What is Hybrid OTEC (H-OTEC)?

New system combining OTEC and desalination to promote the commercialization. The facility will be the first operational plant in the world.



What are the benefits of this project?

- Generating electric power by exchanging heat from Surface Seawater.
- The electricity produced by OTEC has a fixed cost.
- It can produce up to 2 million liters per day of drinkable water per MW of power output.
- It is not susceptible to the volatility of costs that affects other energy sources (coal, natural gas and petroleum).
- Has less environmental impact.
- Promotes larger and various commercial experiments to be carried out in the future.

'We look forward to potential collaborators in the long run.'



SATREPS Science and Technology Research Partnership for Sustainable Development Program

https://www.jst.go.jp/global/english/kadai/h3003 malaysia.html



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URL: https://www.utm.my/satreps/ https://www.facebook.com/utmotec/ Development of Advanced Hybrid Ocean Thermal Energy Conversion (OTEC) Technology for Low Carbon Society and Sustainable Energy System: First Experimental OTEC Plant of Malaysia



SATREPS PROJECT Ocean Thermal Energy Conversion

Research Organizations



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This 5 year co-research project between Malaysia and Japan started in 25 March 2019.

Overall Goal

The implementation of combination of Hybrid OTEC (H-OTEC) and deep seawater application, so called" Malaysia Model", is commenced in Malaysia.

Project Purpose

Malaysia Model is established.

Outputs

- 1) The H-OTEC pilot plant suitable for Malaysian environment is developed.
- 2) The optimum condition for H-OTEC in Malaysia is specified based on the experiment using pilot plant.
- Suitable combination of deep seawater (DSW) multiple use in Malaysia using H-OTEC is established.
- 4) Effects on the environment and CO₂ emission are quantified.
- 5) The human capital on the OTEC technologies and on the DSW multiple use for business is developed.







Malaysia Model OTEC system that is advantageous to local industry in Malaysia. This model can then be rolled out to other parts of the world, including other Asian and Pacific Island countries.

The scientific evidence obtained by the project will be utilized for making an effective strategy on larger scale of H-OTEC Plant in Malaysia.

