

## 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 reporting year.

1. Energy Week Celebration
2. Energy Awareness Talks/Sessions
3. Transition of ISO 50001 from 2011 to 2018 version

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

As a responsible corporate entity, ARL is cognizant that natural energy resources are not only scarce but also very precious and need to be optimally utilized. In this realm, Energy Week was celebrated at ARL from October 18-22, 2021 to reaffirm its commitment and inculcate energy management and conservation culture.

The purpose of this celebration was to educate, motivate and enhance energy consciousness of employees for strengthening their commitment towards energy conservation at workplace.

### 2. Energy Awareness Talks/Session

The purpose of Energy Awareness Talks/Session is to motivate employees and make them energy conscious, reaffirm their commitment towards energy conservation at workplace, 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	550
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### Renewable /Alternate Energy Projects

Installation of 200 KW on grid solar panel system and more such projects are underway.

### Budget Items

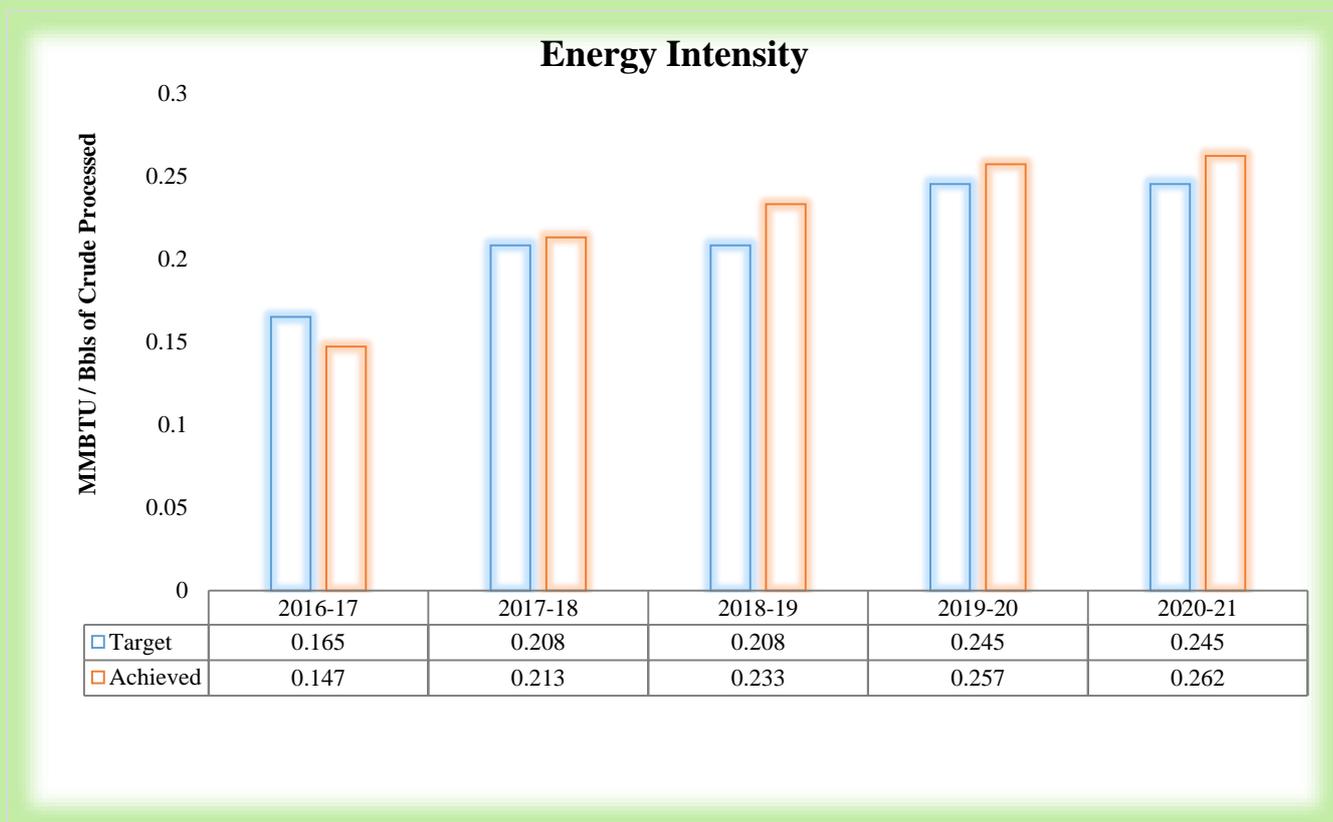
Budget Items	Cost (PKR Million)
Procurement of energy efficient motors & pumps	64.83

**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 was 0.262 MMBtu/Bbls of crude as an average of months from July-20 to June-21 which was calculated for total crude processed throughout the period. Overall Energy consumption per barrel is higher w.r.t. to baseline FY 2020-21 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.



**Social (Energy) Plans**

1-2 years (Short Term)	2-5 Years (Mid Term)	Beyond 5 Years (Long Term)
Replacement of energy inefficient motors with efficient ones in phases.	Budgeting & Installation of energy meters as per ISO 50001 for monitoring of energy performance indicators.	Third party certification of ISO 50001.