

Is the Yangtze River a green energy choice?

Chu, P., Liu, P. & Pan, H. Prospects of hydropower industry in the Yangtze River Basin: China's green energy choice. *Renew. Energy* 131, 1168-1185 (2019). Article#160; Google Scholar#160; Wu, C., Wei, Y. D., Huang, X. & Chen, B. Economic transition, spatial development and urban land use efficiency in the Yangtze River Delta, China.

What is multi-objective operation of hydropower generation in the Yangtze River?

Multi-objective operation of hydropower generation in the upper Yangtze River It is known that the objectives of maximizing the total generated energy and increasing the firm power conflict with each other, as detailed previously in this manuscript.

Are hydropower systems in the upper Yangtze River a problem?

However, new problems have emerged as the hydropower system rapidly develops in the upper Yangtze River of China: the rate of expansion and the scale of construction have posed tremendous challenges to the modelling and solution of these large-scaled complicated hydropower systems.

What is a reservoir in the upper Yangtze River cooperation system?

Each reservoir included in the upper Yangtze River cooperation system is responsible for multiple simultaneous missions, such as flood control, power generation, and shipping^{7,8}, etc. The operation of reservoirs affects the competition-relation benefits of multiple departments³⁴.

How does the Yangtze River hydropower system work?

To determine the characteristics of the operation of the hydropower system in the upper Yangtze River, a layer-partition approach (LPA) was introduced to divide the decision vectors into small vectors according to the reservoir's relative position, and a hydraulic relationship was used to reduce the high dimensions of the decision space.

Will Yangtze River hydropower be a leader in green energy?

On the premise that these three restrictions are solved, the future development of the Yangtze River hydropower has great potential in energy structure adjustment and environmental protection. Hydropower will be the leader in green energy with the rich reserves.

In detail, the annual power generation of ESOC can be increased by 0.9%, the total guaranteed output can be increased by 3.4% and the assurance rate can be increased by ...

This study proposes building a modern energy system in the Yangtze River Delta based on local characteristics. The primary features, key issues, and overall integration of the system are...

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He was also awarded as "Young Entrepreneur Award of G60 Science and Technology Innovation Corridor in the Yangtze River Delta", "2021 Young Innovation Pioneer Award of G60 Science and Technology Innovation ...

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The Three Gorges Dam Project (TGP) is one of the world's biggest hydropower complex projects, located in the Xilingxia Gorge, one of the three gorges of the Yangtze River, in Hubei province, China. The gorge ...

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