

# Analysis on the benefit of multifunctional comprehensive utilization of hydropower station

水电站多功能综合利用效益浅析

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# 01 Study on the background (研究背景)

As a renewable and clean energy, hydropower station has always been the first choice for energy development and construction in terms of replacing the decreasing limited mineral resources. Hydropower stations often have the functions of flood control, irrigation, water supply, power generation, shipping and other comprehensive utilization, which can not only carry out comprehensive development and utilization of water resources in the basin according to local conditions, but also obtain good social benefits and significant economic benefits.

水电站作为可再生的清洁能源，在替代日益减少的有限的矿物资源方面，一直是能源发展建设的首选对象。水电站往往兼有防洪、灌溉、供水、发电、航运等综合利用功能，不仅能够因地制宜的对流域水资源进行综合开发利用，而且可取得良好的社会效益和显著的经济效益。

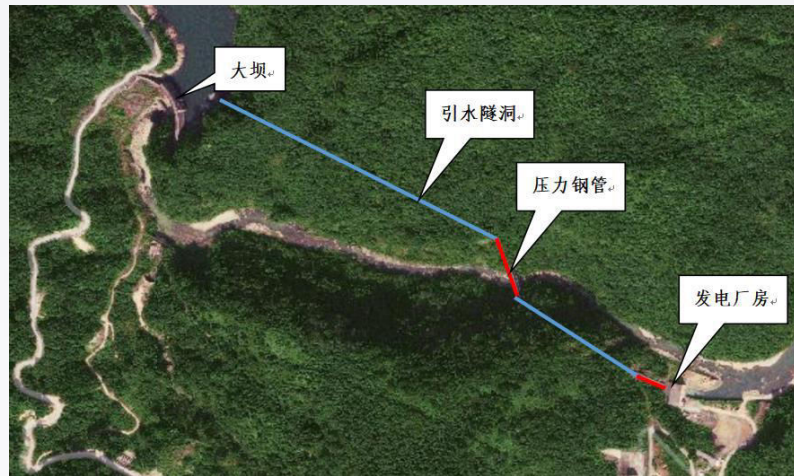




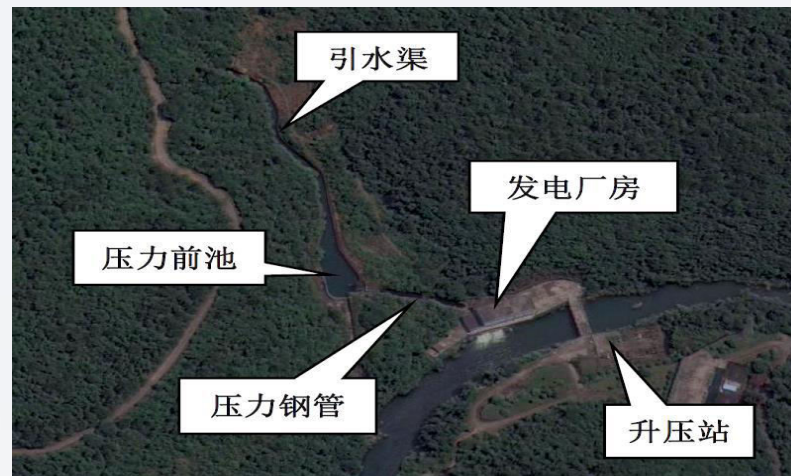
## 02 Current situation of hydropower Station (水电站现状)

BaMei Hydropower Station, QiaoFu Hydropower Station and DaTan Hydropower Station are cascade hydropower stations on the main stream of Datan River. Located in Luoyang Town of Ruyuan Yao Autonomous County, Shaoguan City, Guangdong Province. The installed capacity of the power station is 8000KW, 10000KW and 20000KW respectively. They have the functions of comprehensive utilization of flood control, irrigation and poverty alleviation.

坝美水电站、桥甫水电站、大潭水电站是大潭河干流上的梯级电站，位于广东省韶关市乳源瑶族自治县洛阳镇，电站装机容量分别为8000KW、10000KW、20000KW，具有防洪、灌溉、巩固脱贫攻坚成果综合利用功能。



BaMei hydropower Station diversion of water to generate electricity  
坝美水电站引水发电



QiaoFu hydropower Station diversion of water to generate electricity  
桥甫水电站引水发电



DaTan hydropower Station diversion of water to generate electricity  
大潭水电站引水发电

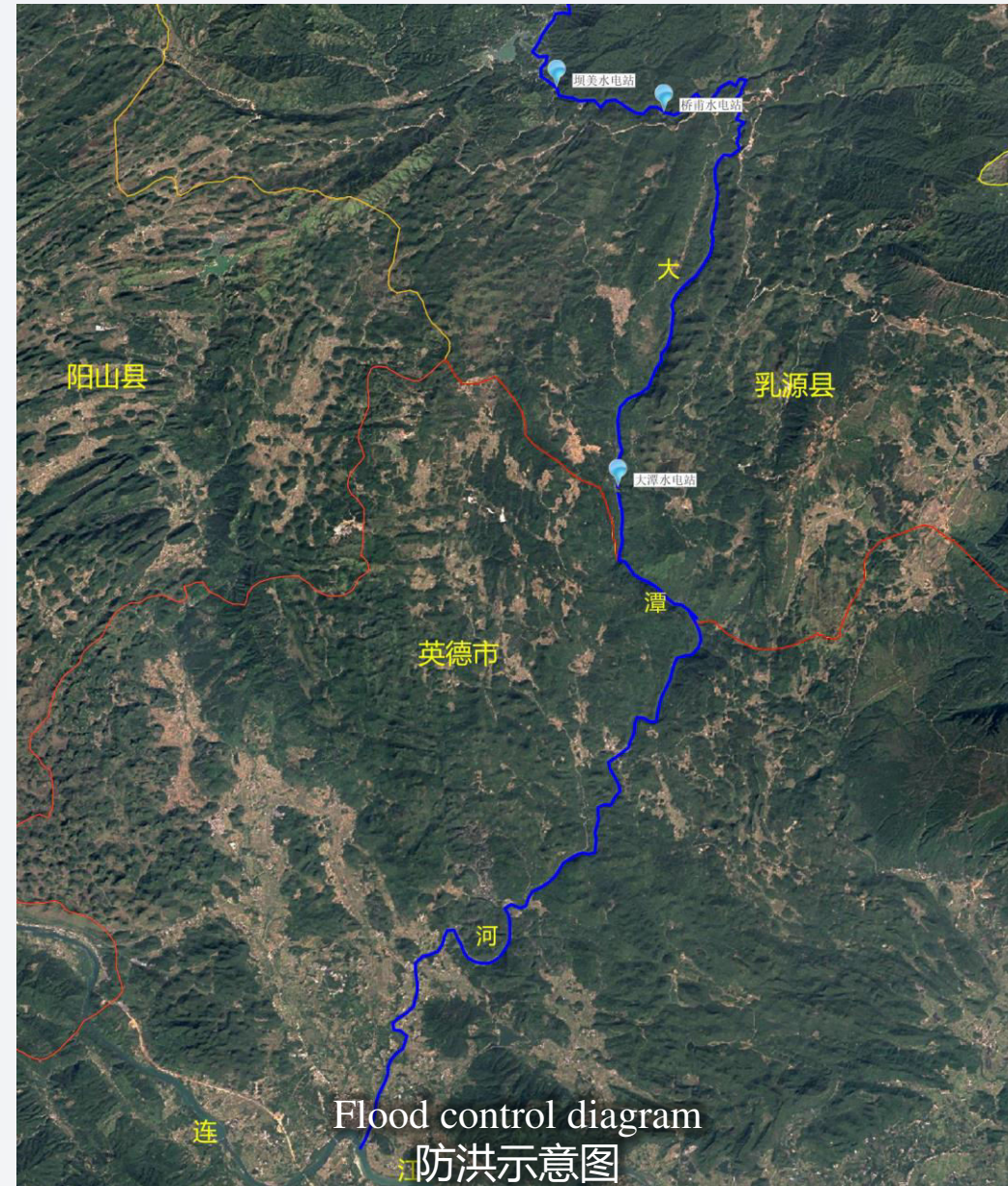


# 03 Comprehensive utilization function (综合利用功能)

## ● Flood control function (防洪功能)

BaMei Hydropower Station (total storage capacity of 26.07 million m<sup>3</sup>), and the downstream QiaoFu Hydropower Station (total storage capacity of 1.13 million m<sup>3</sup>) and DaTan Hydropower Station (total storage capacity of 19.3 million m<sup>3</sup>) play a joint role in flood control. The main flood control target is Dawan Town in Yingde City, Qingyuan City, Guangdong province, protecting the lives and property of 88,000 people.

坝美水电站（总库容2607万m<sup>3</sup>），与下游的桥甫水库（总库容2607万m<sup>3</sup>）、大潭水库（总库容2607万m<sup>3</sup>）起到联合防洪的作用。主要防洪对象为广东省清远市英德市大湾镇，保护8.8万人的生命财产安全。





# 03 Comprehensive utilization function (综合利用功能)

## ● Irrigation function (灌溉功能)

The Baltic River diversion irrigation area is the largest irrigation area in Yingde City, mainly through the diversion of water from the BaMei hydropower station, QiaoFu hydropower Station and DaTan Hydropower Station as the main irrigation water source. At present, the designed irrigation area is 3,180hm, involving a population of about 32,000 people.

波罗河引水灌区是英德市最大的万亩级灌区，主要是通过从坝美水电站、桥甫水电站、大潭水电站引水作为主要的灌溉水源。目前设计灌溉面积为4.77万亩，涉及人口约32000人。





## 03 Comprehensive utilization function (综合利用功能)

- Consolidate the achievements in poverty alleviation (巩固脱贫攻坚成果)

BaMei, QiaoFu and DaTan Hydropower stations pay 500,000 yuan of support funds to the finance of Ruyuan County, Shaoguan City, and have so far paid a total of 8 million yuan of water resources for the consolidation of poverty alleviation and rural revitalization work in Ruyuan County, Shaoguan City.

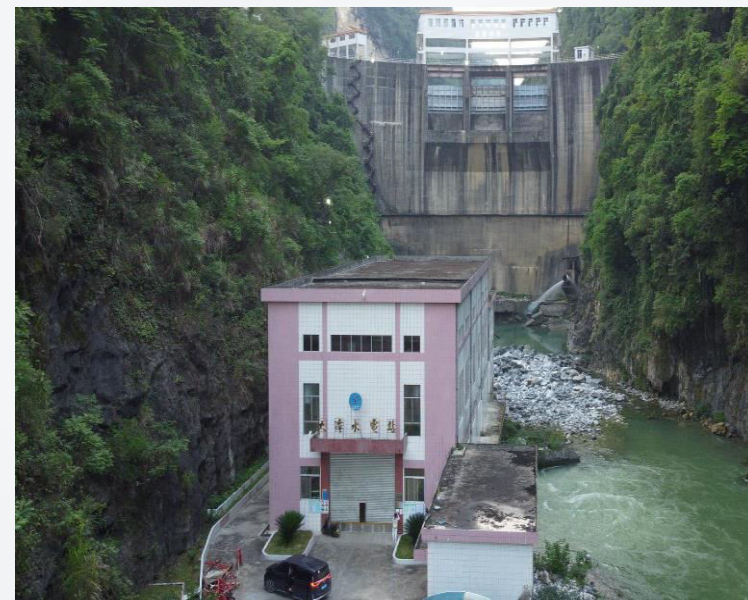
坝美、桥甫和大潭水电站每年向韶关市乳源县财政缴纳50万元扶持资金，至今已缴纳水资源费合计800万元，用于韶关市乳源县的巩固脱贫攻坚和乡村振兴工作中。



Powerhouse of BaMei hydropower station  
坝美水电站引水发电



Powerhouse of QiaoFu hydropower station  
桥甫水电站引水发电



Powerhouse of DaTan hydropower station  
大潭水电站引水发电

BaMei Hydropower Station, QiaoFu Hydropower Station and DaTan Hydropower Station are cascades along the Datan River. They have the function of comprehensive utilization of flood control, irrigation and poverty alleviation achievements, especially in the process of economic and social development in remote and backward areas, which can improve people's production and living conditions while promoting the development and utilization of water resources in the basin. Improving people's lives has laid a material foundation and played a positive role in the sustainable development strategy of the local economy.

坝美水电站、桥甫水电站和大潭水电站是大潭河上的梯级电站，具有防洪、灌溉、巩固脱贫攻坚成果综合利用功能，尤其在偏远落后区域的社会经济发展过程中产生巨大的综合利用效益，在促进流域水资源开发利用的同时，改善人民生产生活条件，提高人民生活奠定了物质基础，为地方经济的可持续发展战略发挥了积极的作用。



# Thanks for listening!

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