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## SCHATZ ENERGY RESEARCH CENTER PRESENTATION MEMO

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**TO:** DR. SINTANA VERGARA

**FROM:** MARTY KING

**SUBJECT:** ENGR 115 LAB 11 SERC PRESENTATION

**DATE:** 11/14/20

**CC:** JULIAN SICAUD

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### PURPOSE

The purpose of this memo is to offer a description of the SERC presentation given to the students of ENGR 115 on Thursday 11/12/20. A summary of my experience, a description of a design project being conducted by SERC and my interest in how I might become involved as well as a description of the most interesting thing I learned are included.

### SUMMARY

Thursday afternoon, 11/12/20, SERC staff Maia Cheli, Communications and Outreach Manager, presented an overview of the purpose of and work being conducted at Schatz Energy Research Center in Arcata, California. As described by Cheli, SERC works to research how to improve access to and quality of clean reusable energy worldwide. In recent years SERC has pivoted toward focusing research on adapting off-grid systems to serve communities dealing with the effects of climate displacement. Research Engineer and HSU alumni, Kayleigh G. Vincent-Welling described procedures within the off grid solar & lighting lab at SERC. The lab has worked in the development and co-management of the Lightning Global Quality Assurance program which tests and rates solar energy products lifespan and efficiency. This rating is so well respected by nations and manufacturers in the industry that some countries require a passing grade (above 15% fail rate) for products to be allowed to be sold in the country. If a product gets a failing grade (15% fail rate). By guaranteeing product effectiveness and lifespan, the program enriches user experience thus limiting fossil fuel burning as well as solid waste from planned obsolescence within the industry. 1.2 billion still lack access to safe and reliable electricity. As the developing world comes online, SERC's off-grid solar and lighting lab is working to ensure an safe and effective path to sustainable energy to all. The most interesting thing I learned is that SERC's work has provided improved energy access to at least 36 million people.

### PERSONAL TAKEAWAY

I am very interested in working in the off-grid solar and lighting lab. Shifting our manufacturing economy away from planned obsolescence is a necessary step toward carbon neutrality and societal improvement. For three years I have been rebuilding and testing espresso machines as a service technician and believe my experience with appliances and energy systems could be useful in the lab.