

EcoRenewable Solutions

<u>Team Member Name</u>	<u>Year</u>	<u>Major</u>
Member 1: Paolo Bruzzesi	2023	Marketing
Member 2: James Davies	2023	Finance
Member 3: Juan Pablo Cedeno Varea	2023	Business Management
Member 4: Vera Gak Anagrova	2023	Business Managment

Advisor(s): Christine Cahill

Topic Title: How Apple Can Revitalize Panel Waste

Audience: Board of Directors of Apple Inc.

Sustainable Development Goal

SDG #(7): Ensure access to affordable, reliable, sustainable, and modern energy for all

Executive Summary

According to Apple's Environmental Progress Report, Apple's focus is to reduce their carbon footprint to zero by 2030. One way that Apple is moving toward its goal of a zero carbon footprint is by transitioning to 100% renewable energy for all its facilities and supply chain. In 2015, Apple began building a solar farm in Newark, California that came online in 2017. While making progress towards more sustainable practices, the question then becomes what to do with the solar panels that need to be replaced. In the United States, there are no federal regulations that mandate solar panel recycling. The US National Renewable Energy Laboratory states that "less than 10% of the country's decommissioned panels are recycled," which means most end up in landfills. Solar panels ending up in landfills pose serious environmental risks.

The ethical issue that we face is that Apple has no defined plan for end-of-life or damaged solar panels that need to be recycled. Therefore, we propose that the board considers partnering with Cascade Eco Mineral (CEM), a solar panel recycling company whose mission is to protect the environment for future generations. By partnering with CEM, we will be abiding by the Resources Conservation and Recovery Act as CEM has a sustainable zero landfill policy, which will lead to all the materials being recycled. The partnership will initially focus on recycling solar panels in Apple's Newark, California solar farm. Although there is not a significant immediate need for recycling panels because the industry standard for the lifespan of solar panels is 25-30 years, we suggest that Apple collaborate with CEM now as the costs will likely increase in the future as the demand grows. The agreement will also allow Apple to have a plan in case of natural disasters, severe damage to the panels, or if recycling of solar panels becomes mandated by Federal regulations. This partnership will lead to higher investor sentiment and an improved brand image as a result of Apple taking a strong stance on protecting the environment. The aforementioned recommended partnership will assist both companies and in the long term and will lead to sustainable eco-friendly business practices. Apple is dedicated to making the best products on earth, and leaving the world better than they found it; recycling solar panels is another important step in the process.