



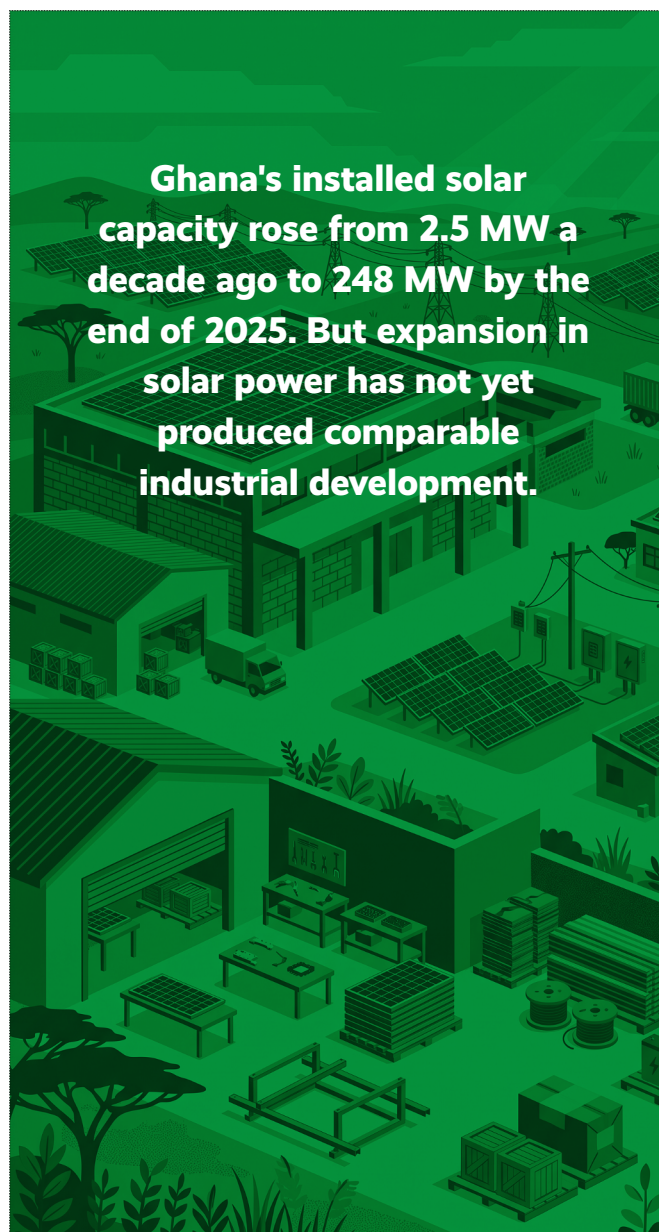
Institute For Economic Justice Renewable Energy Localisation Factsheet



TURNING GHANA'S SOLAR GROWTH INTO INDUSTRIAL DEVELOPMENT

In Brief

- ✓ Ghana's solar capacity has grown rapidly, but most equipment and much of the value created are still imported.
- ✓ Full-spectrum manufacturing is not an immediate option given Ghana's market size, financing constraints, and existing capabilities.
- ✓ Localisation should connect solar deployment to Ghana's wider domestic economy, and other existing industries and services.
- ✓ Regional markets should be built into localisation strategies from the outset where domestic demand alone is insufficient to support viable production.
- ✓ Support should be tied to measurable domestic value, decent employment, skills, and technological capability, not local ownership alone.



This factsheet is based on research on Ghana's solar PV sector and the accompanying policy brief.

Deployment does not automatically create development

The solar PV production network extends from raw-material processing, polysilicon, wafers, and cells to module assembly, installation, maintenance, and end-of-life management. Technology development, advanced manufacturing, and component production create more value and offer greater opportunities for technological learning and industrial upgrading, but remain concentrated among relatively few countries and firms, dominated by China.

Most major components are imported; Ghanaian firms are concentrated in distribution, design, installation, and maintenance — activities that retain less value domestically and offer fewer opportunities for technological learning.

Localisation should start with activities in which Ghanaian firms can compete and then help them move progressively into more valuable work.

What does localisation mean?

Localisation means progressively expanding Ghanaian participation across the solar PV production network. This includes domestic procurement, component production and assembly, engineering, installation and maintenance, testing and quality assurance, technology transfer, skills development, refurbishment and recycling.

The test is how much value is retained and how much productive capability is built in Ghana, not simply whether a firm is locally owned.

Choosing the right entry points

China's dominance rests on decades of industrial policy, large markets, concessional finance, investment in research and technology, and dense supplier networks. Together, these created economies of scale and technological capabilities that new entrants cannot quickly reproduce.

Manufacturing involves high fixed costs. Factories therefore need predictable orders and high utilisation to spread those costs across sufficient output. But barriers vary across the production network: upstream activities require much greater scale, investment, and technological capability than downstream ones.



Technical feasibility is not enough. Local products must compete on price, quality, reliability, or service. Temporary, targeted support may help firms learn, expand, and reduce costs, but forcing domestic production without a credible path to competitiveness, may raise costs without building lasting capacity.

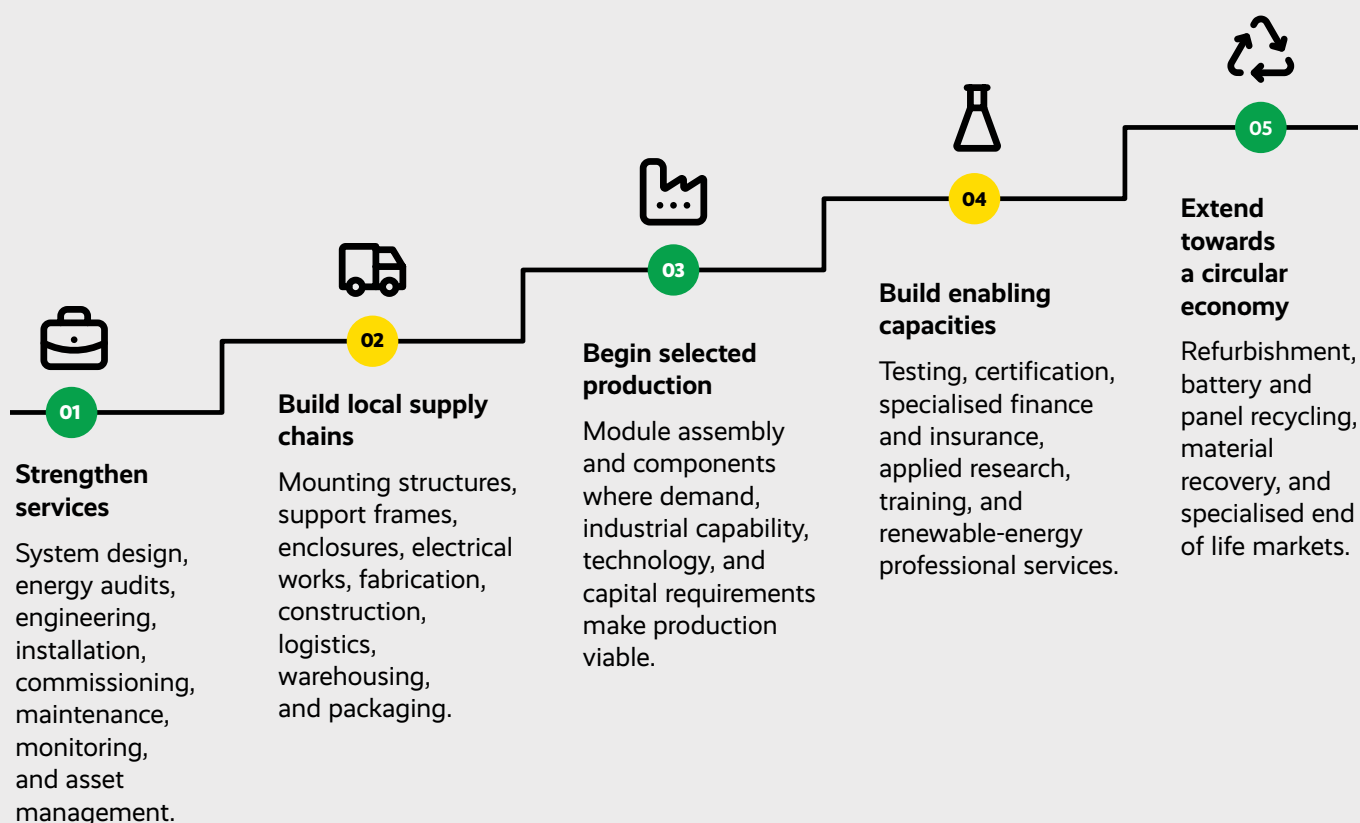


Regional scale can change this equation. Ghana's domestic market may be too small to support commercially viable production in some segments, making access to ECOWAS and AfCFTA markets essential for achieving competitive scale.

A phased localisation pathway

Ghana should begin with its existing strengths and move into more demanding activities as firms, institutions, and markets develop.

The stages where Ghana can capture more value



Regional markets should support every stage. Regional market access should be treated as an integral part of industrial strategy rather than an eventual outcome of localisation.



Ghana need not perform every activity domestically. Priority activities should be selected according to market demand, technological requirements, access to finance and inputs, economies of scale, quality standards, and regional sales



opportunities, focusing on activities where Ghana can realistically compete.

Support should be phased and time-bound, with measurable upgrading targets, and combine the demand, finance, skills, testing, technology, and supplier networks firms need to move into more valuable activities.

What needs to change?

-  **Publish a phased localisation roadmap:** set time-bound priorities and review them as markets and domestic capabilities change. Reward verified production, local purchasing, decent employment, skills, and technology transfer.
-  **Use procurement and fiscal policy to support localisation:** structure planned public solar purchases to encourage supplier development, local participation, and technology transfer, giving local firms time to prepare. Align relevant fiscal measures with localisation objectives while avoiding policies that unnecessarily raise deployment costs.
-  **Finance industrial upgrading:** provide equipment finance, guarantees, blended finance, and patient capital through a dedicated renewable-energy industrial facility. Link support to credible plans and measurable results.
-  **Build the industrial ecosystem:** expand technical training, accredited testing and certification, applied research, supplier development, and partnerships that transfer lasting production and engineering capability.

-  **Coordinate implementation and publish results:** Establish effective coordination mechanisms among government, industry, and finance to resolve bottlenecks, and monitor delivery. Publish annual figures on domestic value, local procurement, production, employment, skills, technology transfer, and firm participation. Review targets regularly as capabilities, demand, and technology change.
-  **Build domestic value chains:** connect solar deployment to existing Ghanaian capabilities so that more solar-related expenditure is retained in the domestic economy.
-  **Use regional markets to support scale:** help Ghanaian firms meet ECOWAS and AfCFTA standards, reach regional buyers, and build regional demand where Ghana's domestic market alone is too small to support viable production.

The choice facing Ghana

PATH 1

Ghana can continue expanding solar power while importing most of the equipment, technology, and productive capacity.

PATH 2

It can use growing demand to build domestic firms, supply chains, skills, and selected forms of production.

Ghana's solar expansion must do more than increase generating capacity. It must build domestic production, skilled jobs and technological capability, and keep more value in Ghana.

Endnotes

1. Energy Commission (2016) [*2016 Energy \(Supply and Demand\) Outlook for Ghana*](#). Accra: Energy Commission.
2. Amuquandoh, P.A., Ofori, C.G., Bosu, D., Nkrumah, G.A., Osman, M.S., Frimpong, F.N.A. and Djangba, R.M. (2026) *Ghana's photovoltaic industry: Localisation, decent work, and gender equity in a growing renewable energy market*. Johannesburg: Institute for Economic Justice.
3. Wood Mackenzie (2025) [*Global solar module manufacturer ranking 2025*](#). London: Wood Mackenzie.
4. Ghana Solar PV Case Study (2026) Unpublished Ghana team draft based on a 16-firm survey, stakeholder interviews, and policy review.

