



ELPIDA: Unlocking PV Self-Consumption for Homes & Businesses

Supporting 50,000+ PV Systems in Cyprus
in Achieving Energy Independence

September 2025

THE PROBLEM: PV CURTAILMENT BY RIPPLE

- PV curtailment by ripple is growing since the start of 2025
- Households will lose ~€300 in 2025 due to ripple curtailment
- Businesses lose thousands of euros per year (depending on system size)



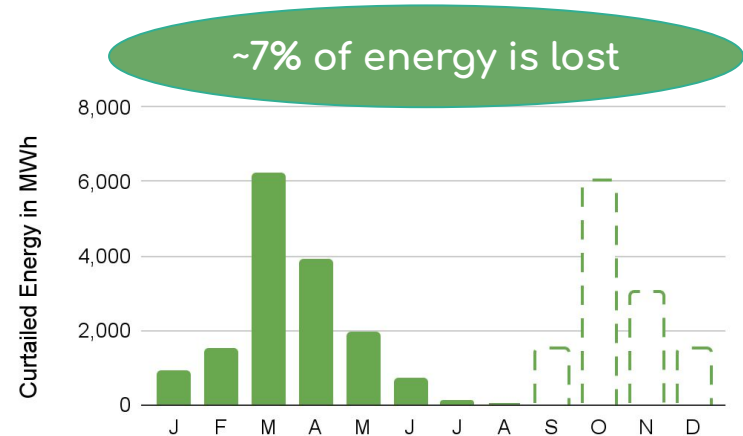
Electricity
Authority
of Cyprus

Government responded swiftly in 2025
granting rights to self-consume with
zero-export control equipment

enerthon
ELPIDA

Smart Zero-Export Control Device

RIPPLE CONTROL CURTAILMENT IN 2025

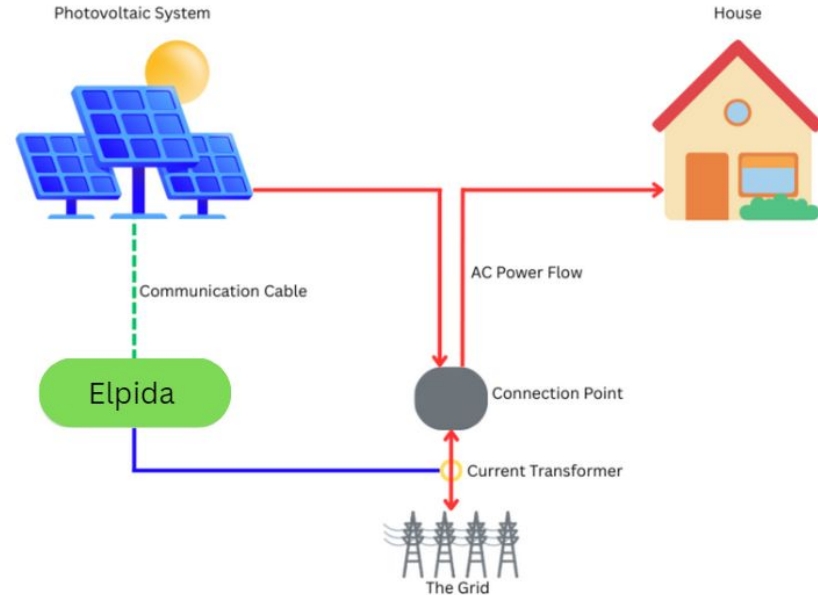


Source: CyprusGrid, Enerthon analysis

THE SOLUTION: SMART DEVICE – ELPIDA

- A new smart zero-export control device designed by Enerthon that:
 - Responds to ripple signal (or IoT)
 - Monitors load in real-time
 - Dynamically controls inverter to avoid export
- Quick install (1-2 hours): power + communication + sensors
- Setup approved by EAC with ripple with future IoT capabilities

SIMPLIFIED SETUP OF ELPIDA



THE SCALE OF THE OPPORTUNITY

- Huge retrofit and upsell market for installers
- New PV installations will face similar restrictions
- Ripple curtailment will persist and get worse with time



50,000+ households with ripple

<10kWp



1,000+ businesses with ripple

Commercial systems <120kWp

COMPETITIVE LANDSCAPE

Option	Legality	Cost	Effectiveness
ELPIDA (Home)	✓ Legal	€	Tailored to Cyprus curtailment, proven design
Extra PV panels	✗ Illegal	€€	No protection (curtailment scales up)
Zero-injection kits (imports)	✓ Legal	€€€	Generic, not tuned for Cyprus ripple
Inverter with dynamic power control	✓ Legal	€€€€	Limited, expensive, not retrofit-friendly

TRACTION & MILESTONES

ACHIEVED

- Communication with major inverters
- Successful demonstrations to EAC & OEB
- Interest expressed by leading PV installers

IN PROGRESS

- CE Certification started
- Pilot installations in 10+ locations
- Commercial-scale manufacturing



August 2025



September 2025



CE CERTIFICATION OF ELPIDA

- Testing Process: Conducted in accredited laboratories (specific partners to be announced)
- Timeline: Certification targeted for 4Q 2025
- Components: All internal components are already CE certified

👉 Ensures full compliance, safety, and readiness for EU-wide market deployment



Authorised Representative &
Consultant:



TECHNICAL DESCRIPTION

- The device supply is 230-270VAC protected by fuses and MOV's
- Reads 3 phases all between live and neutral (L1-N, L2-N, L3-N)
- Up to 3 current transformers
- Runs 12VDC, 5VDC, 3.3VDC internally and has 3 x dry contact relays that are switched via the 12VDC line
- Equipped with a WiFi module (2.4Ghz) and Bluetooth
- RS-485 communication to external devices (inverters)
- Double insulated

ABOUT ENERTHON

Our mission is to empower homes and businesses with smart energy solutions

- Cyprus-based renewable energy company
- Specialise in energy-as-a-service (PV and energy storage) and automation
- Completed projects in residential and commercial sectors



KIRILL POPOV

CO-FOUNDER & CEO



DMITRI RAMZAITSEV

CO-FOUNDER & CFO



STEVEN BURG

HEAD OF ENGINEERING



REECE DOIG

HEAD OF AUTOMATION

EXAMPLES OF COMPLETED PROJECTS

Our projects span PV-as-a-Service, Energy Storage and Automation



COMMERCIAL (90KWP) PV-AS-A-SERVICE

Client's energy costs to be reduced by up to 20% with zero investment

Project 1: Limassol



C&I BESS TESTING

Used in-house SCADA for real world testing of one of the first BESS in Cyprus (100kW/215kWh)

Project 2: Nicosia



PV SYSTEM WITH STORAGE AND AUTOMATION

Agricultural business replaced generators with renewable systems; set-up security and irrigation automation systems

Project 3: Nicosia



DOMESTIC PV-AS-A-SERVICE

8 apartments benefiting from reduced electrical bills with zero investment

Project 4: Limassol



TALK TO US

Join Enerthon with the ELPIDA pilot program

Participate in an innovative and socially responsible project for Cyprus

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