





# Session: Smart Grids for Smart Cities

Unlocking the Value of Street Light Poles for Multiple Smart City Applications

Presented By

Gufran Basit, Solution Architect, Siemens Technology Software Private Limited













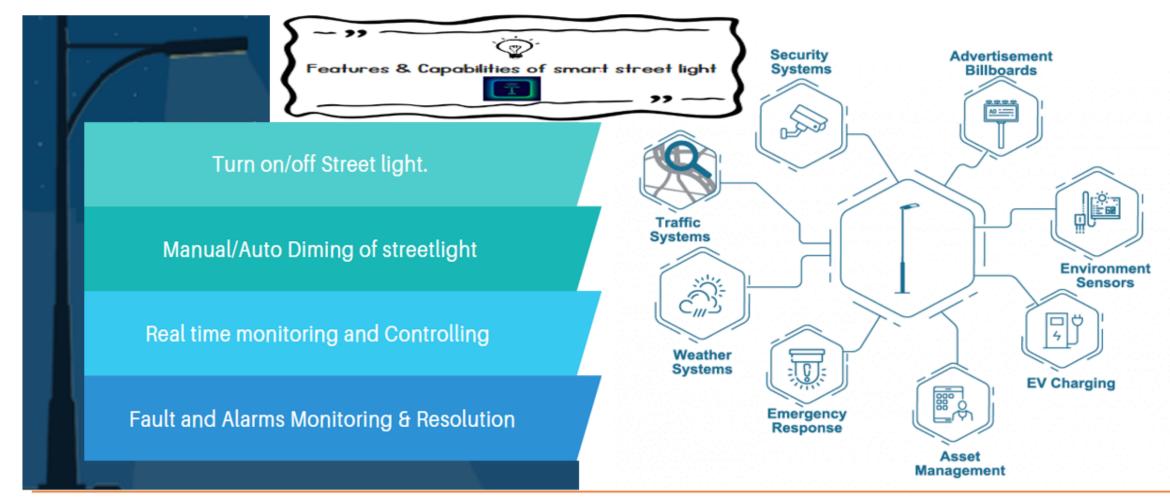
## INTRODUCTION





In urbanization, streetlights are evolving as indispensable infrastructure, serving as essential components of daily life and safety, and emerging as unsung heroes of modern urban environments





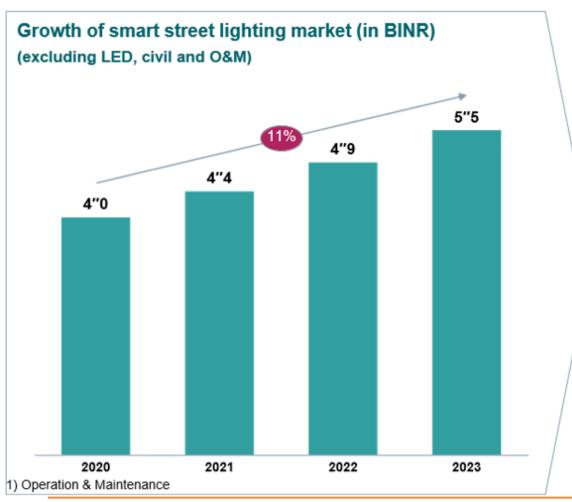
## **Market Overview**





# Smart street lighting market to reach INR 5 billion by 2023 with the adoption of the smart city initiative





#### **Key Drivers**

- Government initiatives: Energy Efficiency Services
  Ltd (EESL) targets to replace 13 million street lights
  via UJALA scheme
- 2 Street Lighting National Program (SLNP) aims at achieving annual energy savings of 90 billion kWh and manage DISCOM peak demand by 1500MW
- Street lighting integral part in the 12"5 EUR "Smart City Mission" to reduce energy & carbon footprint
- Townships/ Campuses driven by a need to become energy efficient & reduce carbon footprint
- Long **O&M**<sup>1)</sup> **performance contracts** drive technology adoption for smart street lighting

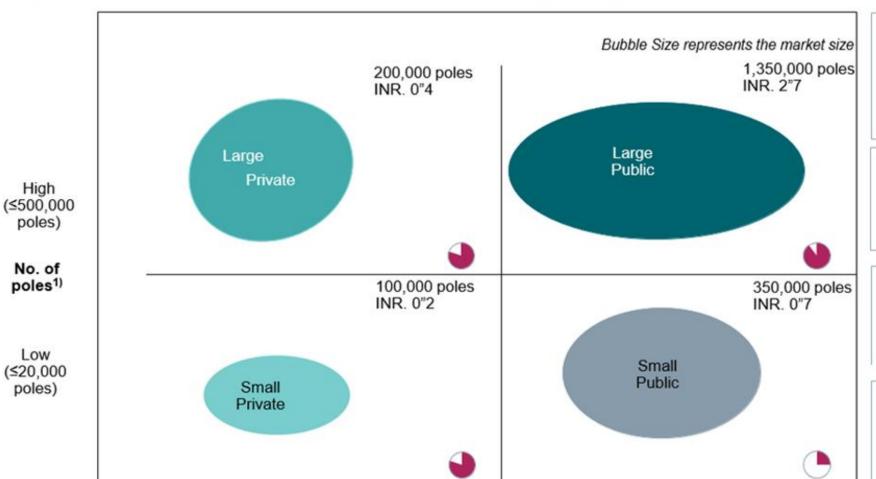
## **Market Segmentation**





Smart streetlights target a diverse range of customers, primarily including municipalities and city administrations seeking improved urban efficiency, reduced operational costs, and enhanced service quality





# Large Public

- Smart city, DISCOM 2) (~1"package)
- Solution: Individual control

## Large

#### **Private**

- Smart townships (~0"2 package)
- Solution: Group control

#### **Small Private**

- Campus, IT parks (~0"1 package)
- Solution: Group control

#### **Small Public**

Municipalities, ULB<sup>3)</sup> (~0"2 package)

### Solution Overview

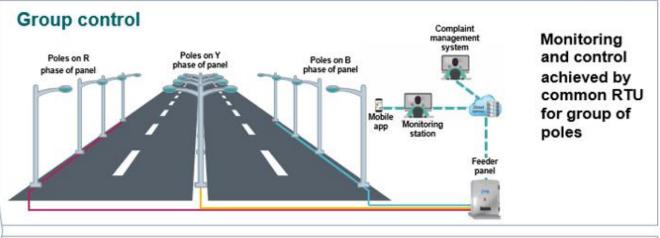


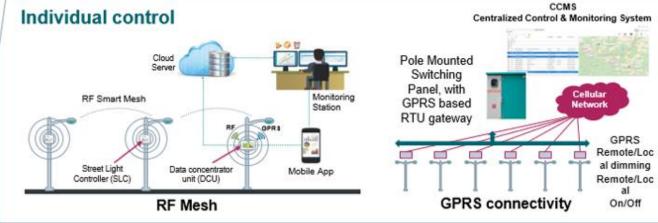


# Smart street lighting solution: Group control suitable for campus, townships; Individual control for open public spaces









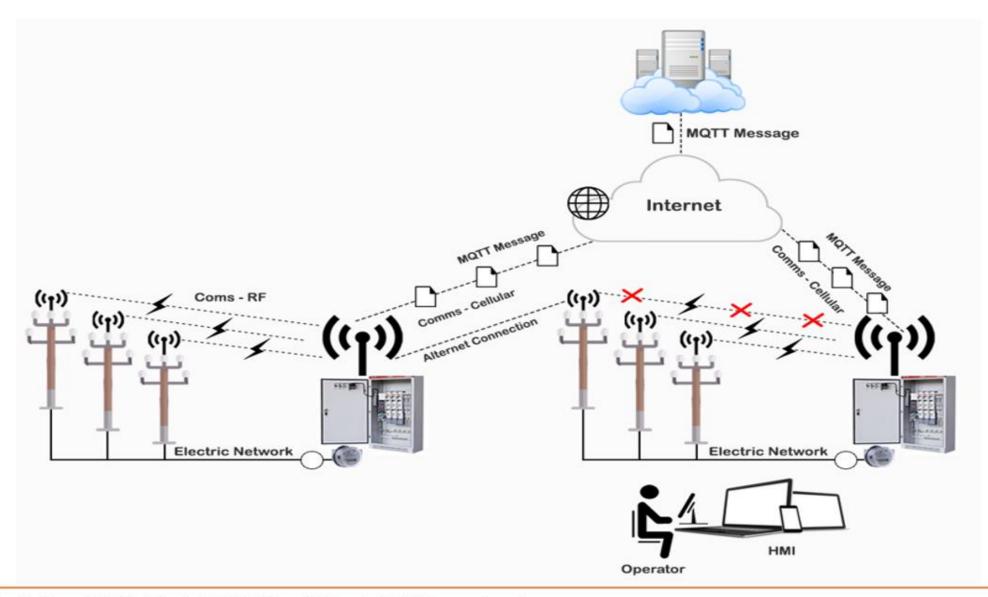
RTU: Remote Terminal Unit; SLC: Street Light Controller, CCMS: Centralized Control & Monitoring System

# **Proposed Smart Street Light Solution Architecture**







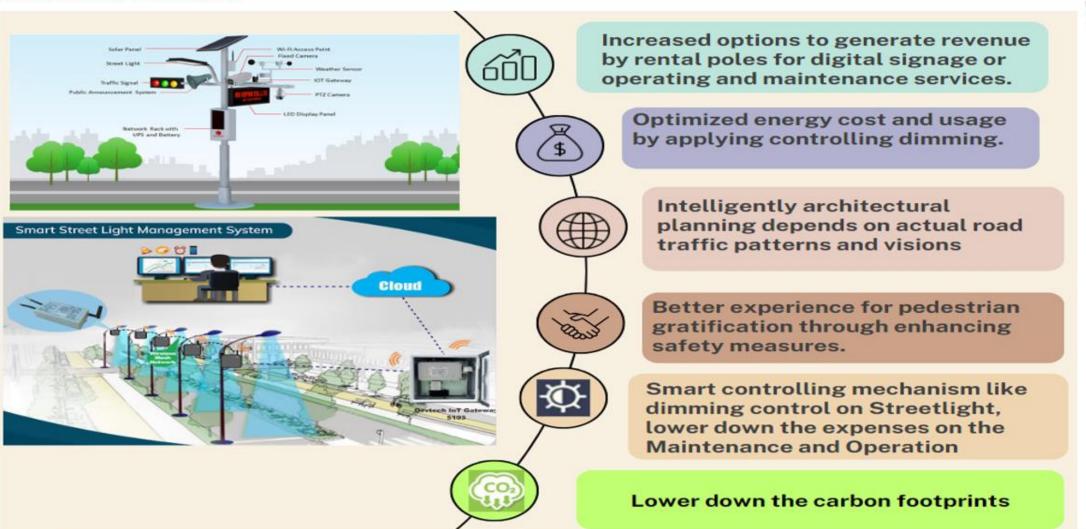


# **Benefits of Adapting Smart Street lighting system**





Smart streetlights represent a sustainable solution to optimize energy usage, offering numerous benefits.



### IDEAS TO COUNTER THE CHALLENGES





While smart streetlights hold immense promise for the future, but few Challenges and Proposed Solutions for Implementing Smart Streetlights:







# THANK YOU

For discussions/suggestions/queries email: isuw@isuw.in visit: www.isuw.in

# **Gufran Basit** gufran.basit@siemens.com

