

EXECUTIVE SUMMARY

SolarVault AgriSystems (Proposed Ltd.)

Solar-Powered Cold Storage & Agri-Logistics | Nigeria

THE OPPORTUNITY

Nigeria loses ₦3.5 trillion (\$10B) yearly to post-harvest spoilage — 40% of produce wasted due to lack of storage. Only 3% of perishables are refrigerated in rural areas.

Our Solution: Deploy solar-powered cold storage hubs (500–1,000 tonnes) in rural zones with pay-per-use pricing, ERP integration, real-time IoT monitoring, and mobile payments.

Market: \$1.2B cold storage sector growing 8–12% annually; ₦150–200B opportunity in Southeast Nigeria. Government (NiPHaST) investing \$3.5B.

COMPETITIVE EDGE

Strength	Advantage
Solar-powered & off-grid	24/7 reliable operations
Rural-based model	Accessible to smallholder farmers
Tech integration	ERP, mobile app & IoT tracking
Affordable pricing	₦500–800/crate vs ₦2,000+ urban
EMBA-level management	Global expertise, local execution

First-mover advantage in rural Southeast Nigeria.

BUSINESS MODEL

Revenue Streams:

Cold Storage (70%) – Pay-per-use, Refrigerated Transport (20%), Tech Platform (5%) and Value-added services (5%)

Clients: Smallholder cooperatives (8M+ farmers), traders, processors, exporters, and government programs.

3-YEAR FINANCIAL SNAPSHOT

Metric	Y1	Y2	Y3
Revenue	₦80M	₦153M	₦255M
Net Profit	₦9M	₦53M	₦122M
Margin	12%	35%	48%

Assumptions: 6 operational hubs by Year 3

Break-even: 18 months | ROI: 42–48% (5 years) | Y5 Revenue: ₦470M

FUNDING NEED: ₦200M (~\$130,000)

Use of Funds: Cold storage & solar (₦125M), equipment (₦41M), working capital (₦30M), contingency (₦4M).
Structure: ₦68M equity | ₦90M loan | ₦30M grant | Seeking ₦12M angel/development capital.

MANAGEMENT TEAM

Chukwuka Frank Egbe – Founder & MD | Supply Chain, AgriTech, Analytics and Management

Terry Akuchu – Partner | Technology Director (Newistt Ltd.) | ERP systems specialist with regional networks.

SOCIAL IMPACT

Cut food loss: 40% → <10% | Boost farmer income: +50% | Create 600+ jobs (direct/indirect) | 100% renewable energy | Rural infrastructure growth

SDGs: No Poverty | Zero Hunger | Clean Energy | Decent Work

TRACTION & NEXT STEPS

1. Partnership with Newistt finalized
2. 8+ farmer cooperatives onboarded
3. Equipment quotes & land identified
4. Government linkages (NiPHaST) established

Next 12 Months: Funding → Construction → Installation → Pilot → Launch

WHY NOW

- Government \$3.5B NiPHaST support
- Unserved rural demand
- Proven global solar-cold tech
- Strong local–international partnership

The full business plan can be found below.

<http://tiny.cc/iacu001>

<https://github.com/ChukwukaE/Solar-Powered-Cold-Storage-Agri-Logistics-.git>