ENERGY INNOVATION CHALLENGE 2019

INTERVIEW WITH DR RONNIE TEO

Introduction

We are team Odyssey, Group J-25. The purpose of this interview is to collect your valuable opinions regarding our project, "Floating Charging Stations for Electric Ships that Generate Electricity through Solar and Tidal Energy".

Questions

1. Is current technology able to support fast charging of electric ships? If no, in what ways could fast charging be achieved?
2. What would be the optimum number of solar panels and tidal turbines to be placed in each charging station?
3. Would solar panels and tidal turbines be sufficient to generate electricity? If no, what other ways would be sufficient?
4. We have decided to put the chargers in the Gulf Stream between North America and Europe. It has a sea surface temperature of 10-12 degree Celsius and a Solar irradiance of 200-240Wm-3. Do you think there are any challenges this project may face in this region?
5. The charger does not have any flimsy components or moving parts and would be safe under rough waves and ocean conditions. Are there any flaws in this design that may be a hazard for the Odyssey?
6. Would there be any further technical issues the charging stations would face?