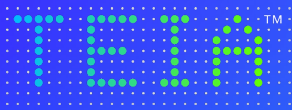TEIA™ Trusted Energy Interoperability Alliance

From **what if?** to **what now?**
When VPP scale signals crisis

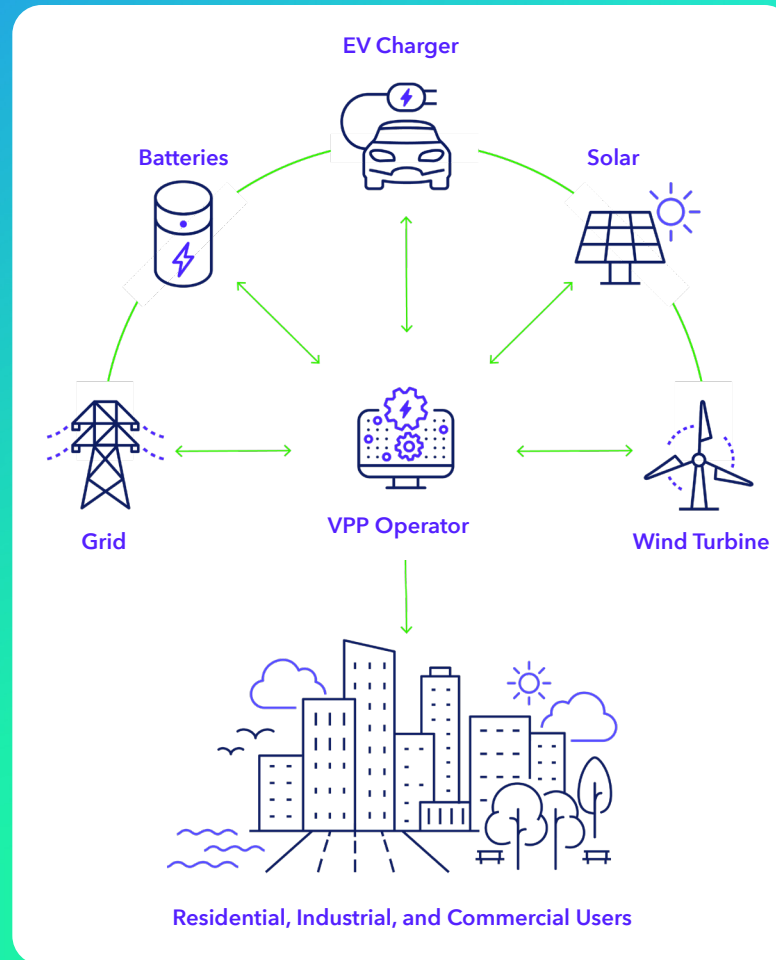VPPs

From **what if?** to **what now?**
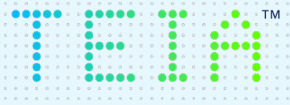## VPP readiness scenario

Picture this

Your VPP has hit a major milestone—100,000 assets aggregated across EV chargers, rooftop solar, batteries, and industrial systems, performance collapses:

- Repeated authentication handshakes add seconds of latency

- Cloud bandwidth costs skyrocket

- Frequent reconnections create security gaps

- Legacy protocols choke under massive device loads

The system built for flexibility becomes its own constraint.

EV Charger

Batteries

Solar

Grid

VPP Operator

Wind Turbine

Residential, Industrial, and Commercial Users

VPPs

Learn more at: trusted-energy.org >

Traditional fix

Patching problems doesn't scale

**Operators usually respond by throwing
more infrastructure at the problem.**

CONVENTIONAL PLAYBOOK	ACTUAL RESULT
Add more cloud servers	More complexity, more overhead
Proprietary protocols	Vendor lock-in, inflexibility
Manual security patches	Compliance nightmares
Point solutions	Interoperability breakdown

**These approaches delay failure
instead of solving it.**

VPPs

Learn more at: trusted-energy.org ⟩

TEIA™ Trusted Energy
Interoperability Alliance
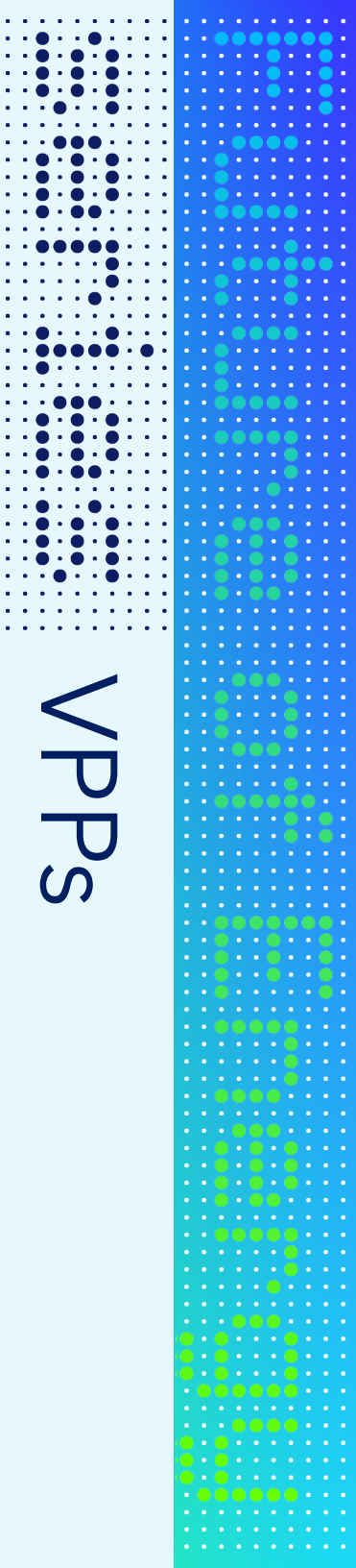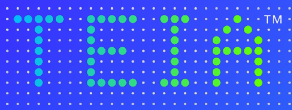
The TEIA way
A foundation for secure energy interoperability

Authenticate once
Connect multiple times, no repeated handshakes

Lower costs
Reduced cloud and data transfer, critical for emerging markets

Persistently security
Continuous trusted associations without renewal

Native compliance
Meets evolving NIST, EU, and international standards

The bottleneck isn't the cloud—it's the architecture.

A TEIA-based model shows how VPPs can scale securely and affordably, without breaking under their own growth.

VPPS

Learn more at: trusted-energy.org