

Helios International Consulting

<u>Team Member Name</u>	<u>Year</u>	<u>Major</u>
Jacob Holland	2022	Communications (Media Production)
Alex Zhinin	2023	Business Administration
Thomas Gorglione	2022	Finance
Taylor Trinidad	2021	Accounting

Advisor: Christine Cahill

Topic: Utilizing Solar Technologies to Improve Water and Electricity Quality in South Sudan

Audience: The Ministry of Electricity and Dams of South Sudan

Sustainable Development Goals

Goal #7: Ensure access to affordable, reliable, sustainable and modern energy for all.

Goal #11: Make cities and human settlements inclusive, safe, resilient and sustainable.

Executive Summary

The people of South Sudan have experienced many issues relating to a lack of clean energy and water. Both of these are crucial elements to create sustainable communities. As of 2018, only about 28% of South Sudanese have access to electricity. One solar panel has the power to fuel a significant amount of electricity and the use of just one solar panel would go a long way in these communities. However, 26,000 tons of solar panels will end up as waste this year. With just a small amount of refitting we can take these 'dead' solar panels and breathe new life into them. By converting them to be water safe, we can use them on bodies of water in impoverished communities.

By addressing the issue of clean water and affordable energy, there will be far reaching benefits. With the significant decrease in the amount of time that the average person would have usually spent retrieving clean water or doing other domestic tasks. A person can now spend that time on tasks like education or other community service. This will enable communities to rapidly develop far beyond their current scope, while limiting the costs. Energy innovation will create new jobs in these communities, such as construction and maintenance of the solar grid, as well as more aspects of an industrialized society and economy. At this moment, South Sudan is gearing up to revamp its infrastructure. This seems like a perfect time to work on a more sustainable power grid. If the South Sudanese government commits to buying these solar panels, they can help get more of their citizens more reliable power. This will be a crucial first step towards a healthier, cleaner, and more sustainable society.