

# **Vietnam LED Market (SMD LEDs, Modules and Fixtures) – Industry Trends, Manufacturing Process, Plant Setup, Machinery, Raw Materials, Cost and Revenue**

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## **Abstracts**

Light-emitting diodes (LEDs) are semiconductor devices that generate non-coherent, narrow-spectrum light when forward voltage is applied. The first LED was an infrared-emitting device patented in 1961 and the first practical visible spectrum LED was developed in 1962. Currently, LEDs are incorporated into bulbs and fixtures for general lighting applications. A well designed LED lighting system has several advantages over the conventional lighting system using incandescent or florescent technologies such as better efficiency, durability, versatility, smaller in size, longer-lasting and environment-friendly. Another big advantage of using LED lighting system is that it does not radiate heat as in incandescent or florescent light bulbs. A heat sink, which is a passive device, draws away the heat from LEDs by absorbing it and dispersing it into the surrounding environment. This prevents LED products from getting overheated or burnt-out.

In Vietnam, LED technology was first introduced in traffic lights and the advertisement industry. The apparent advantages of the LED technology in lighting system have driven its use in several other sectors also. Across Vietnam, incandescent bulbs, especially in street lighting, are being replaced with LED bulbs. The Vietnamese government is vigorously endorsing the use of LED lighting through two major projects - Vietnam Energy Efficient Public Lighting Project (VEEPL) and Vietnam National Energy Efficiency Plan (VNEEP) – aiming to reduce energy consumption and carbon footprints. Driven by its numerous advantages over conventional lighting technologies, the market for LED lighting in Vietnam is witnessing robust growth and is expected to dominate the country's lighting industry in the coming years.

IMARC's latest study "Vietnam LED Market (SMD LEDs, Modules and Fixtures) – Industry Trends, Manufacturing Process, Plant Setup, Machinery, Raw Materials, Cost and Revenue" provides a techno-commercial roadmap for setting up an LED manufacturing plant in Vietnam. The study, which has been done by one of the world's leading research and advisory firms, covers all the requisite aspects of the LED market. This ranges from macro overview of the market to micro details of the industry performance, processing and manufacturing requirements, project cost, project funding, project economics including expected returns on investment, profit margins, etc. This report is a must-read for entrepreneurs, investors, researchers, consultants, business strategists, and all those who have any kind of stake or are planning to foray into the Vietnam LED industry in any manner.

#### Key Questions Answered in This Report?

What are the key success and risk factors in the LED industry?

How has the Vietnam LED market performed so far and how will it perform in the coming years?

What is the structure of the Vietnam LED industry? Who are the key players?

What are the various unit operations involved in an LED manufacturing plant?

What is the total size of land required for setting up an LED manufacturing plant?

What are the machinery requirements for setting up an LED manufacturing plant?

What are the raw material requirements for setting up an LED manufacturing plant?

What are the utility requirements for setting up an LED manufacturing plant?

What are the manpower requirements for setting up an LED manufacturing plant?

What are the infrastructure costs for setting up an LED manufacturing plant?

What are the capital costs for setting up an LED manufacturing plant?

What are the operating costs for setting up an LED manufacturing plant?

What will be the income and expenditures for an LED manufacturing plant?

What is the time required to break-even?

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