

# Philippines Initiative in Harnessing Marine Current Energy Resource

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With the prevalent concerns on climate change and energy sustainability, the new and renewable energy technologies have been projected to significantly mitigate the green house gases from the power sector at the same time offer cleaner alternative indigenous energy resource. In advanced countries, renewable energy systems are gaining commercialization grounds for grid and off-grid power generation applications, particularly in the field of geothermal, hydro, solar, wind and biomass energy resources. In this initiative, efforts to demonstrate the potential of using ocean energy resources in particular marine current energy systems are investigated.

In the Philippines, renewable energy systems have been recognized and forecasted to contribute considerably in the indigenous energy supply and power generation mix. Meanwhile, the appropriate policies are being laid-down to create more conducive environment for renewable energy developers, such as investment incentive program and financing opportunities are already in-placed and being availed of. Resource assessments of the different renewable energy sources were conducted to identify the extent of potential available resources in respective strategic location throughout the country. The Philippine Government likewise invested in detailed energy resource assessments to identify the strategic site potential as well as draw preliminary technological and economic viability for consideration in future energy development. These data investigations will also serve as initial information for interested renewable energy developers.

For marine current profile information, there is information provided to sea freighters on predictive marine current flow in strategic locations throughout the country. In attempt to validate the potential of marine current resource for energy applications, a detailed marine current resource assessment was conducted in selected areas in the country. The resource data information can be used to estimate the potential of marine current energy resource and match with the operating parameters of any marine current energy systems to determine its technical viability. Hence, initial technology search and assessment are being conducted to identify marine current technologies that have potential for local application. Most of the initially identified



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marine current energy technologies are developed abroad. While there are technologies developed locally, these are still at the prototype developmental stage and no working system yet is installed in actual local power application. The technical presentation essentially highlights the local initiatives on the marine current assessment activities and identification of technologies to harness marine current energy resource.