Skilled Youth

State Grid is continuously intensifying the construction of its talent pool, and the training coverage rate reaches 92%
Employee Development

Intensify the construction of talent pool

Intensify the talents cultivation. In 2010, the Headquarters have trained different kinds of talents for the company including 9,000 high-end professionals, 3,000 UHV and smart grid specialists, 4,400 technicians, and 2,500 new employees. The company continues implementing “1551” talent cultivation program, and perfects the promotion system of experts and talents from the Headquarters, provincial companies, and prefecture-level companies. 471 excellent experts were selected in 2010 through this program.

Perfect the training system. It has founded the State Grid Management School, and accelerated the construction of State Grid Institute of Technology. 6 training bases were established. It also founded the Youth League School, which became the first SOE youth league school.

Promote overseas talents import. State Grid imports 6 high-end talents through the “Thousand Talents Program”. In order to provide a development platform for overseas talents, the company accelerates the construction of the Smart Grid Research Institute of State Grid.

Expand mass economic and technical innovation activities. The company carries out labor competition, work training, technical competition and the campaign of “casting advanced teams and striving to be pioneers”. In 2010, 76 employees were awarded as the National Model Workers. 83 grass root teams and 82 front-line employees were elected as the SOE Red Flag Teams and Outstanding Individuals respectively. 8 teams were granted as “ the Socialist Labor Competition Advanced Team” by ACFTU, Ministry of Industry and Technology Information, SASAC, and All-China Federation of Industry & Commerce.

Deepen democratic management of employees

Compile the Guideline of State Grid Democratic Management of Employees; strive to seek effective approaches suitable for the company’s situation; further standardize and improve employee democratic management system such as the Workers’ Congress to ensure employees’ right to know, to participate, to express and to supervise.

Safeguard employees’ rights

Safeguard employees’ legal rights and benefits. By implementing the Labor Contract Law of the PRC and the Regulation on the Implementation of the Employment Contract Law of the PRC, State Grid has provided employees with welfare and salary and purchased insurances in accordance with the national and the company’s situation. It has also established offices for petitions and appeals at all levels to provide employees with a variety of channels to appeal, complain and report. Care for employees’ safety and health. State Grid carries out the safety and health risk analysis during the grid construction and operation, establishes the employees’ safety and health guarantee system, and launches training programs. It has also promoted the concept of health, carried out regular physical examination, and strengthened the prevention of occupational safety and health risks.

Care for the retired employees. The company pays much attention to the retirees, maintaining their benefits, intensifying the construction of party branches, and strengthening ideological and political education. As of late 2010, the corporation has established 1,845 activity centers and 53 universities for retired employees.

Strengthen the construction of corporate culture

Carry out activities with various levels. Construct a unified corporate culture, with the core values of “integrity, commitment, innovation and dedication”. It has organized 785 corporate culture trainings, 727 sessions of themed lectures, and over 1,000 seminars.

Enrich employees’ cultural lives. State Grid has organized many events, such as “For Everyone’s Power Need”, the international UHV transmission technology discussion, and the performance of “Night of the State Grid”, “Security in My Heart”, “Song of Life”, and “State Grid and I”. All that has create a harmonious and stable environment for the enterprise to develop.

Outstanding Skilled Youth of State Grid

- Sun Bin: Install the meters and connect the power lines while study, and reduce power theft loss with innovation and practice; enhance efficiency to pay back to the society.
- Li Yu: The pioneer of UHV grid construction.
- Jiang Tao: The best cable expert with no fault in operation.
- Diao Guanxun: Take root at the grass-roots level with strong technical skills, be tempered and grow in competition and practice.
- Wu Zhicheng: Live working in the front line, eliminating equipment defects with smart skills.
- Li Jinyang: Playing a pivot role in international technology discussion, with persistance, bravery, and innovation.
- Zhu Junying: Compete for excellence in the relay protection, put into use what has been learned for innovation.
- Shen Lin: Pioneer in transformation operation, and protector in grid patrol.
- Abelor Situ: Innovate to improve efficiency; contribute youth and power to thousands of households.
- Deng Zhanfeng: Get into the battlefront of Smart Grid, and fill pass in the industry both domestically and internationally.
Responsibilities on Win-win Partnership

Philosophies

- Fulfill the legal obligations, and adhere to the moral basis
- Insist on transparent operation, and realize mutual development
- Utilize the effect and the driving force on the value chain and industry
- Work together to maintain an orderly market and to combat unfair competition
- Jointly construct a responsible and sustainable value chain
- Concentrate the integrated value creation force from the value chain and industry

Strategies

- Transparent Operation Strategy, Strategy of Coordinated Development in All Sectors of the Power Industry, Strategic Partnership Strategy, Responsible Purchase Strategy, Sustainable Development Strategy of Value Chain

Guarantees

- Federate discussion about power industry’s development planning
- The disclosure of power dispatching transaction
- Regular or irregular coordinating meetings with partners
- Public bidding and purchase responsibility system
- Complaint and report system against commercial bribery
- Management of contract and settlement system
- Promotion of domestic core equipment and technologies

Major Actions in 2010

- Compile Management Specifications on Wind Power Coordinating Operation, and the Technical Regulations on Wind Power Interconnection Operating and Controlling
- Publish the Management Measures for Suppliers’ Improper Behaviors, and build the Supplier Services Centers and Material Contract Service Centers
- Promote new equipment, new technologies and new processes with design and construction enterprises
- Work together with designers, constructors and supervising agents to intensify the onsite management to reduce accidents
- Take national major scientific research subjects, jointly found the laboratory (research center) to develop and research equipment, and strengthen the strategic cooperation with financial institutes
Jointly implement the demand for sustainable development with power generating enterprises, meet the energy needs for the economic and social development

- Maintain the order of the electricity trade market, and ensure an "open, fair and just" power trade.
- Strengthen the information disclosure, standardize the signing of power trading contracts, and actively cast an open, transparent trading platform.
- Arrange the delivery projects timely, and promotes the coordinated development of grids and factories to jointly ensure the safe and stable operation of the power system.
- Carry out researches on the industrial social responsibility and self-discipline, and excellent industrial culture and reputation.

Intensify the cooperation with design and construction enterprises, and elevate projects’ balanced safety and quality

- Apply new materials, new processes and new equipment to continuously enhance the project quality, reduce the hidden hazards, and rationally control the cost.
- The Southeast Shansi-Nanyang-Jingmen 1000kV UHV AC Pilot Project won “the National Gold Prize for Excellent Pilot Project” and “the China Industry Award”. Three projects, including Henan Zhongzhou East Substation, won the Luban Award. The Three Gorges Power Transmission and Transformation Project won the First Prize of National Award for Science and Technology Progress.

Push forward the power industry’s self-innovation with research institutes

- Conduct researches and technology development with 100 professors and Ph.D. supervisors (academicians) from 42 universities, research institutes and equipment manufacturers from home and abroad.
- Jointly take national science-supporting program research topics and the national “973” research program with domestic renowned universities and enterprises.
- Found the laboratory (research center) together with external scientific forces.

Build a long-term reciprocal relationship with financial institutions

- The total credit from the financial industry reaches 66.9 billion Yuan, increased by 9.4 billion Yuan year on year.
- The industrial lending accumulates to 168.3 billion Yuan. The bond collateralized repo volume reaches 25.13 billion Yuan.
- Carry out strategic cooperation in an all-round way in terms of project resources, product development, marketing, and information exchange.

Build a harmonious and win-win partnership with suppliers

- Establish a Supplier Service Center and 28 Goods and Materials Contract Service Centers to process application, consulting, contract signing, and billing. It also offers standardized, transparent and efficient one-stop service.
- Bring up 185 prevention and control measures regarding 46 points of risks in 13 key aspects in the tendering process.
- Research and carry out reverse assessment to guide suppliers to evaluate the purchasers in contract signing and obligation fulfillment, stimulating integrity from both sides.
- Adopt compound average price range, optimize price evaluation methods, and curb disorderly cheap bidding.
- Promote the application of domestically produced silicon steel in transformers. The localization rate of UHV equipment is over 90%.

Win-win partnership between State Grid and equipment manufacturers

The Corporation Supplier Service Center was officially open to suppliers on August 17, 2010. The center has set up different windows for contract signing, contract modification, contract distribution, payment inspection and warehousing and logistics. In addition, the center is equipped with the material information consulting platform, the reception room, negotiation room, meeting room, self-service business area, business area, waiting area and publicity area. One-stop services are also available, by means of on-site reception, hotline, fax and email, to various suppliers who have participated in the centralized bidding and purchase. Services include business consulting, business processing, receiving reasonable suggestions, and information release. The center has received positive response and favorable appraisal from suppliers. Since its establishment, it has processed 1172 suppliers’ phone calls and 583 on-site consulting and business operation from 393 suppliers.

Advocate the sustainable development philosophy of maximizing the integrated economic, social and environmental value in the supply chain

- Draw up Management Measures for Suppliers’ Improper Behaviors, and explore the mechanism to apply supplier responsibility fulfillment evaluation during the bidding assessment.
- Establish a unified management platform covering supplier qualification assessment, post evaluation management system and performance appraisal standard. Push supplying partners forward to consciously fulfill their basic obligations relating to human rights, labor and environment.

Participate in the activities of China Electricity Council, and promote the harmonious development of the industry

- Help with the power industry statistics within State Grid’s operation area
- Actively participate in major researches in the industry
- Coordinate to organize important meetings and events

185 Prevention and control measures
99.84% Localization rate of equipment purchased in centralized tendering
Philosophies

Strive to be an excellent corporate citizen
Seek for common development with the people and the community in its service area
Pay taxes under laws, and operate observing laws and regulations with integrity
Carry out public welfare undertakings in an institutionalized, standardized, specialized and branded way
Unite the staff and the society, and inspire their enthusiasm for voluntary service
Create material wealth, as well as a wealth of knowledge and spirit for the society

Strategies

Good Corporate Citizen Strategy
Public Welfare Branding Strategy
Employee Volunteer Service Strategy
Strategy of Law-based Corporate Governance and Compliance Management
Strategy of Joint Construction of Community

System Guarantee

Law-based and compliance management system
Corruption control & prevention system
The foundation’s internal management and external donation system
System to organize and support employees’ volunteer activities

Major Actions in 2010

Stamp out off-book accounts and special inspect on “Three Majors, One Large” (Major decisions, appointment or dismissal of officials in major positions, major project arrangement, and the consumption of large sum of funds)
Continue pushing forward the campaigns for assisting Tibet and Xinjiang and electricity poverty alleviation
Actively participate in natural disaster-relief donations, such as the earthquake in Yushu, Qinghai, and the deadly landslide in Zhouqu, Gansu
Integrate volunteer organization resources in the company, form a multi-level network of voluntary service, and establish an employee volunteering service brand of “State Grid”

Responsibilities as Corporate Citizen

Topics

Adhere to law, and operate business with integrity
Participate in community affairs
Enhance public health, safety and prosperity of the community
Actively take part in and support social welfare undertakings
Advocate the spirit of the times and good moral values
Pay attention to and help to solve major social problems
Actively increase social employment
Assist the disadvantaged social groups
Support employee volunteer service activities

1.5 billion Yuan
The donation from the Corporation during the “11th Five-Year Plan” was over 1.5 billion Yuan
Adhere to legal obligations and operation

- All corporate regulations, economic contracts and major decisions need to go through legal review.
- The company headquarters have formulated and amended 304 regulations and abolished 183 ones. Now 539 regulations are in effect.
- Deepen the inspection on off-book accounts and the implementation of the collective decision-making policy of "Three Majors, One Large". Regulate bidding management.

Actively take part in social welfare undertakings

- The foundation was officially renamed as "State Grid Foundation for Public Welfare".
- During the "11th Five-Year Plan", the company subsidized 1.77 billion Yuan to support Tibet, among which, 1.656 billion Yuan was to assist Tibet Electric Power Company and 121 million Yuan was to aid Gannan County of Ali in Tibet.
- During the "11th Five-Year Plan", the company used 1.015 billion Yuan to support Xinjiang Autonomous Region, mainly for power facility construction and poverty alleviation.
- During the "11th Five-Year Plan", 113 people were sent to Tibet for management and technical assistance. 85 outstanding talents in management and technology were assigned to Tibet for specific training.
- During the "11th Five-Year Plan", the company carried out Young Talents Training Program in Tibet, Qinhai and Xinjiang, and selected 275 young talents for practice and training in regional electric power companies in East China.
- During the "11th Five-Year Plan", the company accomplished 195 fixed poverty alleviation projects, invested 64 million Yuan in power poverty alleviation, which raised 139 million Yuan of local supporting funds.

Execute employee volunteer service activities

Strengthen and improve the organization, mechanism and team building of volunteer service activities, guide employees to carry out volunteer activities, based on their work, in terms of power guarantee service, rescue and relief work, community construction, ecological protection and poverty alleviation by extensively conducting youth voluntary service activities with State Grid’s characteristics, such as "Youth Sunshine Day" program. By the end of 2010, the company had 310,000 volunteers. The volunteer service activities reached up to 3.5 million man-times between 2003 and 2010.

Moot Court Competition

In a long and large-scale moot court competition organized by the company in 2010, nearly one million employees received a vivid juristic education, which has enhanced their understanding on demands from the company’s stakeholders and their concept of legal obligations and compliance management.

195 fixed poverty alleviation projects during the "11th Five-Year Plan".

1.77 billion Yuan subsidized to Tibet during the "11th Five-Year Plan".

Before the opening of the Shanghai Expo, young volunteers from Anhui Chuzhou Power Supply Company sent the Expo mascot "Hai Bao" and books introducing the World Expo to disabled children at the Child Welfare House, sharing the joy together brought by the Expo.

The "Red Waistcoat" Youth Volunteers Team of the Jiangsu Company actively executes a series of voluntary community activities called "Family Power", establishing 100 community-based service demonstration spots in 11 cities throughout the province. They carried out "Care for Empty-nesters" Program and "Smiling Service, Refreshing Delivery" Program, established 16,000 files for people in need for help, and identified 118,000 households to offer regular assistance. The Sichuan Company relied on 200 Homes of Left-behind Children of Sichuan Power to launch a voluntary service activity to care for migrant workers’ children, offering more than 10 thousand man-times service activities with 1,000 volunteers in 2010. The Chongqing Company mobilized 6,000 party members, league members and young volunteers to donate 1.14 million Yuan in cash and material, established 57 Homes of Powering Seeds, and actively implemented activities to care for left-behind children. The Gansu Company continued "Into the Hope" teaching program, assigning young volunteer to teach for free at Hope primary schools in remote areas. The "Plateau Sunshine" Youth Volunteer Team of the Qinghai Company unveiled the campaign of "Stretching out to Warm the Children in Disadvantaged Areas", sending daily necessities to them and helping them to get rid of the psychological fear.
Responsibilities on Environmental Protection and Energy Conservation

Topics

- Comprehend and manage the impact of the corporation's operation on the environment
- Promote the sustainable development of energy and support the advancement of renewable energy
- Adhere to sustainable resource utilization
- Keep the company's environmentally-friendly operation
- Tackle the climate change
- Amplify the promotion of ecological civilization

Philosophies

- Be credible and self-disciplined, firm on legal and moral basic, achieve common understanding through communication, and innovate to realize win-win partnership.
- Adhere to the Principle of “Self, Industry and Society”, and consolidate the integrated various efforts for the green development.
- Implement the requirements on environmental protection and resource conservation in State Grid's operation.
- Advocate green development culture and implement the requirements on environmental protection and resource conservation among employees.
- Minimize the emission of greenhouse gases to address the global climate change.

Strategies

- Execute the energy conservation and emission reduction strategy, overall green management strategy, and the strategy of technological support to green development. Implement asset lifecycle environmental management strategy. Promote the green development culture strategy and the green civilization.

System Guarantee

- Publicize the company's action on energy conservation and emission reduction in the “11th Five-Year Plan” and the “12th Five-Year Plan”.
- Explore and carry out all-dimensional green management.
- Establish the corporation’s decision-making system, executing system and supervision system to support the green development.
- Build the mechanism for promoting the green management and evaluation.
- Implement the assessment methods on the impact of construction projects on the environment.
- Apply all-staff training and education system on the green development.

Major Actions in 2010

- Actively transform the grid’s development mode, accelerate the construction of Strong and Smart Grid, forge an energy distribution green platform and ensure safer, more economical, cleaner and sustainable power supply.
- Vigorously transform the corporation’s development mode, speed up the “Four Endeavors” (conglomerate operation, intensive development, lean management and standardized construction), implement green production and build a corporation with the minimal resources input and at the lowest environmental cost.
- Release the first Corporate White Paper on Green Development in China, commit to reducing the carbon dioxide emission by over 10 billion tons with joint efforts from the industry and the whole society in the next 10 years, contributing more than 20% of China's emission reduction target by 2020.
- Issue more than ten policies, including Environmental Protection Management Measures (Tentative).
- Push forward the green development of power industries, and serve the construction of ecological civilization.
Formulate the green development strategy

- **Environmental Protection and Energy Conservation**
  - **Mechanism guarantee**
  - **System guarantee**
  - **Ability guarantee**

- **In daily operation**
  - **In function management**
    - Cover the whole lifecycle
    - Protect the environment during the installation of equipment
    - Mitigate the "three wastes" emission, and economize on water use and energy consumption
    - Protect the environment during the installation of equipment
    - Mitigate the "three wastes" emission, and economize on water use and energy consumption
    - Promote green procurement, and upgrade resources conservation, energy efficiencies, and the development of green materials

- **In daily operation**
  - **In operation**
    - Optimize the planning of the network grid, and economize on the need for power capacity
    - Improve the green management mechanism
    - Promote green development culture

- **Sustained improvement of green management**
  - **Full-process green management**
    - Implement the green development strategy
    - Improve the green management mechanism
    - Promote the green development culture

- **All-dimensional green management**
  - **Guarantee green management**
    - System guarantee
    - Mechanism guarantee
    - Ability guarantee

- **Boost the green development of the company and society**
  - **Promote green development of the company**
    - Build a green platform
    - Construct a green and strong grid
    - Build a green platform for energy distribution
    - Carry out green operation
    - Build and operate a strong and smart grid with the minimal resource input and at the lowest environmental cost
  - **Promote green development of the society**
    - Jointly build a green industry
    - Construct a strong and smart grid
    - Build a green platform for energy distribution
    - Promote green operation
    - Ensure safe and stable operation of the grid, and maintain social public security
    - Protect biological diversity, and avoid environment-sensitive objects
    - Protect ecological environmental sensitive objects
    - Protect biological diversity, and avoid environment-sensitive objects
    - Protect ecological environmental sensitive objects
    - Protect biological diversity, and avoid environment-sensitive objects
    - Protect ecological environmental sensitive objects

- **Deploy and implement the strategies**
  - **Promote green development of power generation enterprises**
    - Promote safe, clean, and efficient development of nuclear-power generation enterprises
    - Promote safe, clean, and efficient development of coal-electricity bases
    - Reduce emission by increasing the efficiency of power resources utilization
    - Reduce emission by increasing the efficiency of power resources utilization
    - Reduce emission by increasing the efficiency of power resources utilization
    - Reduce emission by increasing the efficiency of power resources utilization

- **Push forward green development of the industry and upgrade social ecological civilization**
  - **Promote green development of suppliers**
    - Promote green procurement, and upgrade resources conservation, energy efficiencies, and the development of green materials
    - Promote green procurement, and upgrade resources conservation, energy efficiencies, and the development of green materials
    - Promote green procurement, and upgrade resources conservation, energy efficiencies, and the development of green materials
    - Promote green procurement, and upgrade resources conservation, energy efficiencies, and the development of green materials

- **Promote green development of the society**
  - **State Grid**
    - Provide social influence
    - Participate in environmental public welfare projects that have extensive social influence
    - Utilize the awareness and support from the society
    - Utilize the awareness and support from the society
    - Utilize the awareness and support from the society

- **Reduce greenhouse gas emission; Combat global climate change**
  - **Reduce industrial and social greenhouse gas emission**
    - Reduce emission by increasing the efficiency of energy resources utilization
    - Reduce emission by increasing the efficiency of energy resources utilization
    - Reduce emission by increasing the efficiency of energy resources utilization
    - Reduce emission by increasing the efficiency of energy resources utilization
    - Reduce emission by increasing the efficiency of energy resources utilization

- **Reduce social greenhouse gas emission**
  - **Reduce emission by increasing the efficiency of energy resources utilization**
  - **Reduce emission by increasing the efficiency of energy resources utilization**
  - **Reduce emission by increasing the efficiency of energy resources utilization**
  - **Reduce emission by increasing the efficiency of energy resources utilization**
  - **Reduce emission by increasing the efficiency of energy resources utilization**
Maximize clean energy utilization

Push forward the power development strategy of “One Ultra and Four Largers”, and accelerate the development of large-scale hydropower, nuclear power and renewable energy. In 2010, the installed clean power capacity is 175.76 GW. Accommodated clean power is 551.9 TWh. Accommodate hydropower and wind power in a larger scale through inter-regional and inter-provincial power grids, such as the accommodation of the hydropower from Mid-China in various regions apart from Northeast China.

Optimize power dispatch to improve water consumption efficiency by 8.3% and generate 18 TWh, saving 6 million tons of standard coal.

Reinforce the research on renewable energy’s key technologies, policies and standards

- Research on the key technologies of renewable energy’s generation and grid-connection and key equipment, research on the key technologies of renewable energy dispatching & operating, and make breakthroughs on wind and solar power’s output prediction.
- Establish the National Wind Power Research & Testing Center and the National Solar Energy Research & Testing Center, and participate in the construction of the Wind and PV Energy Storage and Transmission Demonstration Project.
- Based on national industrial policies and the construction of Strong and Smart Grid, prepare in advance the connection of distributed renewable energy and power storage equipment to the power grid, and get ready for electric vehicle recharging services.
- Work with the government to research on the acquisition of renewable energy generation, construction of the grids supporting facilities, power price mechanism and cost-sharing problem.

Ensure renewable energy’s connection to the power grid

- Conscientiously implement the Amendment of the Renewable Energy Law, strictly follow the protective policy on renewable energy, and purchase it at full price.
- Guarantee grid connection of renewable energy generation projects as planned, strengthen the communication with relevant parties, ensure the consistency and coordination between renewable energy generation projects and supporting outgoing transmission project construction, and guarantee the timely grid connection and generation of renewable energy projects that have met all technical standards.

Cooperate with all levels of governments to strengthen the development plan of renewable energy

- Help the National Energy Administration complete the topic on Wind Power’s Connection to the Power Grid and its Market Accommodation, and initially finish the transmission plan of seven 10 GW wind power bases in China.
- Assist local governments to make electricity and renewable energy development plan.
- Rely on renewable energy development plan to make construction plans about peak shaving methods, such as pumped storage.

Conduct generation rights transactions

The Corporation completed generation rights transaction of 141.457 TWh, which saved equivalent 12.6591 million tons of standard coal.

Initiate cross-regional generation rights transaction

State Grid gave full play to the advantages of large coal-fired power bases, organized the cross-regional generation rights transaction between Jinjie Power Plant and Fuju Power Plant and Hebei South Grid where some units have been shut down. The annual generation capacity reached 1.861 TWh, saving 158,700 tons of standard coal and reducing 280,500 tons of carbon dioxide emission.

Promote the development of electric vehicles

Strengthen the communication and cooperation with all levels of governments, and establish a regular communication mechanism with 15 domestic and international electric vehicle companies.


Accelerate the construction of recharging facilities, embark on pilot operation in Hefei and Hangzhou, try on Electric vehicle’s recharging & switching facilities put into operation.

Electric vehicle’s recharging & switching facilities put into operation

24 recharging & switching stations

1,122 recharging poles

Implement demand-side power management

- Promote 353 energy-storing technical programs, enabling 240 MW load of peak load shaving and valley filling.
- Promote 87,736 projects of green lighting, high efficiency motor, reactive power compensation equipment, and energy-saving power transformer, saving 2.58 TWh.
- Advance 594 heat pump projects, increase an area of 1,482,000 square meters with heating (cooling) supply, and add 0.52 TWh power sales.
- Boost 9,592 alternative energy technology projects, such as power replacing coal, electric irrigation, electric heating with ceramic kilns, which increased power sales by a total of 1.39 TWh.

Enforce on energy conservation and loss reduction on the grid

The company’s average line loss rate decreased by 0.12 percentage point annually during the 11th Five-Year Plan. In 2010, the Corporation’s line loss with the same diameter was reduced by 0.14 percentage point, saving 4 TWh of power, equivalent to 130,000t of standard coal.

Push forward green purchase and energy conservation technology research

Prioritize to purchase energy-efficient and environmental-labeled products, promote the development of power equipment industry. Upgrade the energy conservation. Provide funding support to R&D and advocate research on energy-saving and environmental-friendly technology.

Improve corporate environmental management system

Amend and issue “Environmental Protection Management Measures (Tentative)”, issue “Guidebook on Grid Environmental Protection Management”, covering the entire operational process of State Grid, and giving thorough and detailed requirements on environmental management.

Develop “State Grid Emergency Response Plan for Environmental Pollution”, and include environmental emergency management into the overall emergency management system.

Publish the “Technical Equipment of Recycling, Refilling and Purifying SF6”, “SF6 Quality Supervision and Regulation in Operating Electrical Equipment”, and add green development requirements into daily operations.

<table>
<thead>
<tr>
<th>Year</th>
<th>Total</th>
<th>Hydropower</th>
<th>Wind power</th>
<th>Nuclear power</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005</td>
<td>743.9032 GW</td>
<td>144.4918 GW</td>
<td>571.1070 GW</td>
<td>743.9032 GW</td>
<td>0.1085 GW</td>
</tr>
<tr>
<td>2006</td>
<td>743.9032 GW</td>
<td>144.4918 GW</td>
<td>571.1070 GW</td>
<td>743.9032 GW</td>
<td>0.1085 GW</td>
</tr>
<tr>
<td>2007</td>
<td>743.9032 GW</td>
<td>144.4918 GW</td>
<td>571.1070 GW</td>
<td>743.9032 GW</td>
<td>0.1085 GW</td>
</tr>
<tr>
<td>2008</td>
<td>743.9032 GW</td>
<td>144.4918 GW</td>
<td>571.1070 GW</td>
<td>743.9032 GW</td>
<td>0.1085 GW</td>
</tr>
<tr>
<td>2009</td>
<td>743.9032 GW</td>
<td>144.4918 GW</td>
<td>571.1070 GW</td>
<td>743.9032 GW</td>
<td>0.1085 GW</td>
</tr>
<tr>
<td>2010</td>
<td>743.9032 GW</td>
<td>144.4918 GW</td>
<td>571.1070 GW</td>
<td>743.9032 GW</td>
<td>0.1085 GW</td>
</tr>
</tbody>
</table>

Unit: MW

Unit: TWh

Environmental Protection and Energy Conservation
Keep the company’s environmentally-friendly operation

- Actively promote new resource-conserving and environmental-friendly equipment, technologies and techniques
- Minimize environmental disturbances from the grid construction
- Push for green construction, and decrease vegetation cutting and earth excavation along the construction
- Pay attention to environment and vegetation recovery after the construction; avoid environmentally sensitive areas such as scenic spots
- Install protective facilities for biodiversity
- Build and operate the Strong and Smart Grid with the minimal resources input and at the lowest environmental cost
- Beautify the design of grid facilities
- Push dose attention to water resource protection
- Install noise reduction equipment and effectively control the noise
- Reduce the impact of the Company’s operation on the environment
- Serve the Green Expo
- Implement demand-side power management projects
- Confront generation rights transaction
- Promote the development of clean energy
- Promote electric cars
- Tackle the climate change, and reduce carbon dioxide emission

In 2010, the company accommodated 502.7 TWh of hydropower and nuclear power, saving 167,000,000 tons of standard coal and reducing carbon dioxide emission by 417,000,000 tons. It purchased and connected 36.1 TWh of wind power and solar power, saving 12,000,000 tons of standard coal and reducing carbon dioxide emission by 30,000,000 tons.

Call on employees to make full play to the grid function to vigorously promote energy conservation in the electricity industry and the society. State Grid promoted electric buses and rental vehicles to state grid’s potential.

Serve the Green Expo

- Promote electric cars
- By recycling
- By developing the UHV power grid
- By resource conservation
- By optimizing power dispatch and improving water consumption efficiency
- By reducing the line losses

State Grid took advantage of the global event—Shanghai Expo to advocate the concept of sustainable development. The Xiangjiaba-Shanghai ±800 kV UHV DC Transmission Demonstration Project transmitted clean hydropower from West China to Shanghai, making it the city consuming the most clean energy in the world. The company also staged the inauguration of the biggest offshore wind power demonstration project in China and actively showcased the achievement made in resource-saving and environment-friendly intelligent substation construction.

In 2010, State Grid built resource-saving, environment-friendly transmission lines using new technology, new materials and new techniques. It used 810,000 tons of Q420 high-strength steel to save steel consumption of about 162,000 tons, equivalent to save 97,200 tons of standard coal and reduce carbon dioxide emission of 240,000 tons.

In 2010, with saved water, State Grid generated power equivalent to 6 million tons of standard coal, reducing carbon dioxide emission by 14.96 million tons.

The company recycled 62 tons of SF6 gas, equivalent to a reduction of 149,180 tons of carbon dioxide in 2010.

According to a research, with 1% increase on electricity consumption load rate, the coal consumption rate of coal-fired generating unit can reduce by about 2.3g/KWh.

The company saved 1,265,910 tons of standard coal, and reduced carbon dioxide emission by 3,291,370 tons in 2010.

The company saved 1,265,910 tons of standard coal, and reduced carbon dioxide emission by 3,291,370 tons in 2010.
### Specific Responsibility Indicators

<table>
<thead>
<tr>
<th>Types of Responsibilities</th>
<th>Indicator</th>
<th>Unit</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quality Service</td>
<td>Number of customers</td>
<td>Million</td>
<td>128</td>
<td>145</td>
<td>170</td>
<td>181</td>
<td>244</td>
<td>258</td>
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<tr>
<td></td>
<td>Newly connected capacity</td>
<td>MVA</td>
<td>122,810</td>
<td>135,080</td>
<td>166,010</td>
<td>176,200</td>
<td>195,900</td>
<td>242,790</td>
</tr>
<tr>
<td></td>
<td>Market share</td>
<td>%</td>
<td>86.2</td>
<td>87.1</td>
<td>88.1</td>
<td>89.99</td>
<td>90.68</td>
<td>93.74</td>
</tr>
<tr>
<td></td>
<td>Average blackout duration for urban users</td>
<td>Hours/customer</td>
<td>21.5</td>
<td>14.1</td>
<td>10.5</td>
<td>11.98</td>
<td>8.5</td>
<td>8.234</td>
</tr>
<tr>
<td>Serving Agriculture, Countryside and Farmers</td>
<td>Investment in the rural grid</td>
<td>RMB Billion Yuan</td>
<td>38.3</td>
<td>43.3</td>
<td>55.0</td>
<td>66.5</td>
<td>71.0</td>
<td>70.0</td>
</tr>
<tr>
<td></td>
<td>Cumulative number of electrified villages</td>
<td>1,614</td>
<td>16,505</td>
<td>34,570</td>
<td>64,933</td>
<td>90,053</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Incremental number of households connected to electricity</td>
<td>Millions</td>
<td>535,000</td>
<td>946,000</td>
<td>1,120,000</td>
<td>1,262,000</td>
<td>1,340,000</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Incremental population of electrification</td>
<td>Persons</td>
<td>1,838,000</td>
<td>3,516,000</td>
<td>4,164,000</td>
<td>4,756,000</td>
<td>5,090,000</td>
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</tr>
<tr>
<td></td>
<td>Voltage Qualification Rate for rural users</td>
<td>%</td>
<td>95.8</td>
<td>96.64</td>
<td>96.768</td>
<td>97.05</td>
<td>97.25</td>
<td>97.477</td>
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<tr>
<td>Employee Development</td>
<td>Investment in employees’ training</td>
<td>RMB Million Yuan</td>
<td>617</td>
<td>954</td>
<td>2171</td>
<td>316</td>
<td>333</td>
<td>3537</td>
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<tr>
<td></td>
<td>Average training hours of employees</td>
<td>Hours/person/year</td>
<td>47</td>
<td>50</td>
<td>52</td>
<td>57</td>
<td>64</td>
<td>66</td>
</tr>
<tr>
<td></td>
<td>Employee Training Person-times</td>
<td>Person-times</td>
<td>2,200,000</td>
<td>2,500,000</td>
<td>2,750,000</td>
<td>2,900,000</td>
<td>3,050,000</td>
<td>3,120,000</td>
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<tr>
<td></td>
<td>Training Coverage Rate</td>
<td>%</td>
<td>78.0</td>
<td>88.14</td>
<td>90.0</td>
<td>90.8</td>
<td>91.2</td>
<td>92</td>
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<tr>
<td></td>
<td>Number of Labor union organisations</td>
<td>834</td>
<td>886</td>
<td>930</td>
<td>968</td>
<td>1066</td>
<td>1175</td>
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<tr>
<td>Ws-win Partnership</td>
<td>Installed capacity in the service areas</td>
<td>GW</td>
<td>407</td>
<td>486</td>
<td>551</td>
<td>613</td>
<td>671</td>
<td>744</td>
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<tr>
<td></td>
<td>Total on-grid electricity in the service areas</td>
<td>TWh</td>
<td>1,640</td>
<td>1,840</td>
<td>2,540</td>
<td>2,280</td>
<td>2,430</td>
<td>2,880</td>
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<tr>
<td></td>
<td>Centralized tendering volume</td>
<td>RMB billion Yuan</td>
<td>14.2</td>
<td>119.1</td>
<td>163.5</td>
<td>187.9</td>
<td>186.32</td>
<td>175.12</td>
</tr>
<tr>
<td></td>
<td>Localization rate of equipment purchased in centralized tendering</td>
<td>%</td>
<td>93.8</td>
<td>94.2</td>
<td>94.45</td>
<td>97.28</td>
<td>95.8</td>
<td>99.84</td>
</tr>
<tr>
<td></td>
<td>Luban Prizes awarded</td>
<td>RMB Million Yuan</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
<td>11</td>
<td>14</td>
</tr>
<tr>
<td></td>
<td>Total amount of interest paid</td>
<td>RMB Million Yuan</td>
<td>19.35</td>
<td>19.15</td>
<td>20.69</td>
<td>29.34</td>
<td>29.0</td>
<td>26.53</td>
</tr>
<tr>
<td>Corporate Citizen</td>
<td>Donation from State Grid</td>
<td>RMB Million Yuan</td>
<td>148</td>
<td>159</td>
<td>296</td>
<td>616</td>
<td>184</td>
<td>230</td>
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<tr>
<td></td>
<td>Taxes paid</td>
<td>RMB billion Yuan</td>
<td>50.23</td>
<td>63.84</td>
<td>79.35</td>
<td>82.27</td>
<td>72.84</td>
<td>89.08</td>
</tr>
<tr>
<td></td>
<td>Volunteer service from Corporation Employees</td>
<td>Person-times</td>
<td>540,000</td>
<td>560,000</td>
<td>570,000</td>
<td>590,000</td>
<td>620,000</td>
<td>630,000</td>
</tr>
<tr>
<td>Environmental Protection &amp; Resource Conservation</td>
<td>Incremental power generation from water-saving by hydropower plants under State Grid</td>
<td>TWh</td>
<td>9.0</td>
<td>10.5</td>
<td>11.0</td>
<td>11.5</td>
<td>12.0</td>
<td>18.0</td>
</tr>
<tr>
<td></td>
<td>Improved efficiency rate of State Grid’s hydropower plants</td>
<td>%</td>
<td>6</td>
<td>6</td>
<td>6.5</td>
<td>6</td>
<td>6.5</td>
<td>8.3</td>
</tr>
<tr>
<td></td>
<td>Connected capacity from renewable energy generator units</td>
<td>MVA</td>
<td>1,278.6</td>
<td>2,285.4</td>
<td>4,075.8</td>
<td>8,029.9</td>
<td>14,307.8</td>
<td>25,530</td>
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<tr>
<td></td>
<td>On-grid power from renewable energy generator units</td>
<td>TWh</td>
<td>1,979</td>
<td>3,376</td>
<td>6,151</td>
<td>14,555</td>
<td>27,375</td>
<td>49,204</td>
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<tr>
<td></td>
<td>Line loss</td>
<td>%</td>
<td>6.59</td>
<td>6.40</td>
<td>6.29</td>
<td>6.10</td>
<td>6.12</td>
<td>5.98</td>
</tr>
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</table>
### Prospect for 2011

#### Looking back at 2010

<table>
<thead>
<tr>
<th>Responsibilities on Scientific Development</th>
<th>On-going</th>
<th>Completed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Complete the rolling optimization plan for the company's projects of the “12th Five-Year Plan”</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>Make breakthroughs in the first and second batch of smart grid pilot projects, and add 100 new regions of operation</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>Promote the deepening of research and development in key areas of technology</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td><strong>Total achievements in technology</strong>: Increase the proportion of electricity use in the end-use energy consumption</td>
<td>✔️</td>
<td>✔️</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Responsibilities on Secure Power Supply</th>
<th>On-going</th>
<th>Completed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Develop an international platform for UHV power projects</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td><strong>Total achievements in power supply</strong>: Expand the investment on rural power grid and implement its upgrading projects</td>
<td>✔️</td>
<td>✔️</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Responsibilities on Managemen Excellence</th>
<th>On-going</th>
<th>Completed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Complete the construction of the National Wind Power Technology Demonstration Project, and increase the input-output efficiency of scientific research</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td><strong>Total achievements in management and efficiency</strong>: Introduce the principle of 50 million intelligent electric meters</td>
<td>✔️</td>
<td>✔️</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Responsibilities on Technical Innovation</th>
<th>On-going</th>
<th>Completed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Complete the rolling optimization plan for the company's projects of the “12th Five-Year Plan”</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>Make breakthroughs in the first and second batch of smart grid pilot projects, and add 100 new regions of operation</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>Complete the construction of the National Wind Power Technology Research and Testing Center; National Research and Development (Department) Center for Solar Power Generation, expeditious construction of the Wind and PV Energy Storage and Transmission Demonstration Project, and improve the input-output efficiency of scientific research</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td><strong>Total achievements in technical innovation</strong>: Complete the rolling optimization plan for the company's projects of the “12th Five-Year Plan”</td>
<td>✔️</td>
<td>✔️</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Responsibilities on Communication and Cooperation</th>
<th>On-going</th>
<th>Completed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Facilitate overall planning, tech tool research, standard system and application of international exchange and brand and standard</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td><strong>Total achievements in communication and cooperation</strong>: Complete the rolling optimization plan for the company's projects of the “12th Five-Year Plan”</td>
<td>✔️</td>
<td>✔️</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Responsibilities on Global Vision</th>
<th>On-going</th>
<th>Completed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Complete the rolling optimization plan for the company's projects of the “12th Five-Year Plan”</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>Make breakthroughs in the first and second batch of smart grid pilot projects, and add 100 new regions of operation</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>Complete the construction of the National Wind Power Technology Research and Testing Center; National Research and Development (Department) Center for Solar Power Generation, expeditious construction of the Wind and PV Energy Storage and Transmission Demonstration Project, and improve the input-output efficiency of scientific research</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td><strong>Total achievements in global vision</strong>: Complete the rolling optimization plan for the company's projects of the “12th Five-Year Plan”</td>
<td>✔️</td>
<td>✔️</td>
</tr>
</tbody>
</table>
UN Global Compact: Initiatives and Performance

In 2010, guided by the Scientific Outlook on Development and driven by implementation of its social responsibilities, State Grid will enhance the ten principles of the UN "Global Compact", and strive to realize the maximization of the integrated economic, social and environmental value.

Ten principles of the UN "Global Compact”

1. Businesses should support and respect the protection of internationally proclaimed human rights. 2. Make sure that they are not complicit in human rights abuses.

Human rights

3. Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining.
4. The elimination of all forms of forced and compulsory labor.
5. The effective abolition of child labor.
6. The elimination of discrimination in respect of employment and occupation.

Labor

7. Businesses should support a broad range of employee initiatives to enhance their skills and promote personal development.
8. Pay attention to safety and health management. Participate in developing the national occupational safety & health standard.
9. Pay attention to personnel development and training. Provide training to up to 92% of the employees.
10. Businesses should support and respect the right to collective bargaining. Enhance the efficiency of supervision and supervision, establish Staff Congress and systems, and support and respect the right to collective bargaining. Treat employees fairly, respect employees’ basic rights, and the right to participate in decision making.

Environment

11. Companies should promote the research and application of economic, environmentally friendly and energy-efficient technologies.
12. Companies should promote the research and application of economic, environmentally friendly and energy-efficient technologies.
13. Companies should promote the research and application of economic, environmentally friendly and energy-efficient technologies.
14. Companies should promote the research and application of economic, environmentally friendly and energy-efficient technologies.

Anti-Corruption

15. Businesses should work against corruption in all its forms, including extortion and bribery.
16. Businesses should support the protection of domestically owned and operated technology. Enhance anti-corruption measures.
17. Businesses should support the protection of domestically owned and operated technology. Enhance anti-corruption measures.
18. Businesses should support the protection of domestically owned and operated technology. Enhance anti-corruption measures.
19. Businesses should support the protection of domestically owned and operated technology. Enhance anti-corruption measures.

Action performance

- Abide by the international conventions, international practices signed or acknowledged by the Chinese government, respect the Unilateral Declaration of Human Rights, the UN International Covenant on Civil and Political Rights and the UN International Covenant on Economic, Social and Cultural Rights, and abide by the laws and regulations of the host countries.
- Respect human rights in its operations, Promote human rights protection among stakeholders with its influence.
- Provide barrier-free service to the disabled at business premise; Indisturbance to disabled employees.
- Implement the "Power for All" Project in rural areas. Improve the grid in rural areas, electrification projects in rural unpopulated areas, and power construction projects in areas without electricity access, with the aim of expanding domestic demand. Solve the power problem for 10,000 households and 334,000 people without electricity. The aim of "Power for All" is almost realized within the company’s operation area.
- Show full respect for labor rights in operating activities in the organization, through the organization, or on behalf of the organization.
- Establish open, fair and competitive employment mechanisms, reject discrimination by nationality, gender, sex orientation, country, religion, area, family, age or disease. Sign the labor contract according to the law.
- Pay close attention to the work condition and social protection. Pay wages and arrange holidays in accordance with the law.
- Recognize the freedom of association and the right to collective bargaining. Enhance employee supervision and supervision, establish Staff Congress and systems, and support and respect the right to collective bargaining. Treat employees fairly, respect employees’ basic rights, and the right to participate in decision making.
- Pay attention to safety and health management. Participate in developing the national occupational safety & health standard.
- Pay attention to personnel development and training. Provide training to up to 92% of the employees.
- Release State Grid White Paper on Green Development. Systematically propose the green development strategy to advance the green development of the company, the industry and the society.
- Develop Smart and Green Grid. Allocate a larger range of installed capacity and environmental capacity to mitigate land occupation, economic social investment, and reduce transmission losses.
- Promote standardization, universal design, equipment, cost and standard processes. Mitigate resource consumption. Strictly follow the environmental approval procedure for construction projects. The 1000kV UHV Transmission Line fulfills the same electromagnetic environmental standard for the 500kV Line. Reduce the line loss by 9.14%. Optimize resource dispatch and generate 58,470MW more power with saved water. Complete generation rights transaction of 141,457,019kwh, demand side management demonstration project BERTUV power.
- Guide customers to use energy efficiently and encourage them to give priority to purchasing green power. Complete the Xiangjiaba-Shanghai the peak load power ±800kV UHV DC Transmission Project sent to Shanghai Expo reached 8.8TWh power.
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5. Economic performance indicators

<table>
<thead>
<tr>
<th>No.</th>
<th>GRI Indicator</th>
<th>Index</th>
</tr>
</thead>
<tbody>
<tr>
<td>42</td>
<td>EC1 Direct economic value generated and distributed</td>
<td>P49496-FO1952-P51464-P705</td>
</tr>
<tr>
<td>43</td>
<td>EC2 Financial implications and other risks and opportunities for the organization’s activities due to climate change</td>
<td>P49-0295-P11746-P93</td>
</tr>
<tr>
<td>45</td>
<td>EC3 Defined benefit plan obligations</td>
<td>P64-962</td>
</tr>
<tr>
<td>46</td>
<td>EC4 Significant support from government</td>
<td>No statistics available</td>
</tr>
<tr>
<td>47</td>
<td>EC5 Range of levels of standardized entry level wages composed to local minimum wage at significant locations of operation</td>
<td>P68-P711</td>
</tr>
<tr>
<td>48</td>
<td>EC6 Policies, practices, and proportion of spending on locally-based suppliers</td>
<td>P68-P712</td>
</tr>
<tr>
<td>49</td>
<td>EC7 Proportion of employees and management hired from the local community at the location of the significant operation</td>
<td>P68-P713</td>
</tr>
<tr>
<td>50</td>
<td>EC8 Infrastructure investments and services provided primarily for public benefit</td>
<td>P68-P7172-P755</td>
</tr>
<tr>
<td>51</td>
<td>EC9 Understanding and describing significant indirect economic impacts</td>
<td>P68-P7173-P755</td>
</tr>
</tbody>
</table>


<table>
<thead>
<tr>
<th>No.</th>
<th>GRI Indicator</th>
<th>Index</th>
</tr>
</thead>
<tbody>
<tr>
<td>52</td>
<td>EN1 Materials used by weight or volume</td>
<td>P49705-P683</td>
</tr>
<tr>
<td>53</td>
<td>EN2 Percentage of recycled input materials used</td>
<td>P49705-P683</td>
</tr>
<tr>
<td>54</td>
<td>EN3 Direct energy consumption by primary energy source</td>
<td>P49705-P683</td>
</tr>
<tr>
<td>55</td>
<td>EN4 Indirect energy consumption by primary energy source</td>
<td>P49705-P683</td>
</tr>
<tr>
<td>56</td>
<td>EN5 Energy saved due to conservation and efficiency improvements</td>
<td>P49705-P683</td>
</tr>
<tr>
<td>57</td>
<td>EN6 Energy saved due to provision of conservation and efficiency products and services</td>
<td>P49705-P683</td>
</tr>
<tr>
<td>58</td>
<td>EN7 Initiatives to reduce indirect energy consumption and reductions achieved</td>
<td>P49705-P683</td>
</tr>
<tr>
<td>59</td>
<td>EN8 Total water wellfield by source</td>
<td>P49705-P683</td>
</tr>
<tr>
<td>60</td>
<td>EN9 Water sources significantly affected by withdrawal of water</td>
<td>P49705-P683</td>
</tr>
<tr>
<td>61</td>
<td>EN10 Percentage and total volume of water recycled and reused</td>
<td>P49705-P683</td>
</tr>
<tr>
<td>62</td>
<td>EN11 Location and size of land owned, leased, managed, or adjacent to, protected areas, areas of high biodiversity value outside protected areas</td>
<td>P49705-P683</td>
</tr>
<tr>
<td>63</td>
<td>EN12 Impacts on biodiversity in protected areas and areas of high biodiversity value outside protected areas</td>
<td>P49705-P683</td>
</tr>
<tr>
<td>64</td>
<td>EN13 Habitats protected or restored</td>
<td>P49705-P683</td>
</tr>
<tr>
<td>65</td>
<td>EN14 Strategies, current actions and future plans for managing impacts on biodiversity</td>
<td>P49705-P683</td>
</tr>
<tr>
<td>66</td>
<td>EN15 Number of HUCs (US) with aquatic and national conservation list species with habitat in areas affected by operations, by levels of extinction risk</td>
<td>P49705-P683</td>
</tr>
<tr>
<td>67</td>
<td>EN16 Direct and indirect greenhouse gas emissions</td>
<td>P49705-P683</td>
</tr>
<tr>
<td>68</td>
<td>EN17 Other relevant indirect greenhouse gas emissions</td>
<td>P49705-P683</td>
</tr>
<tr>
<td>69</td>
<td>EN18 Initiatives and effect to reduce greenhouse gas emissions</td>
<td>P49705-P683</td>
</tr>
<tr>
<td>70</td>
<td>EN19 Total emission of ozone consuming substances</td>
<td>P49705-P683</td>
</tr>
<tr>
<td>71</td>
<td>EN20 NOx, SOx and other significant air emissions by type and weight</td>
<td>P49705-P683</td>
</tr>
<tr>
<td>72</td>
<td>EN21 Total water discharged by quality and destination</td>
<td>P49705-P683</td>
</tr>
<tr>
<td>73</td>
<td>EN22 Total weight of waste by type and disposal method</td>
<td>P49705-P683</td>
</tr>
<tr>
<td>74</td>
<td>EN23 Total number and volume of significant spills</td>
<td>P49705-P683</td>
</tr>
<tr>
<td>75</td>
<td>EN24 Weight of transported, imported, exported, or treated waste deemed hazardous, and percentage of transported waste shipped internationally</td>
<td>P49705-P683</td>
</tr>
<tr>
<td>76</td>
<td>EN25 Impact of water discharge on surface or deep waters and related propagation habitats</td>
<td>P49705-P683</td>
</tr>
<tr>
<td>77</td>
<td>EN26 Initiatives and effect to mitigate environmental impacts of products and services</td>
<td>P49705-P683</td>
</tr>
<tr>
<td>78</td>
<td>EN27 Percentage of products sold and their packaging materials that are recycled by category</td>
<td>No statistics available</td>
</tr>
<tr>
<td>79</td>
<td>EN28 Number and/or monetary value of significant freight/tonnage-compliance with laws and regulations concerning environment</td>
<td>No statistics available</td>
</tr>
<tr>
<td>80</td>
<td>EN29 Significant environmental impacts of transporting products and other goods and materials used for the organization’s operations, and transportation members of the workforce</td>
<td>No statistics available</td>
</tr>
<tr>
<td>81</td>
<td>EN30 Total environmental protection expenditure and investments by type</td>
<td>P49705-P683</td>
</tr>
</tbody>
</table>

7. Work performance indicators

<table>
<thead>
<tr>
<th>No.</th>
<th>GRI Indicator</th>
<th>Index</th>
</tr>
</thead>
<tbody>
<tr>
<td>82</td>
<td>LA1 Workforce by employment type, employment contract, and region</td>
<td>P66-05294-P4727</td>
</tr>
<tr>
<td>83</td>
<td>LA2 Total number of employee turnover by age group, gender, and region</td>
<td>P66-05294-P4727</td>
</tr>
<tr>
<td>84</td>
<td>LA3 Benefit provided for full-time employees</td>
<td>P66-05294-P4727</td>
</tr>
<tr>
<td>85</td>
<td>LA4 Percentage of employees covered by collective bargaining agreements</td>
<td>P66-05294-P4727</td>
</tr>
<tr>
<td>86</td>
<td>LA5 Minimum notice period regarding significant changes</td>
<td>P66-05294-P4727</td>
</tr>
<tr>
<td>87</td>
<td>LA6 Percentage of employees receiving work-related health and safety instructions</td>
<td>P66-05294-P4727</td>
</tr>
<tr>
<td>88</td>
<td>LA7 Rate of injury, occupational diseases, lost days, and absences, and number of work-related fatalities by region</td>
<td>P66-05294-P4727</td>
</tr>
<tr>
<td>89</td>
<td>LA8 Education, training, counseling, prevention, and risk-control programs to assist associates, their families, or communities regarding serious diseases</td>
<td>P66-05294-P4727</td>
</tr>
<tr>
<td>90</td>
<td>LA9 Percentage of employees receiving regular performance and career development</td>
<td>P66-05294-P4727</td>
</tr>
<tr>
<td>91</td>
<td>LA10 Composition of governance bodies</td>
<td>P66-05294-P4727</td>
</tr>
<tr>
<td>92</td>
<td>LA11 Ratio of total salary of men to salary of women of employee category</td>
<td>P66-05294-P4727</td>
</tr>
</tbody>
</table>

8. Human rights performance indicators

<table>
<thead>
<tr>
<th>No.</th>
<th>GRI Indicator</th>
<th>Index</th>
</tr>
</thead>
<tbody>
<tr>
<td>96</td>
<td>HR1 Percentage and total number of significant investment agreements that include human rights clauses or that have undergone human rights screening</td>
<td>P68-0711</td>
</tr>
<tr>
<td>97</td>
<td>HR2 Percentage of significant suppliers and contractors that have undergone human rights screenings</td>
<td>P68-0711</td>
</tr>
<tr>
<td>98</td>
<td>HR3 Total hours of employee training on policies and procedures concerning aspects of human rights that are relevant to operations, including the percentage of employees trained</td>
<td>P66-05294-P4727</td>
</tr>
<tr>
<td>99</td>
<td>HR4 Total number of incidents of discrimination and actions taken</td>
<td>Never happened</td>
</tr>
<tr>
<td>100</td>
<td>HR5 Operations identified in which the right to access freedom of association and collective bargaining may be at significant risk, and actions taken to support these rights</td>
<td>Never happened</td>
</tr>
<tr>
<td>101</td>
<td>HR6 Operations identified as having potential risk for incidents of forced labor, and measures taken</td>
<td>P66-05294-P4727</td>
</tr>
<tr>
<td>102</td>
<td>HR7 Operations identified as having potential risk for incidents of bonded or compulsory labor, and measures taken</td>
<td>P66-05294-P4727</td>
</tr>
<tr>
<td>103</td>
<td>HR8 Percentage of employees trained in organization’s anti-corruption policies and procedures</td>
<td>No statistics available</td>
</tr>
<tr>
<td>104</td>
<td>HR9 Total number of incidents of violations regarding rights of indigenous people and actions taken</td>
<td>Never happened</td>
</tr>
</tbody>
</table>


<table>
<thead>
<tr>
<th>No.</th>
<th>GRI Indicator</th>
<th>Index</th>
</tr>
</thead>
<tbody>
<tr>
<td>105</td>
<td>SD1 Program and practices that manage the impacts of operations on communities</td>
<td>P72-0275</td>
</tr>
<tr>
<td>106</td>
<td>SD2 Percentage and total number of business units identified to risks related to corruption</td>
<td>P72-0275</td>
</tr>
<tr>
<td>107</td>
<td>SD3 Percentage of employees trained in organization’s anti-corruption policies and procedures</td>
<td>P66-05294-P4727</td>
</tr>
<tr>
<td>108</td>
<td>SD4 Actions taken in response to incidents of corruption</td>
<td>P73-0274</td>
</tr>
<tr>
<td>109</td>
<td>SD5 Public policy positions and actions</td>
<td>P72-02910-19172-P755</td>
</tr>
<tr>
<td>110</td>
<td>SO6 Financial contribution to political parties and related institutions</td>
<td>Never happened</td>
</tr>
<tr>
<td>111</td>
<td>SO7 Total number of legal actions for actions in competition, employment, and commercial matters and their outcomes</td>
<td>Never happened</td>
</tr>
<tr>
<td>112</td>
<td>SO8 Total number of and monetary value of significant fines for noncompliance with laws</td>
<td>Never happened</td>
</tr>
</tbody>
</table>


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<thead>
<tr>
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<th>Index</th>
</tr>
</thead>
<tbody>
<tr>
<td>113</td>
<td>PR1 Percentage of products and services that are assessed for life cycle health and safety impacts</td>
<td>P54-05496</td>
</tr>
<tr>
<td>114</td>
<td>PR2 Total number of incidents of non-compliance with regulations and voluntary codes concerning health and safety</td>
<td>P54-05496</td>
</tr>
<tr>
<td>115</td>
<td>PR3 Percentage of product and service information requested assessment, and type of information requested</td>
<td>P54-05496</td>
</tr>
<tr>
<td>116</td>
<td>PR4 Total number of incidents of non-compliance with regulations and voluntary codes concerning product and service information and labeling</td>
<td>P54-05496</td>
</tr>
<tr>
<td>117</td>
<td>PR5 Practices related to customer satisfaction, including results of surveys measuring customer satisfaction</td>
<td>P54-05496</td>
</tr>
<tr>
<td>118</td>
<td>PR6 Programs for adherence to laws, standards, and voluntary codes concerning marketing communications</td>
<td>P54-05496</td>
</tr>
<tr>
<td>119</td>
<td>PR7 Total number of incidents of non-compliance with laws, standards, and voluntary codes concerning marketing communications</td>
<td>Never happened</td>
</tr>
<tr>
<td>120</td>
<td>PR8 Total number of substantiated complaints regarding breaches of customer privacy and loss of customer data</td>
<td>Never happened</td>
</tr>
<tr>
<td>121</td>
<td>PR9 Monetary values of significant fines for non-compliance with laws and regulations</td>
<td>Never happened</td>
</tr>
</tbody>
</table>
# Assurance Statement

**Introduction**
Del Norske Veritas (DNV) has been commissioned by State Grid to carry out an independent verification of the State Grid 2010 Corporate Social Responsibility Report (The Report) against the AA1000 Assurance Standard (2008) (AA 1000AS 2008). The assurance work has been carried out in accordance with the requirements and provisions of AA1000AS 2008 and the assurance report has been issued to State Grid. Our main objective in performing this work is to verify the accuracy and completeness of the information. The assurance is based on the assumption that the data and information provided to DNV is complete and true.

**Scope of Assurance and Limitations**
The scope of assurance work agreed upon with State Grid includes the following aspects:
- The economic, social and environmental data, as well as the social responsibility performance in the period January to December 2010, as presented in the Report.
- On-site verification at State Grid's Head Office without visiting any subsidiaries and external stakeholders.
- Evaluation of accountability principles and performance information, as required for a Type 2, moderate level of assurance in AA1000AS 2008.
- The verification was completed by DNV in January 2011.
- DNV has not observed the significant factors to limit its assurance activities.

**Verification Methodology**
Our verification was planned and carried out in accordance with the DNV Protocol for Verification of Sustainability Reporting. The Report has been evaluated against the following criteria:
- Adherence to the principles of Inclusivity, Materiality and Responsiveness in the AA1000AS 2008.
- Adherence to the additional principles of Neutrality and Completeness as set out in DNV’s Protocol.
- As part of the verification, DNV has challenged the statements and claims made in the Report and assessed the robustness of the underlying data management system, information flow and control.

**Evaluation of Accountability**
The Report has been evaluated against the following criteria:
- Adherence to the principles of Inclusivity, Materiality and Responsiveness in the AA1000AS 2008.
- Adherence to the additional principles of Neutrality and Completeness as set out in DNV’s Protocol.

**Conclusions**
In DNV’s opinion, State Grid’s Corporate Social Responsibility Report 2010 provides a credible and objective presentation of State Grid’s sustainability performance and application of the AA1000 Accountability Principles. Within the scope of assurance, DNV has no observations or reservations on the sustainability performance and content of the Report.

## Assurance Statement

<table>
<thead>
<tr>
<th>GRI*</th>
<th>Indicators</th>
<th>Index</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 EU1</td>
<td>Installed capacity of power generation**</td>
<td>P84-P85</td>
</tr>
<tr>
<td>2 EU2</td>
<td>Number of residential, industrial, and commercial customer accounts***</td>
<td>P84-P85</td>
</tr>
<tr>
<td>3 EU3</td>
<td>Length of transmission and distribution lines</td>
<td>P50-P51</td>
</tr>
<tr>
<td>4 EU4</td>
<td>Allocation of CO2 emissions allowances by country or region</td>
<td>P76-P83</td>
</tr>
<tr>
<td>5 EU5</td>
<td>Program that ensures availability and reliability of short-term and long-term power supply</td>
<td>P10-P11/P24-P29/P66-P69</td>
</tr>
<tr>
<td>6 EU6</td>
<td>Demand-side management projects covering residential, commercial and industrial users</td>
<td>P54-P59/P80-P83</td>
</tr>
<tr>
<td>7 EU7</td>
<td>Researches to improve capability and reliability of power supply and for sustainable development</td>
<td>P24-P29/P83-P84</td>
</tr>
<tr>
<td>8 EU8</td>
<td>Measures against disconnection of nuclear devices</td>
<td>No statistics available</td>
</tr>
<tr>
<td>9 EU9</td>
<td>Planned installed capacity by country or region against projected electricity demand over the long term</td>
<td>P10-P11/P26-P29</td>
</tr>
<tr>
<td>10 EU10</td>
<td>Installed capacity reduced due to demand-side management</td>
<td>P59/P80-P83</td>
</tr>
<tr>
<td>11 EU11</td>
<td>Energy saved by residential, industrial and commercial users due to demand-side management</td>
<td>P76-P83</td>
</tr>
<tr>
<td>12 EU12</td>
<td>Average efficiency of generator units by country or region</td>
<td>No statistics available</td>
</tr>
<tr>
<td>13 EU13</td>
<td>Efficiency of power transmission</td>
<td>P76-P83</td>
</tr>
<tr>
<td>14 EU14</td>
<td>Description of biodiversity areas affected by operation</td>
<td>P76-P83</td>
</tr>
<tr>
<td>15 EU15</td>
<td>Rules to ensure continuous improvement of employee skills and qualities</td>
<td>P64-P67</td>
</tr>
<tr>
<td>16 EU16</td>
<td>Number of employees that have signed subcontracting agreements</td>
<td>P64-P67</td>
</tr>
<tr>
<td>17 EU17</td>
<td>Percentage of employees that have undergone relevant health and safety training</td>
<td>P64-P67</td>
</tr>
<tr>
<td>18 EU18</td>
<td>Stakeholder participation in the decision making process</td>
<td>P42-P45</td>
</tr>
<tr>
<td>19 EU19</td>
<td>Approach to managing the impacts of displacement</td>
<td>P72-P75</td>
</tr>
<tr>
<td>20 EU20</td>
<td>Contingency planning measures, disaster/emergency management plan and training programs, and recovery restoration plans</td>
<td>P30-P33</td>
</tr>
<tr>
<td>21 EU21</td>
<td>Number of people physically or economically displaced and compensation, broken down by type of project</td>
<td>P60-P63</td>
</tr>
<tr>
<td>22 EU22</td>
<td>Programs, including those in partnership with government, to improve or maintain access to electricity and customer support services</td>
<td>P60-P63</td>
</tr>
<tr>
<td>23 EU23</td>
<td>Practices to address disability-related barriers</td>
<td>P54-P59/P72-P75</td>
</tr>
<tr>
<td>24 EU24</td>
<td>Number of injuries and fatalities to the public involving company assets, including legal judgments, settlements and pending legal cases of diseases</td>
<td>No statistics available</td>
</tr>
<tr>
<td>25 EU25</td>
<td>Percentage of population unerved in bounded distribution or service area</td>
<td>P60-P63</td>
</tr>
<tr>
<td>26 EU26</td>
<td>Number of residential disconnections for non-payment, broken down by duration of disconnection</td>
<td>No statistics available</td>
</tr>
<tr>
<td>27 EU27</td>
<td>Power outage frequency</td>
<td>P64-P85</td>
</tr>
<tr>
<td>28 EU28</td>
<td>Average power outage duration</td>
<td>P64-P85</td>
</tr>
<tr>
<td>29 EU29</td>
<td>Average plant availability factor by country or region</td>
<td>No statistics available</td>
</tr>
</tbody>
</table>

*Electric utility supplement
**Installed capacity in areas of operation
***By the end of the 2010, the Corporation had directly served 258 million users.
ASSURANCE STATEMENT

Neutrality: Acceptable. We consider the overall tone of the Report to be neutral and the presentation of information to be generally balanced. The emphasis on various topics in the Report is basically proportionate to their relative materiality.

Opportunities for Improvement
The following is an excerpt from the observations and opportunities reported back to the management of State Grid. However, these do not affect our conclusions on the Report, and they are indeed generally consistent with the management objectives already in place. We encourage State Grid to
• further supplement and improve the disclosure of performance indicators in the Report.
• present a more elaborate analysis on the changing trends of key sustainability performance indicators in the Report.
• present in more detail how it manages the performance of corporate responsibility in suppliers and overseas investment, including how it identifies the social and environment risk in operation, and implement corporate responsibility management designedly, gradually and systematically.

Statement of DNV’s Competence and Independence
DNV is a global provider of sustainability services, with qualified environmental and social assurance specialists working in over 100 countries. DNV was not involved in the preparation of any statements or data included in the Report except for this Assurance Statement. DNV maintains complete impartiality toward any people interviewed and the verification by numerous public means to understand positive and negative comments on State Grid. DNV expressly disclaims any liability or co-responsibility for any decision a person or entity would make based on this Assurance Statement.

Signed:

Lead Verifier: ZHANG Jun
DNV China

Signed:

Approver:

CR Services Manager, DNV China

Beijing, China, January 2011

In case of discrepancy between the English and Chinese language text, the English text shall prevail.