### **Sunergy Stations: Plug Into the Sun, Power a New Future**

Every day, sunlight pours over our school’s rooftops, courtyards, and open fields—a free, limitless resource we barely use. Meanwhile, indoors, more than 500 students plug in their laptops, unknowingly contributing to a silent crisis: over **228,000 kilograms of CO₂ emissions per year**.

That’s not just electricity. That’s pollution—normalized, unchecked, and entirely preventable.

But what if those daily energy needs weren’t part of the problem… but the start of the solution?

**Sunergy Stations** is our answer: a student-designed, solar-powered workstation that transforms the way schools use energy; a way to learn, connect, and lead—powered entirely by sunlight.

### **Born in Peru, Powered by Collaboration**

We’re **Maser Madueño**, **Luciana Céspedes**, and **Fátima Herrera**, three students from **Newton College** who believe innovation begins with observation and action. As **Peruvians,** living near the equator means exposure to high UV radiation levels. We’re standing under a natural superpower. But look around: most of that energy is going to waste.

That contradiction sparked a question: how can we turn Peru’s sunlight into a force for everyday change?

Sunergy Stations is our collective response—born from a school sustainability challenge, shaped by surveys and design sprints, and brought to life through teamwork. We blended our different skills to engineer something practical, replicable, and climate-conscious.

### **What Is a Sunergy Station?**

Imagine a sturdy wooden table, circular and welcoming, with a central pillar that holds multiple USB and AC outlets. Above it stands a **2.5 m² solar panel** providing both shade and power. The station seats up to six people comfortably, creating a space for working, collaborating or taking a break from fluorescent lights.

They are optimized for **school environments** and designed with real usage in mind. Even on cloudy days, our **battery storage** keeps the energy flowing, and thanks to Peru’s high UV index, even indirect sunlight is enough to charge our panels efficiently.

It’s a workstation. A solar classroom. A conversation starter. A culture shift.

### **Why It Matters**

When students choose to plug into the sun, they’re making a statement: climate action isn’t abstract, but real and essential.

This directly supports three **UN Sustainable Development Goals**:

* **SDG 7: Affordable and Clean Energy** – by bringing renewable power into students' hands
* **SDG 11: Sustainable Cities and Communities** – by reimagining how shared spaces are used
* **SDG 13: Climate Action** – by cutting emissions and changing behaviours

But the benefits go deeper:

* **Reduces energy waste** and pressure on school electricity systems
* **Promotes outdoor learning and better use of space**
* **Fosters community** by turning charging into a social, collaborative act
* **Saves money** by lowering long-term utility costs
* **Raises awareness**— becoming a teaching moment

### **Our Objectives**

We’re currently building our first full-scale Sunergy Station at Newton College. After months of research, testing, feedback, and refining, we’re confident in the design and its impact.

Our roadmap includes:

* **Launching at Newton** with real-time data monitoring and student usage tracking
* **Developing a low-cost replication kit** to help other Peruvian schools, especially under-resourced ones, build their own
* **Rolling out educational campaigns** to normalize solar habits
* **Presenting our work at national youth and sustainability conferences**, including the Youth Climate Conference and Peru’s ESD Congress

And beyond that? We dream bigger. From Lima to the world, we see Sunergy Stations as a model—one that can be adapted to fit diverse needs, geographies, and budgets.

### **Teamwork Makes It Real**

This project came from many hands, heated debates, and moments of doubt turned into breakthroughs. Every decision was shaped by collective insight. We are not just three names on a page, but a team that functions like our stations: stronger when powered together.

Sunergy is a living example of what happens when young people push forward with a common goal. That teamwork isn’t behind the scenes—it’s why this idea works.

### **A Plug Into the Future**

Sunergy Stations isn’t only about solar panels, but making sustainability actionable and real. It’s about helping students understand that climate solutions don’t need to wait for policy changes or billion-dollar budgets. They can start here—with a table, some sunlight, and a different way of thinking.

This isn’t a prototype for someday but a power shift for now.

**Be sustainable. Choose solar. Use Sunergy Stations.**