

Purpose of the Project: Sustainable Hydropower Use and Integration in China and Europe 中-欧可持续水电利用与综合(“水车”)项目的主要目标:

1. GREEN dimension: Make small hydropower more environmentally and economically sustainable by:

- Reducing its negative environmental impacts
- Restoring already degraded/destroyed ecosystems
- Improving its operation efficiency

2. BLUE dimension: Better understand and maximize hydropower's important role in the clean energy transition, considering its unique ability to store energy and improve flexibility in the energy system in a costeffective way.

Purpose of the SHUI-ChE project

Lot 4 中-欧可持续水电利用与综合(“水车”)项目的主要目标:

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2. BLUE dimension: Better understand and maximize hydropower's important role in the clean energy transition, considering its unique ability to store energy and improve flexibility in the energy system in a costeffective way.

Lot 4's main planned activities in 2021 (1): 2021年Lot 4水车项目工作计划(1):

1. **Non-cost extension till 31st October 2022 (Q2).**
2. **International Symposium on Water-Energy Nexus and Sustainable Hydropower Development (Q4).**
3. Finalization of the **technical study** that includes (a) results from the demonstration project in Panxi (盘溪流域), (b) technical solutions to implement green hydropower standards in China, (c) technical and policy workshop with EU and Chinese partners (Q2-3).
4. Application of the **cost and benefit analysis methodology for pumped hydro storage (Q4).**
5. Study: Potential of energy storage integration for renewable energy system development (Q2).
6. EU case study report – understanding **role of hydropower for power system flexibility and its implications** and lessons learnt from the Nordics experiences and discusses its relevance to China (Q3).

Lot 4's main planned activities in 2021 (2): 2021年Lot 4水车项目工作计划(2):

7. Continuous **scoping and engagement of relevant stakeholder** for deepened exchange under the **EU-China Sustainable Hydropower Innovation Network** 中欧可持续水电创新网络 (Q1-4).
8. One or two policy dialogue workshops organized by the EU-China Sustainable Hydropower Innovation Network (Q3-4).
9. One business promotion event organized by the Network (Q3).
10. Joint development of **technical/policy recommendations** based on completed activities (Q3-4).
11. Further **deepen cooperation with our Chinese co-lead Nanjing Hydraulic Research Institute** on WEN, hydropower and system flexibility, Source to Sea and its key R&D program on WEF(Q1-4).
12. Active engagement in **dialogue with the secretariats and other Lots** regarding project implementation, policy dialogue process, business promotion and future funding opportunities (Q1-4).

The thematic directions of Lot 4's expected technical and policy recommendations:

Lot 4水车项目制定技术与政策建议工作的主要方向:

1. 绿色小水电评价标准的制定与执行 Development and enforcement of the green standard for hydropower, especially SHP development.
2. 小水电运营效率与生态保护及修复措施 Optimisation of small hydropower operation efficiency while ensuring ecosystem restoration and protection.
3. 抽水蓄能电站的规划与发展 Planning and development of pumped storage hydropower (PSH).
4. 促进水电在清洁能源转型以及低碳发展中发挥更大作用 Exploration of hydropower's full potential as balancing power/flexibility in the energy system to reduce renewable energy curtailment, and as enabler for regional energy cooperation and a more rapid clean energy transition.