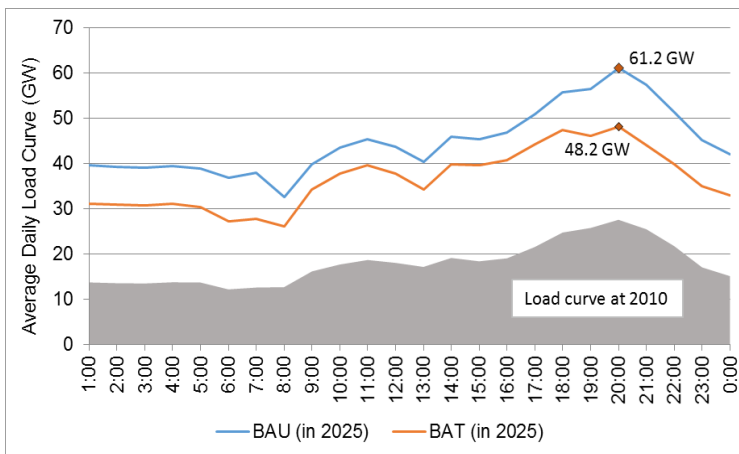




## The 10 Gigawatt Savings Opportunity in 2025 from Energy Efficiency

Indonesia’s daily peak electricity demand is increasing rapidly – 6% annually from 2008-2013 – and is projected to double in the next ten years. This alone will require the additional generation of sixty 500-MW power plants or equivalent by 2025. Adoption of ambitious energy efficiency policies today could significantly reduce future peak electricity demand and help achieve the national target of 23% renewable energy by 2025. This memo presents recent findings and potential strategies to ensure sustainable, reliable and affordable supply of energy in Indonesia.



LBNL peak load analysis estimates that Indonesia will need 50GW of capacity by 2030. By 2019, Indonesia will spend \$73 billion to get its first 35GW of additional capacity.

We identify over 10 GW savings from energy efficiency policy for appliances by 2025, thus bridging the gap for additional capacity needs.

An increased investment of less than \$1 billion for energy efficiency in appliances could achieve these savings by 2025.

**Focus on Air Conditioners:** Our analysis shows that by 2025, the use of air conditioners alone will represent over 30% of peak demand. Air Conditioners represent by far the largest potential for Energy Efficiency in the national Roadmap.

Air conditioner demand is increasing by 12% per annum, representing 75 million new installed units by 2030. Our research shows that the market is already poised for increased efficiency and current energy efficiency standards (Bintang 1) and planned revisions (ASEAN roadmap to 2020) are not ambitious enough:

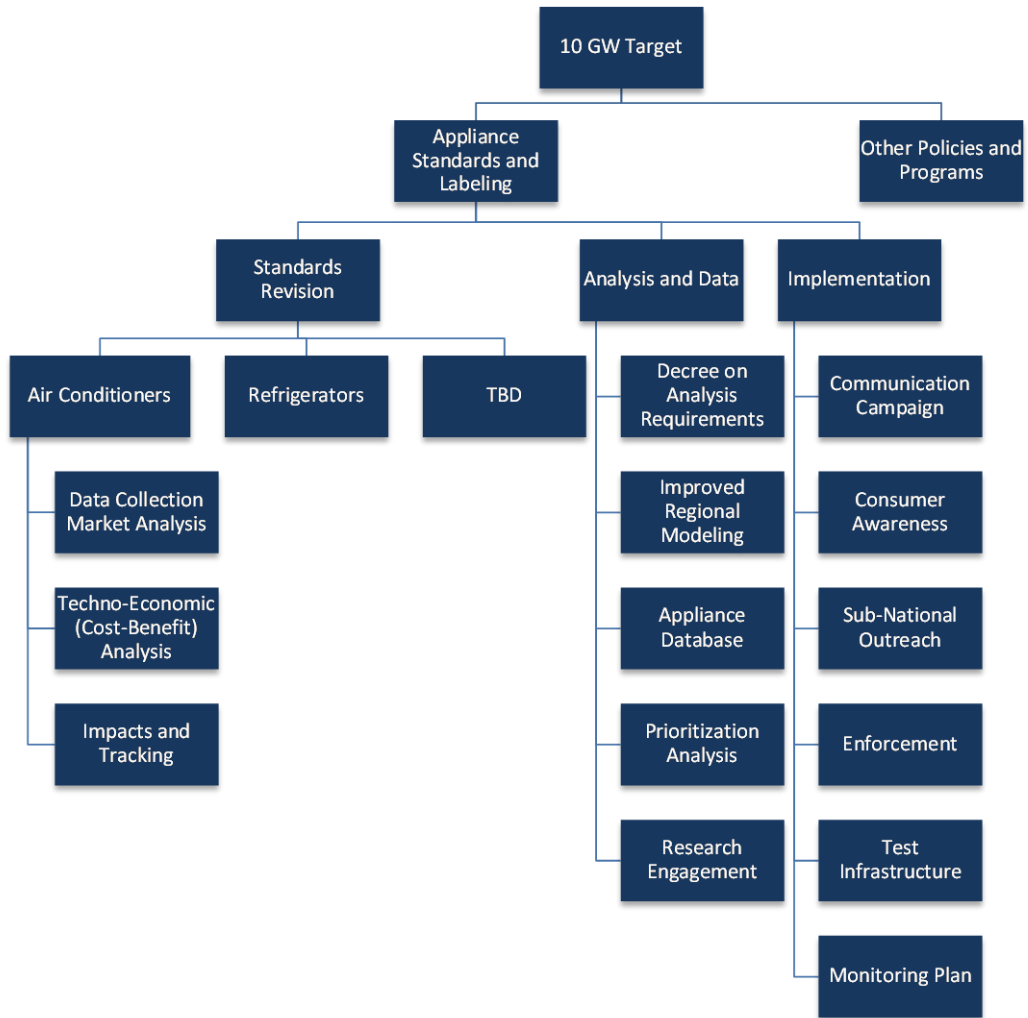
- 80% of the products available on the market today are already in the most efficient category – Bintang 4, thus limiting market transformation from the 4-star energy label.
- Local manufacturing already produces air conditioners at the highest level of efficiency.
- Cost of Conserved Energy is 3cts/kWh, below cost of supply of all fuel sources for electricity.



Accelerating energy efficiency policy for air conditioners alone can achieve a demand reduction of up to 7 GW by 2025 from best available technologies, saving consumers \$12 billion and \$15 billion in avoided generation capacity.

## National Energy Efficiency Roadmap:

In order to achieve the 10GW savings in generation capacity, Indonesia Coordinating Ministry and LBNL have jointly developed a Roadmap:



*Following Minister Luhut's request, LBNL hosted a delegation from Government of Indonesia and various Institutions, in collaboration with US Government in order to discuss a national Roadmap for Energy Efficiency leading to 10GW savings by 2025. The delegation was led by Coordinating Ministry of Maritime Affairs, that has since then organized an inter-ministerial Steering Committee to discuss the implementation of the Roadmap in Indonesia.*

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For more information on the Roadmap for Indonesia:

<https://sites.google.com/a/lbl.gov/roadmap-for-indonesia/>