



SUSTAINABLE  
ENERGY FOR ALL

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**3<sup>rd</sup> Annual Workshop on Advancing SE4All Country Action in  
Africa | 9-10 February 2016, Abidjan**

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Global Facilitation Team

## Working Group 3

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**Issue** - How can the SE4All Action Agendas, emerging monitoring structures and the SE4ALL global monitoring and tracking work be linked in a meaningfully and mutually reinforcing way?

**Output** - Develop actionable recommendations



## Working Group 3 | Format

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- **Tuesday 14:15 - 17:15**
  - 14:15 – 15:45: Introductory Panel and Q&A
    - GTF/ MTF, national and regional monitoring frameworks
  - 15:45 – 16:00: Break
  - 15:45 – 17:15: Discussion on Working Group Questions
- **Wednesday 09:00-12:00**
  - Continue discussion
  - Prepare actionable recommendations
  - Break to be scheduled



## Working Group 3 | Questions

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What are the different methodologies and monitoring approaches for SE4ALL Action Agendas under development in many African countries? Can a common monitoring approach be developed?

How can SE4ALL country level monitoring approaches link and feed into the SE4ALL global tracking framework?

How to transition towards the MTF approach in national measurement of energy access? How can the SE4ALL Action Agenda process be a conduit for institutionalizing this change? What is required to make this happen?



# **CONTEXT FOR DISCUSSION**

## Sustainable Energy for All by 2030



ENSURING  
*universal access*  
TO MODERN ENERGY  
SERVICES.



DOUBLING THE GLOBAL  
RATE OF IMPROVEMENT IN  
*energy efficiency.*



DOUBLING THE SHARE OF  
*renewable energy*  
IN THE GLOBAL  
ENERGY MIX.



# SE4ALL Global Tracking Framework | Indicators and Data

	IMMEDIATE	MEDIUM TERM
Global tracking	Binary measurement of access to electricity and cooking solutions.	<ul style="list-style-type: none"> <li>• Modification of global omnibus surveys to obtain information for simplified three-tier measurement.</li> <li>• Simplified three-tier measurement of access to electricity and cooking solutions.</li> <li>• Piloting and possible regular implementation of customized energy surveys to obtain five-tier access information globally.</li> </ul>
Country-level tracking		<ul style="list-style-type: none"> <li>• Piloting of multi-tier framework for electricity and cooking solutions in select countries.</li> <li>• Development and piloting of approaches to track access to energy for heating, community, and productive uses.</li> <li>• Regular multi-tier measurement of access to electricity and cooking solutions through</li> </ul>

# SE4ALL GTF | Immediate Indicators and Data

	OBJECTIVE 1		OBJECTIVE 2	OBJECTIVE 3
	Universal access to modern energy services		Doubling global rate of improvement of energy efficiency	Doubling share of renewable energy in global energy mix
Proxy indicator	Percentage of population with electricity access	Percentage of population with primary reliance on non-solid fuels	Rate of improvement in energy intensity*	Renewable energy share in TFEC

CATEGORY	DATA SOURCES	COUNTRY COVERAGE (% OF GLOBAL POPULATION)
Electrification	Global networks of household surveys plus some censuses	212 (100)
Cooking fuels	Global networks of household surveys plus some censuses	193 (99)
Energy intensity	IEA and UN for energy balances WDI for GDP and sectoral value added	181 (98)
Renewable energy	IEA and UN for energy balances REN 21, IRENA, and BNEF for complementary indicators	181 (98)

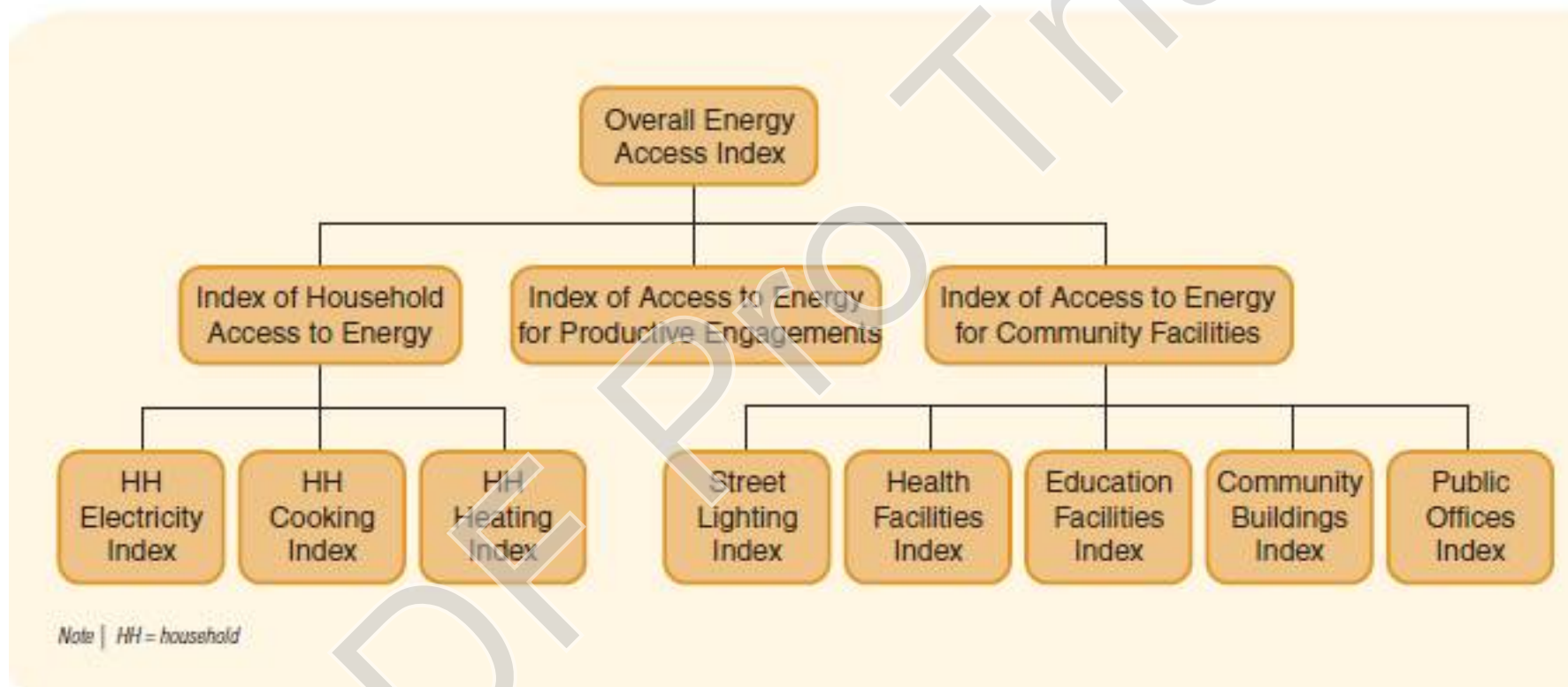
Source: GTF Report 2013





# Multi-Tier Access Framework | Going beyond binary measurement, *under development*

The broad areas of energy use—(i) households, (ii) productive engagements, and (iii) community facilities.



Source: Beyond Connections, Energy Access Redefined, ESMAP, SE4ALL



## Multi-tier Matrix for Access to Household Electricity Supply

		TIER 0	TIER 1	TIER 2	TIER 3	TIER 4	TIER 5
ATTRIBUTES	1. Capacity	Power <sup>1</sup>	Very Low Power Min 3 W	Low Power Min 50 W	Medium Power Min 200 W	High Power Min 800 W	Very High Power Min 2 kW
		AND Daily Capacity	Min 12 Wh	Min 200 Wh	Min 1.0 kWh	Min 3.4 kWh	Min 8.2 kWh
		OR Services	Lighting of 1,000 lmhrs per day and phone charging	Electrical lighting, air circulation, television, and phone charging are possible			
	2. Duration	Hours per day	Min 4 hrs	Min 4 hrs	Min 8 hrs	Min 16 hrs	Min 23 hrs
		Hours per evening	Min 1 hrs	Min 2 hrs	Min 3 hrs	Min 4 hrs	Min 4 hrs
	3. Reliability					Max 14 disruptions per week	Max 3 disruptions per week of total duration < 2 hours
	4. Quality					Voltage problems do not affect the use of desired appliances	
5. Affordability					Cost of a standard consumption package of 365 kWh per annum is less than 5% of household income		
6. Legality					Bill is paid to the utility, prepaid card seller, or authorized representative		
7. Health and Safety					Absence of past accidents and perception of high risk in the future		

Captures concept of affordability, reliability

<sup>1</sup>The minimum power capacity ratings in watts are indicative, particularly for Tier 1 and Tier 2, as the efficiency of end-user appliances is critical to determining the real level of capacity, and thus the type of electricity services that can be performed.

# World Energy Transition Required by 2030 | SDG7 on Energy



**Ensure access to affordable, reliable, sustainable and modern energy for all**

**7.1 By 2030, ensure universal access to affordable, reliable and modern energy services**

**7.2 By 2030, increase substantially the share of renewable energy in the global energy mix**

**7.3 By 2030, double the global rate of improvement in energy efficiency**

7a. By 2030, enhance international cooperation to facilitate access to clean energy research and technology, including renewable energy, energy efficiency and advanced and cleaner fossil-fuel technology, and promote investment in energy infrastructure and clean energy technology

7b. By 2030, expand infrastructure and upgrade technology for supplying modern and sustainable energy services for all in developing countries, in particular least developed countries, and small island developing States

**Consistent with the three objectives of SE4All**



## SDG7 | Proposed Indicators

A final list of proposed indicators was forwarded by the Inter-Agency and Expert Group on SDG Indicators to the Statistical Commission in December 2015, for the UNSC's consideration at its upcoming session 8-11 March 2016:

- “Percentage of population with access to electricity”
- “Percentage of population with primary reliance on clean fuels and technology”
- “Renewable energy share in the total final energy consumption”
- “Energy intensity measured in terms of primary energy and GDP”
- “Mobilised amount of USD per year starting in 2020 accountable towards the USD 100 billion commitment” (same as Indicator 13.a.1. under SDG 13 on climate)
- **Still under discussion** - “Ratio of value added to net domestic energy use, by industry”

### After March

- Agreement will go to the ECOSOC and General Assembly for adoption
- If decided by UNSC in March, Inter-Agency and Expert Group on SDG Indicators identifies entities responsible for compiling data individual indicators (March 2016-March 2017)



## Action Agenda Template | Monitoring, Evaluation and Reporting

- Establish a **flexible but robust monitoring and evaluation framework for the national SE4ALL Action Agenda** to monitor implementation, support lessons learning, and make necessary adjustments over time
  - **Mechanism should be put in place to track progress that should link to the Government's own monitoring and evaluation instruments** and where relevant build on existing monitoring exercises by the different partners, facilitate the collaborative participation of stakeholders in monitoring, and make the monitoring information accessible to the public
  - **Should link to the Global Tracking Framework** ensuring the provision of the most accurate data. Make provisions for regular reporting on Action Agenda implementation to the GFT and Regional Hub.
- How to link the AAs, emerging monitoring structures and SE4ALL global monitoring?



# DISCUSSION

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# Question 1

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What are the different methodologies and monitoring approaches for SE4ALL Action Agendas under development in many African countries? Can a common monitoring approach be developed?

- **Have GTF indicators been used at the country level?**
  - If not, why not (awareness, usefulness, granularity, other)?
  - How can the GTF be structured to be more useful, accessible?
  - What is tracked at the country level that is different from the GTF?
- **How to foster collaboration and alignment across government entities, donors, the private sector, others that are conducting surveys, mapping results?**
  - Link results into government data management?
  - Link government/ global data needs into such surveys?
  - Standardize indicators and data collection?
- **How to address data challenges (e.g. lack of availability, cost of collection)?**
  - Where are challenges felt most?



## Question 2

How can SE4ALL country level monitoring approaches link and feed into the SE4ALL global tracking framework?

- **How aligned and consistent are the GTF indicators and data with national data and statistical systems?**
  - What would need to be done to more closely align?
- **Where countries collect more granular data (e.g. project results) can this be centralized and included in the GTF or State of Energy Access Report?**
  - What common metrics would it be useful to collect in addition to GTF?
- **What barriers, if any, are there for countries to use GTF indicators to track national progress?**
  - Is there a need for a more user friendly interface for the GTF?
  - How to address the (2-3 year) time lag between global data and country data?  
Frequency of GTF reporting?
- **What data sources are used for tracking country progress (e.g. ministry level sector data, household surveys, etc)? How is the data quality?**





## Question 3

How to transition towards the MTF approach in national measurement of energy access? How can the SE4ALL Action Agenda process be a conduit for institutionalizing this change? What is required to make this happen?

- **Data collection** – WB working to integrate MTF into multi-topic household surveys for all IDA countries (every 3 years to 2030); would address resource mobilization
  - Would there be interest at the country level to participate in a WB/ ESMAP funded baseline survey, particularly for high energy access deficit countries in 2016?
  - Would there be interest at the country level to use the MTF for national work programs? How could the MTF be integrated into the design of access programs? What capacity and training would be needed?
  - Should ancillary data from the MTF be captured in the GTF?
- **Action Agendas** – Should the MTF be integrated in AAs? Based on work done already is there a need to revise the template and provide more guidance on measurement?
- **Using the MTF** – How could the MTF be a tool for the private sector and other investors to measure outcomes? How could such data be captured nationally and globally?



## Actionable Recommendations | Reporting Format

	To whom? (Govt, Donors, CSO, private sector, Hubs, etc.)	What?	How?
1/ What are the different methodologies and monitoring approaches for SE4All Action Agendas under development in many African countries? Can a common monitoring approach be developed?			
2/ How can these SE4All country level monitoring approaches link and feed into the SE4All Global Tracking Framework?			
3/ How to transition towards the MTF approach in national measurement of energy access? How can the SE4All Action Agenda process be a conduit for institutionalizing this change? What is required to make this happen?			



**ANNEX**

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# Simplified Multi-Tier Matrix of Energy Access

Attributes of energy supply		Tier 0	Tier 1	Tier 2	Tier 3	Tier 4	Tier 5
Capacity	Household electricity	No electricity <sup>a</sup>	Very low power	Low power	Medium power	High power	
	Household cooking	Inadequate capacity of the primary cooking solution				Adequate capacity of the primary cooking solution	
Duration and availability	Household electricity	<4 hours	4–8 hours	8–16 hours	16–22 hours	>22 hours	
	Household cooking	Inadequate availability of the primary cooking solution				Adequate availability of the primary cooking solution	
Reliability	Household electricity	Unreliable energy supply				Reliable energy supply	
Quality	Household electricity/cooking	Poor quality of energy supply			Good quality of energy supply		
Affordability	Household electricity	Unaffordable energy supply		Affordable energy supply			
	Household cooking	Unaffordable energy supply				Affordable energy supply	
Legality	Household electricity	Illegal energy supply			Legal energy supply		
Convenience	Household cooking	Time and effort spent sourcing energy cause inconvenience			Time and effort spent sourcing energy do not cause inconvenience		
Health and safety	Household electricity	Unhealthy and unsafe energy system				Healthy and safe energy system	
	Household cooking <sup>b</sup>	Level 0	Level 1	Level 2	Level 3	Level 4	Level 5

Source: World Bank/ESMAP (forthcoming 2014).

Source: LiveWire (2014), Capturing the Multi-dimensionality of Energy Access



## SE4ALL GTF | Next Steps

	RECOMMENDED TARGETING OF EFFORT OVER NEXT FIVE YEARS
Energy access	<p>Work to improve energy questionnaires for global networks of household surveys.</p> <p>Pilot country-level surveys to provide more precise and informative multi-tier measures of access to electricity and clean cooking</p> <p>Develop suitable access measures for heating.</p>
Energy efficiency	<p>Integrate data systems on energy use and associated output measures.</p> <p>Strengthen country capacity to collect data on sectoral (and ideally subsectoral process) intensities.</p> <p>Improve data on physical activity drivers (traffic volumes, number of households, floor space, etc.).</p> <p>Improve data on energy efficiency targets, policies, and investments.</p>
Renewable energy	<p>Improve data and definitions for bio-energy and sustainability.</p> <p>Capture renewable energy used in distributed generation.</p> <p>Capture renewable energy used off-grid and in micro-grids.</p> <p>Promote a more harmonized approach to target-setting.</p>

Source: GTF Report 2013



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