

# Future of Warehouse

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## RETAIL REVOLUTION: SHARED WAREHOUSES AND SOLAR INTEGRATION RESHAPING LOGISTICS LANDSCAPE

The **industrial real estate sector is a dynamic asset class undergoing a multitude of transformative changes**. By 2025, online retail is projected to account for a quarter of total purchases, **driving the rise of direct-to-consumer (DTC) brands and the demand for expedited shipping**. This has prompted smaller brands to spur the development of shared logistics facilities, **offering warehousing and logistical services to meet this growing need**.

**Traditional large-scale warehouses are facing saturation, leading to a shift towards suburban and urban developments**. This involves repurposing office spaces into smaller warehouses, **putting pressure on communities** to rethink traditional zoning requirements to accommodate this transition.

The **integration of solar energy on industrial rooftops is gaining momentum**, fueled by financial incentives and technological advancements that have **significantly enhanced the potential return on investment for solar installations**. Simultaneously, the advent of automation, particularly in the form of artificial intelligence and robotics, is transforming warehouse operations, enhancing efficiency, and mitigating potential liabilities associated with human labor.

### SHARED SPACE

By 2025, **25% of retail purchases are expected to be made online**, up from 16% in 2019.

Direct-to-consumer (DTC) brands have **grown by 25% YOY since 2019**.

Consumers expect **two-day shipping**, driving demand for shared logistics facilities.

Shared warehouse spaces provide **flex office space, picking, packing, and warehousing**.

### ROOFTOP SOLAR

The United States currently has **1.5 billion square feet of industrial rooftop space** viable for solar installation.

Prologis is halfway to goal of **producing a gigawatt of energy by 2025**.

The average **50,000 sq ft warehouse uses 400,000 kWh/year**; but could produce up to **1.2 million kWh/year** if equipped with high efficiency solar.

Various Federal incentive programs include **Investment Tax Credit (ITC)** and **Modified Accelerated Cost Recovery System (MACRS)**.

### NON-TRADITIONAL DEVELOPMENT

Over development of large scale warehouse space has **led to plateauing rents**.

**Instead of new construction** there is a rise in the repurposing **“fried egg” style suburban office property land** for smaller last-mile warehouses.

The US has just begun to see **its first multi-level warehouses located in city centers**. This style of building is a rarity in the US but already very common in land constricted areas of Asia and Europe.

### ROBOTS AND AI

**AI, drones, and Autonomous Mobile Robots (AMR)** are **revolutionizing warehousing**.

AI reportedly **improves logistics costs by 15%**, inventory levels by 35%, and service levels by 65%.

The AMR sector is currently valued at nearly **\$2 billion**, and **expected to reach \$14.4 billion by 2030**.

Picking efficiency increased by **100-300%** with robots that can also **operate 24/7**.

**Increased weight thresholds** have been successful and the **drone delivery pilot program** by Walmart and Alphabet's Wing in the Dallas Metro Area have already executed more than **20,000 drone deliveries**.

