

Development of A Myanmar National Electrification Plan

Towards Universal Access 2015-2030



Why Universal Access?

Myanmar has one of the lowest rates of electrification in Southeast Asia. Less than 30 percent of households in Myanmar have access to electricity, and electricity consumption per capita is among the lowest in the world. The urban-rural divide in access to electricity is huge – while the electrification rate in urban areas is about 75% (e.g. Yangon and Mandalay), the rural areas have an extremely low electrification rate of only 16 percent. In fact, most of rural communities in border areas have no access to the grid-based electricity at all, and some regions and states with a high share of rural population (e.g. Ayeyarwady and Magway Regions and Rakhine State) have access to grid-based electricity below 10 percent. Therefore, the access to electricity provides a clear indication of relative and absolute poverty levels in Myanmar.

Energy poverty also affects population with access to electricity due to shortages and poor reliability of power supply. Delays in investments in power infrastructure, over-reliance on seasonal hydropower production (which accounts for about 70 percent of power generation), and a rapid increase in electricity demand, which tripled over the last decade, resulted in large electricity shortages which are estimated at about 30 percent of power demand during the dry season.

Access to modern energy service has direct bearing on poverty reduction and rural development. **Universal access to electricity in Myanmar by 2030 is achievable and affordable goal** and, as proven in neighboring countries such as Thailand, Vietnam, Laos and China, the goal can be achieved with sustained government's commitment, targeted sector policies, and significant financial support from donors.

What is the National Electrification Plan?

With help from the global Sustainable Energy for All initiative, led by the World Bank and the UN, the Government (through the Ministry of Electric Power and the Ministry of Livestock, Fisheries and Rural Development) **is preparing a National Electrification Plan (NEP) which includes** recommended geospatial, least cost grid rollout plan **for achieving universal access to electricity by 2030**, and an Investment Prospectus for the phased financing of the investment needs. The NEP also proposes institutional reforms required to ensure alignment of funding sources and accountabilities for effective and timely implementation of the electrification program. The development of NEP is coordinated with the government's ongoing effort for the preparation of the Power Sector Master Plan (funded by JICA) in which related strategic issues of the future energy mix in power generation and transmission expansion are being addressed.

- **The National Electrification Plan (NEP)** charts out a path towards universal access designed specifically for Myanmar, embrace both grid and off-grid solutions, and include appropriate policy and technical innovation to lower cost, improve reliability, and provide timely service to all households
- The World Bank Group is supporting NEP development and implementation. Both financial support for investments, and technical assistance for institutional development and capacity building will be available to Myanmar for the implementation of NEP

What Approach does the NEP Involve?

NEP is envisaged to be a comprehensive action plan for developing, financing, and implementing electricity access scale-up program nationwide, with the target of achieving universal access by 2030. Its aims to align support from different stakeholders with the implementation program for achieving national access targets and syndicates financing on a timely, ongoing and programmatic basis.

What are the Key Elements/Components of the NEP?

- The NEP includes **two key components: 1) Geospatial Least Cost Electrification Rollout plan (grid and off-grid) and 2) Road Map and Investment Prospectus**

First component consists of a high level geospatial rollout plan comprising of a systematic grid network rollout connection plan and complementary spatial plans for mini-grids and individual systems.

While **second component** looks at the long-term and intermediate targets for 2015-2030, investment financing framework for the first 5 years, action plan to address enabling policy and institutional framework, as well as the capacity strengthening initiatives for key institutions and agencies.

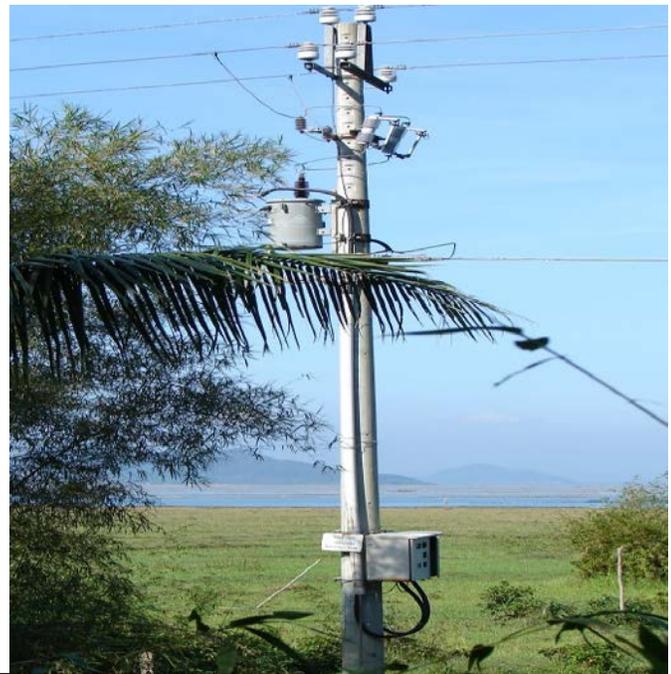
What are Implementation Arrangements?

- MOEP and MLFRD jointly lead the NEP preparation with participation from other member agencies of NEMC and REPWSC and assistance from the World Bank.
- MOEP and MLFRD co-manage consultants together with World Bank. This includes strategic guidance to data collection, review of key deliverables, organization of workshops and study tours.
- Consultants work closely with the government teams throughout the NEP preparation process
- Close coordination with ADB, JICA and other DPs on respective, related initiatives.



At the same time, two consulting firms were competitively selected to assist in NEP development:

- **Columbia University** is working on the Geospatial least cost electrification rollout plan, with experience in Indonesia, Kenya, Nigeria, Tanzania, etc.
- **Castalia** is in charge of the creating the Roadmap and Investment Prospectus bringing its experience from Indonesia, Rwanda, Kenya, Vanuatu



What are Recommended Next Steps?

- Government of Myanmar formally adopts the NEP, including the Roadmap and the institutional implementation Plan via Government Decree;
- Government appoints an Executive Secretariat (ES) tasked with coordinating roll-out program and responsible directly to the Vice-President;
- Government initiates a donor coordination process, and continues working with donors to secure the full financing package needed for program implementation.