Use case 3. Last-mile deliveries

THE SHENZHEN GOOD HEALTH COMPANY
Headquartered in Shenzhen, China

**TYPE OF COMPANY:**
Food and drink company, 100,000 customers
Story narrative from the perspective of the operations manager

The Shenzhen Good Health Company offers organic food and milk subscription to more than 100,000 customers who can opt for daily deliveries. They distribute these products from their warehouses, situated outside of Shenzhen, to customers throughout the day – with morning and evening peaks in delivery.

The company owns 15 freight trucks and 100 vans. It has 750 two-wheelers under contract with driver partners who own these two-wheelers.

Two-wheelers in operation owned by driver-partners have been transitioning to electric at a rapid pace as driver partners see economic viability in the transition.

Zhang Qi now attends various industry events to share the key learnings generated from The Shenzhen Good Health Company and their transition to electric deliveries.

Logistics data from early deployment of electric vans is then used to inform future procurements and improve operations.

Operations manager Zhang Qi has been tasked to ensure that in 2020, 100% of new van deployment is electric. The decision has been prompted by the risk of delays in getting ICE license plates in the city, and a potential subsidy phase-out for new energy vehicles at the end of 2020.

He concludes that public charging infrastructure in the city is sufficient, as the business requires mostly overnight charging with some opportunity charging during afternoon off-peak hours. He decides to reserve 15 dedicated charging bays across the city to ensure 99.9% reliability of service.

As the first electric vans begin to roll in, Zhang Qi organizes workshops for driver buy-in and training to ensure a smooth transition.

With limited vehicle options on the market, a decision is made based on vehicle specifications that best match the company’s requirements. The start-up selected as the supplier agrees to make minor vehicle modifications and get relevant safety certifications to be able to deploy these vehicles within a month of placement of the order.

Zhang Qi asks Song Liang in the procurement department to float the offer for procurement amongst a few established vehicle manufacturers as well as a few startups who offer electric vans in Shenzhen.

Zhang Qi asks the finance department to study the economic viability of that decision based on the procurement and operational details he has collected.

The successful early deployment of electric vans in first half of 2020 prompts Zhang Qi to suggest early retirement of a few old ICE vehicles. That way, the company can take advantage of the subsidy to buy more electric vehicles, earlier than they had originally planned.

Zhang Qi realizes that subsidies can help lower the cost of the delivery vans by 25,000 yuan, depending on the driving range. He calculates that any vehicle that operates for more than 150km per day will be financially viable.

He estimates that 50 new vans need to be procured in 2020 to keep up with the company’s growth.

Zhang Qi begins to identify key city routes and areas where electric vans can be deployed economically, and seeks to understand if there is a need to augment existing public charging infrastructure with captive charging points.

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