

Republic of the Philippines
HOUSE OF REPRESENTATIVES
Quezon City, Metro Manila

TWENTIETH CONGRESS
Second Regular Session

House Bill No. 10956



Introduced by **REPRESENTATIVE MARCELINO 'MARCY' R. TEODORO**

EXPLANATORY NOTE

This bill, the "Household Solar Energy Adoption Act" addresses the Philippines' vulnerability to global fossil fuel volatility and climate shocks by shifting the national energy architecture toward household-level, distributed renewable energy systems.

Recent geopolitical conflicts in the Middle East have highlighted the fragility of an energy grid heavily reliant on imported fossil fuels, driving inflation and high electricity costs for Filipino households. Beyond these short-term crises, this measure serves as a long-term investment in generational security, economic resilience, and climate survival. By deploying rooftop solar, energy storage, and smart grids, the state can transition homes from passive consumers into active energy producers—democratizing access, lowering utility bills, and building localized disaster resilience.

While Republic Act No. 9513 (the Renewable Energy Act of 2008) laid the foundation for large-scale renewable energy development, nearly two decades of implementation reveal a critical gap: the limited penetration of clean energy technologies at the household level. This measure bridges that gap by directly translating national climate commitments into localized, household-centered energy transformation.

In view of the foregoing, the immediate approval of this measure is earnestly sought.

A handwritten signature in black ink, appearing to read "Marcelino Teodoro".

REP. MARCELINO "MARCY" TEODORO
1st District, Marikina City

Republic of the Philippines
HOUSE OF REPRESENTATIVES
Quezon City, Metro Manila

TWENTIETH CONGRESS
Second Regular Session

House Bill No. 10956

Introduced by **REPRESENTATIVE MARCELINO 'MARCY' R. TEODORO**

AN ACT
PROMOTING HOUSEHOLD SOLAR ENERGY ADOPTION, PROVIDING
INCENTIVES AND FINANCING MECHANISMS, AND APPROPRIATING FUNDS
THEREFOR

Be it enacted by the Senate and the House of Representatives of the Philippines in Congress assembled:

SECTION 1. Short Title. - This Act shall be known as the "Household Solar Energy Adoption Act."

SEC. 2. Declaration of Policy. — It is hereby declared the policy of the State to achieve national energy self-reliance and climate resilience by transitioning toward sustainable, decentralized, and renewable energy systems, thereby reducing dependence on imported fossil fuels and insulating the economy from international market price volatility.

Pursuant to this policy, the State shall mandate and promote the mainstream adoption of household-level solar energy systems to lower electricity costs, enhance energy security, and democratize access to clean energy technologies, particularly for low-income households, rural communities, and disaster-vulnerable areas.

SEC. 3. Definition of Terms. - As used in this Act:

- (a) *Distributed energy resources* refer to decentralized energy systems including rooftop solar;
- (b) *Energy service company* refers to Entities providing solar installation and financing services;
- (c) *Household solar system* refers to small-scale solar photovoltaic systems installed in residential properties;
- (d) *Net metering* refers to a system, appropriate for distributed generation, in which a distribution grid user has a two-way connection to the grid and is only charged for their net electricity consumption and is credited for any overall contribution to the electricity grid;

- (e) *Off-grid systems* refer to electrical systems not connected to the wires and related facilities of the on-grid systems of the Philippines;
- (f) *On-grid systems* refer to electrical systems composed of interconnected transmission lines, distribution lines, substations, and related facilities for conveyance of the bulk power on the grid of the Philippines;
- (g) *Renewable energy systems* refer to energy systems which convert renewable energy resources into useful energy forms, like electrical, mechanical, and others;
- (h) *Rural electrification* refers to the delivery of basic electricity services, consisting of power generation, sub-transmission, and/or extension of associated power delivery system that would bring about important social and economic benefits to the countryside;
- (i) *Solar energy* refers to the energy derived from solar radiation that can be converted into useful thermal or electrical energy;
- (j) *Solar energy systems* refer to energy systems which convert solar energy into thermal or electrical energy; and
- (k) *Solar home system* refers to a stand-alone photovoltaic system that offers a cost-effective mode of supplying amenity power for lighting and appliances to remote off-grid households. Depending on viability, solar home systems may be grid-tie, off-grid, or hybrid solar photovoltaic.

SEC. 4. National Household Solar Energy Roadmap. —The Department of Energy (DOE), in joint leadership with the Department of Human Settlements and Urban Development (DHSUD), and in consultation with the National Housing Authority (NHA), Social Housing Finance Corporation (SHFC), Department of the Interior and Local Government (DILG), Department of Environment and Natural Resources (DENR), Department of Trade and Industry (DTI), Department of Finance (DOF), Department of Economy, Planning and Development (DEPDev), Energy Regulatory Commission (ERC), National Electrification Administration (NEA), and other pertinent government bodies, shall formulate and execute a Comprehensive Household Solar System Roadmap equipped with an annual implementation strategy to expedite the deployment, commercial viability, and public adoption of residential solar technologies nationwide.

The Roadmap shall prioritize the following strategic objectives:

1. Accelerating the nationwide deployment and adoption of residential solar systems;
2. Lowering retail electricity rates while strengthening household-level energy security;
3. Enhancing power grid stability through the integration of distributed energy resources;
4. Promoting low-carbon development, environmental sustainability, and climate disaster preparedness; and
5. Expanding clean energy access to marginalized, low-income, off-grid, and unviable areas across the country.

The roadmap shall incorporate, but shall not be limited to, the following core components:

1. National Capacity Targets — Establishment of time-bound installation milestones for household solar energy, aligned with national renewable energy goals.
2. Regulatory Streamlining and Market Reforms — Creation of a unified digital platform for expedited permitting and interconnection; enforcement of standardized timelines with automatic approvals for compliant systems; expansion of fair-compensation net-metering and net-billing frameworks; and simplified regulations for small-capacity systems.
3. Financing, Incentives, and Capital Mobilization — Provision of accessible financing solutions (including low-interest loans, on-bill financing, and subscription models); targeted grants for low-income families; tax incentives for equipment, installation, and domestic manufacturing; and the mobilization of climate finance, green bonds, and carbon credit monetization.
4. Grid Integration, Utility Coordination, and Energy Storage — Formulation of technical standards for grid connection, distribution infrastructure upgrades, and household battery storage; alongside rules for aggregating distributed resources to participate in ancillary services markets.
5. Solar-Ready Building Standards — Integration of mandatory solar-ready requirement provisions in building codes for new residential developments, technical rooftop standards, and incentives for structural retrofitting.
6. Workforce Certification and Industry Support — Implementation of national training programs, accreditation systems for service providers, and support for domestic assembly and manufacturing of solar components.
7. Consumer Protection and Public Information — Establishment of equipment quality and warranty standards, transparent pricing templates, complaint resolution mechanisms, and public educational campaigns.
8. Digital Registry and Smart Data Platforms — Development of a National Rooftop Solar Registry integrated with smart meters and utility monitoring systems to facilitate real-time data tracking and grid planning.
9. Local Government Unit (LGU) Alignment — Harmonization of local permits and zoning rules, capacity-building programs for LGUs, and performance-based incentives for target achievement.
10. Performance Evaluation and Adaptive Policy — Adoption of key performance indicators (measuring capacity, adoption, savings, and emission reductions) coupled with data-driven policy adjustment mechanisms.

The Department of Energy (DOE) shall serve as the primary implementing agency and shall establish an Inter-Agency Household Solar Task Force to oversee the execution and monitoring of the Roadmap.

SEC. 5. Institutional Framework and Agency Mandates. — For the effective and coordinated implementation of this Act, the relevant government agencies and local government units shall exercise the following duties and functions:

(a) **Department of Energy (DOE).** — The DOE shall serve as the lead implementing authority under this Act and shall:

- i. Formulate, update, and monitor the execution of the Roadmap;
- ii. Promulgate national capacity targets and technical performance standards for residential distributed solar energy systems;
- iii. Direct inter-agency operations, program evaluations, and policy alignment;
- iv. Promote the widespread adoption of residential solar energy adoption and generation and energy storage systems;
- v. Coordinate the removal of national and local administrative barriers to the installation of solar energy systems;
- vi. Facilitate access to financing, qualified installers, and reliable equipment;
- vii. Develop and disseminate information and technical guidance necessary for their development; and
- viii. Prepare and submit annual progress reports to both Houses of Congress.

(b) Department of Human Settlements and Urban Development (DHSUD). — The DHSUD, in coordination with the National Housing Authority (NHA) and the Social Housing Finance Corporation (SHFC), shall:

- i. Mandate solar-ready and solar-installation standards across national housing policies, building codes, and urban development plans;
- ii. Require the integration of rooftop solar energy systems in government-funded socialized and low-cost housing developments;
- iii. Establish targeted financial assistance, subsidies, and credit facilities for low-income and informal settler families; and
- iv. Implement structural retrofitting programs for existing housing projects.

(c) Department of the Interior and Local Government (DILG). — The DILG shall:

- i. Direct Local Government Units (LGUs) to align local plans and ordinances with the national household solar policy;
- ii. Provide institutional support and technical capacity-building to LGUs for localized execution.

(d) Department of Environment and Natural Resources (DENR). — The DENR shall:

- i. Formulate environmental standards governing solar equipment disposal, electronic waste recycling, and end-of-life management for photo-voltaic panels and energy storage systems; and
- ii. Integrate household solar generation data into national carbon accounting and climate action reporting frameworks.

(e) Department of Trade and Industry (DTI). — The DTI shall:

- i. Enforce mandatory product safety, quality, certification, and warranty standards for all imported and locally distributed residential solar technologies;
- ii. Promulgate consumer protection rules governing price transparency, service warranties, and commercial practices; and
- iii. Provide fiscal and technical development programs for micro, small, and medium enterprises (MSMEs) operating within the domestic solar supply chain.

(f) Department of Finance (DOF). — The DOF shall:

- i. Administer tax incentives, duty exemptions, and financial relief structures authorized under this Act;
- ii. Mobilize international climate finance, green bonds, and concessional loans through government financial institutions; and
- iii. Create administrative rules for the monetization of carbon credits derived from household solar installations.

(g) Department of Economy, Planning, and Development (DEPDev) — The DEPDev shall:

- i. Incorporate residential solar targets into national, sectoral, and regional development frameworks; and
- ii. Conduct periodic economic impact evaluations and strategic policy reviews.

(h) Energy Regulatory Commission (ERC). — The ERC shall:

- i. Promulgate and enforce rules governing net-metering, net-billing, feed-in tariffs, and ancillary service aggregation for residential distributed energy resources;
- ii. Establish mandatory, non-discriminatory, and expedited interconnection standards for distribution utilities; and
- iii. Exercise regulatory oversight over distribution utilities to enforce consumer protections and prevent market abuses.

(i) National Electrification Administration (NEA) — The NEA shall:

- i. Assist electric cooperatives in modernizing distribution networks to accommodate high levels of household solar integration; and
- ii. Provide technical assistance and capital financing to extend residential solar solutions to off-grid, unviable, and missionary electrification areas.

(j) Local Government Units (LGUs) — All provinces, cities, municipalities, and barangays shall serve as primary frontline implementers and shall:

- i. Enact local ordinances establishing fee waivers, property tax discounts, and streamlined approval processes for household solar projects;

- ii. Operate digital or physical One-Stop-Shop Permitting Systems for residential solar applications with fixed processing timelines;
- iii. Incorporate solar targets into their Local Development Plans, Comprehensive Land Use Plans (CLUPs), and Local Climate Change Action Plans (LCCAPs);
- iv. Designate a Local Energy Officer responsible for program execution, registry maintenance, and local reporting; and
- v. Prioritize low-income, marginalized, and climate-vulnerable communities in local solar deployment programs: *Provided*, That LGUs meeting or exceeding national deployment metrics shall be eligible for performance-based national grants and financial assistance.

(k) Inter-Agency Household Solar Council — There is hereby created an Inter-Agency Household Solar Council, chaired by the Secretary of Energy and composed of the heads of the agencies enumerated in this Section. The Council shall ensure policy harmonization, eliminate regulatory bottlenecks, maintain a shared data monitoring system, and submit a consolidated annual report to Congress.

SEC. 6. Household Solar Registry. — The Philippine Statistics Authority (PSA), in coordination with the Department of Energy (DOE), shall establish and maintain a Household Solar Registry as the national database for all residential distributed renewable energy systems.

(a) Integration with PhilSys — The Registry shall be integrated into the Philippine Identification System (PhilSys) and utilize the PhilSys Number (PSN) as its primary unique identifier.

(b) Minimum Data Requirements — The Registry shall record installed capacity, geographic location, technical specifications, grid interconnection status, and relevant household beneficiary data.

(c) Authorized Use — Collected data shall be utilized strictly for policy formulation, program design, targeted subsidies, grid management, and disaster response operations.

(d) Data Privacy — The PSA and the DOE shall enforce strict compliance with Republic Act No. 10173, otherwise known as the "*Data Privacy Act of 2012*," to guarantee data security and confidentiality, and shall jointly issue the implementing rules necessary for this Section.

SEC. 7. Mandatory Integration of Solar Financing in Socialized Housing. — All present and future socialized housing financing frameworks shall mandate the inclusion of a dedicated household solar financing component to cover the upfront costs of installing rooftop solar photovoltaic systems for low-income beneficiaries in both in-city and off-city resettlement projects.

(a) Annual Targets — Annual installation targets for solar-equipped socialized housing shall be aligned with the aggregated annual targets set by LGUs, the NHA, and the SHFC.

(b) Budgetary Allocation — The financial allocation per housing unit for the solar energy system shall be calculated based on prevailing market rates, added directly on top of standard housing production costs.

(c) Financial Structure and Affordability — Financing terms—which may consist of loans, direct grants, or equity contributions from key shelter agencies—shall be structured such that a household's medium-term electricity expenditures do not exceed the costs they would otherwise incur under standard grid connectivity.

SEC. 8. *Green Financing Window for Household Solar Systems.* — Government Financial Institutions (GFIs), in coordination with the Bangko Sentral ng Pilipinas (BSP), shall establish concessional credit schemes—including pay-as-you-save, lease-to-own, and credit guarantee programs—to facilitate household solar adoption, incentivizing private commercial banks and financial technology (fintech) firms to participate.

(a) Mandated Green Financing Window. — The Land Bank of the Philippines (LBP) and the Development Bank of the Philippines (DBP) are hereby mandated to open and maintain a dedicated Green Financing Window offering zero-interest loans for the purchase and installation of residential rooftop solar energy systems.

(b) Loan Limits and Terms. — Loans extended under this Window shall be capped at a maximum principal amount of Three Hundred Fifty Thousand Pesos (₱350,000.00) per household, amortized over flexible repayment terms not exceeding ten (10) years, with streamlined application requirements and zero-to-minimal collateral constraints.

(c) Priority Beneficiaries. — Preferential access to zero-interest credit shall be granted to low-income and climate-vulnerable households identified through official government social registries.

(d) Implementing Guidelines. — The Department of Finance (DOF), BSP, LBP, and DBP shall jointly promulgate rules, eligibility criteria, and risk-sharing mechanisms necessary for the operation of the Green Financing Window.

SEC. 9. *Mandatory Battery Energy Storage for Government Solar Projects.* — All solar photovoltaic systems funded, subsidized, or facilitated by the government shall integrate a battery energy storage component to ensure emergency power during disasters or grid outages.

(a) Technical Standards — Battery systems shall comply with capacity, safety, and interoperability standards issued by the DOE in coordination with the ERC.

(b) Priority Services — Storage capacity shall prioritize basic household needs, including emergency lighting, communication devices, and essential appliances.

(c) Flexible Guidelines — Implementing agencies may establish tailored requirements for off-grid, island, and disaster-prone areas to optimize cost-effectiveness and resiliency.

SEC. 10. *Integration in Local Climate Change Action Plans (LCCAPs).* — All LGUs are hereby mandated to incorporate household solar energy strategies into their LCCAPs, Local Development Plans, and local investment program budgets, in coordination with the DOE and DILG.

(a) Plan Components — Local plans shall specify renewable energy adoption targets, identify priority barangays and beneficiary households, and align with disaster risk reduction priorities.

(b) Compliance and Evaluation — Adherence to this Section shall form part of the evaluation criteria for national local governance performance ratings and climate compliance reporting.

SEC. 11. *Streamlined Net-Metering Framework* — The ERC and the DOE shall institute simplified net-metering application rules and mandate fixed processing timelines for distribution utilities.

SEC. 12. *Mandatory Smart Inverters for Residential Systems* — All residential distributed solar installations shall utilize grid-compliant smart inverters capable of voltage and frequency regulation, anti-islanding protection, and remote monitoring.

(a) Certification and Interconnection — Distribution utilities and electric cooperatives shall grant interconnection approvals strictly to systems equipped with smart inverters certified under DOE and ERC testing standards.

(b) Transition Period — Existing non-compliant systems shall be granted a reasonable grace period, as defined in the Implementing Rules and Regulations, to retrofit compliant smart inverters.

SEC. 13. *Grid Modernization and Distribution Network Upgrades.* — All distribution utilities (DUs) and electric cooperatives shall modernize and reinforce their distribution networks to ensure the safe, reliable, and efficient integration of household renewable energy systems.

(a) Network Investments — Required infrastructure upgrades shall include advanced metering infrastructure, smart grid technologies, voltage regulation equipment, feeder expansions, and energy management systems.

(b) Distribution Development Plan (DDP) — DUs shall formulate and submit to the DOE and ERC a DDP outlining implementation timelines, technical protocols, and capital investment requirements for distributed generation expansion.

(c) Cost Recovery and Safeguards — Capital investments prudently incurred under this Section shall be recoverable through regulated tariffs, subject to ERC performance benchmarks and consumer protection safeguards.

(d) Penalties — non-compliance with grid modernization requirements shall subject the defaulting DU to administrative fines, disallowance of cost recovery, or other sanctions imposed by the ERC.

SEC. 14. *Mandatory Interconnection Timelines and Penalties.* — DUs and electric cooperatives shall evaluate, process, and execute interconnection applications for qualified household renewable energy systems within thirty (30) calendar days from receipt of complete documentation.

(a) Penalties for Delay — Unjustified failure to complete processing within the 30-day mandate shall constitute a regulatory violation punishable by administrative fines, direct compensation to the applicant, and additional sanctions determined by the ERC.

(b) Systemic Non-Compliance — Chronic or habitual delays shall warrant escalated regulatory actions, including increased fines, disallowance of rate recovery, or temporary suspension of authority to process new interconnections.

(c) Monitoring and Compliance — The ERC shall establish a tracking platform to monitor adherence to statutory interconnection timelines and enforce operational transparency.

SEC. 15. *Compliance with Grid Standards.* — All household solar photovoltaic installations shall strictly conform to safety, reliability, and performance standards prescribed by the DOE and the ERC.

SEC. 16. *Fiscal Incentives.* — Qualified individual end-users installing residential solar energy systems shall be entitled to the following fiscal privileges:

(a) Zero-Value Added Tax (VAT) Rate — Sale and purchase of solar panels, inverters, batteries, and related installation equipment shall be subject to zero percent (0%) VAT;

(b) Duty-Free Importation — Importation of components, machinery, and equipment necessary for household solar generation not locally available in sufficient quantity or comparable quality shall be exempt from custom duties; and

(c) Real Property Tax Exemptions — Real property tax incentives or discounts on solar-equipped residential structures, subject to ordinances enacted by the respective LGUs.

SEC. 17. *Streamlined Permitting and Expedited Processing.* — All LGUs and distribution utilities shall institute a unified One-Stop-Shop Permitting System for household solar applications under standardized procedures.

(a) Mandatory Processing Period — Evaluation and approval of local permits and utility interconnection clearances shall not exceed thirty (30) calendar days from submission of complete requirements.

(b) Permit-Free Registration — Small-scale residential systems falling below capacity thresholds defined by the DOE shall qualify for automated registration or simplified notification procedures in lieu of formal building permits.

SEC. 18. *Net Billing Framework for Excess Energy Sales.* — Residential end-users operating distributed renewable energy systems with an installed capacity not exceeding fifty kilowatts (50 kW) shall be permitted to export and commercialize excess generated power to the local distribution grid.

(a) Fair Market Rates — Exported power shall be credited or compensated at fair market generation rates established and periodically adjusted by the Energy Regulatory Commission (ERC).

(b) Utility Obligations — Distribution utilities and electric cooperatives shall provide non-discriminatory grid interconnection, install appropriate bi-directional or smart metering equipment, and ensure timely financial settlements pursuant to DOE and ERC guidelines.

SEC. 19. *Establishment of the "Solar for All Fund" and Barangay Grants.* — There is hereby created a Special Account to be known as the "Solar for All Fund," administered by the DOE, with an annual appropriation of Ten Billion Pesos (₱10,000,000,000.00) to fund household solar installations for indigent families and climate-vulnerable barangays.

(a) Grant Scope. — Grants awarded under this Section shall cover full or partial costs of solar photovoltaic units, mounting hardware, necessary wiring, and basic emergency battery storage systems.

(b) Beneficiary Selection — Target households and communities shall be selected in coordination with LGUs and validated through national social protection databases to ensure accurate targeting.

(c) Equitable Distribution — The DOE shall ensure fair geographic allocation across regions, prioritizing off-grid, missionary electrification, underserved, and high-risk disaster areas.

(d) Operational Guidelines. — The DOE shall issue guidelines detailing grant limits, procurement standards, eligibility criteria, and auditing procedures.

SEC. 20. *Capacity Building, Training, and Public Education.* — The Department of Energy shall execute nationwide public information drives and institutional development programs to support residential solar adoption.

(a) Public Awareness — The DOE, in coordination with relevant agencies, shall conduct public education campaigns regarding the economic, environmental, and practical benefits of household solar energy systems.

(b) Technical Workforce Training — The DOE, in collaboration with the Technical Education and Skills Development Authority (TESDA), shall establish technical training, accreditation, and certification standards for solar system installers, technicians, and service providers.

(c) **Quality and Safety Standards** — The DOE shall promote and enforce national quality, safety, and performance standards for residential renewable energy equipment and installation.

SEC. 21. Monitoring, Reporting, and Public Transparency. — The DOE, in coordination with the Philippine Statistics Authority (PSA), shall monitor, analyze, and track nationwide household solar deployment metrics.

(a) **Annual Congressional Report**— The DOE shall submit an annual progress report to both Houses of Congress detailing national residential solar adoption metrics, including total installed capacity, number of connected households, disbursement of state subsidies, and grid integration performance.

(b) **Public Data Dashboard** — The DOE shall establish and maintain an accessible, real-time online public dashboard tracking national household solar deployment to promote operational transparency and public accountability.

SEC. 24. Appropriations. — The amount necessary for the initial implementation of this Act shall be charged against the current year's appropriations of the DOE and partner agencies. Thereafter, such sums as may be necessary for its continued implementation shall be included in the annual General Appropriations Act (GAA).

SEC. 25. Implementing Rules and Regulations. - The DOE, in coordination with the government agencies concerned and relevant stakeholders, shall promulgate the necessary implementing rules and regulations within ninety (90) days upon the effectivity of this Act.

SEC. 26. Separability Clause. - If any provision, section, or part of this Act shall be declared unconstitutional or invalid, such judgment shall not affect, invalidate, or impair any other provisions, sections, or parts thereof.

SEC. 27. Repealing Clause. - All laws, acts, decrees, executive orders, issuances, and rules and regulations or parts thereof which are contrary to and inconsistent with this Act are hereby repealed, amended, or modified accordingly.

SEC. 28. Effectivity. - This Act shall take effect fifteen (15) days following its publication in the Official Gazette or in a newspaper of general circulation.

Approved,