

ERI-PARI Joint Workshop  
ASEAN Connectivity:  
Power Integration with Myanmar

# Demand Projection for Rural Electrification in Myanmar

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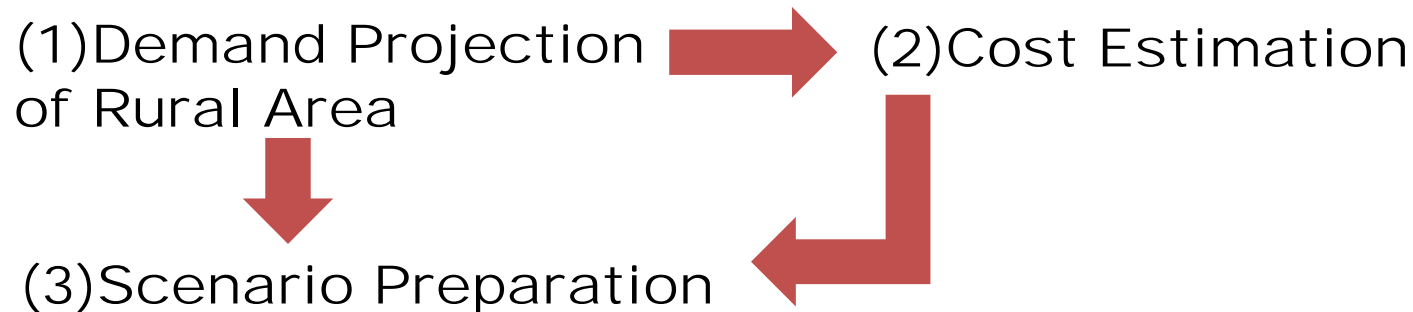
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## Demand projection for rural electrification

### 1. *Purpose of demand projection*

- RE progressed with GE together with off-grid development. Regarding grid expansion plan, JICA MP study is respected and focuses on the off-grid one. Scope of this study is in the outside of GEA
- Demand forecast for whole country by JICA MP and this study focuses on demand in RA using the kWh per capita. And the target rural electrification was set using this kWh per capita referring the progress of electrification in other countries
- Projected demand for RE was used in the cost estimate of micro-grid development. And the scenario making was intended to make a more realistic RE program considering the limitation of fund and timeline



## Demand projection for rural electrification

### ***2. Current Situation of electricity access in Myanmar (as of 2012)***

- Total demand is 2,075 MW
- Household electrification rate is 26%
- Total population is estimated about 50.5 million
- About 70% of population live in rural area (64,436 villages)
- Of 64,436 villages, 17,554 villages are electrified
- Of which 3,802 villages are electrified by grid
- Another 13,752 villages are electrified by off-grid such as mini hydro, biomass(rice husk), diesel and etc.
- 45% of household in urban area electrified, but only 18% of household in rural area electrified

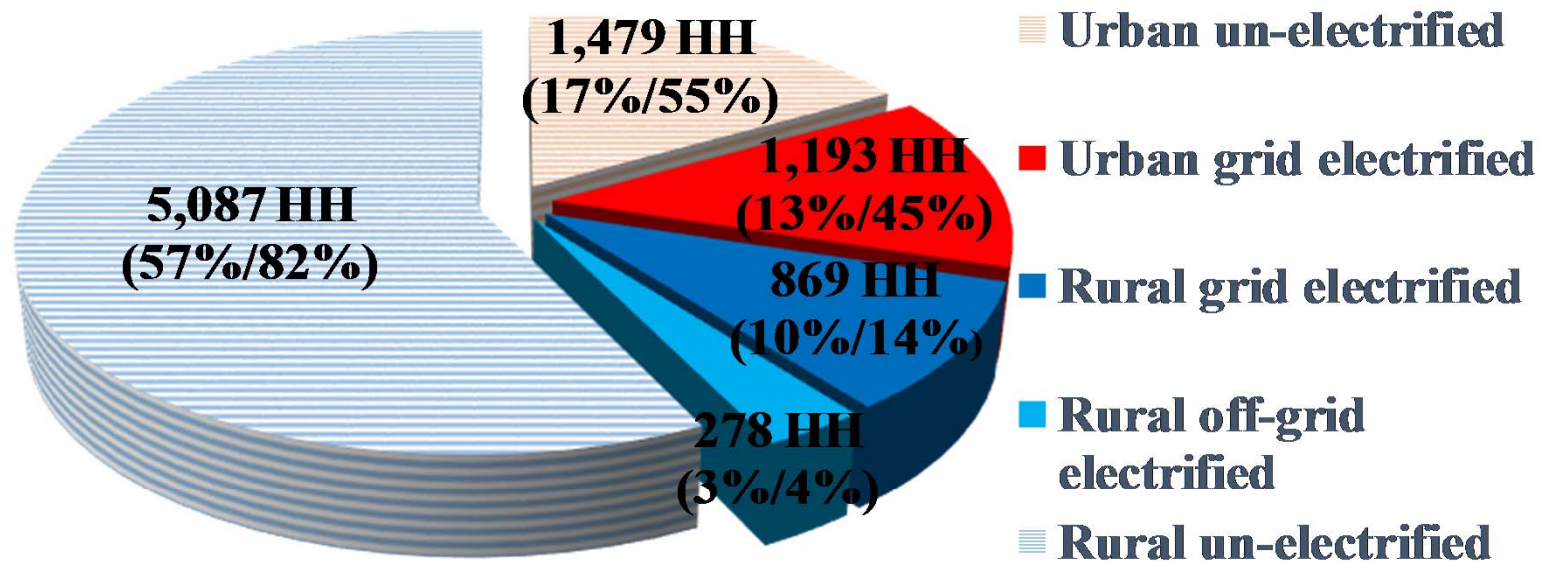
# Demand projection for rural electrification

## Current electrification situation

Household electrification rate is 26%

Rural household electrification rate is 18%

Urban household electrification rate is 45%



**Thousand Household**  
**(%for country/% for area)**

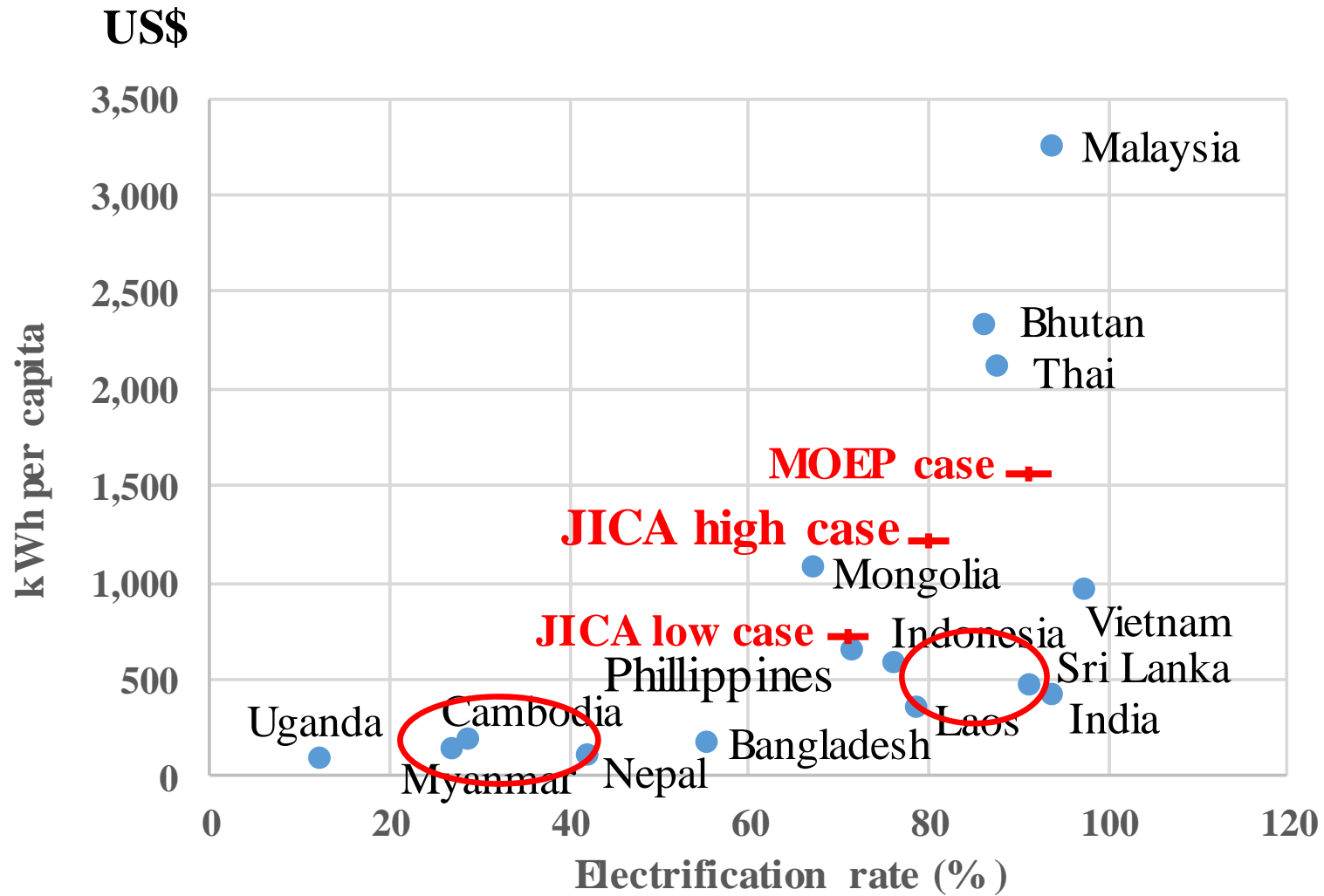
## Demand projection for rural electrification

### ***3. Demand projection for rural electrification***

- (1) Setting target household electrification rate
  - Per capita kWh calculated by JICA MP demand forecast
  - Estimation of country electrification rate target by per capita kWh
- (2) Demand projection conditions
  - Urban electrification takes first priority and is followed by rural electrification
  - Priority to grid electrification within allocated power supply into each state and region, and off grid electrification supplements it
  - Area of grid electrification by power system expansion plans of JICA Master Plan and MOEP plan
  - 1.5%/year of population growth rate by UN data
  - Even off-grid electrification requires to enable civilized living in modern society for low income household

## Demand projection for rural electrification

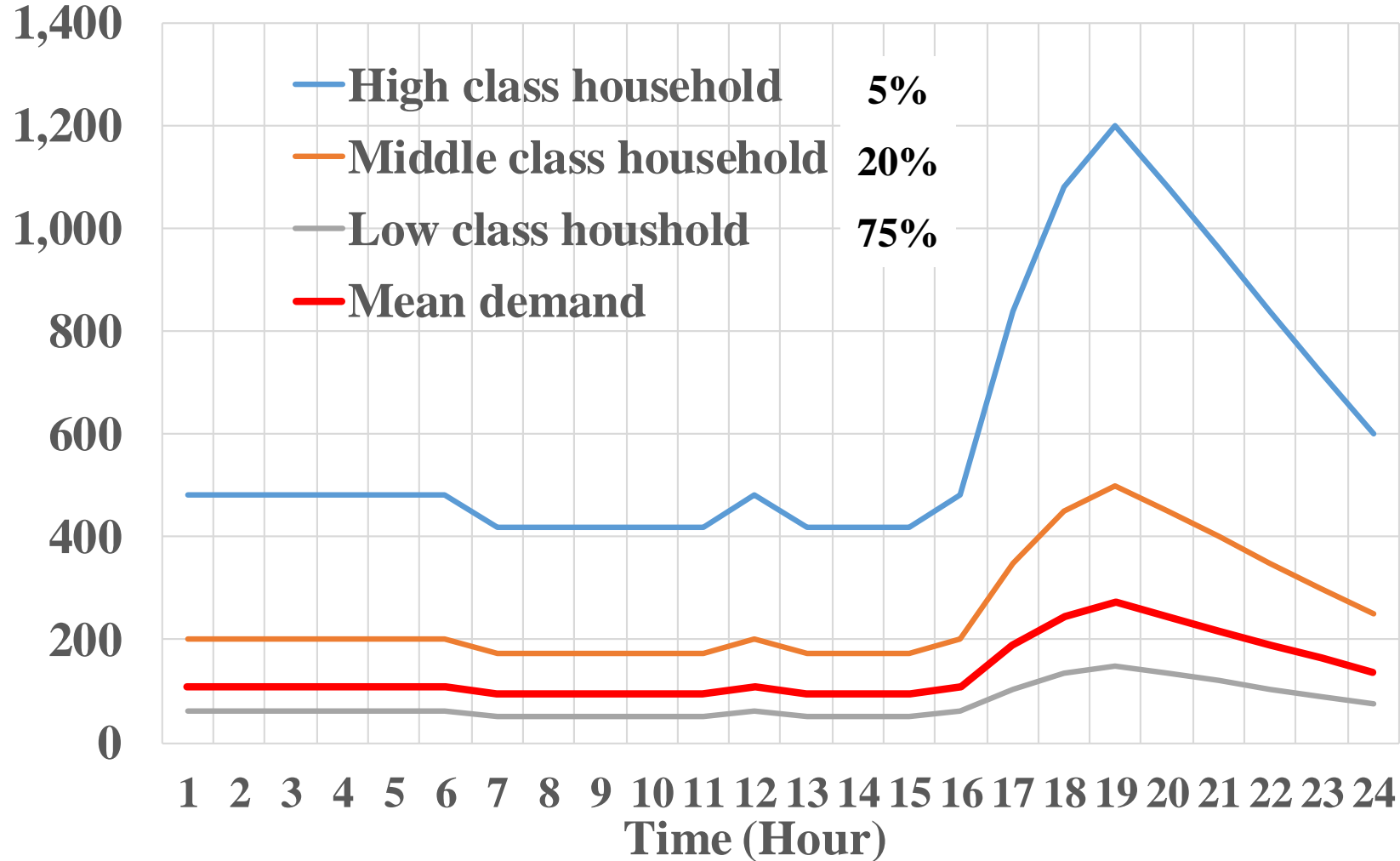
**Setting target household electrification rate in 2030 as 70% applying low case**



# Demand projection for rural electrification

**Even off-grid electrification enable civilized living in modern society**

Demand (W)





# Demand projection for rural electrification

Potential range electrified by grid expansion based on the power system expansion plan by MOEP

- potential electrification range of grid is considered to be the area within a 40 km radius of substation from technical and economic considerations

