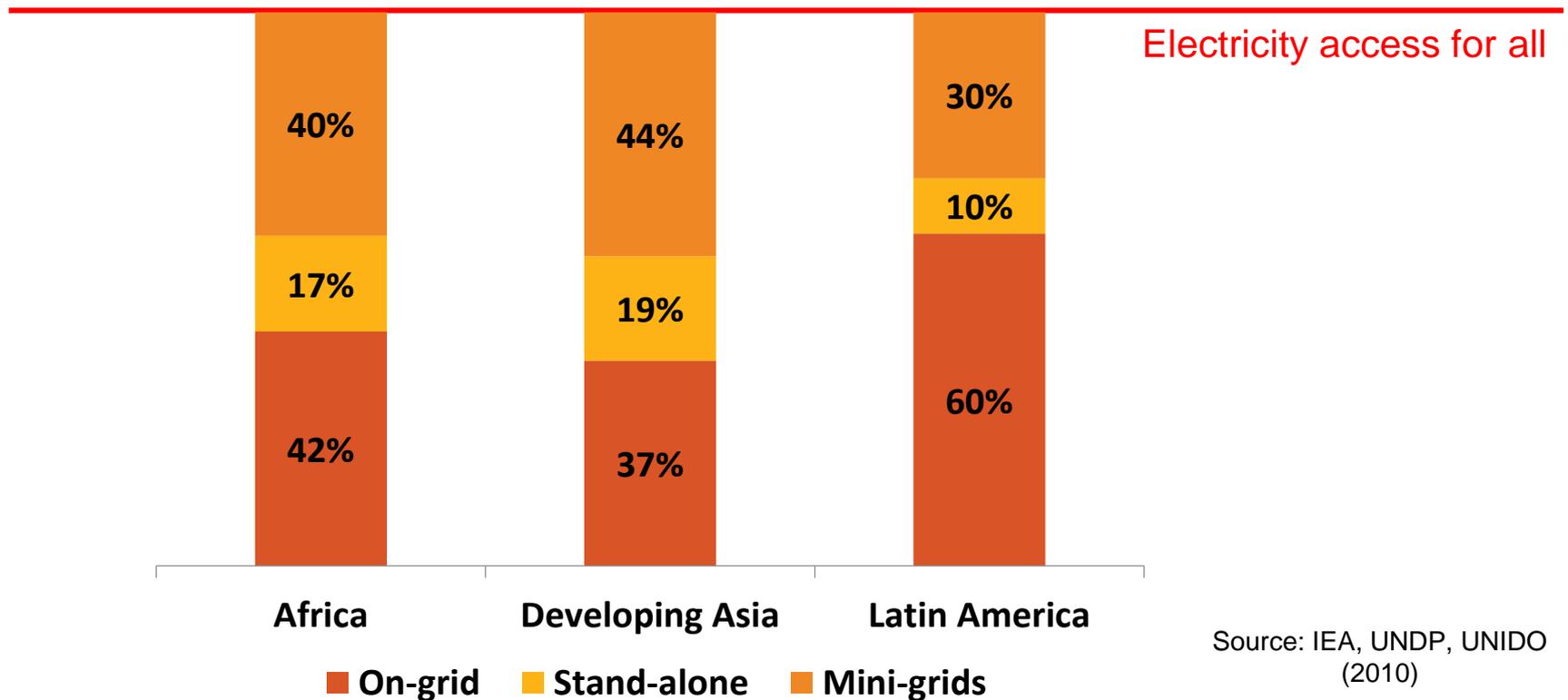


Policies and regulations for private sector renewable energy mini-grids

Off-grid renewable energy: Key to universal access to electricity

Nearly 60% of additional generation required to achieve universal electricity access by 2030 is estimated to come from off-grid installations (stand-alone and mini-grids)



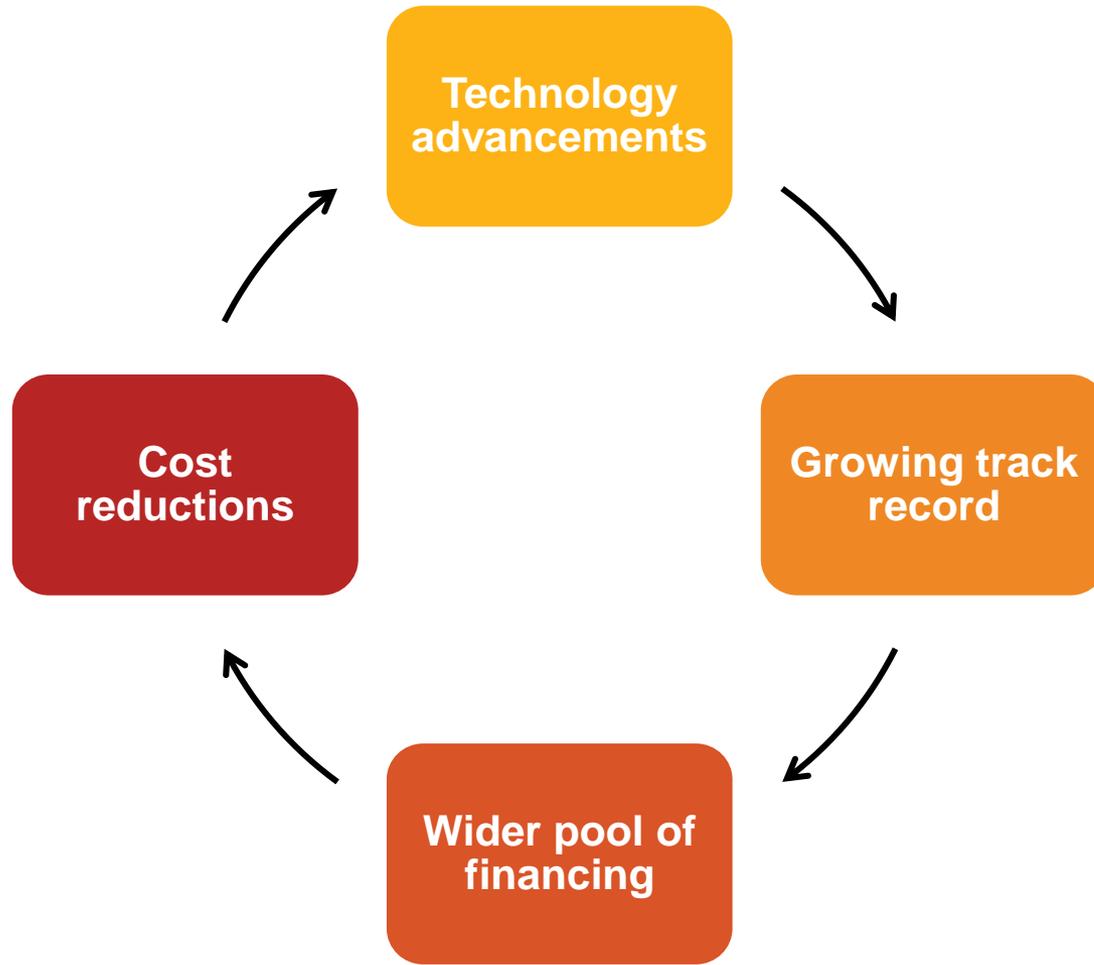
Renewable energy mini-grids are expected to account for the majority share of off-grid generation

Renewable energy mini-grids: A proven track record



Traditional deployment models are being complemented by private sector sectors as interest in the sector grows

Renewable energy mini-grids: The strengthening business case

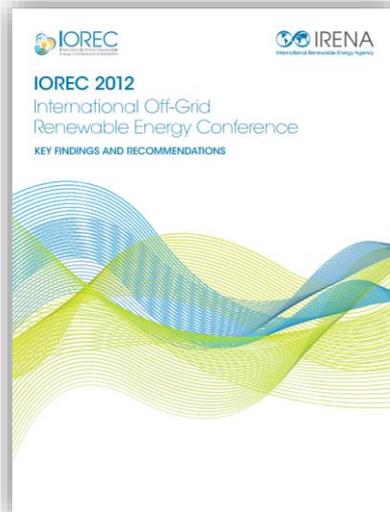


How do we accelerate the pace of renewable energy mini-grid deployment?

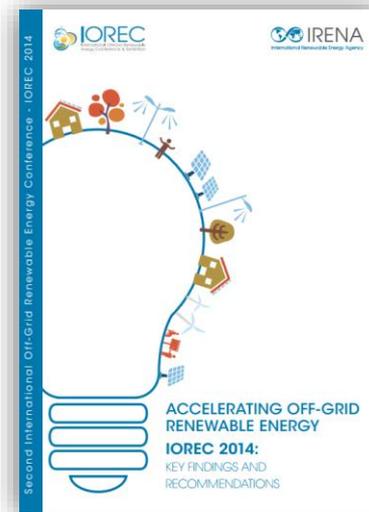
Scaling-up renewable energy mini-grid deployment : IOREC Platform



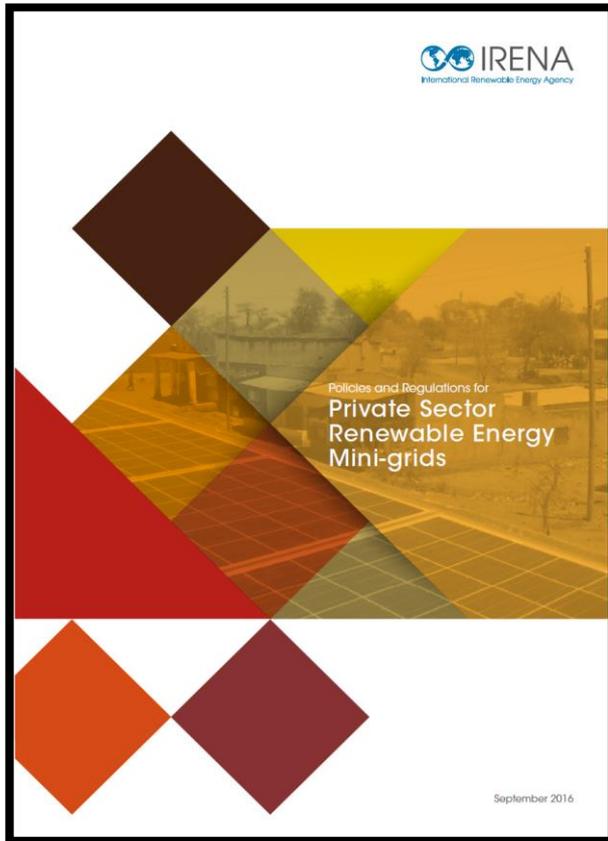
IOREC 2012 : Accra, Ghana



IOREC 2014 : Manila, Philippines



Key message: Dedicated policy and regulatory measures are needed to scale-up off-grid renewable energy deployment.



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OBJECTIVES

- Maps out the role of renewable energy mini-grids in rural electrification strategies
- Analyses the current landscape of policy and regulations for the mini-grid sector
- Identifies key policy and regulatory conditions for attracting private sector
- Defines technology-specific policy and regulatory requirements

Key policy and regulatory conditions:

Legal and licensing provisions

Clear processes and procedures

- Single-window clearance facility hosted at a rural electrification agency or similar body.
- Information on processes and procedures.

Streamlined regulatory requirements

- Segmented approach to designing mini-grid regulatory requirements – limit licensing/permitting costs to 1-2% of project cost.
- Non-energy requirements (e.g., ESIA) simplified and standardized.

Provisional licenses and concessions

- Avoid two or more developers carry out preparatory activities on the same site.
- Provisional licenses more suitable for bottom-up mini-grid development.

Key policy and regulatory conditions: Cost recovery and tariff regulation

LEGAL AND
LICENSING
PROVISIONS

COST
RECOVERY
AND TARIFF
REGULATION

Regulations need to ensure viability and sustainability

- Cost-covering tariffs an option – growing case for differentiated tariffs for mini-grids.
- Mini-grid tariffs need to be high enough to cover costs and structured to reflect current spending on energy.

Tailored approach to tariff regulation

- Exemptions under specific threshold – Operators can test flexible tariff structures in a light-handed regulatory space.
- Tariff approval: A tool to mitigate disputes, especially for large mini-grids.

Tariff caps and standardised calculation methodologies

- Tariff caps to be set for local conditions, but don't entirely de-risk business models.
- Tariff determination through standardised methodologies (e.g., a costplus approach) allows for systematic assessment, and provides the basis for brief negotiations.

Key policy and regulatory conditions: Risk of main-grid arrival



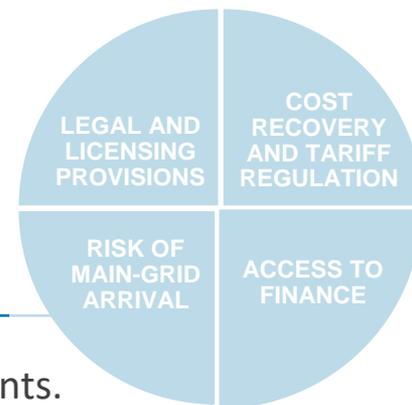
Rural electrification plans provide valuable guidance

- Information on location and timeframe for grid extension, as well as population density, productive loads and existence of other licensees.
- Benefits for mini-grid developers (in a bottom-up, market-driven approach) and public authorities (in a top-down concession scheme).

Interconnection/compensation mechanisms allay risks

- Several interconnection options exist – transition to small power producer, distributor, tail-end support. Most suitable approach depends on generation costs.
- Interconnection or compensation, full information about tariffs and depreciation scenario should be available in early stage.

Key policy and regulatory conditions: Measures for access to finance



Address targeted financing gaps in mini-grid phases

- Cooperation with regional/global funding facilities to attract early-stage grants.
- Dedicated funds to bridge financing gaps. Local commercial banks can be engaged to make available low-cost, local-currency loans.

Efficient design and delivery of public financial support

- Ongoing support perceived as risky, CAPEX grants preferred without impacting sustainability. Delivery on step-by-step or integrated basis.
- Financial support should be designed to leverage capital from commercial sources.

Financing instruments to catalyse investments

- Instruments (e.g., subordinated debt) could make it easier to attract private investors.
- Innovative PPP models to de-risk investments (e.g. split of assets)

Policies for various mini-grid technology solutions

- Mini-grid configurations respond differently to policies and regulations.
- Tailored mini-grid policies and regulations can allow investment streams to be directed into certain combinations of technology and tier.
- The renewable energy mini-grid sector is highly dynamic and policies evolve as they are introduced, applied and calibrated.
- To create enabling conditions, measures are needed in energy and non-energy sectors (e.g., financial, data and statistics, and rural development).

Final thoughts

- Renewable energy mini-grids will deliver a large share of generation to reach universal electricity access.
- Tailored policy and regulations are needed to catalyse private sector mini-grid development.
- Tariff regulation and financial support needs to ensure economic viability and sustainability for projects.
- Well-designed policies improve project sustainability as well as maximise benefits.
- Potential for meeting both electrification and development goals.



Thank you