

DESIGNING SUCCESSFUL RE TARGETS IN AFRICA:

KEY PRINCIPLES

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BRIEF PROFILE:



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Outline

Short Summary

1. Introduction
2. The Functions of Targets
3. Designing Successful RE Targets: 7 Principles
4. Concluding Remarks

Short Summary

- RE targets have been adopted in over 160 countries worldwide
- Officially 54 countries in Africa: 42 have targets; currently 12 without
- Ultimately, the number doesn't matter:
- Many targets around the world are having little or no impact on RE growth, investment, or deployment
- Beware of “**Paper Targets**”



Short Summary

- To be successful, targets require a host of complementary policies:
 - Clear PPAs for FITs or tendering procedures
 - Currency protection (e.g. Ghana)
 - Credit support for the off-taker agreements (e.g. Uganda)
 - Compensation for curtailed (undelivered) power (e.g. South Africa)
 - Inflation indexation (Kenya)
 - Reliable administrative, permitting, and grid connection procedures
- An RE target is not going to suddenly make an un-investable market investable: but, **they remain important in *anchoring* the overall policy and regulatory environment and providing long-term signals to stakeholders**
- Targets can also help put countries on the map

1: Introduction

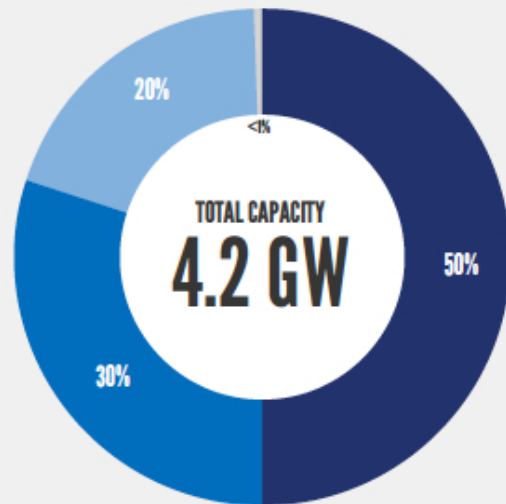
Introduction

- Many African countries are adopting RE targets (e.g. ECOWAS, SE4ALL, etc.)
- Renewables increasingly cost-competitive
- Investors and international lenders are increasingly looking at Africa's RE sector
- IEA estimates an increase of 80GW of new non-hydro RE capacity in sub-Saharan Africa by 2040; this may well prove conservative¹

¹ See: <http://www.vox.com/2015/10/12/9510879/iea-underestimate-renewables>

Current Status

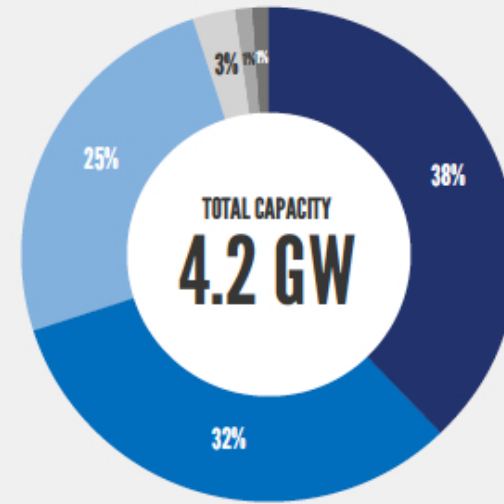
Current sub-Saharan renewable energy projects in development by sector (excluding South Africa)



● GEOTHERMAL ● SOLAR ● WIND ● SMALL-SCALE HYDRO

Source: Clean Energy Pipeline

Current sub-Saharan renewable energy projects in development by country (excluding South Africa)



● ETHIOPIA ● KENYA ● GHANA ● NIGERIA ● BURKINA FASO ● MAURITIUS

Source: Clean Energy Pipeline

Source: Clean Energy Pipeline 2015, <http://bit.ly/CEAfrica2015>

Introduction

- Investing in RE projects in Africa (esp. SSA) faces several challenges:
 - Higher political and regulatory risk
 - Higher sovereign credit risk
 - Higher off-taker risk
 - Shortage of long-term capital
 - Lack of liquid local currency markets: limits financing projects fully in domestic currency
 - Greater exposure to economic shocks: esp. foreign exchange risk and inflation risk (e.g. South Africa, Nigeria)

→ Systematic de-risking is therefore critical²

²UNDP 2014:

http://www.undp.org/content/dam/undp/library/Environment%20and%20Energy/Climate%20Strategies/DREI%20Tunisia%20Full%20Report_30Mar15.pdf?download

2: The Functions of RE Targets

The Functions of RE Targets

- Attract **investment**, both foreign (FDI) and local
- Provide a clear **signal of political commitment** to investors, manufacturers, suppliers, citizens, etc.
- Reduce key investment **risks**
- **Mobilize** stakeholders
- **Anchor** policies and facilitate long-term **planning**



The Functions of RE Targets

RE targets can also be used to drive a wide range of complementary policy reforms:

- Establishment of grid codes
- Electricity restructuring
- Improving energy efficiency
- Undertaking tariff reform
- Improving PPA design
- Launching FITs and/or auctions, etc.
- Scaling-up rural electrification
- Etc.

The Functions of RE Targets

- BUT, in order to fulfill those key functions:

→ RE targets have to be credible

“Renewable energy targets deriving only from political objectives tend to be fragile.” – IRENA 2015

FRAGILE
HANDLE WITH CARE

3: Designing Successful RE Targets

Designing Successful RE Targets: #1

- Most RE targets around the world remain “aspirational”: i.e. are not backed by effective policies, and are not legally binding
- National utilities are often perceived to block progress toward achieving targets: either intentionally or through inertia/inaction
- **Most renewable energy targets exist only on paper**

→ **First key principle:** Make targets binding with clear consequences for failing to achieve them





Spectrum of Renewable Energy Targets

1

Political announcements and vision statements

(e.g. white papers, regional-level energy communiqués, declarations and plans)

2

Energy strategies and scenarios

(e.g. electricity expansion plans, integrated resource plans)

3

Detailed roadmaps and action plans

(e.g. NREAPs, five-year plans, renewable energy programmes, technology-specific roadmaps)

4

Legally binding renewable energy targets

(e.g. Laws, Renewable Obligations, Renewable Fuel Standards, Renewable Portfolio Standards, etc.)

Increasing specificity, measurability and binding character



Source: Kieffer, G., Couture, T.D. (IRENA) 2015.

http://www.irena.org/DocumentDownloads/Publications/IRENA_RE_Target_Setting_2015.pdf

Designing Successful RE Targets: #2

- Acemoglu and Robinson (2012): distinction between “**inclusive**” vs. “**extractive**” institutions
- Inclusive institutions foster participation and feedback, ensure a level playing field, and introduce the right incentives

→ **Second Key Principle:** Institutions matter.

RE targets are likely to be achieved more quickly and efficiently when the institutions governing them are accountable, have clear rules and procedures that apply evenly to all participants, and are (relatively) transparent

Designing Successful RE Targets: #3

- In order to monitor progress, having a baseline is needed
 - Establishing a baseline and gathering the core baseline data are therefore critical
- **Third Key Principle:** Establish a credible baseline and introduce regular reporting (e.g. via annual progress reports)

Designing Successful RE Targets: #4

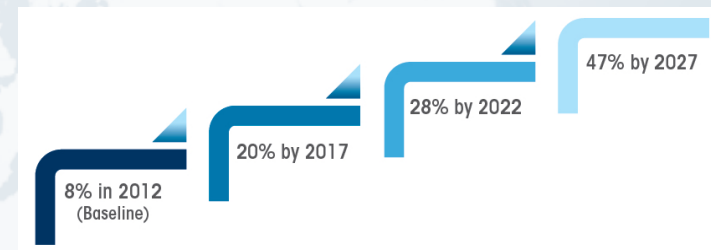
- In many countries, little or no capacity in place to monitor and report on progress
- Few or no institutions responsible for publishing annual reports
- Little or no public pressure if targets aren't met (this relates to public awareness, and the presence/absence of effective civil society groups)

→ **Fourth Key Principle:** Monitoring progress fosters greater accountability and public awareness

Designing Successful RE Targets: #5

- Debates have frequently emerged over the precise magnitude of the targets: e.g. absolute (i.e. x GWh) or percentage-based (%)?
 - E.g. EU, Australia
- Specifying whether the target refers to total final energy consumption, primary energy consumption, final electricity *sales*, etc. matters
 - U.S. RPS policies often include specific annual obligations framed as a % **share of final power sales** that ratchet upward over time: such “staged targets” significantly improve clarity and planning certainty

→ **Fifth Key Principle:** Make the targets clear, precise, and staged.



Source: IRENA 2015

Designing Successful RE Targets: #6

- In a number of countries (e.g. China, Brazil) the development of RE projects has occasionally proceeded ahead of the development of the required transmission capacity
 - This has resulted in projects sitting idle while transmission projects are completed; this delays the achievement of climate and energy goals, and delays progress on access and reliability objectives
- **Sixth Key Principle:** Don't forget about the grid

Designing Successful RE Targets: #7

- Targets imposed top-down without stakeholder engagement often lack legitimacy and contribute to poor uptake
- Several positive examples of stakeholder consultations improving both the content and the legitimacy of RE targets: e.g. Morocco, South Africa, ECOWAS region

→ **Seventh Key Principle:** Engage with stakeholders early and often

4: Concluding Remarks

“Be firm on the vision, but flexible on the details.”

THANK YOU!

QUESTIONS?

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ADDITIONAL RESOURCES

[http://www.irena.org/DocumentDownloads/Publications/IRENA RE Target Setting 2015.pdf](http://www.irena.org/DocumentDownloads/Publications/IRENA_RE_Target_Setting_2015.pdf)

<http://www.leonardo-energy.org/webinar/setting-renewable-energy-targets>

<http://www.ecreee.org/news/ecowas-national-renewable-energy-action-plans-nreaps>

<http://www.se4all-africa.org/>

[http://www.undp.org/content/dam/undp/library/Environment%20and%20Energy/Climate%20Strategies/Derisking%20Renewable%20Energy%20Investment%20-%20Full%20Report%20\(May%202013\)%20ENGLISH.pdf?download](http://www.undp.org/content/dam/undp/library/Environment%20and%20Energy/Climate%20Strategies/Derisking%20Renewable%20Energy%20Investment%20-%20Full%20Report%20(May%202013)%20ENGLISH.pdf?download)