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TITLE OF PROJECT: **Robust Anchoring for Floating Solar: A Comprehensive Design Approach**

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ABSTRACT

The worldwide shift towards renewable energy has resulted in a notable increase in curiosity in inventive solutions like floating solar photovoltaic (PV) systems. This abstract outlines the critical actions and factors that must be taken into account while creating a strong anchoring system for floating solar platforms. The design method, which adopts a multidisciplinary approach, incorporates knowledge of renewable energy, environmental impact assessment, marine and structural engineering, and more. The basis is a thorough site assessment that includes assessments of environmental factors, soil composition, water body features, and regulatory compliance.

Critical computations include dynamic analysis, safety considerations, and the evaluation of buoyancy, wave, wind, and current forces. In order to guarantee continuous system performance, careful consideration must be given to material selection, installation logistics, and continuing maintenance. In order to ensure sustainability, environmental impact assessments are essential, and community involvement encourages cooperation among stakeholders. By combining these elements, a thorough design framework is created that guarantees the installation of floating solar projects in a variety of aquatic situations

KEYWORDS: Floaters, Anchoring Systems, HDPE(High Density Polyethylene), Sustainability, Floating Solar Panel

CATEGORY: Structural Engineering