

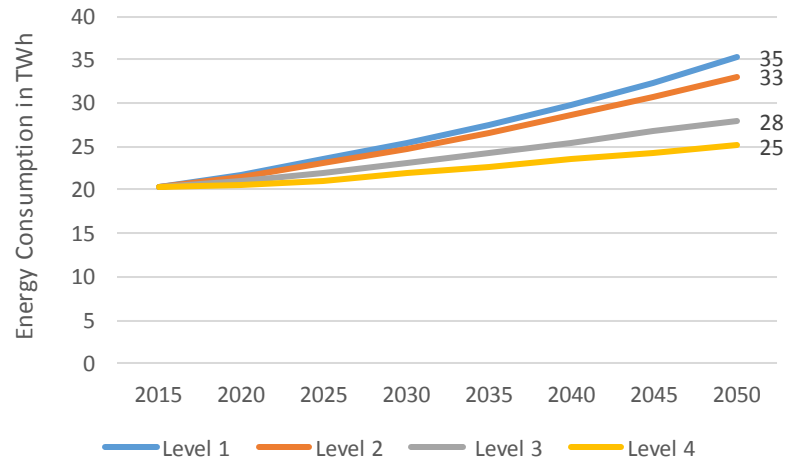
Industry: Energy intensity

Level 1

Level 1 assumes that Industries will follow the PAT compliance and improve their efficiency level by 3-18% by the end of 2050. Tea industry is assumed to improve energy efficiency by 10% by 2050. PAT industries are assumed to improve their efficiency level marginally from the baseline of 2015. For Others sub group, the energy intensity reduction is assumed to be with a CAGR of 4%.

Level 2

Level 2 assumes implementation of energy efficiency and renewable energy related project in industries. The implementation would be additional to PAT activities and each industry could adopt new financially viable technologies that are available and improve efficiency level by 10-20%. Tea industry is assumed to improve energy efficiency by 15% by 2050. It is assumed that this could drive the non PAT industries to accelerate the EE project implementation. For “Others” sub group, this level assumes improvement in the energy intensity with a CAGR of 4-5%.



For demand analysis, the industrial sector in the state of Assam is divided among energy intensive industries (including PAT sectors) and others. The PAT industries are the large Energy Intensive industries which are covered under PAT scheme. Out of 11 PAT sectors, this tool considers only 3 sectors namely fertilizer, petroleum refineries and pulp & paper. In addition, tea industry has been added in the Energy Intensive industries as it is one of the major energy consuming sectors. The industries which are not covered in Energy Intensive industries are considered in Other Sub-group. Others sub-group considers all the MSMEs and non PAT industries. The energy consumption and performance profile of PAT Designated Consumers (DCs) in Assam is compared with the overall PAT DCs for each sector. Different levels are defined for each sector separately considering the present efficiency level of each sectors.

Level 3

Level 3 assumes the implementation of best available technology in each sector. Due to large scale implementation, the costs of technologies could reduce which would make them viable for other industries to implement the projects. The efficiency level of the industries are expected to improve by 20-30%. Tea industry is assumed to improve energy efficiency by 25% by 2050. Others sub group is assumed to improve its energy intensity level with a CAGR of 4-5%

Level 4

Level 4 is the most optimistic scenario which assumes maximum possible improvement in the energy efficiency level and there might not be any financial barrier for implementation of the EE and RE related projects. The efficiency level of the industries are expected to improve by 30-45%. Tea industry is assumed to improve energy efficiency by % by 2050. The Others sub group is assumed to improve with a CAGR of 5-6%.