



TECHNICAL ASSISTANCE REQUEST

October 7, 2020

To: American Made Network;
U.S. National Laboratories;
PV panel manufacturers; and
Floating platform designers and integrators for floating photovoltaic systems.

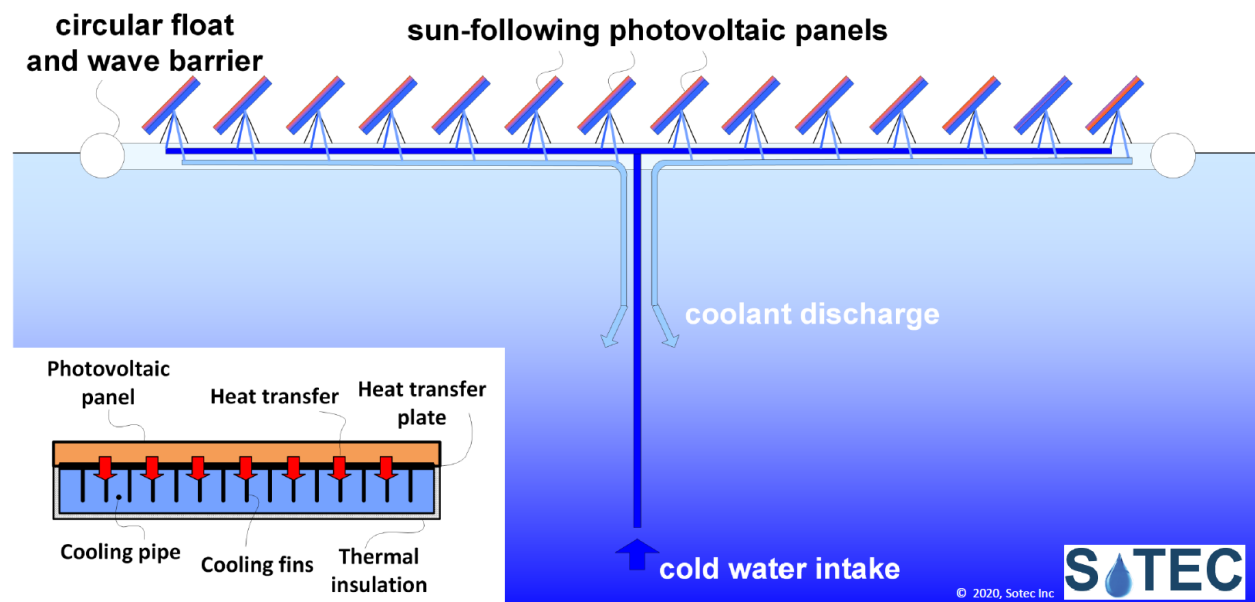
Re: Sotec Inc's development of water-cooling systems for floating photovoltaic systems

Background

Sotec, Inc, a US corporation, is developing water cooling systems as efficiency enhancements for floating photovoltaic systems. In the context of offshore floating platforms, cold seawater is drawn from depths where the water is <45 degrees F, serving as coolant, through a vertical pipe. In the context of floating platforms on inland or shallower bodies of water, a similar approach is used, sourcing the coldest available water, using a pipe of suitable length.

This development effort involves prototyping and testing modified commercially available PV panels with cooling systems added-on, development of customized PV panels, and development of coolant water supply subsystems for next-generation utility-scale floating PV systems. The image below illustrates two aspects of the innovations: Cooled PV panels, and the coolant sourcing system, in the context of a large floating platform (shown in crosssection).

Cooling efficiency enhancements for floating photovoltaic systems



Assistance Requests

- 1) Lab space and workshop/machine shop space for prototype components development.
- 2) Contributed commercial PV panels to use as basis for prototyping add-on cooling.
- 3) Electrical efficiency testing equipment.
- 4) Design advisory services for detail design of complex piping and related structures.
- 5) Access to one licensed commercial seat of CAD software, such as SolidWorks, for purposes of detail design.
- 6) Subject matter expertise on floating photovoltaic systems.
- 7) Subject matter expertise on thermodynamics of PV panel performance.
- 8) Subject matter expertise on floating platform integration, and reference experience(s) with existing floating PV platform systems.
- 9) Subject matter expertise on marine corrosion.

Thank you for your consideration,

Peter Rosti

President

Sotec, Inc

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