

MEMO

Date: 16th September, 2025
To: Coordinator, NASENI Research Commercialization Grant Program
Ref.: PEDI/AD/PP/11/1/11A
Subject: ENDORSEMENT OF RESEARCH PROJECT PROPOSAL FOR A
SMART SOLAR-POWERED COLD STORAGE UNITS

I am pleased to write this letter to officially endorse the research proposal titled *Development and Commercialization of a Smart Solar-Powered Cold Storage Units for Sustainable Post-Harvest Management* submitted by the Principal Investigator (PI), Dr. Ngozi Fidelia EFOZIA.

2. This project proposal seeks funding to design, fabricate, and commercialize modular, solar-powered cold storage units as a sustainable solution to Nigeria's post-harvest challenges. With up to 40% of perishable produce, lost annually due to inadequate storage, the initiative addresses a critical national need that directly affects farmer incomes, food security, and the environment.

3. The proposed system integrates renewable solar energy, eco-friendly refrigerants, and Phase Change Materials (PCM) for thermal storage, enhanced with IoT-enabled monitoring and predictive maintenance. Over 70% of structural materials will be sourced locally, supporting domestic industry, creating jobs, and strengthening Nigeria's manufacturing base.

4. The project aligns with NASENI's mandate, the Federal Government's *Renewed Hope Agenda* on food security, and the UN Sustainable Development Goals. PEDI possesses the technical expertise, fabrication infrastructure, and partnerships necessary to implement and scale the project successfully.

4. I am confident in and confirm its feasibility, market potential, and transformative impact, and so strongly recommend it for funding to the NASENI Research Commercialization Grant Program.



Mr. Ahmed Olaoye HAMZAT
Overseeing Officer
PEDI, Ilesa