

QUARTER THREE (Q3) 2025



Customized Energy Solutions

Analyze · Simplify · Implement

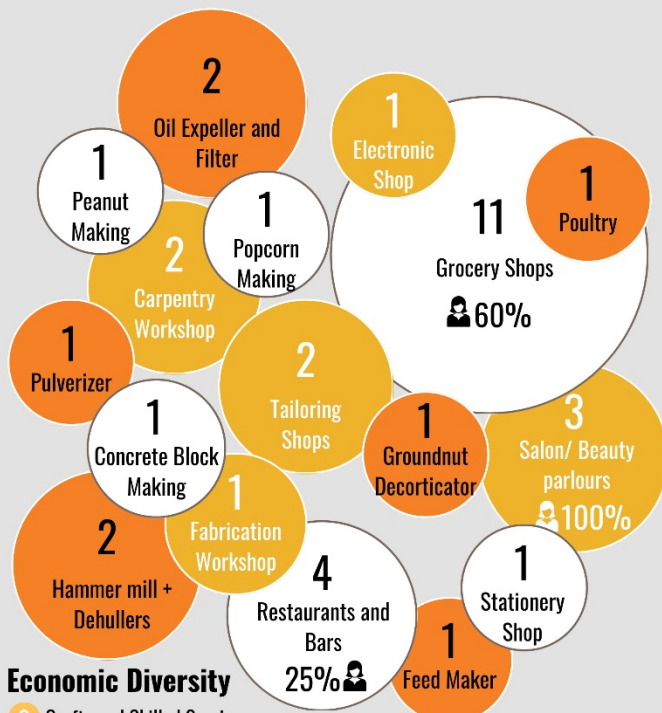
NEWSLETTER

ELECTRONS TO ECONOMIC DIVERSITY

When a single spark of electricity ignites more than just light- it creates livelihoods, empowers women, nourishes families, and transforms entire communities. This is the true story of economic diversity through energy access—where every electron is more than power, it is potential. In just 15 years, global efforts have lifted 523 million people out of energy poverty. Yet the real revolution lies not only in electrification, but in how it shapes human capability and opportunity. Energy access is proving to be a great equalizer—bridging disparities, creating jobs at the bottom of the pyramid, reducing malnutrition, and opening doors for inclusive growth.

A shining example comes from the Eastern Province of Zambia, where a mini-grid—operating for the past 7 years and serving 215 households and 36 businesses—has become a living laboratory of transformation. What began as infrastructure by Engie Energy Access (now Ignite Energy Access) has evolved into a hub of economic activity, powered by vision, persistence, and local leadership.

ECONOMIC DIVERSITY BUBBLE

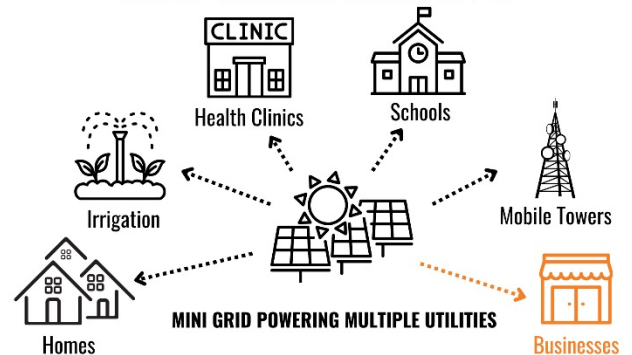


Economic Diversity

- 9 Crafts and Skilled Services
- 7 Agro-processing and Production
- 19 Retail Services

Here, energy has fuelled 36 direct jobs spanning tailoring, fabrication, Agri-value addition, retail, and more. It has powered schools, cutting student dropout rates to below 10%. It has strengthened health facilities, ensuring life-saving drugs remain viable. And it has multiplied economic transactions, making this community more prosperous than its neighbours.

POWERING PROSPERITY AT THE GRASSROOTS



Oil Expeller and Filter



Fabrication Unit



The secret? A blend of dedicated local managers, context-driven productive energy solutions, innovative financing, strong after-sales service, and bold experimentation that stimulates long-term demand and fosters resilience.

This story is not just about Zambia. It's a message for the world: long-term investments in clean energy infrastructure, coupled with strong partnerships and community engagement, can unlock pathways to poverty alleviation and economic diversity. As we move forward with initiatives like M300, we are reminded that every electron matters—not just for lighting homes, but for powering futures. It is time to scale such models, nurture local champions, and ensure energy access truly becomes a tool for sustainable and inclusive development.



CASE STUDY



Integrating DRE with the Eri Silk Value Chain

BACKGROUND

Eri silk, the “peace silk” of Northeast India, offers rich heritage and livelihoods. CES CAREs is strengthening its value chain by combining traditional practices with clean energy solutions.



1



Silkworm Rearing



Castor
Plantation

Best Grainage
Practices



Temperature and
Humidity Control
Room

The journey starts with silkworm rearing. Farmers are trained in castor cultivation, disease-free eggs, and improved grainage practices. With Silk Samagrah-supported rearing rooms, rearing cycles have nearly tripled, boosting cocoon production and contributing to food security through silkworm pupae.



2



Water Heater



Degumming Cocoons

Degumming, where cocoons are boiled for spinning, still relies on firewood, but solar-powered water heaters offer a sustainable alternative.

3



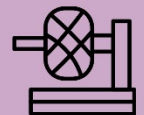
Silk Reeling

80

Machined
Deployed

500+

Women
Trained



Silk Reeling
Machine

Spinning and reeling are where clean energy has made the biggest impact so far. Manual reeling is hard work and slow, but solar-powered reeling machines are transforming this step. CES has developed financial models to make them affordable. The result: higher productivity, better yarn quality, and reduced drudgery for women entrepreneurs.



4



Dryer



Dyeing Silk Yarn

Dyeing and drying offer potential for innovation—eco-friendly dyes and solar dryers could improve speed and quality.



5



Weaver's Loom



Silk Weaving



Weaving and market access complete the value chain, making eri silk a sustainable, women-led livelihood powered by tradition and clean energy.

KEY UPDATES

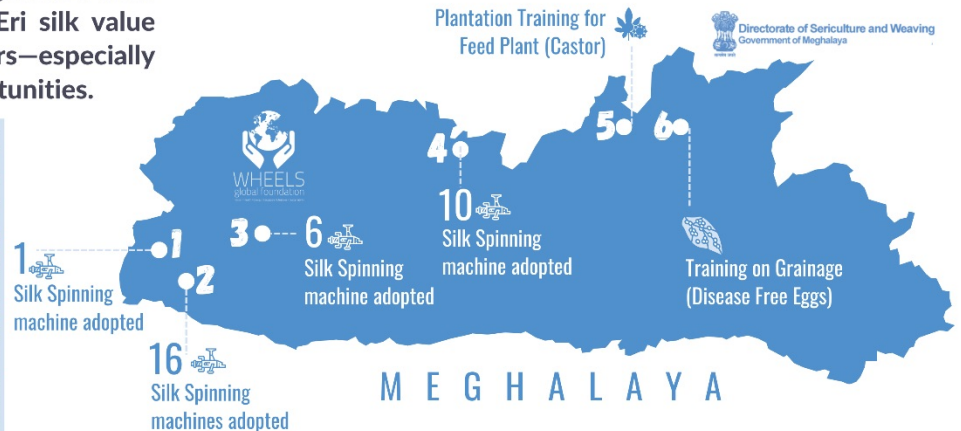


Customized Energy Solutions

Customized Applications for Rural Economies (CAREs)

Customized Energy Solutions Foundation advanced clean energy livelihoods in Meghalaya and Nagaland through trainings and events that strengthened food processing, solar-powered sewing, and Eri silk value chains, empowering rural entrepreneurs—especially women—to boost skills and market opportunities.

Energy. Skills. Growth.



Hands-on Eri Silk Spinning trainings were held in Mendipathar and Resubelpara (North Garo Hills), Purakhasia and Nogopora (South West Garo Hills), and Williamnagar (East Garo Hills), covering machine operation, silk processing, and skill development to strengthen sericulture and rural livelihoods.



Trainings in Ri Bhoi, Meghalaya strengthened eri silk practices. At Sohkyrbam, Jirang, participants learned plantation techniques and alternative feed plants, while in Nongpoh, Umling, a grainage session shared methods to improve silkworm survival and diversify livelihoods through hands-on demonstrations and active participation.



Capacity Building on Sewing:

Two batches of solar-powered sewing training in Tuensang trained 18 and 10 women in measurement, cutting, and stitching. Skilled participants were identified to join the upcoming stitching hub for livelihood opportunities.

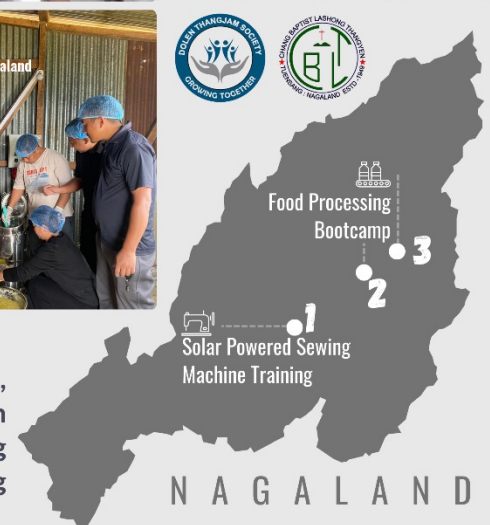


Food Processing Trainings:

At KBKA, Noklak, 30 students learned juice and jam making. An upskilling session at YBBA trained 14 participants (including 4 women) in production and packaging for market readiness.



Advanced Skill Development:
A final training at KBKA, Noklak, taught 6 women juice preparation and machine handling, encouraging small-scale food processing enterprises.



OUTREACH AND PARTNERSHIPS



**Customized
Energy Solutions**

Customized Applications for
Rural Economies (CAREs)

ENGAGING IN DISCUSSIONS



IESW 2025

Women in Energy Forum: Shared insights on enabling women's leadership and participation in clean energy transitions, highlighting grassroots experiences from North East India.



Connect Karo 2025

Represented the DRE sector at WRI's flagship event, sharing how grassroots challenges inform sustainable business models, with lessons from India and mini-grid projects in Zambia and Uganda.



ZEDSI

Deployed PUEs in Zambia with ENGIE, boosting mini-grid demand by 30-40%. At a SEforALL-Rockefeller forum, CES emphasized after-sales support and is training a local team to sustain 200+ PUEs by 2026.

SHOWCASING INNOVATION



Ruralpreneur' 25, Meghalaya

Youth Mela Event: Exhibited DRE-powered livelihood solutions, inspiring rural entrepreneurs and young changemakers to explore sustainable business opportunities.



Independence day Exhibition, Nagaland

Independence Day Exhibition: Demonstrated solar-powered livelihood models to local communities, encouraging adoption of clean technologies in daily life.



Eastern Province, Zambia

Rockefeller Foundation Visit: Hosted an interactive showcase of CES's work in rural energy access and livelihood creation for Rockefeller Foundation.

03 Episodes Launched



- Dr. Srinivas Shroff shares 30 years of pioneering work in technology, energy access, and inclusive leadership for a sustainable future.
- Mr. Seth powers Manipur's remote communities with decentralized energy, proving grit and vision can spark change.
- Veeresh Anehosur shows how second-life EV batteries drive rural India's decentralized energy through a scalable circular model.

FORGING PARTNERSHIPS



As part of CES CAREs' commitment to advancing sustainable energy solutions across rural economies, a significant collaboration has been established with Husk Power Systems (HPS) — a global leader in decentralized renewable energy solutions, especially in emerging markets like Nigeria.

ACADEMIC RECOGNITION



SEED Annual Symposium 2025

Showcased CES's decentralized energy interventions at the SEED Annual Symposium and won the poster competition. The event highlighted projects at the intersection of Sustainable Energies, Entrepreneurship, and Development, offering a global platform to share innovations and connect with peers.

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