

# Measuring Energy Access

## Multi-Tier Framework: New Approach to Measuring Energy Access

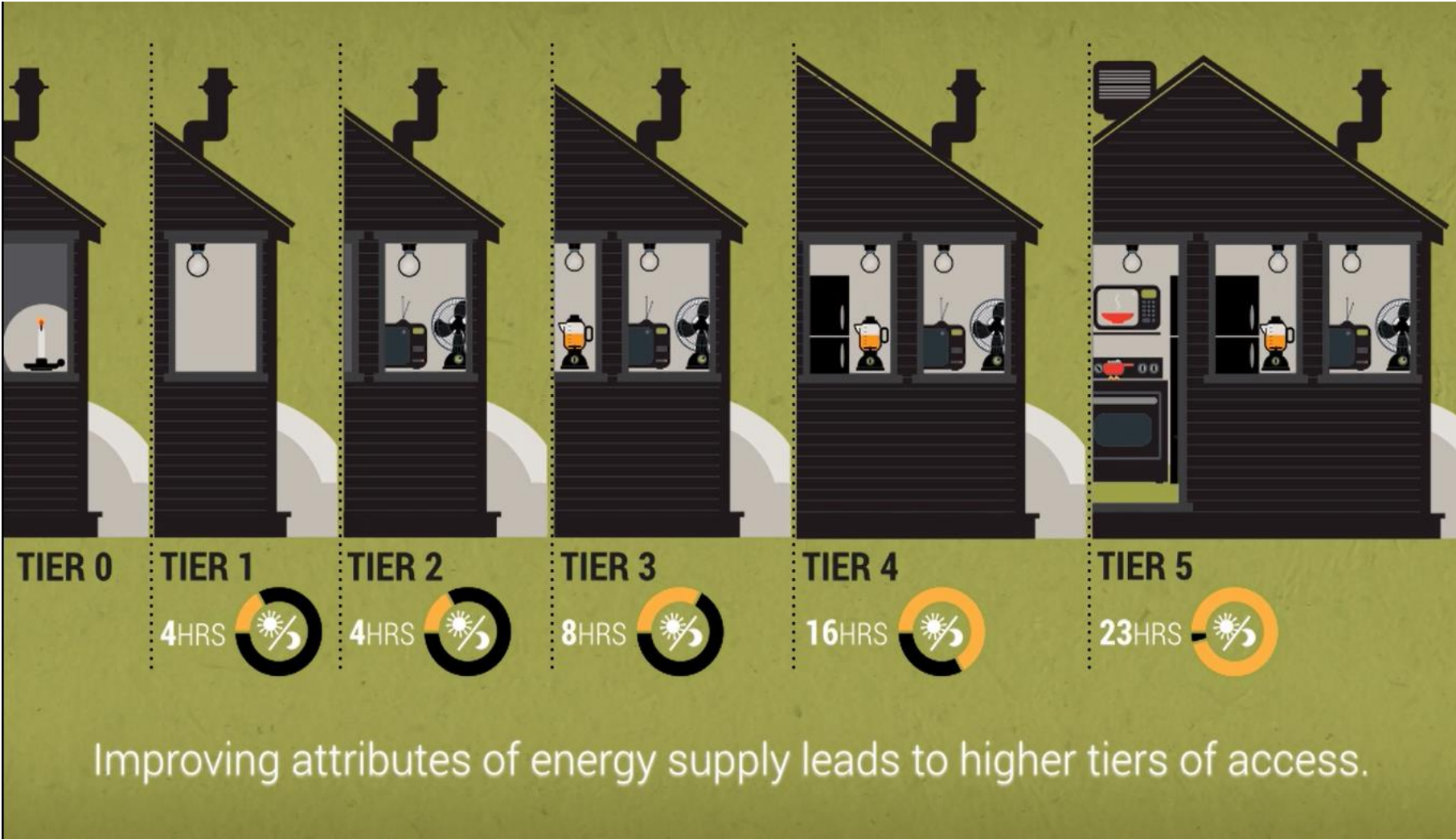
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 **ESMAP**  
Energy Sector Management Assistance Program

# Defining Access as a Continuum of Service Levels



# MTF Implementation Plan: Survey Tools

## MTF Stand-alone Energy Global Survey

Estimated time: 2.5 hrs

Nationally statistically representative  
Rural/Urban

Provides data for multi-tier Supply and  
Demand

Provides data on community service level and  
facilities

## MTF Energy module – integrated in National Surveys\*

Estimated time: 15 mins

TA and training available and funded by  
SREP/ESMAP

Key supply and demand information allowing  
tier calculation

Additional simplification of monitoring being  
tested – e.g. use of cell phone surveys

# MTF Survey Instrument Captures Data on Household Energy Consumption

Basic household appliances to high energy consumption goods.

Item Number	Item	a. How many [ITEM] in working condition does your household own?  <i>Write 0 if none 0 → NEXT ROW</i>	b. How many hours does your household use [ITEM] in a typical day? (Only for fan, radio and TV) <b>Number of hours</b>
M.17	Incandescent Light Bulb		
M.18	Fluorescent Tube		
M.19	Compact Fluorescent Light (CFL) Bulb		
M.20	LED Light Bulb		
M.21	Rechargeable torch/flashlight/lantern		
M.22	Radio/CD Players/sound system		
M.23	VCD/DVD		
M.24	Fan		
M.25	Refrigerator		
M.26	Microwave oven		
M.27	Electric Iron		
M.28	Washing machine		
M.29	Electric sewing machine		
M.30	Air cooler (External Unit)		
M.31	Space Heater		
M.32	Electric water heater		
M.33	Solar based water heater		
M.34	Computer		
M.35	Electric hot water pot/kettle		
M.36	Smartphone (internet phone) charger		
M.37	Regular mobile phone charger		
M.38	Black & White TV		
M.39	Regular Color TV		
M.40	Flat color TV		
M.41	Electric Water Pump		
M.42	Other, specify		

# Global Survey to Cover 15 High Access Deficit Countries



## Country selection factors

Highest electricity access deficit

Highest modern cooking deficit

Focusing on SREP countries

Regional balance

Government's interest

6-8 Months

Agree with Governments on MTF survey

Hiring Survey Firms  
1-2 months

Recruitment & Training of Survey Staff  
1 month

Survey roll out  
2-3 months

FINAL DIAGNOSTIC REPORT

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# Thank you!

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## Beyond Connections: Energy Access Redefined

<https://openknowledge.worldbank.org/bitstream/handle/10986/24368/Beyond0connect0d000technical0report.pdf?sequence=1&isAllowed=y>



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