Gambia

National Electrification Rate [1]

- National: 56%
- Urban: 79%
- Rural: 21%

Population

- Total: 2.2 million [2]
- Urban ratio: 61.3% [2]

Population growth

- Medium population growth: 2.7% [2]
- High population growth: 3.0% [2]

Average household size, urban: 6.6 people [3]

Average household size, rural: 7.6 people [3]

Average electricity consumption per

- Household: 284 kWh/year
- Capita: 40 kWh/year (Tier 2) [2], [4]

Low demand target: U2-R1[1]

High demand target: U3-R3

Off-grid technology cost [5]–[9]:

- Expected PV mini-grid cost: ~2950 $/kWp
- Expected Hydro mini-grid cost: ~3000 $/kWp
- Expected Wind mini-grid cost: ~3750 $/kWp
- Expected PV stand-alone (or SHS) costs:
    - ~9620 $/kWp if kW < 0.02
    - ~8780 $/kWp if 0.02< kW < 0.05
    - ~6380 $/kWp if 0.05< kW < 0.1
    - ~4470 $/kWp if 0.1< kW < 1
    - ~6950 $/kWp if kW > 1

Grid generating cost

- Expected on-grid cost: 0.062 $/kWh [10], [11]

T&D costs [12], [13] [14], [15] [8], [16]–[21]:

- HV line (69-132 kV): ~53000 $/km
- MV line (11-33 kV): ~7000 $/km
- LV line (0.2 – 0.4 kV): ~4250 $/km
- HV to MV substation (1000 kVA): ~25000 $/unit
- MV to MV substation (400 kVA): ~10000 $/unit
- Service transformer (50 kVA): ~4250 $/unit

Grid generation capacity cap per year: ~17 MW/year

Grid connection limit: ~2.5% population/year

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[1] U: Urban households; R: Rural households; 1-5: Electrification Tiers as defined by ESMAP's Multitier framework

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[2] For additional information refer to GEP data & cost assumptions guide.