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4 “Three New” Mode

5 Smart Low-carbon Community with Harmony
1 General Situation of Dongxiang

With a total population of 460,000, Dongxiang County is under the jurisdiction of Fuzhou City JiangXi Province, covering a total area of 1270 km². Located within the transitional belt between Poyang Lake and hills in eastern Jiangxi, it is 96 kilometers away from Nanchang, capital of Jiangxi, 100 kilometers away from Changbei Airport and 285 kilometers away from Jiujiang Port. Traditionally it is regarded as the Gate of Eastern Jiangxi.

Fuzhou East Station of Hangzhou-Nanchang-Changsha High Speed Railway is also set in this county.

At the intermediate stage of industrialization, Dongxiang has established three dominant industries (medicine& chemistry, metallurgy & electromechanical engineering, and textile industry) and four provincial industrial bases (modified starch, biotechnology & medicine, automobiles-motorcycles & accessories, and cotton fabrics). It also diversifies its scope into the fields of pig breeding and processing, mulberry-planting & silkworm-breeding & intensive-processing, cassava-planting and intensive processing, etc. And now it is making great efforts to push forward the development of new energy industry in consideration of its tightening situation in traditional energy resources.

Abundant in resources of land and forestry, Dongxiang County is classified as the national commodity grain base as well as the pilot county of the ternary-structured planting demonstration base in the hilly red soil region of southern China. It is rich in:

- Mineral resources: Over 20 types of minerals have been discovered till now;
- Solar resource and biomass energy;
- Tourism resources: Both Wang Anshi (an eminent writer in the Northern Song Dynasty) and Shu Tong (a great calligrapher) were born here.
In 2013, Dongxiang achieved an increase of 10.7 percent in GDP, amounting to 11.319 billion yuan. The investment in social fixed assets rose by 22.6 percent, reaching 12.154 billion yuan; the total revenue 17 percent, 1.723 billion yuan; main-business revenue of large-size industrial enterprises 23.6 percent, 18.36 billion yuan; industrial added value of large-size industrial enterprises 13.3 percent, 4.206 billion yuan. Among them, primary industry grew by 10.7 percent, hitting 1,770,190,000 yuan; secondary industry 6.2 percent, 6,870,430,000 yuan; and tertiary industry 10.4 percent, 2,678,820,000 yuan.
2 Opportunities and Challenges

The National New-type Urbanization Plan-To improve the urban sustainable development capacity;
White Paper on the Development of Low-carbon Economic Society of Jiangxi Province-To achieve the general balance in industrial structure and resource composition, as well as the basic transition of production mode to the low-carbon mode.
Planning of Poyang Lake Eco-economic Zone-To establish the environment-friendly industrial system featured by new industrialization, eco-agriculture and modern service industry, and achieve promotion in the advancement of technologies, the centralization of development, and the ecologicalization of economy as well.

<table>
<thead>
<tr>
<th>Advantages</th>
<th>Disadvantages</th>
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<tbody>
<tr>
<td>Obvious Locational Superiority: located at the major traffic axis of Fuzhou City, linking the eastern and western regions together</td>
<td>Shortage of water, the bottleneck of development</td>
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<td>With high forest coverage rate of 53 percent, and large amount of carbon sink resource</td>
<td>Coal-oriented mode of energy consumption, low use rate of low-carbon resources</td>
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<td>With profound cultural connotations and potential tourism resources</td>
<td>Conflict between achieving economic development and controlling carbon emissions</td>
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※ Low-carbon green development is the key way for Dongxiang County to promote economic restructuring and change the pattern of economic growth.
3 Development Goal - To Establish an APEC Low Carbon Model Town

※ APEC Low Carbon Model Town
- To achieve sustainable development
- To achieve the harmonious development among economy, society and ecological environment

※ Industrial Paths
- Low-carbon layout, Low-carbon industries, Low-carbon energy, Low-carbon Architecture, Low-carbon transportation, and Resources recycling

※ Planning Focus of Dongxiang APEC Low Carbon Model Town
- In accordance with the key principle of people-oriented
- To form the functional layout favoring the low-carbon town development
- To promote the combination of production and urbanization, and enhance the employment rate of local residents to 50 percent and above
3 Development Goal-To Establish an APEC Low Carbon Model Town

- To popularize clean resources and avoid excessive use of traditional resources such as coal; to develop bio-energy-centered (biogas and crop-stalk energy for example) supply system; and to promote the development of the photovoltaic power generation system as well as the industrialization of the solar water heaters.

- To construct smart low-carbon community with harmony, accelerate the step to employ arch-energy-saving technologies and management, optimize the layout of building clusters, improve the physical environment (wind, light, heat etc.) of the neighborhood, and advocate the banning of passive buildings with coal-heating system.
3 Development Goal - To Establish an APEC Low Carbon Model Town

-To promote the cooperation between land-use planning and city traffic road planning; to improve the structure of transportation and optimize its development mode, thus to reduce the high-consumption of traditional resources in the system of traffic infrastructure facilities as well as public transportation system.

- To construct regional resource station based on smart grids and accelerate the distributed new-resource planning construction; to popularize PV-DC buildings and develop the industry of DC household electrical appliances.

- Reducing the frequency of AC-DC converting to save 10-20% electricity
- Reducing electricity transmission loss for 5% or above
- Directly using photovoltaic power generation to save coal consumption
- Relieving tension of power grid by using excess electricity
- Energy-saving benefits
3 Development Goal-To Establish an APEC Low Carbon Model Town

-To establish low-carbon ecology chain system on the basis of its agricultural industry layout; to speed up the construction of rainwater-harvesting & reclaimed-water recycling facilities in community and build a water-saving town; and to promote separate collection, transportation and treatment of the waste.
Take the “Three New” (construction of new town, use of new resources and establishment of new life) as principle and push forward the construction of APEC low-carbon model town.

Take the construction of smart low-carbon community with harmony as the core, cultivate and perfect the development of low-carbon industry, promote low-carbon modern service industry, and achieve the green rising with the support of low-carbon finance.
5 Smart Low-carbon Community with Harmony

- With low-carbon idea as the guidance of the whole construction
- Advocate multi-functional use of the land and compact space layout
- Introduce community emission index into community planning and constructing system.
- Achieve community low-carbonization from the perspectives of planning, construction, management, recycling, etc.
Low-carbon Architecture-PV-DC Buildings

DEVELOPMENT REPORT
on Low Carbon Town of Dongxiang County in Jiangxi Province of China
Low-carbon Industry-PC-DC Appliances

Schematic Diagram of PV-DC Buildings

光伏直流住宅原理图

Low voltage DC system
- LED light
- Laptops
- Fax machine
- Air conditioner
- AC system
- Commercial Power supply

High voltage DC system
- Refrigerator
- Telephones
- Network devices
- TV
- DVD

Solar panel
Storage batteries
Power management system of DC building
Build PV power generation projects in waste hills and develop green energy.
With great potential for biogas development, more priorities should be given to biogas-project.

2 biomass moulding fuel plants will be built in towns rich in crop stalks, which will process 75,000 tons of stalks and produce 60,000 tons of fuel per year. The fuel will be conveyed to the industrial zones in Donghui, Dongteng, Yuanshangang and Gangshangji etc. of Dongxiang, as well as communities of local residents.
Hometown of Wang Anshi

Wang Anshi was rather eminent as a statesman, a reformer and a writer in the Northern Song Dynasty and was classed as one of the Eight Great Prose Masters of the Tang and Song Dynasties.

Hometown of Shu Tong

Shu Tong, a famous calligrapher as well as a statesman, was hailed as the No.1 Penman of the Communist Party and the Calligrapher of the Red Army by Chairman Mao.
DEVELOPMENT REPORT
on Low Carbon Town of Dongxiang County in Jiangxi Province of China

Fuoling International Cultural Tourism Park

Modern Service Industry
-Cultural Tourism
Modern Service Industry
- Modern Pension

Low-carbon Service Industries

- Low-carbon Finance
- Low-carbon Dining
- Modern Pension
- Low-carbon Tourism
- Health Care

DEVELOPMENT REPORT on Low Carbon Town of Dongxiang County in Jiangxi Province of China
· Actively develop local banks
· Develop different financing channels of new town construction and attempt the new financing modes of PPP, BOT, etc.
· Introduce social and private funds into town construction as well as infrastructure resource system, reduce debts of local government and promote the sustainable construction of low-carbon town.
DEVELOPMENT REPORT
on Low Carbon Town of Dongxiang County in Jiangxi Province of China

- Low-carbon Layout
- Low-carbon Industries
- Low-carbon Transportation
- Low-carbon energy
- Low-carbon Architecture
- Resource Renewal

- Community
  - Smart low-carbon community with harmony
- Service
  - Modern service industry
- Low-carbon finance

- Construction of new town
- Use of new resources
- Establishment of new life

Dongxiang, Jiangxi Province-Model of Low-carbon town development
Based on the international platform, we aim to make Dongxiang County an influential low-carbon ecological town at home and abroad, a model town with practicality. Besides, we will make full use of the successful experiences of this project as well as its radiation effect to promote the development of low-carbon town construction and stimulate a new round of economic growth in central China.
THE END, THANKS!