



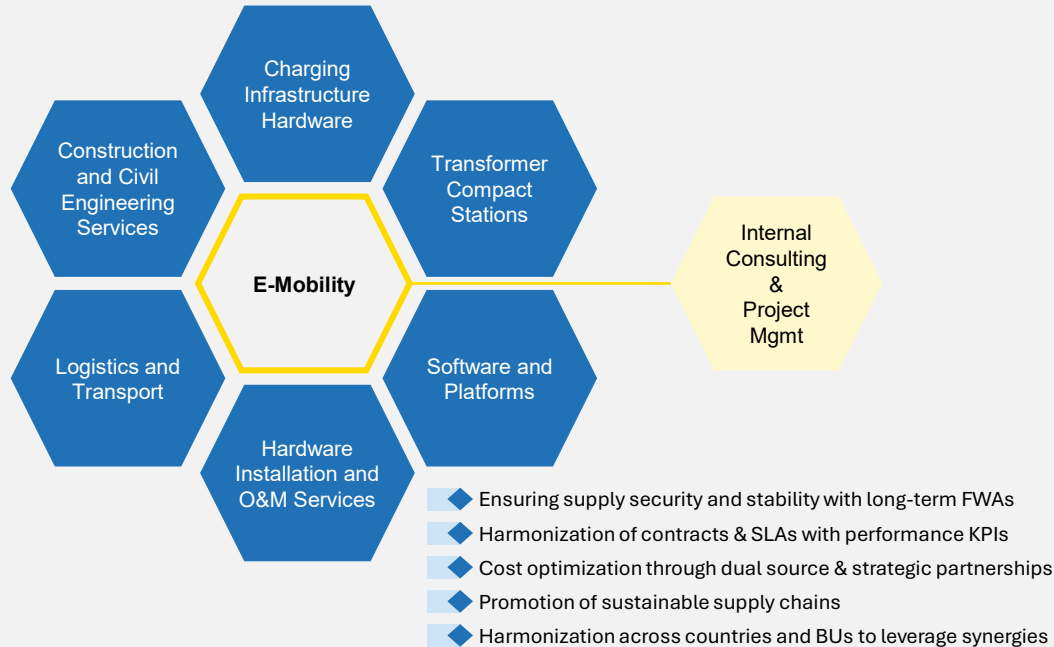
# Category Deep Dive E-Mobility

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## Category Deep Dive: E-Mobility

# E-Mobility Procurement: A Strategic Landscape

### Category Framework and Objectives



### Key Strategic Suppliers



Procurement E-Mobility serves as an essential backbone for the expansion of e-mobility across multiple countries and business units.



## Category Deep Dive: E-Mobility

# E-Mobility Insights: Market and Spend Overview

### Geographic Coverage

- Active management of cross-country projects and suppliers in the Netherlands, Germany, and Sweden
- Balancing local adaptation with strategic alignment

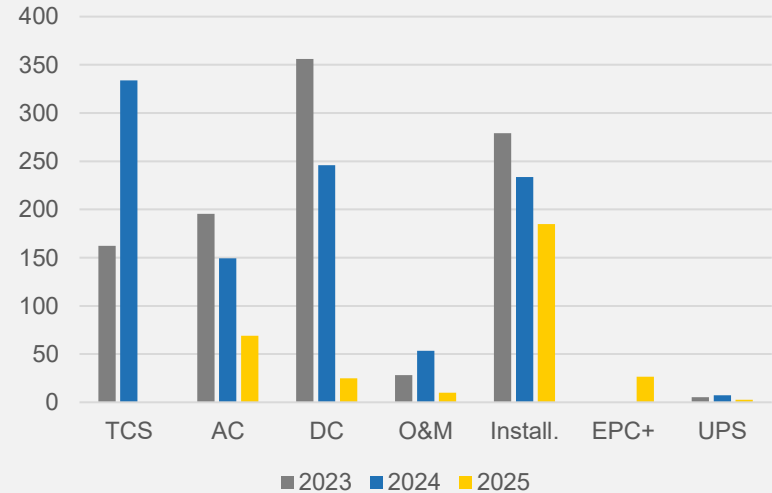
### Market Landscape

Subcategory	Market Structure	Pricing Levers	Key Trends
<b>AC-DC/HPC Hardware</b>	Mature market in EU & Asia	Volume-based pricing, SLA-driven quality	Technology shifts, AFIR compliance
<b>Transformer Compact Stations</b>	Competitive, technically complex	Standardization, multi sourcing	Grid connection demands, SF6-free solutions
<b>Software &amp; Platforms</b>	Innovation-driven, growing	Licensing models, platform integration	OCPP 2.0.1, ISO 15118, smart charging capabilities
<b>O&amp;M</b>	Regional, SLA-based	Response times, spare parts availability	Digitalization, remote monitoring
<b>Logistics &amp; Transport</b>	Competitive market with large international players	SLA adherence, CO <sub>2</sub> tracking	Sustainability, supply chain transparency
<b>Construction &amp; Civil</b>	Fragmented, locally executed	Tender bundling	Grid access bottlenecks, capacity constraints
<b>EPC+</b>	Strategic build-up	Project management, resource allocation	Stakeholder alignment, process standardization

### Market Characteristics

- NL & SWE: Strong focus on sustainable and tech-driven solutions
- GER: High cost sensitivity and competitive supplier environment

### E-Mobility SPEND in MSEK



## Category Deep Dive: E-Mobility

# From Needs to Negotiation: Steering Demand with Stakeholder Influence

### Demand Outlook (selected):

- Finalizing the DC Hardware tender by Q1/2026 (CAPEX increase)
  - Total Volume 2026-2028: 1.145bn SEK
  - Suppliers: ABB, Kempower, Xcharge + 1-2 tendered suppliers
  - >200 sites / year (DE, SE, NL)
- Transformer Compact Stations secured through FWA with 4 suppliers (CAPEX increase)
  - Total Volume 2026-2028: 1.15bn SEK
  - Suppliers: ZPUE, FEAG, Kaufmann Electric, Leonhard Weiß
- Prolonging of Contracts with EPCs (O&M + Installation)
  - Total Volume 2026: 122.24M SEK
- Develop EPC+ Partnerships
  - Total Volume 2026: 45.46M SEK
- Extend Contract with UPS until the end of Q1/27
- Revisit AC Category Strategy due to significant changes expected in Q3/25 regarding Customer Invest

Stakeholder Name	Department	Role/ Function	Other
Fabian Hagman	BU E-mobility	BU Head	Manage closely
Directors & Managers BU (Countries, Hardware, Delivery, Sales, Asset Mgmt.)	BU E-mobility	Director - Manager	Manage closely
Stefan Lutz	BU E-mobility	Hardware & Asset Manager	Manage closely
Carsten Gerasch	Vattenfall Europe Sales	Product Management B2C	Manage closely
Markus Reinhardt	Vattenfall B2B Solutions GmbH	Director	Keep informed
Therese Nävertun / Matthias Mard	Vattenfall Network Solutions	Data Center DSO	Keep informed
Kim Johansson Anders	Vattenfall Services Nordics	Consultant Services	Keep informed
Arjan Pouw / Sara Fadi	Sustainability	Sustainable SCM	Keep informed
Nico Schlüter / Simone Gerling	Credit Risk	Credit Risk Analyst	Keep satisfied
Karin Bär-Müller / Rolf Widmann	Business Administration	Admin BU	Keep informed
Legal Advisor per Country	Legal	Legal Advisor	Keep informed
Management Board	Procurement	Management	Keep satisfied
Partnered suppliers	n.a.	n.a.	Depends on product / service
Possible suppliers, other BU's, Public, Market	n.a.	n.a.	Monitor



# Market Outlook: Trends and Risk Factors in E-Mobility

## Key Trends

**Technological Shifts:** Rapid evolution in hardware and software, including smart charging, dynamic load management, and integration of standards like OCPP 2.0.1 and ISO15118

**Regulatory Pressure:** Increasing compliance demands such as AFIR and SF6-free requirements, plus fragmented grid access rules across 900+ DSOs in Germany

**Sustainability Focus:** CO<sub>2</sub> reduction, circularity, and ESG criteria embedded in tenders and contracts, climate-neutral products prioritized

**Digitalization:** Expansion of dashboards, SLA tracking, and predictive analytics (e.g. CO<sub>2</sub> shadow pricing, demand forecasting), digital category management is emerging

**Innovation Models:** Co-development with EPC+ partners, performance-based contracts, and bonus/malus mechanisms to drive supplier accountability and differentiation

**Market Structure:** Mature hardware markets (EU/Asia), competitive transformer segment, and growing innovation-driven software platforms.

## Central Risks and Challenges

**Supply Bottlenecks & Dependencies:** Especially in transformers and DC hardware, mitigated via dual sourcing and volume caps

**Technology Incompatibility:** Firmware instability and integration issues in acquired assets, addressed via defect clauses and platform standardization

**Regulatory Non-Compliance:** Supplier challenges in meeting new standards (e.g. SF6-free, AFIR); contracts increasingly include ESG and SCORE clauses

**Project Delays:** Caused by slow approvals from distribution network operators, early engagement and scenario planning are critical

**Installation Partner Insolvency:** Real risk mitigated by pre-secured fallback contracts and tested contingency plans

**Contract Fragmentation:** Inconsistent supplier governance; resolved through harmonized KPI-based scorecards

**Market Volatility:** Price fluctuations and supplier exits, flexible lot structures and mini-tenders provide resilience

## Response Strategies

**Dual Sourcing & FWAs:** To ensure supply continuity and price stability

**SLA & KPI-Based Contracts:** To manage performance and mitigate operational risks

**Fallback Activation:** Pre-secured backup contracts for critical suppliers, especially EPCs

**Early Grid Engagement:** Scenario planning and coordination with DSOs to reduce connection delays

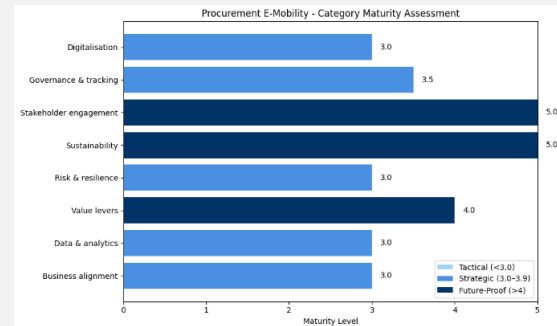
**Unified Governance:** Harmonized contract structures and supplier scorecards to reduce fragmentation

**Innovation Partnerships:** EPC+ partners involved in strategic planning and execution, not just delivery



## Category Deep Dive: E-Mobility

# Tactical vs Strategic vs Future-Proof



Dimension	Current Rating	Justification	Next Step
Business alignment	3 - Strategic	Strategic alignment with BU rollout plans and investment goals is in place	Strengthen linkage to CEO-level OKRs and integrate category targets into energy transition scorecards
Data & analytics	3 - Strategic	Actively integrates data-driven tools such as Beroe Live.ai for market intelligence, supplier risk tracking and price index monitoring. Data is used not only for reporting but also to support sourcing decisions and risk mitigation.	Advance toward a Future-Proof (4-5) level by embedding predictive analytics (e.g. AI-based demand forecasting, CO <sub>2</sub> shadow pricing) into operational workflows. Launch pilot projects with partners like EMT SCM or McKinsey to validate use cases and build internal capabilities.
Value levers	4 - Future-Proof	KPI-based, circularity integrated; bonus-malus models, performance-based contract design	Expand value tracking to include lifecycle cost and supplier innovation metrics
Risk & resilience	3 - Strategic	Dual/Multi sourcing, penalty clauses; resilience supported by supplier diversification	Conduct risk mapping and scenario planning across critical suppliers
Sustainability	5 - Future-Proof	CO <sub>2</sub> /SCORE & ESG criteria in tenders/contracts; climate-neutral products like KEBA integrated	Maintain leadership by tracking SCORE targets and supplier decarbonization roadmaps
Stakeholder engagement	5 - Future-Proof	Collaboration established with strategic suppliers (e.g. KEBA, ABB, Kempower, Circet)	Formalize co-development frameworks and expand cross-functional governance
Governance & tracking	3.5 - Strategic	Supplier scorecard in development; automated KPI tracking and external assurance in place (e.g. Supplier ESG claims cross-checked against EcoVadis or CDP ratings)	Finalize scorecard rollout and analyze integration of external assurance
Digitalisation	3 - Strategic	Dashboards & automation initiated	Advance integration and enable predictive analytics

# VATTENFALL



# Fundamentals Slide

## Frame

The E-Mobility procurement category covers AC/DC charging hardware (including HPC), transformer stations, software platforms, O&M services, logistics, construction and project management. It spans multiple countries (DE, SE, NL) and business units including BU E-Mobility, B2C, Vattenfall Europe Sales, B2B Solutions GmbH, Network Solutions, and Services Nordics.

## Baseline

CAPEX DC Spend: SEK 356m (2022), SEK 246m (2023), SEK 3m (2024), projected SEK 250m (2025).  
Total DC Volume 2026–2028: SEK 1.145bn  
Suppliers: ABB, Kempower, XCharge and new tender participants.  
Other Spend Areas: Transformer stations (SEK 334m in 2024), AC (SEK 61.43m in 2023), EPC (SEK 233.59m in 2024), O&M, UPS logistics.  
TCO Focus: Long-term framework agreements, volume-based pricing, SLA-driven contracts.

## Demand outlook

Rollout Target: >200 sites/year across DE, SE, NL.  
Drivers: AFIR regulation, customer growth, grid connection availability.  
Objective: Finalize tender by Q1 2026 to ensure delivery readiness from Q2/Q3 2026.

## External market analysis

Supply Base: Mature EU/Asia market for AC/DC hardware; competitive and technically complex for transformer stations.  
Price Drivers: Volume-based pricing, SLA adherence, standardization.  
Trends: Smart charging, digital monitoring, SF6-free solutions, platform integration (OCPP 2.0.1, ISO15118), sustainability and CO<sub>2</sub> tracking.

## Gap & risk

Key Risks:  
EPC partner insolvency → mitigated via fallback contracts.  
Technology failure (e.g., firmware issues) → series defect clause from 1% failure rate.  
Grid connection delays (esp. in Germany) → early assessments and escalation paths.  
ESG Integration: CO<sub>2</sub>/SCORE criteria embedded in tenders and contracts.  
Short-Term Priority: Finalize negotiations with DC suppliers (ABB, Kempower, XCharge) to secure continuity and benchmark new entrants.

Category Strategy Maturity Ladder - Self-assessment (Teams can validate these dimensions using Cirtuo's 'Procurement Assessment' module)

# Tactical vs Strategic vs Future-Proof

Dimension	1-2 Tactical	3 Strategic	4-5 Future-Proof / Mature
<b>Business alignment</b>	Cost-focus, little link to EBIT drivers	Tied to business KPIs & investment roadmap	Category OKRs cascade from CEO scorecard and energy-transition milestones
<b>Data &amp; analytics</b>	Historical spend only	Full TCO, basic market indices	Predictive modelling (AI demand forecast, CO <sub>2</sub> shadow pricing, should-cost)
<b>Value levers</b>	Unit-price negotiations	Portfolio of levers incl. SRM, demand mgmt.	Integrated make-buy-partner, circularity, revenue-share contracts
<b>Risk &amp; resilience</b>	Contractual penalties	Dual sourcing & hedging	Scenario-based resilience, cyber risk scoring, near-real-time risk cockpit
<b>Sustainability</b>	Compliance with minimum law	CAPEX/OPEX decisions consider CO <sub>2</sub>	Science-Based-Target glidepath, supplier climate-tech co-development
<b>Stakeholder engagement</b>	Procurement-led, engineering sceptical	Cross-functional core team in place	Steering committee with C-level sponsor; suppliers attend VF's innovation days
<b>Governance &amp; tracking</b>	Excel savings log	Benefits signed off by Finance	Automated KPI tracking in system; external assurance of savings & CO <sub>2</sub> impact
<b>Digitalisation</b>	eRFx and some spend cubes	Category dashboard in Power BI	Advanced analytics, contract-lifecycle automation, digital threads with suppliers

**Rule of thumb**

- Tactical: average < 2.5 – “basic sourcing plan.”
- Strategic: 2.5 – 3.5 – “value-focused but still reactive.”
- Future-Proof/Mature: > 3.5 – “agile, data-driven, sustainability-anchored, and Board-visible.”