



ENERGY MANAGEMENT

ARL believes in a systematic and structural approach for the effective operation and management of **significant energy users**. In order to monitor & optimize the energy consumption, ARL is following the guidelines of ISO 50001 since 2012. ARL management goal is to protect environment & naturally existing resources through increasing the awareness on energy efficiency. In order to achieve this target following events were held during the year 2020.

- Energy Week Celebrations
- Energy Awareness Talks/Sessions
- Energy Award

ARL management always appreciate that organizing such motivating events is in-line with ARL’s core values to pursue a climate of excellence for sustainable business.

1. Energy Week Celebration

Energy Week was celebrated from October 26th to 29th, 2020. Everyone in the company participated in this smart energy movement. This celebration was organized in-line with the World Energy Day. The World Energy Day is initiated by the World Energy Forum to raise awareness of global energy-related issues. The purpose of this celebration is to motivate employees and make them energy conscious and to reaffirm their commitment towards energy conservation at workplace. The management of ARL emphasizes to take energy issues as our moral and social responsibility. We believe that sustainable business growth is possible only when we equally take care of global interests.

2. Energy Awareness Talks/Session

The purpose of Energy Awareness Talks/Session is to motivate employees & reaffirm their commitment towards energy conservation at workplace and to achieve greater participation of the employees in conservation of energy. Energy talks are being held in refinery and offices to enhance the awareness among employees.

No of Man Training Hours	152
--------------------------	-----

3. Energy Award

8th Energy Award **Winner: Heavy Crude Unit**

- ✓ 26% reduction in Heavy Crude Unit EnPIs during FY 2019-20.
- ✓ Saved 272,000 gallons of plant water by avoiding water showering on LPG pump (P-016 AB).





- ✓ Value addition of 800 tons (Approx.) LPG production (Cost 59.0 million).
- ✓ Reduced steam consumption from an average of 55 tons per day to 48 tons per day in comparison with the last fiscal year by optimizing stripping and decoking steam while ensuring on spec products and normal plant operation.

4. Renewable /Alternate Energy Projects

Installation of 191 kW on grid solar panel system and more such projects are underway.

Budget Items

Procurement of energy efficient motors & pumps 28.53 PKR Million

5. Energy Intensity

It is defined as the “energy consumed in MMBTU per Barrel of Crude Processed”. Energy intensity indicates the total energy consumed within the organization. Energy intensity is 0.257 MMBtu/Bbls of crude as an average of months from July-19 to June-20 which was calculated for total crude processed throughout the period. Overall Energy consumption per barrel is higher w.r.t. to baseline FY 2019-20 due to overall refinery operations at low throughput. Energy Intensity target for the year 2020-21 is to maintain the value of 0.245 MMBTU/Bbls of Crude Processed.

