



D SQUARED
ENGINEERING

19 YEARS OF INNOVATION

FOUNDED IN 2006

KOOP

DEPLOYABLE INFRASTRUCTURE FOR
RESILIENT, SELF-SUSTAINING
COMMUNITIES

KOOP





Who We Are

Engineered for Resilience. Built for Reality.

D Squared Engineering is an engineering-led solutions company focused on delivering eco-resilient infrastructure for communities and institutions facing growing environmental, operational, and supply-chain risks.

By integrating renewable energy, water security, controlled-environment agriculture, and waste-to-product systems into deployable platforms, we help organizations reduce dependency, increase autonomy, and harden operations against disruption.

Our work transforms infrastructure from a liability into a strategic advantage.

Our mission is simple: **Make critical utilities faster to deploy, easier to scale, and more resilient by design.**

The KOOP Platform

One Platform. Multiple Pillars of Resilience.

KOOP is a modular infrastructure platform designed to support the four critical pillars of resilient operations:



Energy Security

Decentralized power that keeps critical operations running when the grid fails.

Water Independence

On-site clean water that protects public health during supply disruptions.

Local Food Production

Containerized agriculture that strengthens resilience when supply chains break down.

Circular Waste Recovery

Waste-to-resource systems that reduce disposal costs and support local reuse.



K1 | 10' Container

Rapid Deployment for Critical Needs



The KOOP K1 is a compact, mobile infrastructure unit designed for fast deployment in remote locations or emergency scenarios.

Ideal for pilots, disaster response, and off-grid operations, the K1 integrates renewable energy, clean water systems, and optional micro-scale food or waste processing technologies.

A powerful starting point for resilient operations.



Renewable Power Generation & Storage | On-Site Water Purification

Optional Micro-Hydroponics | Robust Recycling Modules

Circular Waste Recovery

K2 | 20' Container

Community-Scale Resilience in a Single Platform

The **KOOP K2** is engineered to support sustained, medium-scale operations. With increased capacity and modular flexibility, it can integrate energy, water, hydroponic food production, and waste-to-product systems into a single deployable solution.

Ideal for municipalities, campuses, NGOs, and remote communities, the K2 enables local production, reduced logistics dependence, and operational continuity.

Resilience that feeds, powers, and sustains.



Expanded Solar & Battery Systems | High-Volume Water Treatment

Containerized Hydroponics Food Production

Waste-To-Energy Systems



K4 | 40' Container

Infrastructure at Scale for Self-Sustaining Operations



The **KOOP K4** is a high-capacity infrastructure system designed for large-scale, long-duration deployments. This platform supports full integration of energy generation, water security, food production, and circular waste recovery.

Ideal for hospitals, emergency response bases, industrial sites, and remote settlements, the K4 enables true operational independence in challenging environments.

Designed to support people – not just systems.



High-Output Renewable Energy & Storage

Large-Scale Water Purification or Generation

Municipal Scale Recycling | Commercial-Scale Agro

The KOOP Difference

From Emergency Response to Regenerative Infrastructure

KOOP redefines preparedness by moving beyond temporary relief and toward regenerative, decentralized infrastructure.



Instead of importing fuel, water, food, and materials, **KOOP** systems enable local production and recovery, reducing cost, emissions, and vulnerability.

KOOP Delivers:

- Mobile infrastructure deployed at the source of need
- Energy, water, food, and waste solutions in one platform
- Faster recovery and long-term resilience
- Lower carbon footprint and reduced supply-chain risk

Why Shipping Containers

A Durable Backbone for Circular Infrastructure

*ISO shipping containers provide a globally proven, structurally robust foundation for deployable infrastructure. Their strength, modularity, and transport compatibility make them ideal for housing advanced systems across energy, water, agriculture, and waste processing. KOOP containers are engineered to perform in harsh environments while remaining **mobile, scalable, and reconfigurable**.*

Available Configurations



10', 20' & 40' Containers



Standard & High Cube Options



Multi-Door Access



Create Your KOOP

Containerized Solutions Beyond Utilities

In addition to KOOP infrastructure platforms, D Squared Engineering designs and fabricates customized container solutions that support broader operational needs.

Additional KOOP Applications

- Containerized housing and workforce accommodations
- Secure storage and logistics cribs
- Mobile medical clinics
- Mobile command and emergency operations centers



Leadership & Experience

Engineering-Led. Public-Sector Ready.

KOOP is guided by leadership with decades of experience across engineering, sustainability, and institutional collaboration.



Our team understands the realities of:

**Municipal Procurement and Governance | Infrastructure Planning and Deployment
Sustainability & Resilience Policy | Complex, Multi-Stakeholder Projects**

Every KOOP system is delivered with technical rigor, transparency, and accountability.

Get Started Today

***Build Infrastructure That Sustains Life,
Not Just Operations***

KOOP empowers organizations to take control of their energy, water, food, and waste systems—creating resilient, self-sustaining communities prepared for an uncertain future.

Start with a KOOP Readiness Assessment

Explore how deployable, circular infrastructure can strengthen your operations and reduce long-term risk.

786-202-9336

www.d-squaredengineering.com

derek@d-squaredengineering.com



A scenic view of a tropical island with a colorful, striped awning in the foreground.

THANK

you

KOOP