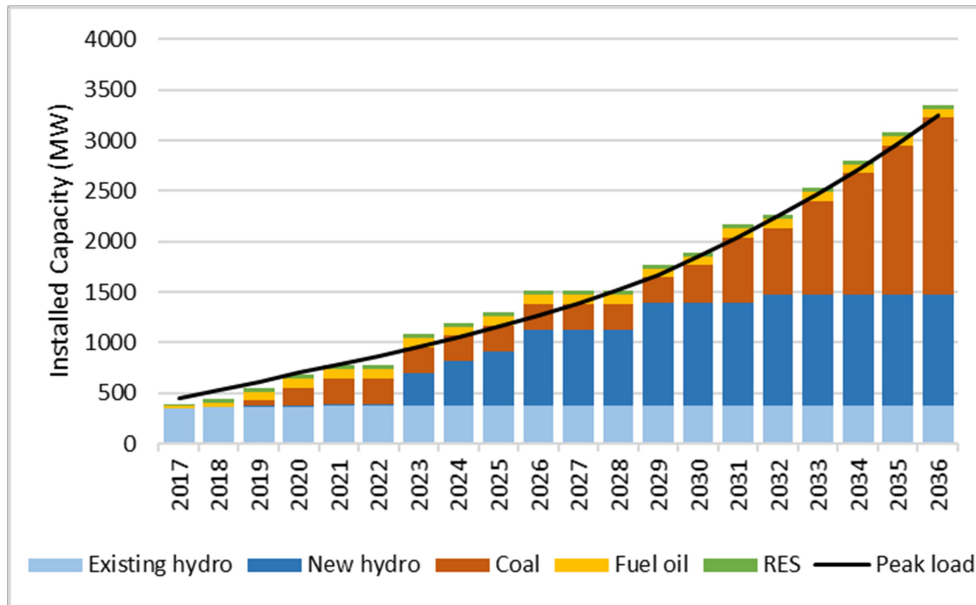


Integrated Resource Plan (IRP) for Malawi



Total Installed Capacity by Technology in the Constrained Scenario

The Government of Malawi engaged Norconsult and ECA to prepare an Integrated Resource Plan (IRP) for Malawi in 2016. The Integrated Resource Plan Project covering the period 2015-2035 includes preparation of a reliable load forecast and evaluation of realistic generation and transmission scenarios that can be funded and implemented in a timely manner in Malawi.

Assignment

Malawi’s electricity supply sector has experienced significant shortfalls partly due to dependence on the hydropower stations on the Shire River and the periodic low flows on this river. Furthermore, Malawi has not yet been connected to the transmission system in the neighbouring utilities. In order to increase security of supply and meet future growth, it was therefore seen as required to assess how best to develop domestic resources including solar, wind and biomass and coal as well as further hydropower development in combination with establishing interconnections to one or more of the other members of the Southern African Power Pool.

Solution

Norconsult, together with ECA, reviewed

and updated previous load forecasts for Malawi and prepared an inventory of local energy sources and potential power generation projects. On this basis, alternative scenarios for future expansion of local generation resources were evaluated in combination with scenarios for new transmission links to neighbouring countries investigating benefits from trade (import and export) and improvement in security of supply. Transmission development plans to meet load growth and also connect future generation plants were developed in parallel for the different generation expansion plans considered. The study recommended a least-cost plan for expansion of the power supply system including interconnections to Mozambique early on.

► **Disciplines and services**

Master plans

Time span

2016-2017