Sohar Port and Freezone Leads the Way with a Smart Light on Demand system on Streetlight for a Green Future.

Sohar Port and Freezone Leads the Way with a Smart Light on Demand system on Streetlight for a Green Future. Sohar Port and Freezone has installed a "Light on Demand" (LoD) system for streetlights as part of its commitment to reducing CO2 emissions and energy consumption.

LoD is a technology-driven system that adjusts the brightness of streetlights based on needs, instead of burning at full intensity throughout the night, LoD systems utilize sensors and communication networks to detect the presence of vehicles, cyclists, and walkers. When movement is detected, the lights illuminate to100% for a safe and comfortable level. Once the area is clear from any movements, the lights dim to a minimal level of brightness to 5%.

LoD systems typically involve a combination of the following key components.

- Motion Sensors: sensors integrated into streetlight fixtures. it detect movement within a defined range.

- Communication Network: Cellular networks enable communication between individual light fixtures and a central control system as a gateway. This allows for coordinated dimming and brightening across a network of lights.

- Control System: A software platform manages data from the sensors and controls the output of LED luminaires.

- LED Streetlight: LED Streetlight installed, as its offer energy efficiency, long lifespans, and a control feature for the light output.

The adoption of LoD system within the Sohar Port and Freezone brings the advantages of significant energy saving as 80% reduction in energy consumption without compromising public safety and driving comfort. by dimming lights when no activity is detected, as LoD systems minimize unnecessary light at night therefore reduce the energy consumption as well as minimize the cost of maintenance by reducing the usage of the streetlight. Furthermore, data-driven insights: The sensors and communication network within LoD systems can collect valuable data on traffic movements, and environmental conditions.

Also, low carbon footprint: A key driver advantage for the project is to promote a lower carbon emission within the port and freezone. And Strategic Alignment: This initiative is a key part of Sohar's vision to be a green by adopting sustainable and innovative solutions.

Sohar Port and Freezone is a notable example of LoD streetlighting systems are being adopted to achieve significant energy savings and reduce environmental impact by reducing the CO2 emissions.

The implementation of the 'Light on Demand' system is to our commitment to innovation and our proactive approach towards achieving a green future. By only full illuminating areas when its required, we are not only realizing significant energy and cost savings but also contributing to a lower carbon footprint for the entire port and freezone area. As the world increasingly focuses on environmental responsibility, Sohar's proactive approach positions it as a true leader in the transition towards a green future.