



2016 Annual Report

#### **Basic Information**

Chinese Name: 中国长江三峡集团公司

English Name: China Three Gorges Corporation

Abbr.: CTG

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02 Letter from Top Management



Communities Together".

As a clean energy group engaged primarily in the development and operation of large hydropower plants, China Three Gorges Corporation (CTG) is entrusted with the prestigious missions of "Building the Three Gorges Project, Developing the Yangtze River Resources, Providing Clean Energy, and Building Beautiful

The year 2016 left an extraordinary mark on CTG's reform and development history. Under the firm leadership of the CPC Central Committee and the State Council, we studied and implemented the important instructions of General Secretary Xi Jinping, and made great strides amidst a sluggish global economy and moderate national economic growth. Bearing in mind their missions and responsibilities, all employees put their shoulders to the wheel and got off to a good start in the 13<sup>th</sup> Five-Year Plan period (2016-2020) as CTG hit a new peak in business performance and reform progress. CTG made due contributions to the national goal of achieving stable growth, deepening reform, carrying out structural adjustments, improving people's livelihoods, and preventing risks.

Our efforts brought good results and took us to a new historic point. This year, with an expanded business scale, we ranked among China's best state-owned enterprises (SOEs) in terms of development quality and benefits. Our ability to serve the national strategy also grew to an unprecedented level, allowing us to shoulder more responsibilities and make greater contributions to the country. Our industry impact, which reached an all-time high, empowered us to lead the global hydropower sector and to lead China's hydropower companies in going global and developing intensive and extensive offshore wind farms. In addition, we ex-

# Chairman's Letter

perienced a fundamental change in our corporate identity, as we evolved from a purely hydropower developer to a multi-national clean energy conglomerate with an improved structure and a global presence.

In 2017, we will continue to fully implement the guidelines from the 18<sup>th</sup> National Party Congress and those of the third through sixth plenary sessions of the 18<sup>th</sup> Party Central Committee; put into practice the principles enunciated in General Secretary Xi Jinping's major addresses; adopt the new development philosophy; and align ourselves with the decisions and plans of the CPC Central Committee and the State Council. We will never forget why we started out in the first place, and will continue to promote deepened reforms, so as to become a true market player, a multinational company with both domestic and international focuses, and a leading clean energy group in the world. We will pool our efforts to make new, greater contributions to the national goal of achieving stable growth, deepening reform, carrying out structural adjustments, improving people's livelihoods, and preventing risks, and will greet the opening of the 19th CPC National Congress with our excellent performance.





# President's Letter

In 2016, CTG celebrated important milestones. Under the strong leadership of the CPC Central Committee and the State Council, our employees gathered strength to build a leaner, healthier, and better CTG, and made fast headway in every aspect. We over-fulfilled all business evaluation targets and reached an alltime high in terms of major economic indicators. Our total installed capacity, including capacities that were controllable, under construction, and on an equity basis, reached 118 GW, We came out top among central SOEs in profit before tax, net profit attributable to the parent company, profit/cost ratio, overall labor productivity, and per capita profit and tax, getting off to a good start in the 13<sup>th</sup> Five-Year Plan period and making new contributions to the stable growth of the national economy.

This year, the Three Gorges ship lift, the largest of its kind in the world and the one with the greatest technical and construction complexities, began its trial operation. Apart from the Three Gorges Dam, which brought about significant benefits, the cascade plants also played a growing role in the Yangtze River Economic Zone. More specifically, Baihetan Hydropower Station became fully prepared for the final check and approval; and construction began on the major parts of Wudongde Hydropower Station, opening a new chapter for hydropower development in the world. The extensive and intensive stretches of offshore wind farms and resources laid a solid foundation for us to lead the offshore wind power business. Also, the "going global" initiative saw further progress, and the "CTG" brand stood as a symbol of the international competitiveness of China's hydropower

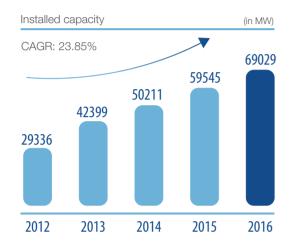
industry. As a reliable and accountable central SOE, we actively fulfilled our social responsibilities, showing full support for Sichuan and Yunnan provinces in their efforts to shake off poverty.

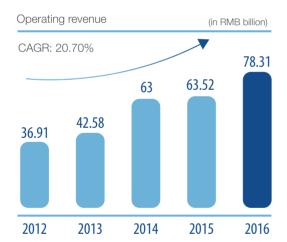
The year 2017 is of major importance in implementing the 13<sup>th</sup> Five-year Plan and carrying out further supply-side structural reform. It is also an important year for the country to celebrate the convocation of the 19<sup>th</sup> CPC National Congress, and for CTG to deepen reform in order to achieve faster growth. From these new heights, we will continue to blaze new trails and forge ahead in realizing the "Three Great Transformations."

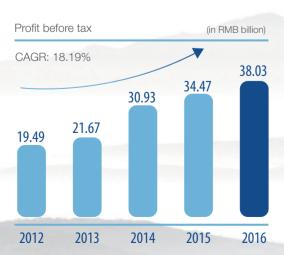


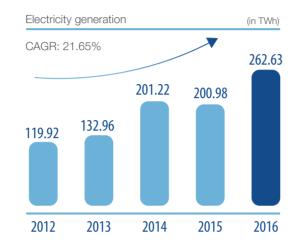
# **Company Performance**

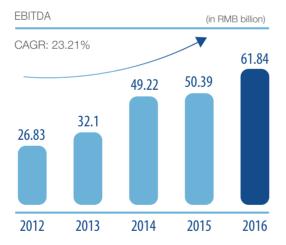
# Key Performance Indicators

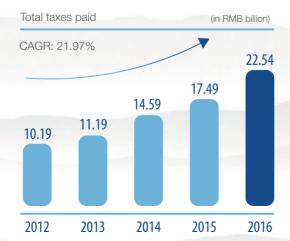












# **Company Profile**

To construct the Three Gorges Project and develop the Yangtze River, the China Three Gorges Project Corporation was founded on September 27, 1993, with the approval of the State Council. On September 27, 2009, it was renamed the China Three Gorges Corporation (CTG). CTG positions itself as a clean energy group focusing on large-scale hydropower development and operation. Its main businesses cover the construction and management of hydropower projects, power generation, international investment and contracting, development of wind power and solar energy among other renewable energies, comprehensive development and utilization of water resources, as well as providing relevant professional technical services. After more than 20 years of rapid growth, CTG has become the largest hydropower development enterprise worldwide and the biggest clean energy group in China.

By the end of 2016, CTG's consolidated installed capacity had reached approximately 70,000 MW, and the total installed capacity, including capacities that were commissioned, under construction, and on a minority-equity basis, had reached 118 GW. Specifically, renewable clean energy accounts for 97% of the total mix, while consolidated hydropower capacity represents 16% of the total installed capacity of hydro in China. By the end of 2016, the assets of the corporation had reached RMB 660 billion, and it ranked high among all SOEs in terms of total profit, net profit attributable to the parent company, ratio of profits to cost, overall labor productivity, per capita profit, and per capita

CTG assumed overall responsibility for the construction and operation of the Three Gorges Project. After 2 decades of hard work, the preliminary design and construction work of the Project was completed as scheduled in 2009. The trial operation of the ship lift began in September 2016. Upon authorization of the State, CTG developed, constructed and operated cascade hydropower stations on the lower reaches of Jinsha River, composed of four world-class large hydropower stations (i.e. Xiluodu, Xiangjiaba, Wudongde and Baihetan). CTG also focused its

efforts on wind power, solar power, and other new energy sources as its second principal business, and strived to lead the development of offshore wind farms. In addition, CTG kept in step with the "Belt and Road" initiative and actively upgraded the "going global" plan of the Chinese hydropower industry. As yet, CTG's overseas investment and contracting business has expanded to over 40 countries and regions in Europe, America, Africa and Southeast Asia, with a total installed capacity of over 15 GW. Overseas business has offered a major impetus for the sustainable growth of CTG.

During the development and construction process of hydropower plants, CTG upheld the principle of "building a power station to stimulate the local economy, improve the local environment, and benefit the resettled residents" based on innovation, coordination, green development, opening-up, and sharing. As a central SOE, CTG fulfilled all due social responsibilities. In addition to flood control, water resource preservation, energy saving, emission reduction and other ecological benefits that can be expected out of a cascade development, CTG pursued social and economic benefits as well through engineering or technical measures and scientific regulation. Besides, CTG maintained an active presence in the fields of targeted poverty alleviation, and provided assistance to Xinjiang and Tibet, among others. CTG also coordinated hydropower development with efforts to provide material benefits to resettled local populations, protect the ecological environment, and promote local economic and social progress, so as to share the achievements of reform and development with a larger population.

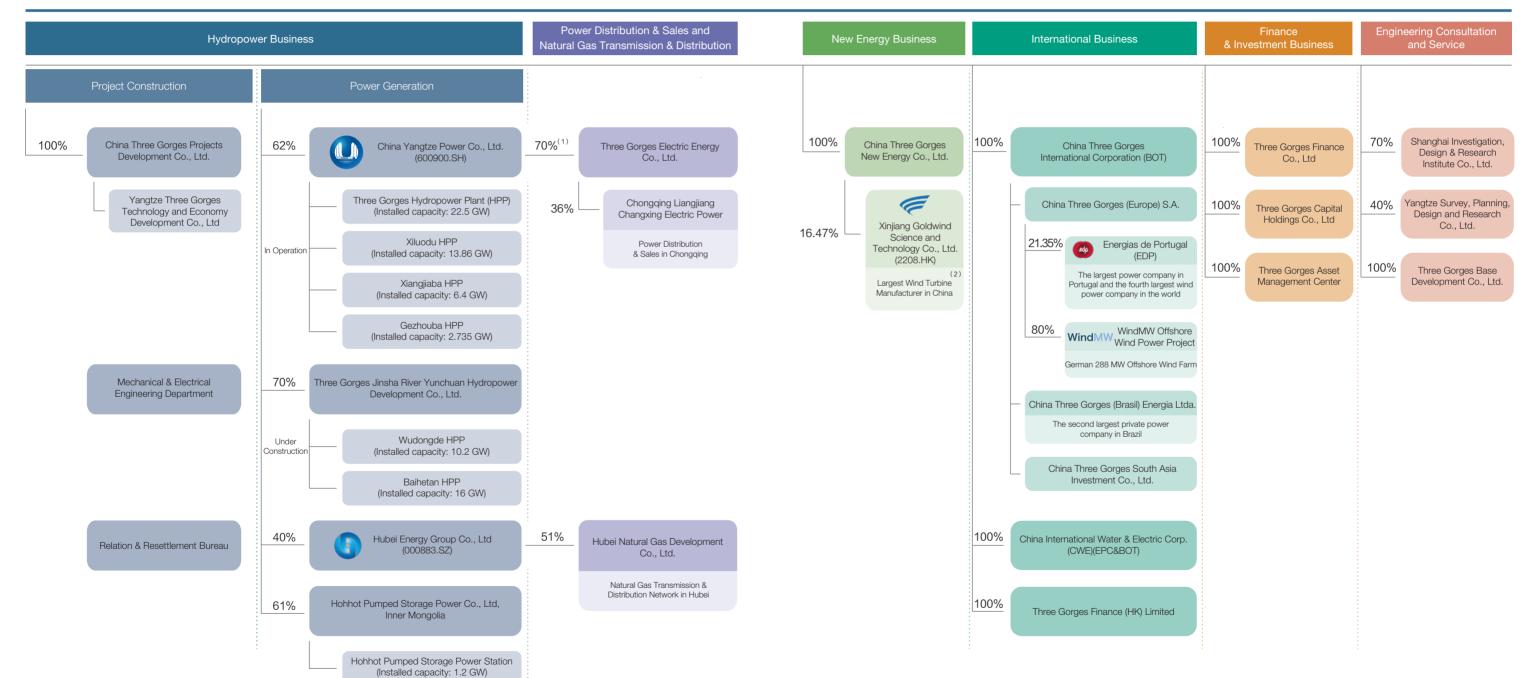
At the end of 2016, CTG had 24 wholly-owned and majority-owned subsidiaries including China Three Gorges Construction Management Co., Ltd., China Yangtze Power Co. Ltd. (a majority-owned listed company), China Three Gorges International Corporation, China Three Gorges New Energy Co., .Ltd. and Hubei Energy Group Co., Ltd. (a majority-owned listed company), China International Water & Electric Corp., Three Gorges Capital Holdings Co., Ltd.



100%



## Our Business



# Board of Directors



Lu Chun Chairman of the Board





Li Xinhua Outside Director



Wang Zhisen
Outside Director



Wu Xiaogen
Outside Director



Shi Jinquan Outside Director



Tian Zexin **Employee Director** 

# CTG Executive Team



Lu Chun, Chairman of the Board of Directors (5<sup>th</sup> from right)

Wang Lin, President (4<sup>th</sup> from right)

Lin Chuxue, Executive Vice President (4<sup>th</sup> from left)

Bi Yaxiong, Executive Vice President (3<sup>rd</sup> from right)

Fan Qixiang, Executive Vice President (3<sup>rd</sup> from left)

Sha Xianhua, Executive Vice President (2<sup>nd</sup> from right)

Zhang Cheng, Executive Vice President (2<sup>nd</sup> from left)

Yang Ya, Chief Financial Officer (1st from right)

Long Fei, Head of the Discipline Inspection Group (1st from left)

# Vision

# **Clean Energy for Green Development**

# Goals

# **Three Major Transformations**

From a dam builder to a key market player

From a hydropower company to a leading clean energy group

From a domestically-oriented company to a transnational entity with a dual focus on domestic and overseas markets

# **Three Leading Roles**

To be a leading player in the global hydropower industry

To lead the "going global" initiative of China's hydropower industry

To be a leading promoter of offshore wind power development

# **Our Mission**

# **Core Values**

# **CTG Spirit**

# **Business Development**

Development and Operation of Large Hydropower Stations



Gaobazhou

# Large Hydropower Projects in Operation

# **Three Gorges Project**

The Three Gorges Project maintained a sound performance in 2016, thanks to steady dam operation, safe and stable power units, and highly efficient ship locks. The ship lift began it's trial navigation also in this year, and comprehensive benefits of flood control, power generation, shipping and water replenishment were delivered.

#### Flood Control and Water Replenishment

Cumulative annual water retention

During the 2016 flood season, when catastrophic flooding hit the middle and lower reaches of the Yangtze River, the Project retained 12.3 billion cubic meters of floodwater through joint operation of the basin's cascade complexes. The project contributed greatly to flood control and disaster relief in face of 50,000 cubic meters per second peak flow and avoided the overlap of "No. 1 flood peak" and "No. 2 flood peak". At the same time, the Three Gorges reservoir had achieved its 175m impoundment target for seven consecutive years, and replenished 21.76 billion cubic meters of water flowing downstream in the dry season.

175m 12.3

> impoundment target achieved for seven consecutive years

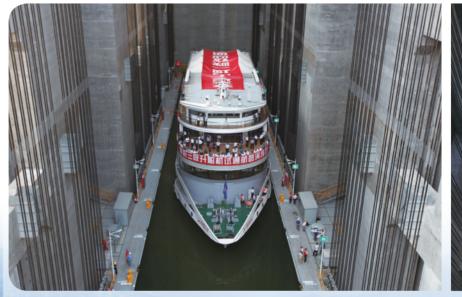
21.76

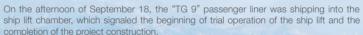
Water flows downstream in the dry season

#### Improving Shipping Conditions

By 2016, the ship locks has been operating efficiently and safely for 13 consecutive years, and hit a record high with approximately 120 million tons of cargo. In addition to a 98% navigation rate, the ship locks also registered a 100% key equipment readiness to ensure smooth navigation along the Yangtze River.

Also, the ship lift entered its trial stage on September 18 and ran soundly and safely afterwards; 240 vessels, 2,144 passengers and 24,169 tons of shipment were passed in 232 runs of the lift throughout the year. The Three Gorges Project has become open to greater sea traffic.







Commercial vehicle carrier into the ship lift chamber



#### Protecting the Environment

In April 2016, CTG released 2,020 large-sized Chinese sturgeons back into the Yangtze River; this was the 58th time in a row, setting another record in such activity in terms of average body length and weight. For the first time, satellite marker technology was used to track and monitor the released Chinese sturgeons, which allowed us to obtain preliminary information on the living conditions of this species in the sea.

In June 2016, we combined flood control efforts with the natural reproduction of four major breeds of Chinese domestic fish through ecological operation.

In 2016, we intensified research and protective efforts of rare and endemic fishes in the Yangtze River, and once again observed the spawning of wild Chinese sturgeons at an interval of 3 years.







On April 24, 2016, CTG and Yichang Municipal Government co-organized the Chinese Sturgeon Release at the designated spot for rare and endemic fish in Yichang, Hubei Province. A total of 2,020 large-sized Chinese sturgeons were sent back into the Yangtze River.

#### Providing Clean Energy

In 2016, the power units of the Three Gorges Hydropower Station generated 93.53 TWh of electricity. Through joint operation of cascade reservoirs in the basin, optimal regulation against medium and small floods, flotsam elimination for good water head, and intensified grid output coordination, we made good

utilization of the floods for higher power efficiency of the Three Gorges-Gezhouba cascade plants. In 2016, we generated an additional 6.44 TWh of electricity, including 4.86 TWh from the Three Gorges Dam and 1.58 TWh from Gezhouba Hydropower Station.



Power Transmission Lines of the Three Gorges Power Station

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# **Gezhouba Hydropower Station**

Downstream on the Yangtze River for about 2,300 meters after passing through the Nanjin Pass is the Gezhouba Hydropower Complex. It is the re-regulation dam and navigation cascade of the Three Gorges Project, which lies 38,000 meters upstream, and generates power by utilizing the fall of water level. It is the first large-scale hydropower complex ever built on the main stream of the Yangtze River, and the largest run-of-the-river hydropower plant with low water head and high flow.

Gezhouba Hydropower Station commenced construction in May 1971 and was completed in December 1988.

In 2016, Gezhouba accomplished its yearly power generation target 43 days ahead of schedule and set a new record with an annual output of 18.3 TWh.



Gezhouba Hydropower Plant

# Xiluodu Hydropower Station

Xiluodu Hydropower Station is one of the key sources for transmitting the electricity from the western areas to East China. In addition to the main function of power generation, it also offers the benefits of silt retention, flood control and downstream navigation improvement.

It contains eighteen 770 MW generating units with a total installed capacity of 13.86 GW. At normal impoundment level, it can support a reservoir capacity of 11.57 billion cubic meters, including 4.65 billion for power generation and flood control purposes.

The construction of Xiluodu Hydropower Station began in 2005, before the river was diverted around the construction site in 2007. The first generating units were commissioned in July 2013, and the last on June 30, 2014.

In September 2016, Xiluodu Hydropower Station won the FID-IC Outstanding Project of the Year Award 2016, which has been dubbed the Nobel Prize of the international engineering consultancy field, as a full recognition of the success of the Station and of China's hydropower industry. Throughout the year of 2016, the Station generated 61 TWh of electricity, reaching a record







Xiluodu Hydropower Station

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## Xiangjiaba Hydropower Station

As the last step of a cascade development on the lower mainstream of the Jinsha River at the intersection of Yunnan Province and Sichuan Province, Xiangjiaba Hydropower Station serves as a major source for transmitting electricity from the western areas to East China. In addition to the main duty of power generation, it also offers the benefits of silt retention, flood control, downstream navigation improvement, irrigation and re-regulation of the Xiluodu utility, among others.

The construction of Xiangjiaba Hydropower Station began in 2006, before the river was diverted around the construction site in 2008. The impoundment began on October 10, 2012. The first generating unit was commissioned on November 5, 2012, and the last on July 10, 2014.

In 2016, the Station passed the safety assessment designed for hydropower complexes upon completion, and the ship lift started equipment installation and commissioning.

With a year-over-year increase of 2.48 TWh, Xiangjiaba Hydropower Station hit a new high with 33.225 TWh of electricity generated in 2016. This result represented 108.9% of the preset target, and was 8% above the average annual output of power units. Since 2012, when the first generating unit was commissioned, the Station has over-fulfilled its annual target of power output for the fifth consecutive year. A new record was also set with 3.66 million tons of transshipments.



Xiangiiaba Hydropower Station

# Large Hydropower Projects under Construction

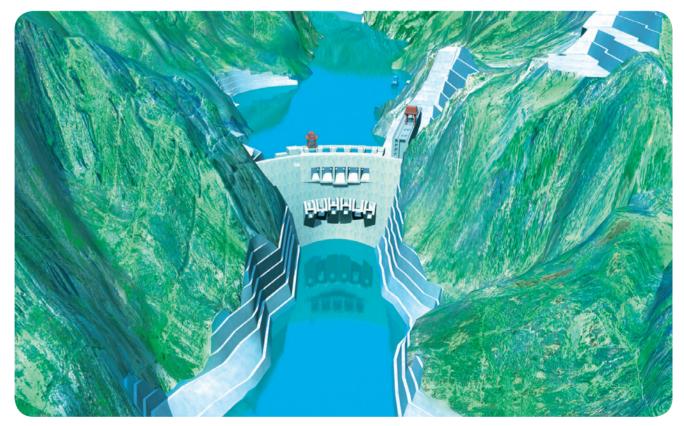
# **Wudongde Hydropower Station**

Located on the lower mainstream of the Jinsha River at the intersection of Yunnan Province and Sichuan Province, Wudongde Hydropower Station serves as a major source for transmitting electricity from the western areas to East China, and as a key to China's Western Development Campaign. In addition to its main function of power generation, it also offers benefits in fields such as flood prevention, shipping, and the promotion of local economic and social development.

Wudongde Hydropower Station is designed to be equipped with 12 generating units, each with a generating capacity of 850 MW. to reach a total installed capacity of 10.2 GW and an estimated annual output of 38.91 TWh.

The preparatory work for Wudongde Hydropower Station began in 2011, and commenced construction in December, 2015. The first generators are expected to be commissioned in August 2020, and all units will be put into service in December, 2021.

The construction of Wudongde Hydropower Station made steady progress in 2016. It was connected to, among others, water and electricity supplies; a sandstone processing system, a cement production system and roads in the construction site have been built. Five river diversion tunnels were put into use; the cofferdam was fully prepared before the arrival of the flood season; and the excavation of the dam foundation was completed.



Wudongde Hydropower Station (Architectural Rendering)

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## **Baihetan Hydropower Station**

Baihetan Hydropower Station, the second step of the four-station cascade on the lower reaches of the Jinsha River, is the 4th large utility to pass the 10GW milestone in China, after the Three Gorges Dam, Xiluodu Hydropower Station, and Wudongde Hydropower Station. It is one of the key sources for transmitting electricity from the western areas to East China. Once completed, the Station will not only perform its main duty of power generation, but also offer such benefits as preventing floods, promoting local economic and social progress, and lifting the resettled local population out of poverty. Silt retention, downstream navigation improvement and the formation of a navigational course in the reservoir area are also expected.

The 16 GW Baihetan Hydropower Station, generates an average 64.1 billion kWh of power annually. With an 825m normal impoundment level, the Station supports a total storage capacity of 20.6 billion cubic meters and a regulation storage capacity of 10.4 billion cubic meters. It also allows a flood control capacity of 7.5 billion cubic meters.

In 2016, with major technical breakthroughs having been made, Baihetan Hydropower Station was fully prepared for final check and approval from the government.



Baihetan Hydropower Station (Architectural Rendering)`

## **Changlongshan Pumped Storage Power Station**

Changlongshan Pumped Storage Power Station, which operates on a daily regulation cycle, is the second pumped storage power plant invested and constructed by CTG. Located in Tianhuangping Town, Anji County, Zhejiang Province, near the load center of the East China power grid, the station will play a key role in optimizing the power supply structure and power grid operation in East China for greater economic efficiency, stability and safety. It is also of great significance for driving local economy and employment as well as promoting steady growth, structural adjustments, and higher living standards.

As planned, Changlongshan Pumped Storage Power Station will have six 350 MW reversible pump-turbine generating units and, with a total installed capacity of 2,100 MW, will rank third in size among all completed and ongoing constructions of pumped storage power plants in China. In addition, a 710m rated water head will make it the tallest power station in China, and the second tallest in the world.

In 2016, the main part of the Station commenced construction, and the bidding process of the units was completed.

The development and construction of Changlongshan Pumped Storage Power Station marks a new height in the design, construction and equipment manufacturing of pumped storage power plants in China.



Changlongshan Pumped Storage Power Station (Planned Aerial View)

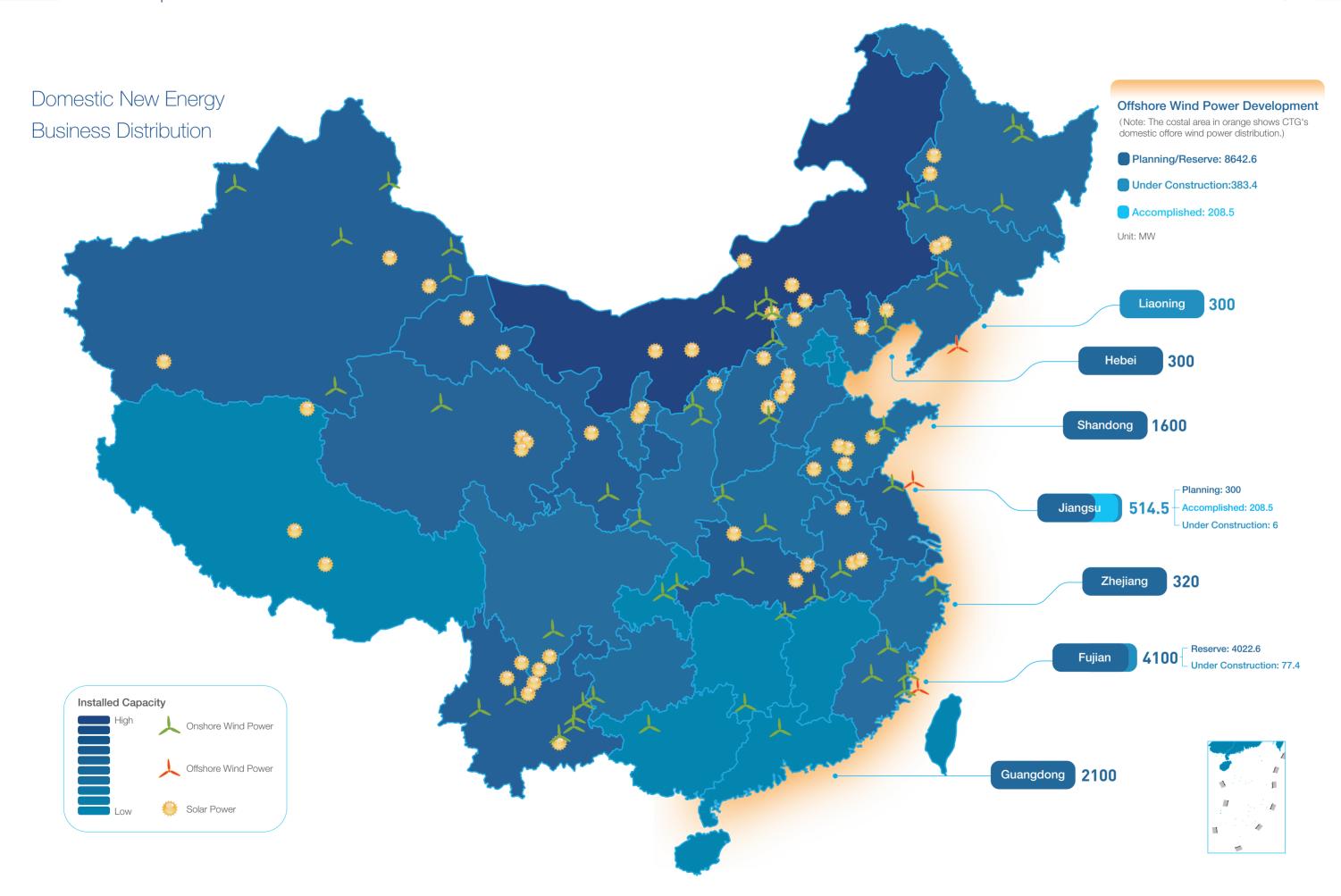
# Nurturing Power Distribution and Sales Business

We seized the opportunity of the pilot electric power system reform in Chongqing, and made major breakthroughs in power distribution and sales business through a "construction + acquisition" process. The industrial chain of "power generation, distribution and sales" extended smoothly. We

also made orderly progress in Yichang by further revitalizing the power assets of the Three Gorges Dam, commencing the construction of the Three Gorges Dam Big Data Center, and building the first EV charging station in Yichang and putting the same into operation.







Steady progress was made in onshore wind power business. Through independent development and acquisition, we sharpened our edges in developing con-

tiguous stretches of wind farms in Inner Mongolia, Xinjiang and other regions, and optimized the strategic layout of onshore wind utilities with an emphasis on UHV

power output, especially in the middle, east and south areas of China.

In 2016, CTG made new progress in new energy business.



**Onshore Wind Power** 

**Development** 

Completed the largest onshore wind farm in China and Asia

Siziwang 400 MW Onshore Wind Farm in Inner Mongolia

The first high-altitude MW wind farm in China

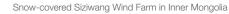
Xitieshan 100 MW-level Wind Farm in Qinghai

Completed the National Energy

Hami 200 MW-level Wind Farm in Xinjiang

Administration concession project







Our business expanded to 30 provinces, autonomous regions, and muncipalities directly under the Central Government.



The wind power, solar power and small/medium hydropower stations in operation exceeded 8,000 MW of installed capacity.



The total assets exceeded RMB 60 billio



## **Offshore Wind Farms**

As the largest clean energy group in China, CTG has engaged in intensive and extensive development of offshore wind farms. Being a frontrunner in offshore wind power generation is a mandate from the CPC Central Committee and the State Council, and a prerequisite for us to become a top-notch clean energy producer in the world. To that end, we have identified offshore wind power generation as a strategic core of our new-energy strategy and an area that requires our vigorous efforts. Based on the

success of Xiangshui Offshore Wind Farm in Jiangsu Province, we have expanded our footprint from Fujian and Guangdong to Shandong, Zhejiang, Liaoning and other coastal provinces. An intensive and extensive layout of wind power facilities and its industrial effects are taking shape and CTG is making best efforts to forge a strong CTG brand in offshore wind sector.



Pilot offshore wind farm under construction at Xinghua Bay, Fujian.



The turbines of the Xiangshui Offshore Wind Power Project were hoisted and installed.



Xiangshui Offshore Wind Power Farm in Jiangsu

#### Highlights

Completed China's then-largest offshore wind power project

Xiangshui 202 MW Offshore Wind Farm in Jiangsu

Built the first large-output pilot offshore wind farm in China

The 77.4 MW pilot offshore wind farm in Xinghua Bay, Fujian

Building the first offshore wind power project in Northeast China

Zhuanghe III 300 MW Offshore Wind Farm in Liaoning

Became the first Chinese company holding a controlling stake in overseas offshore wind project

Successfully acquired 80% equity of the WindMW Offshore Wind Farm

Enhanced R&D of core offshore wind power technologies

Established an offshore wind power R&D center, as well as a testing and certification center

The construction of Xiangshui Offshore Wind Farm, CTG's first wind power venture, progressed from the tidal flat to intertidal er and found answers to many unsolved problems in China, so as to signal the beginning for CTG – and even the entire Chinese

er units. In addition, we ran the Xiangshui Inshore Wind Powas technical exchanges with WindMW GmbH, and mastered core technologies in construction and operation of offshore wind

The first 220 KV offshore substation in Asia

The first 220 KV 3-core submarine power cable in China

The offshore wind farm with the most complete foundation forms in China

The first attempt in the world to install a 4 MW Siemens turbine as a whole

The first attempt in China to install a 3 MW GoldWind turbine as a whole



To extensively and intensively develop offshore wind farms and create an advantageous industrial chain, we set up the Fujian Three Gorges Offshore Wind Power Industrial Park and a pilot offshore wind farm, where top-notch manufacturers from China and abroad competed to offer guaranteed equipment, technical support and skills for offshore wind power development in Fujian Province, in China, and even in the world. In addition, we acquired WindMW 288 MW Offshore Wind Farm, one of Germany's largest offshore wind operations, so as to accelerate our new energy expansion in advanced European and American markets. We also took in the world's leading experience, technologies and standards to benefit domestic practices.



Germany's WindMW Offshore Wind Farm

### **Solar Power**

We made active efforts in diversifying the development of solar energy, including centralized and distributed solar PV power plants (solar-agriculture complementation, solar-fishery complementation, building-integrated PV, etc.). By the end of 2016, our PV business expanded to 16 provinces, including Gansu, Qinghai, Tibet, Hebei and Sichuan, with a PV power generation capacity of 2.1 GW and a PV resource reserve of 15 GW. Meanwhile, in close alignment with the national development strategy for emerging industries, we made steady headway in solar thermal power generation, accelerated the establishment of demonstration projects, explored related new technologies and models, and laid a foundation for the extensive development of solar thermal power.

#### Highlights

Accomplished China's first PV Top Runner Programs

Datong 100 MW PV Station in Shanxi

Accomplished China's largest PV program in mountainous areas

Quyang 200 MW PV Station in Hebei

Building China's first demonstration tower solar thermal power program

Jinta 100 MW Solar Thermal Power Station in Gansu

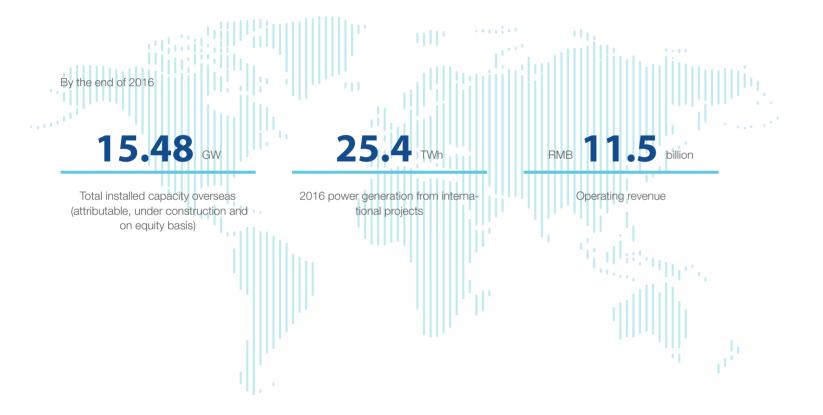


Quyang 200 MW PV Program in Hebei



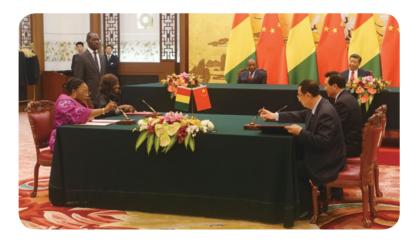
# International Operation, Exchange and Cooperation

In 2016, CTG gave full play to its capital, technological and brand advantages, and explored several modes of international operation and mechanism for collaboration. We signed a number of agreements for intensified international exchange and cooperation in the presence of national leaders, and became a vanguard and main force in the "Belt and Road" initiative.

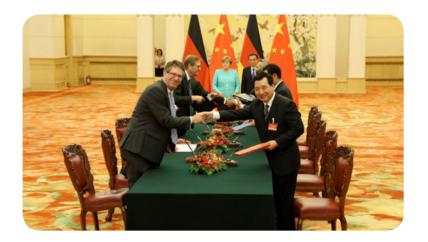




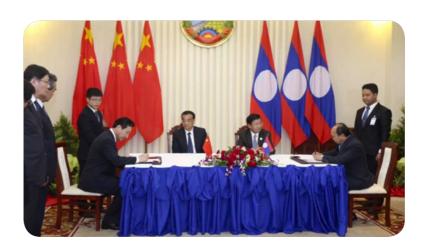
#### **Overseas Investments**



On November 2, 2016, CTG Board Chairman Lu Chun signed the Shareholders' Agreement on Kaleta Hydropower Project with Malado Kaba, the Minister of Economy and Finance of Guinea, in the presence of Chinese President Xi Jinping and Guinean President Alpha Conde at the Great Hall of the People. The agreement defines CTG's role as the controlling stockholder with a 51% stake in the Kaleta utility.



On June 13, 2016, witnessed by Chinese Premier Li Kegiang and German Chancellor Merkel, CTG Board Chairman Lu Chun signed the Cooperative Investment Agreement on a German Offshore Wind Power Project with Blackstone Group and Wind-MW GmbH. As agreed upon by both parties, CTG took an 80% equity of the 288 MW offshore wind farm, which made it the first Chinese company holding a controlling stake in an overseas offshore wind power project in operation.



On September 8, 2016, CTG Board Chairman Lu Chun signed the Shareholders' Agreement on Houaphan Coal-Electricity Project in Laos with Boun Oum, Managing Director of Electricite du Laos (EDL), in the presence of Premier Li Keqiang of the State Council of China and Prime Minister Thongloun Sisoulith of Laos at the Presidential Pal36 Business Development CHINA THREE GORGES CORPORATION 2016 Annual Report 37

On January 5, 2016, the signing ceremony of the concession agreement on Jupia and Ilha Solteria Hvdropower Stations was held at the Ministry of Mines and Energy of Brazil, marking a complete delivery of the concession project. It then received the "Award of the Best Outbound Investments of Chinese Enterprises" at the 4<sup>th</sup> Economic and Financial Forum of BRICS Countries on January 12.

On February 29, 2016, in Naypyidaw, the capital city of Myanmar, CTG signed the Chaung Tha Wind Power Development Agreement with Myanmar's Ministry of Electric Power. This was the first wind power project ever undertaken by the government of Myanmar, and was proposed by the Chinese and Myanmarese governments as an exemplary model of cooperation in the field of power generation between the two countries.

On July 18, 2016, in the presence of Peru's former President Humala, Hydro Global signed a contract with the Peruvian Ministry of Energy and Mines and the state generator Empresa de Generacion Electrica San Gaban (EGESG) to co-develop San Gaban III hydropower project in Peru. Hydro Global, as a strategic cooperation platform between CTG and EDP, focuses mainly on the investment and development of small and medium-sized hydropower facilities.

On September 8, 2016, the signing of the Kaot Hydropower Project GOPIA Agreement signified CTG's another strategic move in investing in the Pakistani market. This marked a major milestone that has offered exemplary experiences and laid a solid foundation for future hydropower projects in the pipeline in Pakistan.

On October 10, 2016, CTG Brazil acquired the Brazilian branch of Duke Energy at a desired bidding price, including a 100% stake in Duke Energy International Brazil Holdings (Luxembourg). The transfer of equity was completed on December 29, and further strengthened CTG's leading position as the second largest private power generator in Brazil.



Ilha Solteria Hydropower Station in Brazil



On January 10, 2016, the mobilization meeting for the construction of the CTG Karot Hydropower Station was held.



On April 11, 2016, CTG and GE signed a strategic partnership agreement in Beijing.

## **International Contracting**

In 2016, construction began as scheduled for the Guinean Souapiti Dam Complex, and made good progress. On November 24, the berms of the Phase I cofferdam were connected ahead of time.

In 2016, the Murum Hydropower Station in Malaysia was completed and put into full use. The project won the "2016 China Quality Power Project Award (Overseas)", the highest quality prize for power projects in China.

In 2016, the Upper Atbara Water Control Project in Sudan was qualified for check and acceptance in its entirety.

In 2016, the Canar Flood Control Project was put into operation in Ecuador.

In 2016, the construction work of Uganda's Isimba Hydropower Station made steady progress. The project was cited as a "Top China Overseas Engineering Site" and accomplished social and environmental risk assessments in concert with International Rivers.



Murum Hydropower Station in Malaysia

## Overseas Project Highlights (by the end of 2016)



are located mainly in Guinea, Ghana, Sudan, Malaysia, the

Philippines and Ecuador, among others.

# **CTG** Europe **CTG South Asia** CTG Brazil CTG-controlled Hydropower Projects Hvdropower Projects in Partnership with EDP Wind Power Projects in Partnership with EDP Contracting Projects Our international contracting business has extended to Asia, Africa, Europe and America. The projects under construction

#### **CTG Brazil**



Brazil, the second largest producer of hydroelectric power in the world, possesses an extensive array of resources and a mature market. CTG has invested over USD 5 billion in a 7.87 GW portfolio, thus become one of the major private power companies in Brazil.

- In 2014, we invested in three medium-sized hydropower stations (Jari, Cachoeira and Sao Manoel) in partnership with Energias de Portugal (EDP), and acquired a 49% stake in a Brazilian wind power management company (11 wind farms in total).
- In 2015, we acquired a 100% stake in Garibaldi and Salto Hydropower Stations in Brazil.
- In 2015, we won the bid for a 30-year concession of Jupia and Ilha Solteria Hydropower Stations in Brazil.
- In 2016, we acquired 10 hydropower stations of the American firm Duke Energy in Brazil with a total installed capacity

## **CTG** Europe



The European market is another focus for us to develop clean energy sources overseas.

- In 2012, we took a 21.35% equity of EDP, becoming the utility's single largest shareholder.
- We established a strategic partnership with EDP for onshore and offshore wind projects in Europe (France, UK, etc.), and combined our expertise and advantages to co-develop small and medium-sized hydropower units via HydroGlobal
- In 2016, we acquired an 80% stake in the Germany Wind-MW Offshore Wind Farm.
- In 2016, we bought back a 49% stake in EDPRPT.
- In 2016, we acquired a 49% stake in Polish and Italian onshore wind assets.

#### **CTG South Asia**





We engaged broadly with neighboring countries and regions that have a favorable geopolitical environment and an ability to transmit power back to China, in developing clean energy sources.

- In 2014, Three Gorges First Wind Farm Pakistan was put into operation, before the rights to operate Three Gorges Second/Third Wind Farms Pakistan were obtained the next
- In 2015, the Karot Hydropower Station in Pakistan (a project listed in the China-Pakistan Intergovernmental Joint Declaration) broke ground. The construction of the main part commenced in 2016.
- In 2016, the Kohala Hydropower Station project in Pakistan was approved by State-owned Assets Supervision and Administration Commission (SASAC), and the EPC bidding process was completed.

## **International Exchange** and Cooperation

Our extensive exchange and partnership with international industrial associations, environmental protection organizations and renowned enterprises continued into 2016, with the aim of equipping ourselves with advanced mindsets, technologies and management expertise from around the world, and of better aligning with the international market at an accelerated pace.

#### Building a Platform of International Exchange

In 2016, we played a major role in key works of the Sino-German Economic Advisory Committee, the International Hydropower Association (IHA), the International Commission on Large Dams (ICOLD), the International Energy Agency (IEA), the International Electro-technical Commission (IEC), the International Association for Hydro-Environment Engineering and Research (IAHR), and many other organizations, to secure a greater say in the global arena.

A member of Sino-German Economic Advisory Committee. CTG Board Chairman Lu Chun, as the Chinese representative of the Committee, attended the meeting between the Chinese Premier and the German Chancellor, contributing advice and suggestions to Sino-German economic and trade cooperation.

We organized the 69<sup>th</sup> Meeting of the IHA Board of Directors to bridge IHA and relevant Chinese organizations.

By actively participating in or leading the efforts in organizing reports compilation, researches and standard establishment for various platforms, CTG aims to make its fair share of contribution to international organizations.













On June 13, 2016, Board Chairman Lu Chun delivered a speech at the Sino-German Economic Advisory

#### Partnership with International Environmental Organizations

In 2016, we maintained close contacts and interactions with related UN agencies and renowned international environmental organizations to press ahead with environmental protection and CSR performance in hydropower

- We discussed the memorandum of understanding for cooperation with United Nations Development Programme (UNDP) to promote environmental education and sustainable development of clean energy sources.
- In October, as part of the annual academic meeting of the Chinese National Committee on Large Dams (CHIN-COLD), we co-hosted the "Panel Session on Ecological Flow and River Restoration Technology for Water Con-

servancy and Hydropower Projects" with The Nature Conservancy (TNC).

- In December, CTG leaders attended the Global Water Summit held by TNC at Columbia University, discussing CTG's engineering practice and development plans with experts in the industry.
- We maintained frequent interactions with, among others, UNDP, TNC, and WWF, and spared no efforts in championing the cause of environmental protection and ensuring sustainable development through such activities as "Chinese Sturgeon Release", "Earth Hour", environmental seminars and project environmental management assessments.

#### Active Presence in Conferences beyond National Boarders

- We participated in top-level international conferences held overseas, including the APEC Business Council meetings, Hydro international meetings, ICOLD meetings, Asia Pacific Power Association meetings, and FIDIC annual meetings.
- China International Water & Electric Corp. (CWE), a subsidiary wholly owned by CTG, was ranked among the
- "Top 10 Successful Chinese Companies in ASEAN" in 2015.
- Our concession project in Brazil received the "Outbound Investment Project Award" at the 4th Economic and Financial Forum of BRICS Countries in 2016.



#### Investment and Finance

## **Asset Securitization** of Xiluodu and Xiangjiaba Power Stations

On March 31, 2016, the signing ceremony on equity transfer of Three Gorges Jinsha River Chuanyun Hydropower Development Co., Ltd. to China Yangtze Power Co., Ltd. (CYPC) was held at the Chengdu Three Gorges Building. It marked the success of the asset securitization of Xiluodu and Xiangjiaba Power Stations, and a major assets restructuring for CYPC.

This restructuring effort gave our hydropower business an access to the capital market, enabled more efficient allocation and operation of state-owned capital assets, expanded CYPC's assets scale, enhanced its profitability, increased earnings per share, and optimized shareholders' structure and corporate governance framework. This move could help the stock market develop a mindset of long-term value investment, drove China's capital market towards sound and sustainable development, and empowered CYPC to sharpen its core edges by placing four large hydropower stations under centralized management and to display the benefits of a cascade development of hydropower plants (Xiluodu, Xiangjiaba, Three Gorges Dam and Ge-

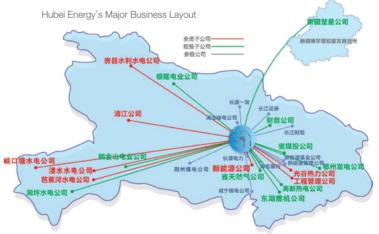


On March 31, 2016, the signing ceremony on equity transfer of Chuanyun (Jinsha River Chuanyun Hydropower Development Co.,Ltd.) to CYPC was held in Chengdu

# The Strategic Restructuring of Hubei Energy Yielded **Considerable Benefits**

On December 10, 2015, the China Securities Regulatory Commission (CSRC) officially approved the proposal of private placement of stocks of Hubei Energy Group Co., Ltd. (hereafter referred to as Hubei Energy), which made CTG the controlling shareholder and beneficial owner of Hubei Energy.

As the moderated economic growth continued in 2016, Hubei Energy gathered strength to bring about better economic returns despite lower electricity consumption and tariff. Under CTG's management, Hubei Energy made fast headways and got off to a good start in the 13th Five-Year Plan Period, which spans the years 2016 to 2020. Throughout the year 2016, Hubei Energy generated 20.47 TWh of electricity, passing the 20 TWh milestone for the first time and reaching a new record high in profit before tax for the 4th consecutive year.



# Fully Leveraging Domestic and Overseas Capital Markets and Supporting the Development of the Clean Energy

Since the first issuance of the CTG Corporate Bonds in 1997. we have been engaging in financing on the capital market for two decades. By the end of 2016, we had issued RMB 368.3 billion bonds on domestic and overseas markets on a cumulative basis, of which RMB 203.5 billion had been redeemed. Without any defaults in repaying the principal and the accrued interests, we received a top-tier global credit rating, which was the same as the national sovereign rating, and were ranked among the top 10 Chinese AAA companies. CTG Corporate Bonds and CYPC have become two important brands on the capital market.

On May 24, 2016, CTG issued USD 1.5 billion bonds and received Aa3 (Moody's) and A+ (Fitch) credit ratings, which were the same as the national sovereign ratings. Subsequent to the first issuance of dual currency bonds in 2015, CTG once again seized the opportunity and made it into the international capital market.

On August 30, 2016, CTG issued RMB 6 billion green corporate bonds at the Shanghai Stock Exchange, the largest size of its kind issued so far in China, presenting CTG once again to the market as a responsible clean energy group.

On November 2, 2016, CYPC issued USD 300 million and euro 200 million dual currency exchangeable bonds in Hong Kong. CYPC's debut on overseas capital markets was a success, as proved by the oversubscriptions among global investors and more than 50 orders worldwide.



On September 21, 2016, CTG's RMB 6 billion green corporate bonds were listed at the Shanghai Stock Exchange

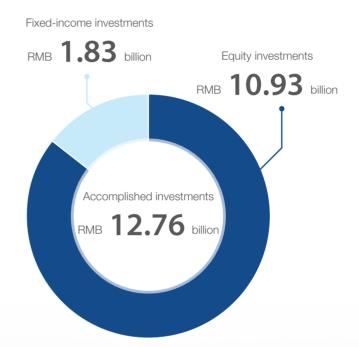
## Raised Credit Ratings against the Market Trend

In 2015, CTG received Aa3 (Moody's) and A+ (Fitch) credit ratings, which were at the same level as the national sovereign ratings. CTG became the only Chinese power generation company to receive sovereign ratings from these two major agencies. On July 13, 2016, despite the continued national and international economic slowdown, Standard & Poor's raised the rating of CTG from "A" to "A+", a stark contrast with the downgrades suffered by many state-owned enterprises. This proved CTG's increasingly important role in the national energy strategy, in addition to steady business growth and improved financial perfor-

# **Fitch**Ratings STANDARD & POOR'S RATINGS SERVICES Moody's McGRAW HILL FINANCIAL Aa3 **A**+ A+

## **Intensifying Investment Efforts**

In 2016, CTG invested RMB 12.76 billion, including 10.93 billion of equity investments and 1.83 billion of fixed-income investments, via Three Gorges Capital Holdings Co., Ltd. in a golden time of low valuation benchmark and low financing cost.



- CTG diversified the allocation of its assets, especially those of major underlying assets that can generate stable earnings, by taking an additional stake in Changjiang Securities and a large stake in China Development Bank Leasing.
- All of our non-listed equity investments appreciated in value by varying degrees; some even exceeded 80%.
- CTG highlighted its core business and prepared for forward-looking and innovative investments in the areas of advanced energy storage, highly-efficient solar power generation, distributed PV stations and other areas of clean energy. CTG also accomplished investments in NEUNB's aluminum-air battery and Suntellite, among others.



# **Financial Highlights**

# Key Financial Data

Item	2013	2014	2015	2016
Total assets (RMB billion)	433.83	475.51	563.37	660.06
Equity attributable to parent company (RMB billion)	216.75	236.87	245.99	268.95
Operating revenue (RMB billion)	42.58	63	63.52	78.31
Profit before tax (RMB billion)	21.67	30.93	34.47	38.03
Net Profit (RMB billion)	17.63	25.97	28.82	23.92
Ratio of costs and expenses to revenue (%)	67.6	60.4	63.1	62.58
EBITDA (RMB billion)	32.1	49.22	50.39	61.84
Return on equity (%)	7.5	9.9	9.9	9.6 <sup>(1)</sup>
Net debt (RMB billion)	127.26	130.63	147.04	191.23
EBITDA interest coverage (X)	4.9	6.8	7	5.99
Net debt / EBITDA (X)	4	2.7	2.9	3.09
Total interest-bearing liabilities / Total assets (%)	33.6	31.3	34.8	36.02
Asset liability ratio (%)	43.00	42.14	45.08	46.93

Note: (1) adjusted by one-offs



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# Auditor's Report

To China Three Gorges Corporation

XYZH/2017BJA50191

We have audited the accompanying financial statements of China Three Gorges Corporation (the "Company"), which comprise the consolidated and parent company's balance sheet as at 31 December 2016, the consolidated and parent company's income statement, the consolidated and parent company's cash flow statement and the consolidated and parent company's statement of changes in shareholders' equity for the year then ended, and the notes to the financial statements.

#### 1. Responsibilities of the Management for the Financial Statements

The management of China Three Gorges Corporation is responsible for the preparation and fair presentation of financial statements. This responsibility includes: (1) preparing the financial statements that give a true and fair view in accordance with the Accounting Standards for Business Enterprises; (2) designing, implementing and maintaining internal control which is necessary to enable that the financial statements are free from material misstatement, whether due to fraud or error.

#### 2. Auditor's Responsibilities

Our responsibility is to express an opinion on the financial statements based on our audit. We conduct our audit procedures in accordance with China Standard on Auditing for Chinese Certified Public Accountants. Those standards require that we comply with Code of Ethics for Certified Public Accountants, and plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves implementing audit procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected based on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making risk assessment, the auditors consider the internal control relevant to the preparation and disclosure of the financial statements in order to design appropriate audit procedures, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by the management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

#### 3. Opinion

In our opinion, the accompanying financial statements present fairly, in all material respects, the consolidated and parent company's financial position of China Three Gorges Corporation as at 31 December 2016, its consolidated and parent company's results of operations and cash flows for the year then ended in accordance with Accounting Standards for Business Enterprises.



CICPA: Zhan Jun

CICPA: Wang Minling

Beijing, China,

28 April 2017

# Consolidated Balance Sheet

#### 31 December 2016

	erriber 2010	
Company Name: China Three Gorges Corporation		Unit: RMB'000
Item	As at 31 December 2016	As at 31 December 2015
Current assets:		
Cash at bank and on hand	46,871,765	49,194,819
Settlement reserve	-	-
Due from banks and other financial institutions	346,500	-
Financial assets at fair value through profit or loss	659,976	1,799,268
Derivative financial assets	-	-
Notes receivable	761,241	682,967
Accounts receivable	10,264,244	7,673,031
Advances to suppliers	3,017,911	2,159,650
Premiums receivable	-	-
Reinsurance accounts receivable	-	-
Reinsurance contract provision receivable	-	-
Interest receivable	76,476	48,609
Dividends receivable	11,788	25,824
Other receivables	2,321,720	1,665,573
Financial assets purchased under agreements to resell	-	-
Inventories	1,828,771	3,243,783
Held-for-sale assets	19,999	-
Non-current assets due within one year	313,587	363,573
Other current assets	5,184,076	1,517,669
Total current assets	71,678,054	68,374,766
Non-current assets:		
Loans and advances	-	-
Available-for-sale financial assets	37,891,899	31,701,115
Held-to-maturity investments	209,727	10,000
Long-term receivables	20,810,138	2,414,280
Long-term equity investments	61,239,417	49,256,793
Investment properties	1,289,132	974,318
Fixed assets	344,564,859	321,971,962
Construction in progress	75,203,838	65,826,637
Construction materials	368,133	368,567
Disposal of fixed assets	4	-
Productive biological assets	-	_
Oil and gas assets	-	_
Intangible assets	21,605,914	4,834,779
Development expenditures	12,273	12,650
Goodwill	5,639,381	4,350,442
Long-term deferred expenses	106,307	61,684
Deferred tax assets	12,833,936	12,077,363
Other non-current assets	6,610,211	1,138,237
Total non-current assets	588,385,169	494,998,827
Total assets	660,063,223	563,373,593
rotal addets	000,000,220	555,575,535

## **Consolidated Balance Sheet**

#### 31 December 2016

Company Name: China Three Gorges Corporation		Unit: RMB'000
Item	As at 31 December 2016	As at 31 December 2019
Current liabilities:		
Short-term borrowings	6,309,058	10,854,02
Borrowings from the central bank	-	
Deposits from customers, banks and other financial institutionss	1,228,591	684,66
Placements from banks and other financial institutions	-	2,890,00
Financial liabilities at fair value through profit or loss	351,719	
Derivative financial liabilities	157,736	
Notes payable	2,350,599	2,820,48
Accounts payable	12,230,174	9,044,74
Advances from customers	3,591,063	2,678,72
Financial assets sold under agreements to repurchase	-	
Fees and commissions payable	-	
Employee benefits payable	733,734	674,63
Taxes payable	8,286,536	-539,45
Interest payable	3,327,017	2,998,75
Dividends payable	627,159	45,25
Other payables	29,581,104	30,406,13
Reinsurance accounts payable	-	
Reserve of insurance contract	-	
Securities brokering	-	
Securities underwriting	-	
Held-for-sale liabilities	-	
Non-current liabilities due within one year	19,789,733	17,323,59
Other current liabilities	12,999,396	18,995,46
otal current liabilities	101,563,619	98,877,02
Von-current liabilities:		
Long-term borrowings	49,544,542	41,479,95
Bonds payable	147,423,309	107,345,04
Including: preferred shares	-	- //-
Perpetual bond	-	
Long-term payables	608,914	4,40
Long-term employee benefits payable	47,970	121,30
Special payables	79,945	31,35
Provisions	4,023,987	72,83
Deferred income	1,279,031	1,285,64
Deferred tax liabilities	5,119,038	4,684,49
Other non-current liabilities	109,975	65,95
otal non-current liabilities	208,236,711	155,090,99
otal liabilities	309,800,330	253,968,01
Otal habilities  Owners' equity:	000,000,000	200,000,01
Paid-in capital	211,412,063	208,336,71
Other equity instruments	211,412,000	200,330,71
Including: preferred shares	-	
	-	
perpetual bond	22,233,355	0 552 65
Capital reserve	22,233,355	8,553,65
Less: treasury shares	4.040.500	000.00
Other comprehensive income	4,043,568	-263,00
Special reserve	3,378	2,13
Surplus reserve	23,931,545	20,436,38
General risk provisions	-	
Undistributed profit	7,321,952	8,920,85
Total owner's equity attributable to parent company	268,945,861	245,986,72
Non-controlling interests	81,317,032	63,418,85
Total owners' equity  Total liabilities and owners' equity	350,262,893 660,063,223	309,405,57 563,373,59

# Balance Sheet of the Company

31 December 2016

Company Name: China Three Gorges Corporation		Unit: RMB'000
Item	As at 31 December 2016	As at 31 December 2015
Current assets:		
Cash at bank and on hand	32,642,012	9,502,379
Financial assets at fair value through profit or loss	-	-
Derivative financial assets	-	-
Notes receivable	-	-
Accounts receivable	-	-
Advances to suppliers	124,342	92,922
Interest receivable	217,569	506,250
Dividends receivable	979,892	-
Other receivables	536,878	653,714
Inventories	52	54
Held-for-sale assets	-	-
Non-current assets due within one year	13,150,790	29,640,790
Other current assets	15,483,003	100,000
Total current assets	63,134,538	40,496,109
Non-current assets:		
Available-for-sale financial assets	12,670,255	9,041,618
Held-to-maturity investments	28,000	28,000
Long-term receivables	53,800,817	63,251,607
Long-term equity investments	153,826,802	141,044,989
Investment properties	-	-
Fixed assets	30,750,672	31,981,197
Construction in progress	552,142	374,025
Construction materials	25,374	25,801
Disposal of fixed assets	-	-
Productive biological assets	-	-
Oil and gas assets	-	-
Intangible assets	421,810	428,433
Development expenditure	-	-
Goodwill	-	-
Long-term deferred expenses		-
Deferred tax assets	605,927	526,464
Other non-current assets	64,017,538	62,770,232
Total non-current assets	316,699,337	309,472,366
Total assets	379,833,875	349,968,475

# Balance Sheet of the Company

31 December 2016

Company Name: China Three Gorges Corporation		Unit: RMB'000
Item	As at 31 December 2016	As at 31 December 2015
Current liabilities:		
Short-term borrowings	1,000,000	800,000
Financial liabilities at fair value through profit or loss	-	-
Derivative financial liabilities	-	-
Notes payable	-	-
Accounts payable	160,975	179,414
Advances from customers	9,517	5,160
Employee benefits payable	347,375	341,575
Taxes payable	5,000,347	1,281,503
Interest payable	2,224,635	2,109,257
Dividends payable	-	-
Other payables	4,411,240	4,377,410
Held-for-sale liabilities	-	-
Non-current liabilities due within one year	11,817,974	10,932,539
Other current liabilities	6,990,035	13,976,945
otal current liabilities	31,962,098	34,003,803
Ion-current liabilities:		
Long-term borrowings	10,605,108	10,640,529
Bonds payable	69,223,289	62,184,524
Including: preferred shares	-	-
Perpetual bond	-	-
Long-term payables	-	-
Long-term employee benefits payable	-	-
Special payables	36,663	-
Provisions	-	-
Deferred income	1,009,981	1,086,348
Deferred tax liabilities	2,169,528	2,930,534
Other non-current liabilities	-	-
Total non-current liabilities	83,044,569	76,841,935
Total liabilities	115,006,667	110,845,738
Owners' equity:		
Paid-in capital	211,412,063	208,336,711
Other equity instruments	-	-
Including: preferred shares	-	-
Perpetual bond	-	-
Capital reserve	5,146,528	5,146,528
Less: treasury shares	-	-
Other comprehensive income	4,466,528	4,792,888
Special reserve	-	-
Surplus reserve	24,341,353	20,846,610
Undistributed profits	19,460,736	-
Total owners' equity	264,827,208	239,122,737
Fotal liabilities and owners' equity	379,833,875	349,968,475

For the	vear	ended	31	December	2016

Company Name: China Three Gorges Corporation		Unit: RMB'000
Item	The year ended 31 December 2016	The year ended 31 December 2015
I. Total operating revenue	78,309,561	63,517,413
Including: Operating revenue	77,770,423	
Interest income	537,304	432,251
Premium earned	-	
Fees and commissions income	1,834	19,381
II. Total operating cost	49,832,977	40,605,613
Including: Operating cost	36,111,824	30,175,400
Interest expenses	4,461	22,506
Fees and commissions expenses	3,246	3,008
Cash surrender amount	-	
Net expenses of claim settlement	-	
Net provisions for insurance contract reserves	-	
Policy dividend expenses	-	
Reinsurance expenses	-	
Taxes and surcharges	1,842,862	1,507,983
Selling and distribution expenses	94,455	106,42
General and administrative expenses	3,175,753	2,802,415
Financial expenses	7,774,880	5,461,98
Impairment losses	825,496	525,899
Add: Gain from changes in fair value (losses to be listed with "-")	-71,557	10,754
Investment income (losses to be listed with "-")	6,559,962	5,577,315
Including: investment income from associates and joint ventures	3,440,592	3,102,821
Gain on foreign exchange (losses to be listed with "-")	328	1,479
III. Operating profit (loss to be listed with "-")	34,965,317	28,501,348
Add: Non-operating income	4,641,054	6,084,086
Including: gain from disposal of non-current assets	59,463	43,965
Less: Non-operating expenses	1,575,663	115,19
	32,248	37,82
Including: loss on disposal of non-current assets		
IV. Profit before income taxes (total loss to be listed with "-")	38,030,708	34,470,243
Less: Income tax expenses	14,113,822	5,652,593
V. Net profit (net loss to be listed with "-")	23,916,886	28,817,650
attributable to owners of the parent company	13,887,797	22,177,524
attributable to non-controlling interests	10,029,089	6,640,126
VI. Other comprehensive income after tax	6,743,090	-3,956,999
Other comprehensive income attributable to owners of parent company (net of tax)	-	40.00
(I) Other comprehensive income not to be reclassified as profit or loss	-52,448	-48,969
Changes in remeasured defined benefit obligations or net assets	-	
<ol><li>Portion of other comprehensive income not to be reclassified as profit or loss under equity method</li></ol>	-52,448	-48,966
(II) Other comprehensive income to be reclassified as profit or loss	6,795,538	-3,908,030
1. Portion of other comprehensive income to be reclassified as profit or loss under equity method	619,014	-374,422
Gain or loss from changes in fair value of available-for-sale financial assets	225,272	-987,388
Gain or loss from reclassification of held-to-maturity investments as available-for-sale financial assets	-	
Gain or loss on effective cash flow hedge	-172,245	
Currency translation reserve	6,123,497	-2,545,646
Other comprehensive income attributable to non-controlling interests (net of tax)	0,120,701	2,040,040
VII. Total comprehensive income	30,659,976	24,860,65
Total comprehensive income attributable to the owners of parent company	18,194,372	18,339,654
Total comprehensive income attributable to non-controlling interests	12,465,604	6,520,997
VIII. Earnings per share:		
(I) Basic earnings per share (II) Diluted earnings per share		

# Income Statement of the Company

For the year ended 31 December 2016

Company Name: China Three Gorges Corporation		Unit: RMB'000
Item	The year ended 31 December 2016	The year ended 31 December 2016
I. Operating revenue	115,410	121,122
Less: Operating cost	13,363	13,019
Taxes and surcharges	165,293	6,722
Selling and distribution expenses	222	637
General and administrative expenses	1,926,035	2,300,171
Financial expenses	4,713,792	3,598,871
Impairment losses	213,124	793,246
Add: Gain from changes in fair value (losses to be listed with "-")	-	-
Investment income (losses to be listed with "-")	49,845,293	19,663,165
Including: investment income from associates and joint ventures	279,320	-62,653
II. Operating profit (loss to be listed with "-")	42,928,874	13,071,621
Add: Non-operating income	1,410,901	2,562,197
Including: gain from disposal of non-current assets	670	11,030
Less: Non-operating expenses	1,490,501	66,041
Including: loss on disposal of non-current assets	161	39
III. Profit before income taxes (total loss to be listed with "-")	42,849,274	15,567,777
Less: Income tax expenses	7,901,841	1,697,083
IV. Net profit (net loss to be listed with "-")	34,947,433	13,870,694
V. Other comprehensive income after tax	-326,360	298,685
(I) Other comprehensive income not to be reclassified as profit or loss	-164	-
Changes in remeasured defined benefit obligations or net assets	-	-
2. Portion of other comprehensive income not to be reclassified as profit or loss under equity method	-164	-
II) Other comprehensive income to be reclassified as profit or loss	-326,196	298,685
Portion of other comprehensive income to be reclassified as profit or loss under equity method	25,594	-5,983
2. Gain or loss from changes in fair value of available-for-sale financial assets	-351,790	304,668
3. Gain or loss from reclassification of held-to-maturity investments as available-for- sale financial assets	-	-
4. Gain or loss on effective cash flow hedge	-	-
5. Currency translation reserve	-	-
VI. Total comprehensive income	34,621,073	14,169,379
VII. Earnings per share:		
(I) Basic earnings per share		
(II) Diluted earnings per share		

## **Consolidated Statement of Cash Flows**

## For the year ended 31 December 2016

Company Name: China Three Gorges Corporation		Unit: RMB'000
Item	The year ended 31 December 2016	The year ended
I. Cash flows from operating activities	31 December 2010	31 December 2013
Proceeds from sales of goods or rendering of services	85,301,766	70,258,873
Net increase in deposits from customers, banks and other financial institutions	543,930	135,260
Net increase in loans from Central Bank	-	
Net increase in placements from other financial institutions	-3,240,000	2,890,00
Proceeds from premiums of original insurance contract	-	
Net amount of reinsurance business	-	
Net increase in insured's deposits and investment	-	
Net increase in disposal of financial assets at fair value through profit and loss	-	
Proceeds from interests, fees nd commissions	555,597	465,83
Net increase of replacement from banks and other financial institutions	-	
Net increase in repurchasing	-	
Refund of taxes	3,166,866	3,716,58
Proceeds from other operating activities	3,308,811	2,766,19
Subtotal of cash inflow from operating activities	89,636,970	80,232,74
Payments for goods and services  Net increase in loans and advances to customers	15,167,247	12,689,07
Net increase in deposits with Central Bank and other financial institutions	1 426 000	-420,00 1,725,67
Payments for compensation under original insurance contract	1,426,908	1,720,07
Payments for interests, fees and commissions	19,802	5,73
Payments for policy dividends	10,002	0,10
Payments to and for employees	4,738,932	3,481,22
Payments of taxes	19,223,389	16,803,13
Payments for other operating activities	2,032,660	1,977,29
Subtotal of cash outflow from operating activities	42,608,938	36,262,14
Net cash flows from operating activities	47,028,032	43,970,60
II. Cash flows from investing activities:	,, ,,,,,,	.,,.
Proceeds from disposal of investments	125,625,397	86,682,56
Proceeds from return of investments	2,272,821	2,266,35
Proceeds from disposal of fixed assets, intangible assets and other long-term assets	46,366	94,04
Proceeds from disposal of subsidiaries and other business entities	367,894	51
Proceeds form other investing activities	2,499,253	568,79
Subtotal of cash inflow from investing activities	130,811,731	89,612,27
Payments for acquisition and contruction of fixed assets, intangible assets and other long-term assets	30,067,361	25,536,94
Payments for acquisition of investments	146,142,592	92,472,18
Net increase in pledge loans	-	
Net payments for acquisitions of investment in subsidiaries and other business units	10,260,326	1,935,28
Payments for other investing activities	3,516,664	149,81
Subtotal of cash outflow from investing activities	189,986,943	120,094,22
Net cash flows from investing activities	-59,175,212	-30,481,95
III. Cash flows from financing activities:		
Proceeds from investors	25,863,154	7,155,46
Including: Proceeds from non-controlling interests of subsidiaries	25,801,894	7,155,46
Proceeds from borrowings	75,607,687	75,307,30
Proceeds from bond issues	-	
Proceeds from other financing activities	679,307	226,07
Subtotal of cash inflow from financing activities	102,150,148	82,688,84
Repayments of borrowings	68,961,765	43,386,63
Payment for dividends, profit distribution or interest	27,533,879	22,634,74
Including: distribution of dividends, profit to non-controlling interests of subsidiaries	5,059,308	4,051,90
Payments for other financing activities  Subtatal of each autilian from financing activities	1,265,480	517,24
Subtotal of cash outflow from financing activities	97,761,124	66,538,63
Net cash flows from financing activities	4,389,024	16,150,21
IV. Effect of exchange rate changes on cash and ash equivalents	3,879,059	-579,89
V. Net increase in cash and cash equivalents	-3,879,097	29,058,96
Add: cash and cash equivalents at the beginning of the year	47,183,660	18,124,69
VI. Cash and cash equivalents at the end of the year	43,304,563	47,183,66

## Statement of Cash Flows of the Company

For the year ended 31 December 2016

Company Name: China Three Gorges Corporation		Unit: RMB'000
Item	The year ended 31 December 2016	The year ended 31 December 2015
I. Cash flows from operating activities		
Proceeds from sales of goods or rendering of services	23,007	112,450
Refund of taxes	-	
Proceeds from other operating activities	2,579,378	3,377,800
Subtotal of cash inflow from operating activities	2,602,385	3,490,256
Payments for goods and services	291,657	187,258
Payments to and for employees	325,236	303,600
Payments of taxes	2,617,630	2,190,47
Payments for other operating activities	494,633	322,173
Subtotal of cash outflow from operating activities	3,729,156	3,003,500
Net cash flows from operating activities	-1,126,771	486,750
II. Cash flows from investing activities:		
Proceeds from disposal of investments	54,462,805	28,494,526
Proceeds from return of investments	16,470,416	18,644,194
Proceeds from disposal of fixed assets, intangible assets and other long-term assets	94	13,542
Proceeds from disposal of subsidiaries and other business entities	34,795,411	
Proceeds form other investing activities	9,450,790	9,150,790
Subtotal of cash inflow from investing activities	115,179,516	56,303,052
Payments for acquisition and contruction of fixed assets, intangible assets and other long-term assets	388,329	834,178
Payments for acquisition of investments	73,756,120	62,757,639
Net payments for acquisitions of investment in subsidiaries and other business units	-	
Payments for other investing activities	119,143	486,086
Subtotal of cash outflow from investing activities	74,263,592	64,077,903
Net cash flows from investing activities	40,915,924	-7,774,85
III. Cash flows from financing activities:		
Proceeds from investors	61,260	
Proceeds from borrowings	26,800,000	39,570,360
Proceeds from bond issues	-	
Proceeds from other financing activities	-	
Subtotal of cash inflow from financing activities	26,861,260	39,570,360
Repayments of borrowings	26,399,477	18,941,528
Payment for dividends, profit distribution or interest	16,023,627	15,098,907
Payments for other financing activities	1,088,871	328,509
Subtotal of cash outflow from financing activities	43,511,975	34,368,94
Net cash flows from financing activities	-16,650,715	5,201,416
IV. Effect of exchange rate changes on cash and ash equivalents	1,195	-146,70
V. Net increase in cash and cash equivalents	23,139,633	-2,233,390
Add: cash and cash equivalents at the beginning of the year	9,502,379	11,735,769
VI. Cash and cash equivalents at the end of the year	32,642,012	9,502,379

# Consolidated Statement of Changes in Owners' Equity For the year ended 31 December 2016

Paid in cupils   Paid								For the year	21 0	For the year ended 31 December 2016				
Paid-in capital   Preferred								o une year	i laca					
Paid-in capital   Paid-in ca	-				-	Owners.	equity a	ttributable to the	Company					
of 2016  annuning errors  mmon control  copital  capital		Paid-in capital	Other ed Preferred shares	auity instrum Perpetual bond	S	Capital reserve	Less: treasury shares	Other comprehensive income	Special reserve	Surplus reserve	General risk provisions	Undistributed profits	Non-controlling interests	Total owners' equity
e at January 1, 2016  208,336,711  contribution under common control  condinary strare  contribution by holders of other equity  saed payment  reserve  its within owners equity  contribution for general risk provisions  its within owners equity  creserves transfer to paid-in capital  reserves transfer to paid-in capi	I. Balance at December 31, 2015	208,336,711	,	,		8,553,652		-263,006	2,131	20,436,384	1	8,920,852	63,418,854	309,405,578
ress combination under common control rss e at January 1, 2016  e at J	Add: changes in accounting policies	1						1						
ress combination under common control riss set January 1, 2016 at Janu	Corrections of prior period accounting errors	,		1		•		,	•	•	ī	,	,	
e at January 1, 2016  as decrease in the year of 2016  as 0.75.352  combination and withdrawal  combination and withdrawal  as of payment  seed payment  freserve  freserves transfer to paid-in capital  reserves to recover loss  as at December 31, 2016  as decrease in the year of 2016  as 0.75.352  contribution  as 0.75.352  contribution  as 0.75.352  contribution	Business combination under common control	1		,					·		'			
8. 3075,352	Others	,	•	ı	,	,	,	1	•	•	ï	,	,	,
sep/decrease in the year of 2016         3,075,352         -	II. Balance at January 1, 2016	208,336,711		,		8,553,652		-263,006	2,131	20,436,384	'	8,920,852	63,418,854	309,405,578
reserves transfer to paid-in capital  reserves transfer to paid-in cap	III. Increase/decrease in the year of 2016 (decrease to be listed with "-")	3,075,352	1	,		13,679,703	1	4,306,574	1,247	3,495,161	,	-1,598,900	17,898,178	40,857,315
3,075,352   -	(l) Total comprehensive income	, i						4,306,574				13,887,798	12,465,605	30,659,976
ordinary share	(II) Owners'combination and withdrawal	3,075,352		1	1	13,679,703		,		•	ï	,	10,464,935	27,219,990
s ased payment	1. Owners' ordinary share	3,075,352				12,800,540							10,464,972	26,340,864
reserve	2. Capital contribution by holders of other equity instruments			1	,	,			,		,			
reserve	3. Share-based payment							1						
reserve	4. Others	,			,	879,163					ï	,	-37	879,126
year accrued       - <t< th=""><th>(III) Special reserve</th><td>•</td><td>•</td><td></td><td></td><td>•</td><td>•</td><td></td><td>1,247</td><td></td><td>1</td><td>•</td><td>-166</td><td>1,081</td></t<>	(III) Special reserve	•	•			•	•		1,247		1	•	-166	1,081
Startbutton	1. Current year accrued								5,556		,		8,204	13,760
istribution atton for surplus reserves citation for general risk provisions citation for general risk provisions citation for general risk provisions creation to owners control to owners equity cserves transfer to paid-in capital creatives to recover fors creatives to recover fors csear December 31, 2016 211,412,063 csear December 31, 2016 211,412,063 csear December 31, 2016 csear Decemb	2. Current year utilised		٠			•			-4,309		1	•	-8,370	-12,679
idition for general risk provisions  idition for general risk provisions  idition to owners  idition to owne	(IV) Profit distribution			·						3,495,161	·	-15,486,698	-5,032,196	-17,023,732
ide to owners in the provisions in the owners in the owners equity is serves transfer to paid-in capital increaserves to recover loss at December31, 2016 211,412,063	1. Appropriation for surplus reserves	•	٠			•	٠			3,494,743	1	-3,494,743		
ion to owners  rs within owners' equity reserves transfer to paid-in capital reserves to recover loss recover loss recover loss recover loss recover loss recover loss reco	2. Appropriation for general risk provisions										,	•	•	
rs within owners' equity	3. Distribution to owners											-11,991,955	-5,032,196	-17,024,150
reserves transfer to paid-in capital	4. Others			٠	٠					418	·	,	•	418
reserves transfer to paid-in capital	(V) Transfers within owners' equity											•		•
reserves transfer to paid-in capital	1. Capital reserves transfer to paid-in capital				٠						1	•	٠	
reserves to recover loss	2. Surplus reserves transfer to paid-in capital							1						
ce at December31, 2016 211,412,063	3. Surplus reserves to recover loss	•		·				•		•	r	,	•	
e at December31, 2016 211,412,063	4. Others		•									•	•	•
211,412,063	(VI) Others							•			1	•	•	
	IV. Balance at December31, 2016	211,412,063				22,233,355		4,043,568	3,378	23,931,545		7,321,952	81,317,032	350,262,893

# Consolidated Statement of Changes in Owners' Equity For the year ended 31 December 2016

Company Name: China Three Gorges Corporation	Corporation												Unit: RMB'000
						ш	or the year e	anded 31 De	For the year ended 31 December 2015				
				0	wners' eq	luity atl	Owners' equity attributable to the Company	e Company					
ltem	Paid-in capital	Other equ Preferred Pe	Other equity instruments referred Perpetual Others ares	Capital reserve		Less: C treasury shares	Other comprehensive income	Special reserve	Surplus reserve	General risk provisions	Undistributed profits	Non-controlling interests	Total owners' equity
I. Balance at December 31, 2014	188,336,711	1			6,064,970		3,574,864	1,424	9,399,351	ř	29,490,514	38,272,528	275,140,362
Add: changes in accounting policies	·												
Corrections of prior period accounting errors	٠	1								•	•	•	•
Business combination under common control											,		
Others	•	•								1	•	•	
II. Balance at January 1, 2015	188,336,711				6,064,970		3,574,864	1,424	9,399,351		29,490,514	38,272,528	275,140,362
III. Increase/decrease in the year of 2015 (decrease to be listed with "-")	20,000,000	•			2,488,682		-3,837,870	707	11,037,033	,	-20,569,662	25,146,326	34,265,216
(I) Total comprehensive income	•						-3,837,870		1		22,177,524	6,520,997	24,860,651
(II) Owners'combination and withdrawal	٠	1		1	2,488,682	,			,	T	-9,510	22,610,090	25,089,262
1. Owners' ordinary share												7,166,125	7,166,125
2. Capital contribution by holders of other equity instruments													
3. Share-based payment	1	1		1	1				1		1	1	
4. Others	•	,			2,488,682		,	,	•	r	-9,510	15,443,965	17,923,137
(III) Special reserve	1	1		1	1			707	1		1	1,735	2,442
1. Current year accrued	•	,			,		,	4,364		r	,	4,897	9,261
2. Current year utilised	•							-3,657	1		1	-3,162	-6,819
(IV) Profit distribution	•	1			1	1	,	,	11,037,033	r	-22,737,676	-3,986,496	-15,687,139
1. Appropriation for surplus reserves	1	1		1	1	1		1	11,037,033	1	-11,037,033	1	1
2. Appropriation for general risk provisions	,	1		ı	1	,	1	1	1	r	ı	,	
3. Distribution to owners									1		-11,700,643	-3,986,496	-15,687,139
4. Others	•	1			1				1	r	1	•	•
(V) Transfers within owners' equity	20,000,000								1		-20,000,000	1	
1. Capital reserves transfer to paid-in capital	•	1			1	1		•	1	r	1	1	•
2. Surplus reserves transfer to paid-in capital	•	1			1			1	1	1	1		•
3. Surplus reserves to recover loss	,	1		1	1			1		ı	1		
4. Others	20,000,000	1		1	1	1	1	1	ı	ı	-20,000,000	ı	ı
(VI) Others		'			•				,	1	,	•	,
IV. Balance at December31, 2015	208,336,711	1			8,553,652	'	-263,006	2,131	20,436,384		8,920,852	63,418,854	309,405,578

Unit: RMB'000

# Statement of Changes in Owners' Equity of the Company For the year ended 31 December 2016

Company Name: China Three Gorges Corporation

						For the )	For the year ended 31 December 2016	mber 2016			
Item		Other ed	Other equity instruments	nents		PSS: Tragsliry					
	Paid-in capital	Preferred Perpetual shares bond		Others	Capital reserve	shares	Other comprehensive income	Special reserve	Surplus reserve	Undistributed profits	Total owners' equity
I. Balance at December 31, 2015	208,336,711	1	1	1	5,146,528	,	4,792,888	1	20,846,610		239,122,737
Add: changes in accounting policies									1		
Corrections of prior period accounting errors	1	,	1	,	•			1			
Others											
II. Balance at January 1, 2016	208,336,711	1	1		5,146,528	,	4,792,888	1	20,846,610		239,122,737
III. Increase/decrease in the year of 2016 (decrease to be listed with "-")	3,075,352					1	-326,360		3,494,743	19,460,736	25,704,471
(I) Total comprehensive income	,	1	1		•		-326,360	1	1	34,947,433	34,621,073
(II) Owners'combination and withdrawal	3,075,352										3,075,352
1. Owners' ordinary share	3,075,352	1	1	1	•			ı			3,075,352
<ol> <li>Capital contribution by holders of other equity instruments</li> </ol>						,					
3. Share-based payment	1	1	1	,	•			1			
4. Others	1	٠									
(III) Special reserve	,		,					1			
1. Current year accrued											
2. Current year utilised	,		,					1	•		
(IV) Profit distribution	1	٠							3,494,743	-15,486,697	-11,991,954
1. Appropriation for surplus reserves			,					1	3,494,743	-3,494,743	
3. Distribution to owners	1	٠								-11,991,954	-11,991,954
3. Others	•		,					1	•	•	•
(V) Transfers within owners' equity	•	٠									•
1. Capital reserves transfer to paid-in capital	,		1	,				1	•		
2. Surplus reserves transfer to paid-in capital											•
3. Surplus reserves to recover loss	٠		,		•				•		
4. Others	•										
(VI) Others					•		•	1	•	•	•
IV. Balance at December31, 2016	211,412,063				5,146,528		4,466,528		24,341,353	19,460,736	264,827,208

# Statement of Changes in Owners' Equity of the Company For the year ended 31 December 2016

Company Name: China Three Gorges Corporation	Corporation										Unit: RMB'000
						For the y	For the year ended 31 December 2015	mber 2015			
Item	Paid-in capital	Other equity instruments Preferred Perpetual Other shares bond	5	nents Others	Capital reserve	Less: treasury shares	Other comprehensive income	Special reserve	Surplus reserve	Undistributed profits	Total owners' equity
I. Balance at December 31, 2014	188,336,711			-	5,132,553		4,494,203	,	9,809,577	28,876,492	236,649,536
Add: changes in accounting policies	·								·		
Corrections of prior period accounting errors	•	1				•	•	,	•	•	,
Others											
II. Balance at January 1, 2015	188,336,711			1	5,132,553	•	4,494,203		9,809,577	28,876,492	236,649,536
III. Increase/decrease in the year of 2015 (decrease to be listed with "-")	20,000,000			1	13,975		298,685		11,037,033	-28,876,492	2,473,201
(I) Total comprehensive income	٠					٠	298,685	•	•	13,870,694	14,169,379
(II) Owners'combination and withdrawal	•				13,975			1	•	-9,510	4,465
1. Owners' ordinary share					•			•	•		,
2. Capital contribution by holders of other equity instruments											
3. Share-based payment	•				•	•		,	•	•	
4. Others					13,975			1		-9,510	4,465
(III) Special reserve	•	,	1		•				•	1	•
1. Current year accrued		1			1	•		•	•	•	•
2. Current year utilised	٠				•			,	•	•	
(IV) Profit distribution	1	1			1	1		1	11,037,033	-22,737,676	-11,700,643
1. Appropriation for surplus reserves	٠		,		•		•	,	11,037,033	-11,037,033	
3. Distribution to owners	1	1			1	1		1	1	-11,700,643	-11,700,643
3. Others	٠	1			•		,	,	٠	•	,
(V) Transfers within owners' equity	20,000,000					1		1	1	-20,000,000	1
1. Capital reserves transfer to paid-in capital	,		,		,		•	,	•	•	
2. Surplus reserves transfer to paid-in capital	1	1	1	1	1	1		1	1	1	1
3. Surplus reserves to recover loss	•	1	1	1	•	,	,	1	•	1	,
4. Others	20,000,000						•		1	-20,000,000	•
(VI) Others	•	1		,	•	,	•	,	٠	•	•
IV. Balance at December31, 2015	208,336,711				5,146,528		4,792,888		20,846,610		239,122,737

# Work Gives Dignity

In 2016, to carry forward the spirit of model workers and encourage hardwork, CTG nominated and honored 10 working teams, including the construction team and technology management team at the Wudongde site; praised 20 "Excellent Employees", including Ma Zengyi, Deputy Director of the Technology and Environmental Protection Division, Three Gorges Tibet Energy Investment Co., Ltd.; and granted four "Special Awards for Foreign Employees", including Zuberi, Senior Advisor at China Three Gorges South Asia Investment

Through occupational competitions, CTG encouraged technological innovation and entrepreneurship among all employees. In 2016, 13 engineering achievements won the 8th Award of National Technical Innovation by Employees from the Power Industry; one employee won the honorable title of "the 13th National Technical Expert".

CTG organized the 3<sup>rd</sup> Employees' Technical Innovation Campaign, in which 229 achievements were collected and 64 were appraised and awarded.

CTG organized the labor evaluation and competition for hydropower projects along the Jinsha River. CTG recommended 6 teams for the provincial "Workers Vanguard" title, and 7 individuals for the provincial "May 1st Medals", including Director Liu Guoping of the Supervision Department of the Wudongde Proj-



Chen Xiaoming



Ling Weihua



The 9th National Technical Expert The 10th National Technical Expert The 10th National Technical Expert The 12th National Technical Expert The 13th National Lv Xiaoyong



Zhang Hui



Zhang Chengjun

# Safeguarding Legitimate Rights and Interests of the Employee

In January 2016, CTG held the 2<sup>nd</sup> Session of the 2<sup>nd</sup> Employees' Representatives Congress and completed the by-election of deputies in a timely manner to align with the changes in CTG's organizational structure and deputies. By the end of 2016, all of the 34 proposals heard and voted on the 2nd Session of the Congress had been handled to safeguard the rights of employees to participate in management and oversight.

In 2016, CTG provided assistance to 141 employees in need, paid visits to 62 seriously ill inpatients and employees in major adversity and sponsored 53 children of the employees to go to universities through the "Autumn Education Aid" campaign.



In August 2016, at the 3rd summer camp for children of the employees working at Wudongde construction site, children delivered touching handwritten letters to their parents.



# Caring for Growth and Success of Young Employees

In 2016, CTG closely followed the growth of the front line young employees at junior level, including their life planning, friendship, marriage and psychological counseling. We also set down and optimized the institutional systems on on-job training, work shifts, leaves, salary, compensation and more.

To improve young employees' professional skills, CTG held the 6<sup>th</sup> Young Employees Skill Competition which attracted over 4,000 contestants. More than 50 innovation studios were set up. In addition, the "Children's Trip to the Three Gorges Dam" project won the silver prize of the Chinese Young Volunteer Service Project Competition.







# Continuously Enhancing Brand Image

In 2016, CTG intensified publicity and branding efforts from a strategic perspective, strived to build a new media relation and publicity landscape, and ensured multi-level and all-round media exposure to send positive messages and establish a new image of CTG to the society.

In 2016, our reform progress and growth were extensively reported by People's Daily, the Xinhua News Agency, CCTV, Guangming Daily and many other central news agencies under the topics of "SOE Reform" and "Made in China 2025", which attracted wide attention from the society.

CTG strengthened its publicity and branding on all media platforms, including new media which are dubbed as the "light cavalry of information". In addition to the issuance of China Three

Gorges Project News and China Three Gorges magazine, the compilation of China Three Gorges Almanac, and the publication of books about our advanced performance, we also worked on the official website and Wechat account to build a sound corporate image and create a favorable climate of positive coverage.

In the year of 2016, CTG attached great importance to brand building and made major historic breakthroughs. In October, CTG won the award of "Excellent Brand Building" at the 2016 China Trademark Festival. In December, the 2016 China Brand Evaluation Press Conference was held in Beijing where CTG was ranked first among energy and chemical companies with a brand value of RMB 204.07 billion.









# **Technology** and Environmental Protection

# Establishing a System of Technological Innovation



#### Chinese Sturgeon Research Institute

Chinese Sturgeon Research Institute is CTG's wholly-owned entity. It provides technology and innovation support for the Group to protect fish species and ecological environment during hydropower development. Since its establishment, the Institute has been widely engaged in research on rare fishes and ecological protection along the Yangtze River. In 2016, the Institute proactively applied to participate in and take responsibility for national and industry-specific technology projects. The Project of National Science & Technology Pillar Program during the 12th Five-Year Plan period and projects in scientific and technological plans, which were led by CTG, were successfully completed. CTG has also been recognized for its significant contribution to Chinese sturgeon protection, rare fishes protection, restoration of water ecosystem, and has been accredited by China Association of Science and Technology as a Popular Science Education Base in China as well as other awards such as National Youth Model Unit Award, Worker Pioneer of Hubei Province and Model Innovation Center of Hubei Province.



#### Shanghai Investigation, Design & Research Institute Co., Ltd.

Shanghai Investigation, Design & Research Institute is a subsidiary of CTG. It is an innovation platform of the Group that provides engineering technology support and R&D for hydropower and new energy business development. It is also a high-tech enterprise, an innovative enterprise, and an enterprise with intellectual property advantage in Shanghai. In 2016, the Institute successfully applied to take on three technology projects at provincial level and above, received approval for five national, industrial and local technology standards, and was awarded more than five prizes for progress in science and technology and outstanding engineering at provincial level and above.



## National Engineering Research Center of Water Resources **Efficient Utilization and Engineering Safety**

National Engineering Research Center of Water Resources Efficient Utilization and Engineering Safety is an innovation platform at national level jointly established by CTG and Hehai University. In 2016, the Research Center was graded as "Excellent" in the assessment by National Development and Reform Commission and received a subsidy of RMB 8 million to build up its innovation capabilities. During the year, the Research Center signed technology research contracts of RMB 12.9 million, won 10 awards at provincial level, and was granted 23 patents.

Technological innovation is a key driver to CTG's ambition of building a world-class clean energy group. In 2016, by focusing on innovation-driven growth, mass entrepreneurship and innovation and the group-level development strategy, CTG further improved its system for technological innovation and management, and accelerated the process of building its platform for new technology.



#### **CTG Postdoctoral Research Center**

Established in 2001, CTG Postdoctoral Research Center plays a key role in researching and resolving technology issues for the Group's business. As of the end of 2016, 43 postdoctoral fellows were admitted to the Group in 11 batches. They have participated in 31 national technology projects and published 273 articles. As first inventors, they have been granted 21 patents, and won 10 awards at national and provincial level.



#### CTG New Energy Technology Innovation Center

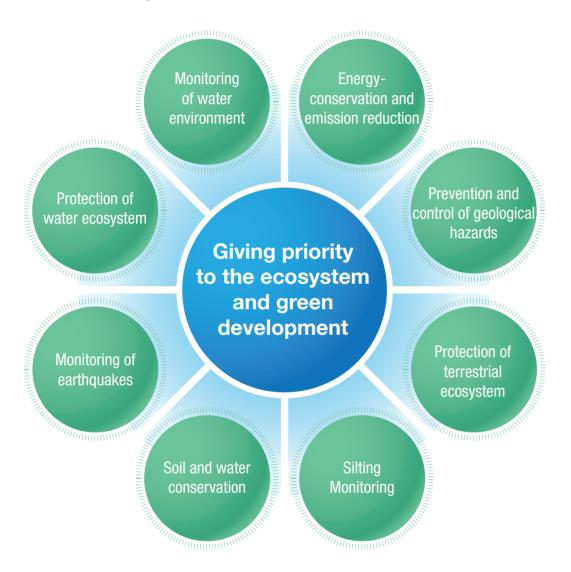
Established in 2016, CTG New Energy Technology Innovation Center is an independent development platform that provides technology support to the Group. It focuses on innovating, researching and developing new energy technologies, especially offshore wind power technologies. Through innovation in science and technology, independent development and introduction of advanced technologies, the Center formulates a technology standard system, so as to reduce costs, increase efficiency, enhance operation and control risks during the development of new energies. In addition, the Center develops competitive commercial softwares, patents and solution packages based on research results and engineering expertise, meeting market demands for design and industrial application.

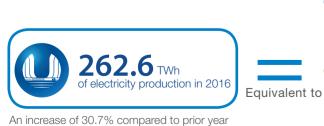


#### China-EU Clean Energy Technologies (Lisbon) Center

China-EU Clean Energy Technologies (Lisbon) Center is CTG's overseas research institute and is jointly set up by CTG and Energias de Portugal (EDP). CTG also partnered with LABELEC and set up the China-Portugal New Energy Technologies (Shanghai) Center, which focuses on research and collaboration on technologies involving energy storage and management, smart grid (distributed generation) and offshore wind power.

# Protection of Ecological Environment







reducing the consumption of **88.76** million tons of standard coal



reducing 220.27 million tons of car-



providing clean power for 130 million

# Research on Cutting-edge Technologies



#### Offshore Wind Power

CTG is committed to developing wind power, solar power and other new energies and takes new energy business as the Group's second principal business, with the vision of becoming a leader in offshore wind power. On November 5, 2016, the Fujian Three Gorges Offshore Wind Power Industrial Park, which is invested by CTG, started construction. The Park will collaborate with Chinese and world's leading wind power equipment manufacturers for win-win outcomes. The objective is to build an offshore wind power R&D center and equipment manufacturing base with high reputation and leading positions in both Chinese and global markets. It should "set a high standard, focus on large capacity turbine and cover the whole industrial chain". The center and manufacturing base will lead the offshore wind power equipment industry in Fujian and the rest of China to greater suc-

## **Smart Dams**

Over the past few decades of hydropower development, CTG has worked closely with research institutes and universities both within and outside China to conduct research at Xiluodu Power Station. The research focuses on key technologies for constructing a 300m extra-high smart arch dam at Xiluodu. It has pioneered the construction of extra-high smart arch dams, and launched a new phase for smart control of arch dam construc-

To further apply construction technologies for smart dams, CTG plans to engage in a more in-depth research on key technologies for building extra-high arch dams at Wudongde and Baihetan. It will also develop a Smart Dam Construction System and Control Model 2.0.





# **Corporate Social Responsibility**

# **Ecological Progress**

Developing clean energy and protecting ecological environment is equally important to CTG. By actively addressing climate change, protecting biodiversity and combating pollution, CTG is committed to becoming an environmentally-friendly and ecologically-responsible project developer, and therefore making contributions to the sustainable development of environment and human beings.

CTG continues its research on protection of rare and endemic fishes in the Yangtze River, and has made improvements in technologies for protection as well as the quality of Chinese sturgeons released.

CTG has developed an increasingly sophisticated approach to preserving rare plants in the Three Gorges reservoir, and conducted more in-depth research on traditional reproduction of davidia involucrata, adiantum reniforme, and taxus chinensis. Milestone progress has been achieved in rare and endangered plant tissue culture.

CTG continues to develop and utilize clean energy, monitor emission of greenhouse gases at reservoirs and reduce carbon dioxide emission in an attempt to provide clean, safe and reliable energy for national economic growth. CTG has made a positive contribution to China's electric power restructuring, greenhouse gases reduction and climate improvement.



Inspecting the development of Chinese sturgeon eggs in the lab and shortening the time of spawning



Vibrant plants cultured by the Three Gorges Nursery Research Center



#### Plant protection research

By the end of 2016, CTG had introduced and bred 356 kinds of peculiar and rare plant to the Three Gorges reservoir area with more than 17000 seedlings; through traditional breeding method, it also bred 13000 Hibiscus hamabo, aesculus chinensis bunge, magno lia officinalis, pteroceltis tatarinowii and taxus chinensis and other seedlings.



#### Protecting ancient and famous trees

CTG has transplanted 21 ancient trees along the Shenyu River on the left bank of the construction area for the Wudongde Project and strengthened the tending to ensure the sur-



#### **Protecting birds**

CTG implemented bird protection measures during site selection, design, construction and operation of wind-farms and photovoltaic

# Targeted Poverty Alleviation

In 2016, CTG was actively engaged in targeted poverty alleviation, assisting Xinjiang and Tibet, supporting migrants, protecting ecological environment, providing disaster relief and making charitable donations. Throughout the year, CTG donated a total of RMB 1.30 billion.

Upon approval by State Council Leading Group Office of Poverty Alleviation and Development and SASAC, CTG signed agreements with Yunnan and Sichuan governments in 2016. According to the agreements, from 2016 to 2019, CTG will invest RMB 2 billion to help ethnic minority groups in Yunnan including Nu People, Pumi People and Jingpo People to shake off poverty, and RMB 1.6 billion to help Yi People in Liangshan, Sichuan to alleviate poverty. In 2016, CTG donated RMB 500 million to

three ethnic minority groups in Yunnan and RMB 400 million to Yi People in Liangshan, Sichuan. CTG has also been actively engaged in poverty alleviation and social responsibility activities by donating a total of RMB 121 million.

In 2016, CTG established the Three Gorges Foundation as the Group's official channel for public donation. CTG is a founding member of Central Enterprises Poverty Alleviation Fund and has invested RMB 600 million.

In 2016, CTG appointed 7 directors to work on poverty alleviation in poverty-stricken areas and donated funds to 107 projects, benefiting 20 provinces (regions), 41 prefectures (cities), 64 counties and 13 countries overseas.



Chairman Lu Chun engaged in poverty alleviation projects in Yunnan

7 directors

were appointed to work on poverty alleviation in povertv-stricken areas

107 projects

Donations to

Benefiting

provinces (regions) prefectures (cities)

counties



President Wang Lin engaged in poverty alleviation



On June 7, 2016, CTG Fujian Branch visiting left-behind children at Putian Chiqi Primary School

# Care for Employees

Work-life balance is valued at CTG, especially the occupational health of front line employees. CTG is committed to creating a workplace based on quality, positive environment and occupational health, and working conditions that are warm, healthy and comfortable. CTG hopes its employees share the "New Dream of CTG" while fulfilling dreams of their own.

In 2016, CTG awarded four foreign employees to recognize their special contributions to the company. They were N. A. Zuberi, Senior Advisor from CTG South Asia; Daniela Afonso, Senior Manager of Legal Department from CTG Brazil; Phouxay Vongphachanh, Director of Corporate Social Responsibility Department fromLaos Nam Lik Hydropower Station Co. Ltd. and Laos Nam Ngiepll Hydropower Project; and Mbabazi Fortunate, Project Administrator and Translator of the Isimba Hydropower Project in Uganda. The award is a significant recognition and encouragement for foreign employees.

CTG adopts a differentiated and tailor-made approach to talent development and has continuously improved its talent development mechanism. It focuses on developing professional expertise and skill sets of its employees to unlock their full potentials.

Since 2008, CTG has organized charitable donations for its employees every year to provide aid for children of employees with financial difficulties. In 2016, CTG sponsored 53 children of the employees to go to universities with an amount of RMB 218,500. Senior Executives also visited retired and needy employees in different cities to express their concern and care.

# Giving back to Society

CTG actively gives back to society by participating in public welfare activities, disaster relief operations and helping orphans and the needy. In 2016, CTG made aggregate donations of RMB 1.3 billion. CTG has worked with Chinese Young Volunteers Association to engage its employees in volunteer public services and to take practical actions to help the society. In 2016, CTG employees provided volunteer services for 40,000 times and completed 270,000 hours of volunteer services. In 2015, CTG won the bronze medal in the 2<sup>nd</sup> Chinese Young Volunteers Service Competition with the project "Communist Youth League of Hope". Following that, in 2016, CTG won the silver medal in the 3rd Chinese Young Volunteers Service Competition with the project "Achieving Dreams - Children visiting Three Gorges area".

RMB 1.3 billion

**40,000** times

**270,000** hours

Total donations throughout the year

CTG employees provided volunteer services

completed volunteer services



N. A. Zuberi, Daniela Afonso, Phouxay Vongphachanh, and Mbabazi Fortunatewere awarded "2016 Special Awards for Foreign Employees" by CTG.



Basketball games





Donations to Leibo County, Sichuan Province



"Happy smile - helping children with cleft lip and palate" project



project "Achieving Dreams - Children visiting Three Gorges area"

# A Responsible Global Corporate Citizen

"Long-term development and localization" is a core principle for CTG's overseas business expansion. While developing local business, CTG prioritizes localization in its operations and public welfare in local communities. CTG strives to address local energy supply issues and create job opportunities for local people. It also actively engages in improving local infrastructure, social welfare, community development, disaster relief and cultural exchanges. It is CTG's vision to become a responsible global corporate

- In February 2016, the National Energy Administration and Myanmar Ministry of Electricity and Power signed an agreement on energy assistance. Eight Chinese enterprises including CTG donated RMB 36 million of energy funding in total (CTG donated nearly RMB 4 million).
- In March 2016, CTG actively responded to the charitable donation organized by Chinese Embassy in Pakistan to fulfill its social responsibility in Pakistan and provided assistance to Balochistan Province.
- On April 16, 2016, an 7.8-magnitude earthquake occurred in Ecuador. The stricken areas were severely damaged, posing challenges to disaster relief operations. The Ecuador subsidiary of CWE and local project teams took immediate actions to join in the post-disaster relief activities. Their contribution was recognized by both local government and residents, enhancing the corporate and national image in the local community.
- On July 14, 2016, the four injured Chinese peacekeepers in South Sudan were transferred to a hospital in Uganda. Isimba Hydropower Project team provided dedicated logistics support when the injured soldiers were treated in Uganda, and was highly appreciated by the People's Liberation Army Ground Force Command.
- From October 20 to December 16, 2016, CTG led a volunteer project at a school in Laos. When preparing for the project, CTG and Greenway China (an organization primarily engaged in volunteer services and cultural exchanges) had several rounds of discussions about recruiting and deploying volunteers to where CTG projects are based, supporting local education, promoting CTG corporate values and fulfilling corporate social responsibilities. CTG also signed an official agreement with Greenway Chi-

- In 2016, Salto Hydropower Station and Garibaldi Hydropower Station in Brazil launched a "Forest Restoration" project in the surrounding areas 232 km to the station, and improved local ecological environment. Garibaldi Hydropower Station in Brazil monitored the activities of local endangering wild animals in order to protect biodiversity. The Station has carried out 21 activities of such kind. Sao Manoel Hydropower Station helped with the radio communication project for surrounding Indian people's residential areas, and constructed radio communication systems for 21 villages. A "income-raising project" was organized for five cities and communities surrounding Garibaldi Hydropower Station and 85 households participated.
- Two stations of CTG (Brazil) Co., Ltd. ("CTG Brazil") Jupia Hydropower Station and Iha Hydropower Station, with a total capacity of 5 million kilowatts, are located in the State of Sao Paulo where some events of the Olympics Games were held in 2016. The two hydropower stations are of significance to the Brazil electic power supply. During the Olympic Games, CTG Brazil took effective actions to ensure power supply and overcome many difficulties with full commitment. The power stations operated in a safe and stable manner, and provided clean and efficient energy supply to the Olympics.

- In February 2016, CTG donated 60,000 euros to the Chinese Embassy in Portugal to sponsor the activity of "China Sem-
- In August 2016, CTG held an awarding ceremony for its Portugal Scholarship recipients in Lisbon. CTG donated 1 million euros to support the development of culture and education exchanges between China and Portugal. CTG set up a Portugal Scholarship with 500,000 euros of its donations in collaboration with University of Lisbon. University of Coimbra and University of Porto, the three most renowned universities in Portugal. CTG provided financial assistance to 20 students from Portugal to visit and study in China for two years, and promoted local education and cultural development. The other 500,000 euros was invested in cultural exchanges between China and Portugal, and social welfare activities in Portugal. These initiatives were greatly appreciated and recognized by local communities in Portugal.



On September 16, 2016, General Manager of CWE Laos organized donations for local students



Volunteer service at a school in Laos was successfully completed



On August 29, 2016, CTG held an awarding ceremony for its 2016 Portugal Scholarship recipients in Lisbon.

President Xi Jinping and

gave important guidelines and instructions for the reform and

and set directions for the future.

Premier Li Kegiang

development of CTG

# **CTG History**

China Three Gorges Project Corporation ("CTGPC") was established



Fulfilling the responsibility of "building the Three Gorges Project and developing the Yangtze River Resources"



Construction of the Three Gorges Project kicked off

Gezhouba Power Station integrated into CTGPC



1997

The Three Gorges Project river closure

Water storage, navigation and power generation began China Yangtze Power went IPO



Embarking on a journey to focus on both construction and operation

Progressively developing Yangtze River Basin

Xiluodu Hydropower Station Project kicked off construction

Xiangjiaba Hydropower Station Project kicked off construction

Yangtze New Energy Development Co.,Ltd. was established



Developing new energies such as wind power

Becoming the largest hydropower company in China Implementing an integrated strategy to develop clean

Construction of the principal part of the Three Gorges Project was completed.

Three Gorges Power Station came into full

China Water Investment Corporation was restructured.

Power assets of the Three Gorges Project was securitized and transferred to China Yangtze Power

CTGPC was renamed China Three Gorges Corporation ("CTG")



Acquired 21.35% of equity of EDP and

became its single largest shareholder

energy and go global



The Three Gorges Project stored water with a height of 175m for the first time China Three Gorges New Energy Co. Ltd was established.

The power plants of Xiluodu Hydropower Station and Xiangjiaba Hydropower Station began power generation.

Shanghai Investigation, Design & Research Institute Co., Ltd. was integrated into CTG.



 Unveiling a new chapter for CTG Becoming the world's largest hydropower development

a global leader in hydropower development.



The underground power plant of Three Wudongde Hydropower Station Project Gorges began power generation. kicked off construction.

> Hubei Energy Group was integrated into CTG. Hohhot pumped storage power station began power generation.

Involved in the power sales reform in Chongqing

company and China's largest

clean energy corporation



Three Gorges ship lift went into trial operation. Acquired the Brazilian business of Duke Energy 

© DUKE ENERGY.

Acquired German wind park Meerwind Became a holding company of The Guinea Kaleta

Hydropower Station

Karot Hydropower Station Proect in Pakistan kicked off construction



# **Major Subsidiaries**

# China Three Gorges Projects Development Co., Ltd.

China Three Gorges Projects Development Co., Ltd. ("Projects Development Company") is a subsidiary wholly owned by CTG. It provides investment, construction, management and consulting services to medium- and large-sized hydropower plants, pumped-storage plants, water conservancy projects and public infrastructure throughout the world.

The Projects Development Company, formerly the projects development division of CTG, was founded in 1984 and formed into a company in July 2015 as a result of CTG's integration of its project development capabilities. The company is primarily engaged in developing and constructing large-sized hydropower plants. It manages projects both within and outside of China. The company completed the construction of hydropower stations with an installed capacity of 43.70 GW. The stations that are under construction have an installed capacity of 26.92 GW. The five hydropower stations, including Three Gorges, Baihetan, Xiluodu, Wudongde and Xiangjiaba, are among the 10 largest hydropower stations in the world by installed capacity.

The Projects Development Company is broadly involved in developing and constructing projects of pumped storage, wind power, solar power and public infrastructure, and engaged in consultation and supervision business across the world. The company developed and constructed four mega-sized power stations including Xiluodu, Xiangjiaba, Wudongde and Baihetan in the lower reaches of Jinsha River. It also undertook construction of highways for migrant people from Jinsha River areas, bridges, navigation facilities, ports, public facilities and buildings (such as Beijing National Aquatics Center), and the Murum HyThe Projects Development Company established the concept of "safe development" for daily management and operations. It considers quality as the foundation of project construction and corporate development. Guided by the principle of "zero quality and safety accidents", the company completed the construction of mega-sized hydropower stations including Three Gorges, Xiluodu and Xiangjiaba with high quality, and without material quality problems or safety accidents.

Over the past three decades, the Projects Development Company gained rich experience in project investment, construction and management from a variety of global construction projects. It has formed a professional team with balanced age, comprehensive skill sets and practical management experience that are capable to lead project investment and development, manage construction of large-sized hydropower plants, apply and innovate on hydropower technologies and lead the development of hydropower industry.

Guided by an scientific outlook on development, the Projects Development Company will thoroughly implement its development principles of "innovation, coordination, green development, opening-up and sharing." It will actively promote and apply the business philosophy of "building a hydropower station to facilitate local economy, improve the environment and benefit resettled residents." It will continue to enhance the "zero" culture in operations - zero safety and quality accidents, and equally focus on hydropower development and environmental protection, striving to bring out the optimal value of the economy, society and environment. It envisions to become a world-class project

# China Yangtze Power Co., Ltd.

China Yangtze Power Co., Ltd. ("CYPC") was founded on September 29, 2002 upon approval by the State Council. It is a limited company by shares founded through promotion, with CTG as the principal promoter. The company went public at the Shanghai Stock Exchange (SHA: 600900).

As of 31 December 2016, CYPC issued 22 billion shares, 62.27% of which were controlled by CTG. The total asset of the company was RMB 298.90 billion; debt to asset ratio was

CYPC is the largest public hydropower company in China. It owns all of the power generation assets of the Three Gorges, Gezhouba, Xiluodu and Xiangiiaba Hydropower Stations. The total installed capacity is 45.50 GW and annual generating capacity is 190 TWh.

In 2016, CYPC recorded revenues of RMB 48.94 billion, increasing by RMB 1.50 billion from prior year. The profit before tax reached RMB 25.15 billion, increasing by RMB 634 million from the prior year. Basic earnings per share is RMB 0.94, increasing by RMB 0.12 from the prior year.



# China Three Gorges International Corporation

Founded on August 30, 2011, China Three Gorges International Corporation ("CTGI") is a subsidiary wholly owned by CTG with a registered capital of RMB 23.8 billion. As of the end of 2016, the total assets reached RMB 99.9 billion and the net assets were RMB 42.5 billion.

CTGI plays an important role in driving CTG to become the world's leading clean energy group. It facilitates the implementation of CTG's global strategy, expand CTG's full range of services into overseas markets, and represents CTG to engage in investment, construction, operation and management of overseas clean energy plants.

Since its establishment, CTGI has proactively integrated CTG into global markets, and achieved significant progress in developing overseas business, outbound M&A, project construction and power station management. As of today, it has controllable installed capacity of 8,230 MW and attributable installed capacity of 6,010 MW overseas.

CTGI owns 40 subsidiaries overseas. China Three Gorges Brasil Energia Ltda. ("CTG Brasil"), a wholly-owned subsidiary of CTGI, primarily focuses on the Brazilian market. In 2016, it acguired Jupiá Hydropower Station and Ilha Solteria Hydropower Station in Brazil with a total installed capacity of 5,000 MW. It also has full or partial ownership of 16 other hydropower plants and wind farms. The total generating capacity under its control in Brazil is over 8,000 MW, making it the second largest private power-generating company in Brazil. CTGI's wholly-owned subsidiaries in Europe primarily focus on West Europe and provide investment services to Europe and North America as well. In 2012, it acquired 21.35% equity of EDP, becoming its single largest shareholder. In 2016, it acquired German offshore wind park Meerwind (288 MW), marking the first outbound acquisition of a large-sized offshore wind park by a Chinese company.

Together with IFC, a member of the World Bank Group, and the Silk Road Fund, CTGI established China Three Gorges South Asia Investment Co., Ltd. The company, held by CTGI, primarily focuses on Pakistan and provides investment services to South Asia and Southeast Asia. It is currently investing to build Karot Hydropower Station, Kohala Hydropower Station and Pakistan Wind Power phase II. which have been enlisted in China-Pakistan Economic Corridor program. Pre-stage preparation for Mahl Hydropower Project is in process. The total generating capacity under CTGI's control in Pakistan is 3.000 MW. CTGI also jointly formed Hydro Global Peru with EDP. Hydro Global Peru focuses on Peru market and provides investment services to small and medium-sized hydropower plants all over the world. It has invested to develop 206 MW hydroelectric project San Gabán III, which will kick off construction in 2017.

Backed by CTG, CTGI has strong experience and capabilities in planning, engineering, construction and operation of large-sized hydropower projects and new energy projects. It is also capable of coordinating resources to manage large-sized water complex and cascade power stations. At the same time, CTGI has an integrated network of human capital, funding and financing resources in clean energy sector in the overseas markets.

Committed to business values of "Dedication, Excellence, Respect and Responsibility", CTGI focuses on what it does the best, aspires to greater achievements, respect business rules and shoulders its fair share of responsibilities. It proactively engages with and integrates into global markets, and develops in a rapid but steady manner. CTGI aims at making greater contribution to CTG's aspiration of becoming a world-class clean energy

# China Three Gorges New Energy Co., Ltd.

China Three Gorges New Energy Co., Ltd. ("TGNE") is a subsidiary wholly owned by CTG. It carries out the historic mission of developing new energy as CTG's second principal business.

TGNE vigorously develops onshore wind power, photovoltaic power and offshore wind power. It manages a robust small and medium-sized hydroelectric plants, explores solar-thermal power generation, and keeps close track of technology advancements in renewable energy such as tide and biomass energy. At the same time, TGNE makes investments in turbine and spare parts manufacturing that are relevant and complementary with new energy business to achieve synergy. It is primarily composed of four business units - wind power, solar power, small and medium-sized hydroelectric plants and equipment manufacturing. The four units complement with each other and develop in synergy. As of the end of December 2016, TGNE's new energy business covers 30 provinces, autonomous regions and municipalities in China. The total installed capacity of the wind farms. solar power plants and small and medium-sized hydroelectric plants that are under TGNE's operation reached 7,000 MW. The total assets exceeded RMB 60 billion.

As TGNE is responsible for implementing CTG's new energy strategy, it is committed to the strategic aspiration of "maintaining the landscape of the Three Gorges" and "becoming a leader in offshore wind power". TGNE gives priority to both the company size and profits, and therefore adopts a differentiated and cost-saving approach to development. It aims at becoming a new energy company with a balanced business structure, quality assets, outstanding business performance and exceptional management capabilities, and contributing to the "New Dream"



# Hubei Energy Group Co., Ltd.

Hubei Energy Group Co., Ltd. ("Hubei Energy") was founded in 2005 following the merger between Hubei Qingjiang Hydropower Development Co., Ltd. and Hubei Electric Development Company. In 2007, Hubei Energy received strategic investments from China Yangtze Power and China Guodian Corporation. In 2008, it was restructured into a limited company by shares. In 2010, it went IPO on the Shenzhen Stock Market (SHE:000883). In 2015, CTG became the controlling holder of Hubei Energy through private placement.

Hubei Energy is primarily engaged in energy investment, development and management. As a public energy company providing a comprehensive range of services and products, Hubei Energy is committed to safeguarding energy security in Hubei, and developing an integrated business platform for CTG - consisting of hydropower, thermal power, nuclear power, new energy, natural gas and coal business and financial investment. Till now, Hubei Energy has set up two energy bases - hydropower station in West Hubei and thermal power station in East Hubei, and has the greatest penetration in Hubei market in terms of new energy business. Hubei Energy has gradually developed an energy network to store and supply coal and natural gas. It also owns equity of many public companies and financial organizations including Changjiang Securities, Hubei Bank, Guodian Changyuan Electric Power and Changjiang Property & Casualty Insurance. As of 31 December 2016, the total installed capacity under operation of Hubei Energy reached 6,789.7 MW. Its total assets were RMB 41.76 billion, with a debt to asset ratio of 36.66%. Throughout the year, it generates 20.47 TWh of electricity, recording revenues of RMB 9.37 billion and a net profit of RMB 1.91 billion.

# China International Water & Electric Corporation

China International Water & Electric Corporation ("CWE") is a subsidiary wholly owned by CTG, and is the first state-owned enterprise in hydropower sector to engage in global economic operation. The company was renamed in 1983 and was previously known as the foreign assistance arm of Ministry of Water Conservancy and Electric Power for nearly half a century.

Today, supported by the Group, CWE makes best of its advantages to make investments in large-sized EPC and moderate-sized projects overseas. "Three Gorges CWE" has become a recognizable brand for investments in global EPC and small and medium-sized projects. Many projects that were constructed and developed by CWE have become milestones for global water and hydropower development - there are dams that signify friendship between countries; there are hydropower projects that are known as the local version of "Three Gorges Project"; there are also large-sized water complex and infrastructure projects that are regarded as flagship projects for global collabora-

CWE has a strong presence in water and hydropower business. As the Group's integral part of global operations, CWE is widely engaged in hydropower, clean energy, power connectivity and other energy investments in both traditional markets and regions with emerging competitive strengths. CWE has set foot in over 80 countries and regions across Asia, Africa, Europe and America, and set up permanent offices in 31 countries and regions. It successfully completed the Merowe Dam Project in Sudan, the Guinea Kaleta Hydropower Station Project, the Nam Lik 1-2 Hy-

tric Project, the Kozjak Hydro Power Plant Project in Macedonia, the Moinak Hydropower Station Project in Kazakhstan, the Sudan Upper Atbara Water Control Project, the Cañar Flood Control Project in Ecuador, the Draa Diss Dam Project and the Mahouane Dam Project in Algeria, Construction of Rabat Beltway in Morocco, Wacha - Maji Road Upgrading Project in Ethiopia and the electrification project in Ghana. It is undertaking projects such as the Souapiti hydropower project in Guinea and the Isimba Hydropower Project in Uganda, which are priority energy projects in respective countries.

CWE has acquired national Class-1 qualifications for EPC of water and hydropower projects, the competence for contracting foreign projects, the competence for importing and exporting, credit ratings of AAA, certifications for quality management, environment management and occupational heath management, and the contractor license of the highest grades for construction work in Hong Kong. CWE is among ENR Top 250 International Contractors List for 27 consecutive years, and ENR Top 225 International Design Firms for 16 consecutive years.

Going forward, CWE will follow the principle of rational and sustainable development to build a global clean energy construction and investment company which integrates "investment, construction, operation and management" activities. CWE will proactively fulfill its social responsibility and focus on local markets. It aims at driving local economic growth, bringing benefits to local people, and leading the development of global clean energy sector through quality, safe, technology-driven and environmentally-friendly projects.



# Three Gorges Capital Holdings Co., Ltd.

Three Gorges Capital Holdings Co., Ltd ("TGCH") was founded in March 2015 with a registered capital of RMB 5 billion. As a wholly-subsidiary of CTG, it is primarily engaged in industry investment, equity investment, investment consulting (services), asset management and investment in securities.

TGCH proactively implements its strategy to leverage the resources from new business development, investments in financial services and corporate financial investments. It focuses on developing new technologies, materials and business models in clean energy sector and actively incubates emerging services and driving forces for the future. By combining industry and finance, TGCH strives to embark on a journey of sustainable, rapid and healthy growth.

In 2016, by concentrating on CTG's clean energy business and strategic visions, TGCH seized growth opportunities and developed in a solid and steady manner. The business performance continued to improve. Throughout the year, TGCH made investments of RMB 12.76 billion in total with the return of RMB 1.70 billion and profits of RMB 1.17 billion. As of the end of 2016, the company's total assets were RMB 28.95 billion with a debt to asset ratio of 38.41% and 100% of quality assets. Equity attributable to owners were RMB 17.83 billion.

# Shanghai Investigation, Design & Research Institute Co., Ltd.

Founded in November 1954, Shanghai Investigation, Design & Research Institute Co., Ltd. ("SID-RI") was moved under Shanghai Municipal Government by Ministry of Water Resources in July 2001. In June 2014, SID-RI was restructured into a subsidiary of CTG with a registered capital of RMB 61.16 million.

SID-RI is large Class-A design institute, which focuses on water resources, hydropower, new energy and environmental engineering. With the capability of one-stop engineering services, SID-RI has established presence in most areas of China and over 20 countries and regions across the world. SID-RI undertook planning, survey and engineering work of over 40 large and medium-sized hydropower projects including Xin'anjiang Project. It provided engineering services for Donghai Bridge Wind Farm

in Shanghai - the first offshore wind farm in Asia. It was also engaged in the planning and engineering for projects about environmental protection of Lake Taihu and restoration of water ecosystem. Recognized for its contribution, SID-RI was certified as "National Outstanding Design Institute", "National Outstanding Water Resources Enterprise" and "High-Tech Enterprise of Shanghai".

After being incorporated into CTG, SID-RI proactively implements the strategy of becoming an offshore wind power frontrunner, as well as the "Belt and Road Initiative". It relentlessly commits to the aspiration of taking on the leadership in hydro-



# Three Gorges Finance Co.,Ltd.

Three Gorges Finance Co.,Ltd. ("TGFC") was founded in November 1997 upon approval by the People's Bank of China with a registered capital of RMB 4.5 billion. It is a non-bank financial institution specializing in financial services for CTG and its asso-

TGFC serves as a platform for CTG to pool, settle, monitor and raise capital and provides financial services to CTG. Guided by the business principle of "giving priority to the Group, focusing on services and regulations, and embracing innovation", TGFC carries out the mission of "safeguarding capital security, creating financial values and facilitating development of principal business." TGFC is primarily responsible for managing, settling, moving and monitoring capital, researching the developing trends of financial services industries, implementing financial strategies, and maintaining a pool of talents with financial expertise for the Group. Externally, TGFC connects with the capital and money markets; internally, it improves capital management efficiency and reduces financing costs through financial services to associated companies of the Group. TGFC has gradually developed featured businesses such as digital settlement, deposit/loan, investment in securities, wealth management and short-term capital allocation. It plays a key role in increasing capital efficiency and cash flow within the Group, reducing the Group's asset to debt ratio and cutting financing costs. In 2016, TGFC recorded profit before tax of RMB 1.15 billion with an EVA of RMB 245

# Provide Clean Energy and Build Beautiful Communities Together





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