

Title of The Project	Floating PV (FPV) Cirata 145 MWac: ASEAN's Largest FPV Transforming Renewable Energy Landscape towards Indonesia Net Zero Emissions (NZE)
Name of The Company	PT PLN Nusantara Renewables
Name of The Inovators	 Dimas Kaharudin Dimas Zaki Alkani Saskia Nursukma As Sakinahj Nugroho Dwi Apriliyanto Sultan Sefliansyah Aripriantoni Kirjono
Name of Champion	Mr. Wirawan
Categories	IPP of the year
500 Words Abstract	Climate change, as a global phenomenon, has affected every country, including Indonesia. Therefore, Indonesia has ratified the Paris Agreement to accelerate renewable energy development. It is one of the efforts to achieve national and international targets in climate change, such as the Net Zero Emission (NZE) target, the Nationally Determined Contribution (NDC), the Environmental, Social, and Governance (ESG) mix target, and the National Energy Policy (NEP) mix target. One of the implementations is the development of a floating solar PV (FPV) plant on many potential water reservoirs in Indonesia. FPV Cirata, with a total capacity of 145 MWac, is the first utility-scale FPV in Indonesia currently under construction. FPV Cirata was designed and planned to have commercial operation dates in quarter 4 of 2023; as per this report, FPV Cirata has achieved more than 95% of construction. Floating PV Cirata utilizes high technology in bi-facial PV modules, turn-key inverters, locally fabricated floaters, special robust shear keys, concrete block anchors, and a special design for around 100 meters of galvanized chain and polyester rope mooring line to ensure reliability of operation and dam safety regulation.



Under construction progress, adaptive policy, considering stakeholders' environments, applied several acceleration efforts to complete the project on time, on quality, and on cost. Examples of the acceleration are an increase in the number of launching platforms, double working hours and workers, and partial Sertifikat Laik Operasi (SLO), which can help reach full commercial operation dates (COD).

Furthermore, FPV Cirata is predicted to be the pioneer of many upcoming RE penetrations in Indonesia. FPV Cirata has many advantages, such as the production of as much as 245 gigawatt-hours of green electricity every year, which is equal to a reduction of carbon emissions of up to 1.498.000 tons of CO2 equivalent. It also attracts foreign investment of approximately 2.145 billion IDR in RE to Indonesia, empowering local resources and up to 1400 workers during construction and operation. Related to foreign investment, the completion of the FPV Cirata project shall deliver other advantages in Indonesia, such as increasing foreign investor and lender trust in Indonesia, developing upstream and downstream solar PV businesses, and being represented as Indonesia's successful story for world contribution. Moreover, the FPV Cirata 145MWac initiative has achieved the distinction of being the largest utility-scale FPV in Southeast Asia and the third largest in Asia.

In brief, as the largest FPV in Southeast Asia, PLN Nusantara Power, through its subsidiary (PLN Nusantara Renewables), participates in the RE transition around the world, especially in Indonesia, supports all the climate change programs, and develops a greener and more sustainable world. In the future, FPV Cirata has the potential to expand the project to five times its initial capacity to elevate the energy mix of RE.

Source and References

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