



**ELECTRIFYING THE FUTURE OF HEAVY TRANSPORT**

# Electric Bus Cost Structure (BSHFMF – Integrated Manufacturing)

## 1. Assumptions (Standard 12-Meter Electric Bus)

- Battery capacity: **300 kWh (LFP / Graphene-supported)**
- Motor power: **250–300 kW**
- IBSS installed
- Seating capacity: **40–45 passengers**
- Designed range: **1,600–2,000 km (with IBSS support)**
- Manufacturing location: **Azerbaijan**
- Production scale: **100–500 buses/month**

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## 2. DETAILED COST BREAKDOWN – PER BUS

### A. Major Systems Cost

Component	Cost (USD)
<b>Battery Pack (300 kWh)</b>	48,000
Battery BMS & Thermal System	6,500
<b>Electric Motor (300 kW)</b>	18,000
Motor Controller & Inverter	9,500
<b>Intelligent Backup Support System (IBSS)</b>	22,000
Onboard Charger & DC/DC	6,000
Wiring Harness & Power Electronics	7,500

**Subtotal – Powertrain & Energy → USD 117,500**

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**B. Vehicle Structure & Body**

Component	Cost (USD)
Chassis Frame & Axles	32,000
Body Structure & Panels	28,000
Painting & Anti-Corrosion	6,000
Suspension & Braking System	14,000
Steering System	6,500
Wheels & Tyres	5,000

**Subtotal – Structure & Body → USD 91,500**

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**C. Interior & Passenger Systems**

Component	Cost (USD)
Passenger Seats & Flooring	8,500
HVAC (Heavy-Duty Electric)	12,000
Doors & Pneumatic Systems	6,000
Lighting, Displays, CCTV	5,500
Driver Console & Controls	4,500

**Subtotal – Interior → USD 36,500**

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**D. Manufacturing & Overheads (Allocated per Bus)**

Item	Cost (USD)
Direct Labor	9,500
Factory Overhead & Utilities	7,000
Quality Control & Testing	4,500
Warranty Provision	6,000



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Item	Cost (USD)
Logistics (Internal)	3,500

**Subtotal – Manufacturing Overhead → USD 30,500**

**3. TOTAL EX-FACTORY COST (PER BUS)**

Category	Cost (USD)
Powertrain & Energy	117,500
Structure & Body	91,500
Interior Systems	36,500
Manufacturing Overhead	30,500

👉 **TOTAL MANUFACTURING COST PER BUS**  
**USD 276,000 (≈ USD 275k–280k)**

**4. SELLING PRICE & PROFIT**

Selling Price (Market Competitive)

Item	USD
Ex-Factory Selling Price	<b>350,000</b>
Gross Profit per Bus	<b>74,000</b>

**5. PROFITABILITY METRICS**

Metric	Value
Gross Margin	<b>26–28%</b>
EBITDA Margin	<b>18–22%</b>
Net Margin	<b>12–15%</b>



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### 6. SCALE IMPACT (IMPORTANT FOR BANKS)

Cost Reduction at Higher Volume

Monthly Output	Cost per Bus
100 buses	USD 285,000
250 buses	USD 276,000
500 buses	<b>USD 255,000–260,000</b>

☞ At **500 buses/month**, profit per bus increases to **USD 90,000+**

### 7. COMPARISON WITH IMPORTED ELECTRIC BUSES

Item	Imported Bus	BSHFMF Local
Purchase Price	USD 420k–480k	<b>USD 350k</b>
Range	250–350 km	<b>1,600–2,000 km</b>
Battery Life	6–8 years	<b>10 years</b>
Operating Cost	High	<b>Low</b>