- **Auto-production**: off-grid electricity, solar, but also fossil fuels

- **Bioenergy**: own-use in biomass processing plants; reporting grid production (IPPs)

- **Primary energy** use in electricity production (bio, geo, solar)

- Hybrid plants
Estimation

- **India**: 5 million biogas plants (MNRE)
- **Ethiopia**: 1 million solar lights imported annually (UN COMTRADE)
- **Malaysia**: 92 (+154) palm oil mills capturing and burning methane from POME (SEDA)
- **Tanzania**: 158 MW of off-grid mini-grids, on grid = 1.5GW (World Bank)
Measuring renewables

- **Electricity capacity**: net installed capacity, grid-connected at the year-end

- **Plant classification**: auto-producer heat/fuel CHP, enterprise survey limits

- **Liquid biofuels**: NCVs, jet-fuel, EVs and natural gas, biodiesel = transport fuel?

- **NCVs**: coal (17); oil (12); solid biofuels (1); other issues with units