



Collaboration Between the West and the East



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Talking with Plymouth

Progress in Wave Energy

➤ **OEbuoy**
~1.25MW

➤ **Penguin**
~500kW

➤ **WanShan**
~120kW

➤ **Multi-Heaving Buoy**
~ 100kW



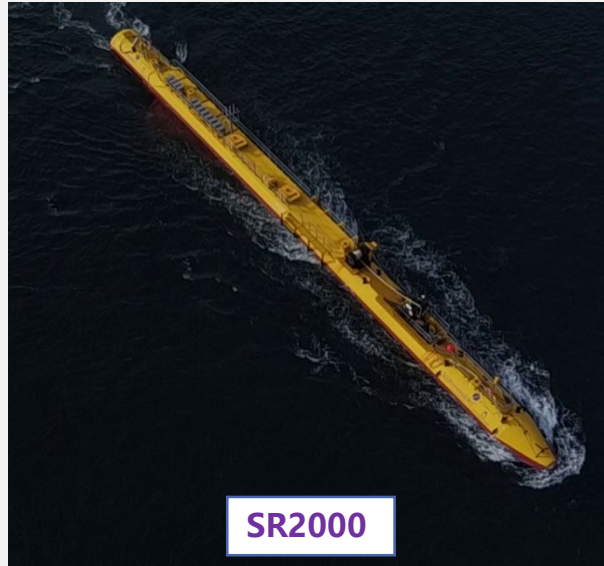
Progress in Tidal Energy

➤ **SR2000**
~2MW

➤ **PLAT-1**
~1MW

➤ **HAT by ZJU**
~ 650kW

➤ **HAT by OUC**
~2×50kW



What is the strategy

With the innovation of the new devices and the evolution of the efficiency, techniques that could be commercially used are approaching to the application.

Nevertheless, how to balance the costs on the safety and on the electricity producing.

So, basic research is supposed to be re-oriented according to the downstream application, and to the appropriate sea areas where the techniques could be demonstrated as economic as possible.

Necessity of integrated use of ORE

Single Development

- ◆ Higher cost
- ◆ Lower Guarantee
- ◆ Unstable

Multi Development

- ◆ Lower cost because of sharing
- ◆ Higher Guarantee because of more inputs
- ◆ More stable because of supplementary

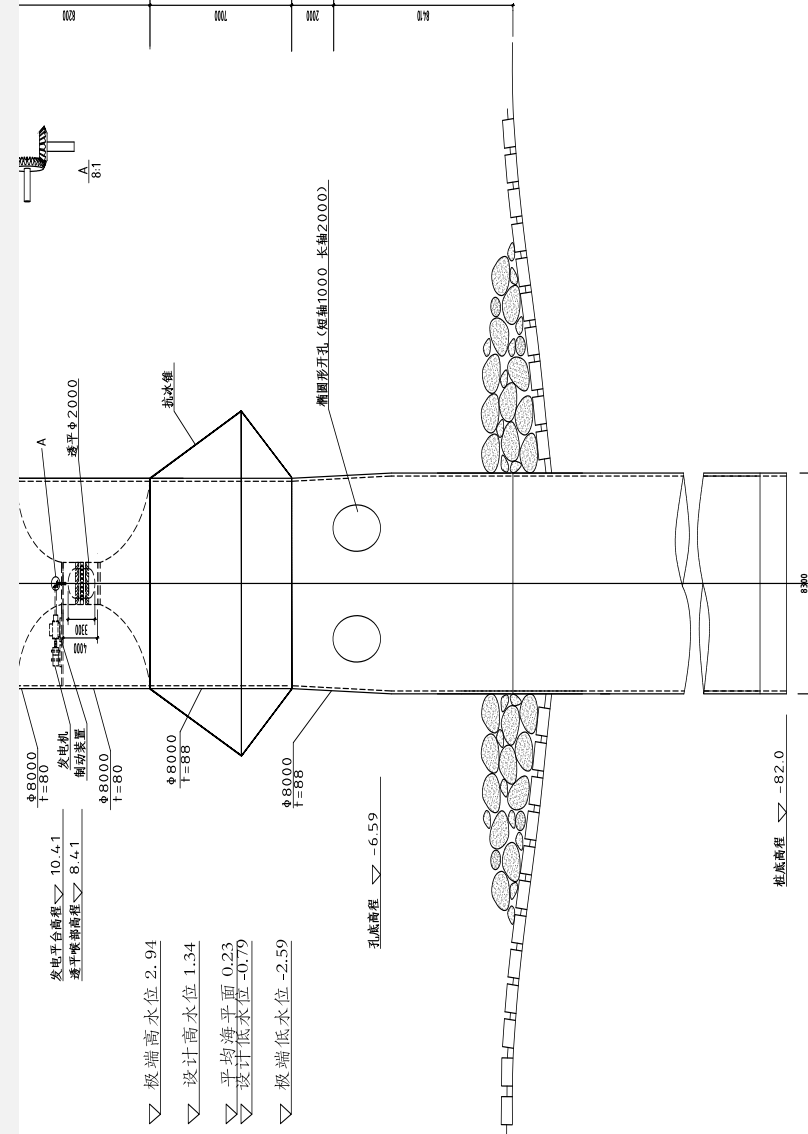


Example for wave energy with wind

Wind-Wave Development

**Key Tech: Position of the whole
Intensity
Scale of the air chamber
Deployment of electricity**

**What are the challenges
for floating ones?**



About the demonstration

Function and efficiency

The sites with the best resource

Application and market

The sites with the average resource



Suggestions for collaboration

Basic research oriented by the commercial use

Rational resource study for broadening sea areas

Integrated models for lowering the cost

Multi-inputs for stable output

Smart tidal/wave farm

Proposal for long-term collaboration

Scholars and PhD students exchange

Data validation

Joint research project application (EPSRC, MOST...)

Joint research center for staff and facility sharing



Thank you

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