MEMORANDUM OF ISSUES

Integrating the Productive Use of Solar Energy (PUSE) in the Planning and Budgeting for the Agricultural Value Chain in Uganda

April 2026

Disclaimer:

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Honorable Minister,

Ministry of Finance, Planning and Economic Development (MoFPED),

Kampala.

Preamble

Uganda enjoys ample solar radiation throughout the year, making the country an ideal location for solar-powered agriculture and industrial development. The drop in global prices for solar PV systems has provided an additional window of opportunity for the solar energy development in Uganda. Unfortunately, this opportunity may not be fully exploited if Productive Use of Solar Energy (PUSE) is not deliberately streamlined in the national planning and budgeting processes. Addressing PUSE in budgeting involves shifting from ad-hoc projects to a structural integration of solar energy into fiscal and industrial policy. This memorandum which articulates issues regarding integrating the PUSE in the planning and budgeting for the agricultural value chain is presented to you by the Advocates Coalition for Development and Environment (ACODE) and Heifer International Uganda. The memorandum highlights the key budget issues that affect the PUSE in the agricultural value chain. The memorandum also presents recommendations that can enhance the integration of PUSE in the budgeting process.

This memorandum is based on reports of a series of meetings, dialogues, learning events, and stakeholder engagements on PUSE held in Kampala, Wakiso, Kiboga, Nakasongola, and Nakaseke between the months of May 2024 and December 2025. These events were organized by ACODE/Heifer international Uganda in partnership with the mandated government agencies such as Ministry of Agriculture, Animal Industry and Fisheries (MAAIF), Ministry of Energy and Mineral Development (MEMD) Private sector players, District Local Governments and Civil Society actors. From these meetings, the stakeholders identified a number of budget related issues that have continued to limit the uptake of solar energy in agricultural value chains in Uganda.

Rationale for Integrating PUSE in the Budgeting Process

The Government of Uganda has expressed commitment to advance renewable energy initiatives in order to attain the Sustainable Development Goals (SDGs); specifically, SDG 7 that aims to "ensure access to affordable, reliable, sustainable and clean energy for all" by 2030.[1] Uganda's expansive development agenda holds the promise that its future energy system will look very different from today, with universal access to electricity and to clean cooking achieved by 2030.[2] This is a key benchmark in Uganda's Energy Transition Plan.

1 The 2030 Agenda for Sustainable Development, adopted by all United Nations members in 2015, created 17 world Sustainable Development Goals.

2 International Energy Agency (2023), Uganda 2023 Energy Policy review. https://memd.go.ug/wp-content/

Spurred by economic transformation, industrialization and modernization, the nation's primary energy demand is expected to increase threefold by 2050, enabling a measurable rise in living standards for all Ugandans and growth of the nation's economy. Concurrent with this growth is an anticipation of concerted efforts to reduce the use of solid biomass, which is almost 90% of current final energy consumption, to the use of modern energy. Solar energy presents a great renewable energy opportunity, for an agro-based country like Uganda.

In 2023, the Government of Uganda launched the National Roadmap for the Productive Use of Solar Energy (NR-PUSE), whose aim was to improve the policy and regulatory environment for PUSE; increase the level of awareness and information dissemination regarding the available opportunities created by PUSE; provide affordable financing for PUSE, either to PUSE companies or end-users; enhance the capacity of the sector players in PUSE; and promote research and development in PUSE (MEMD, 2023). While Uganda has put in place a National Roadmap for the Productive Use of Solar Energy, its implementation is still constrained by limited financial resources and budget deficits. There is thus an urgent need to address budget related issues and creation of a stable financing environment for productive use of solar energy.

Key Budget Issues and Recommendations

During several engagement events, stakeholders identified a number of budget related issues. These issues and recommendations are enumerated below:

1. Limited prioritization of Productive Use of Solar Energy in the National Budget

While Uganda's recent budgets[3] address Productive Use of Solar Energy (PUSE) primarily through the Sustainable Energy Development (SED) and agro-industrialization programs, these budgets run short of earmarking dedicated budget lines specifically for "productive use of solar energy". The critical stages of Uganda's budgeting process such as the budget circular calls, budget framework papers, and ministerial statements do not explicitly cover Productive Use of Solar Energy. The programs and local government plans do not also adequately provide for PUSE either.

The financing for PUSE is still channeled through targeted price subsidy programs,[4] without an explicit detail in the public budget documents. In addition, funding for PUSE is often integrated into broader energy and agricultural initiatives, and significant investment comes from development partners and private sector collaboration. At the District Local Governments level, there are no clear guidelines for including solar-powered technologies

3 National Budget 2024/25, National Budget FY 2025/2026

4 For example the Uganda Energy Credit Capitalization Company (UECCC) launched a major Results-Based Financing (RBF) Price Subsidy Program funded by the World Bank and the Government of Uganda to make solar technologies affordable. Launched in December 2024, it offers 30%–60% discounts on solar lanterns, home systems, and productive-use equipment (e.g., pumps, refrigeration) to reduce upfront costs.

in District Development Plans and Budgets.

Recommendations

- **Integrate Productive Use of Solar energy (PUSE) in the Budget Call Circular (BBC) and in the sectoral Budget Framework Papers (BFPs):** The Ministry of Finance Planning and Economic Development (MoFPED) ought to integrate PUSE in the budget circular call. This will enable the Ministry of Agriculture, Animal Industry and Fisheries (MAAIF), Ministry of Energy and Mineral Development (MEMD) and Ministry of Local Governments (MoLG) to explicitly include solar-powered agricultural infrastructure in their ministerial statements, programs, plans and sectoral budget papers to be able to access national financing.

- **Tag Solar Projects in Program-Based Budgeting (PBB):** Under the National Development Plan IV's PBB approach, solar-related agricultural initiatives should be tagged under relevant programs like Agro-Industrialization and Sustainable Energy Development, making them visible and fundable.

- **Mobilize District Local Governments (DLGs):** It is essential to build capacity and create guidelines for DLGs to include solar-powered agricultural technologies in local government plans and budgets under decentralized planning, especially in high-production zones.

2. Limited financing models for PUSE

In Uganda, Productive Use of Solar Energy is currently supported, through innovative financing models such as pay-as-you-go,[5] energy-as-a-service[6] blended finance and subsidies,[7] and partnerships with SACCOs and banks.[8] The Agricultural Credit Facility (ACF) is one of those innovative financing models that support agriculture generally and PUSE. Created to commercialize agriculture, ACF is a loan scheme funded by government of Uganda in partnership with Participating Financial Institutions (PFIs). While these models have helped some farmers to adopt solar solutions gradually without high upfront costs, the affordability in most smallholder farmers is still low. While the ACF loan interest rates have been capped at 12 % per annum for standard agricultural and agro-processing loans, and 15 percent per annum for grain trading loans; these loans are still largely inaccessible by rural small holder farmers and the interest rate is still considered high. Most participating financial institutions have limited rural reach and still regard most of the businesses as risky and thus are reluctant to provide credit to the farmers. Since these loans are not adequate, farmers are at times guided to top-up with commercial loans whose interest rates are also very high. Market

5 This model allows farmers to pay for solar systems in affordable, periodic installments, often following a small down payment. It significantly increases access to larger systems for rural households.

6 A model where farmers pay for the service provided by the solar technology (e.g., water delivered) rather than buying the equipment upfront, allowing immediate access to technology.

7 Projects like the one implemented by Sasakawa Africa Association (SAA) in Karamoja use a mix of funds, where farmers pay 40% through credit, and the Government subsidizes 60% for technologies like solar irrigation.

8 Financial intermediaries like aBi Finance Limited offer lines of credit and guarantees to partner banks (e.g., Equity Bank, PostBank) to offer tailored agricultural solar loans

rates for local currency commercial loans are between 18 - 26%, and about 12% for US dollar borrowing.[9] Their tenures vary from 1 to 5 years and are mostly collateralized. Impact debt financers like Social Investment Managers and Advisors (SIMA) are however also active in the sector with the Energy Access Relief Fund designed to offer low-cost unsecured loans of $ 50,000 to $ 2.5 million to energy companies in several countries including Uganda.[10] Some companies also seek supplier credit as a form of financing operations, but this is not easy to attain especially for longer periods.

Recommendations

- **Lower the interest rate to enable smallholder famers to access critical facilities and assets which are important in the agricultural value chain:** Compared to many businesses, agriculture is still less profitable due to a number of factors ranging from dependence on rain fed agriculture, poor infrastructure and limited value addition. Lowering interest rate to about 8% per annum would enable small holder farmers to acquire agro-processing machinery, post-harvest storage facilities, irrigation technologies, agricultural inputs and biological assets like livestock. Some countries like Rwanda have enabled small holder farmers to access loans with low interest rate of 8% for specific projects and acquisitions.[11] Tanzania Agricultural Development Bank (TADB) also offers favorable, low-interest loans (e.g., around 6%–9% for specialized projects and initiatives.[12]

3. Inconsistences in Fiscal and Tax policies

Uganda supports its solar sector through targeted fiscal policies, primarily offering Value Added Tax (VAT) exemptions on solar equipment, including panels, batteries, and accessories to lower costs. The government encourages investment via import duty waivers on solar components and supports large-scale projects through feed-in tariffs and Public-Private Partnerships (PPPs). In spite of these incentives, inconsistency in tax law application by customs authorities sometimes hinders importation of some solar products used in the agricultural sector. For example, in practice, there is always difficulty by custom officials to identify solar system components where import duty may been waived and those where it should not.

Recommendations

- **Standardized tax assessments on solar equipment:** MoFPED should streamline tax assessments and administrative procedures for renewable energy products to ensure accurate, predictable and uniform application of duties, Value Added Tax (VAT) and

9 https://endev.info/best-practice/how-solar-technologies-are-reshaping-farming-for-ugandas-smallholders/#:~:text=The%20business%20models%20follow%20a,the%20productive%20renewable%20energy%20technologies.

10 Ibid

11 https://www.nirda.gov.rw/home/news-detail?tx_news_pi1%5Baction%5D=detail&tx_news_pi1%5Bcontroller%5D=News&tx_news_pi1%5Bnews%5D=27025&cHash=53e79de7984b6c0857938ff3433a0c78 accessed on 27th April,2026

12 https://www.agitf.go.tz/pages/mkulima-loan accessed on 27th April,2026

withholding tax on solar powered equipment to support PUSE.

- **Rationalized taxes on solar equipment:** Reform Value added Tax and Import Duties on solar equipment to clarify which components are exempt, in order to reduce importation challenges. There is need to strengthen compliance and clarify tax exemptions for renewable energy products to ensure that they directly benefit the final consumer.

- **Support of local production and assembly of PUSE equipment:** MoFPED should incorporate fiscal policy reforms into national climate and energy policies, and strategies to attract investment in manufacturing of PUSE equipment and streamline the local production and assembly of solar powered equipment for the agricultural value chain.

4. Limited Integration of PUSE into Development Programs

While there exists a National Roadmap for the Productive Use of Solar Energy (NR-PUSE), there are still limited financial resources for streamlining solar in a number of production value chains.[13] Streamlining solar energy across economic sectors involves integrating photovoltaic (PV) technologies into agriculture, industry, and commerce to reduce energy costs, improve efficiency, and foster sustainability. Streamlining solar energy also requires embedding it into broader economic development programs.

Recommendations

- **Agro-Industrialization:** MAAIF, MEMD, and local government should budget specifically for Solar-Powered Irrigation and post-harvest cooling to boost agricultural productivity.

- **Public Procurement:** Government should promote green procurement policies that prioritize solar energy.

- **Decentralized Support:** Pilot programs to encourage rooftop solar adoption for households and small businesses.

Conclusion

As the need to scale up PUSE continues to increase, the government of Uganda will need to leverage on the budgeting framework to provide for solar energy financing. This coupled with predictable tax regimes, performance-based subsidies, and the modernization of grid infrastructure to handle decentralized solar power, will increase the return on investment (ROI), minimize cost and position the country in a path to achieve her tenfold growth target, while promoting climate resilience.

13 MEMD 2023, National Road Map on Scaling Up Productive Use of Solar Energy

Advocates Coalition for Development and Environment (ACODE) is an independent public policy research and advocacy think tank based in Uganda, working on a wide range of public policy issues. ACODE has for the last seven consecutive years been ranked in the Global go to Think tanks index report as one of the best think tanks in Uganda and globally.

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