



POWERING TOMORROW: UNLOCKING PRIVATE EQUITY OPPORTUNITIES IN APAC DECARBONISATION

Identifying Scalable, Defensible and Executable PE Opportunities for a Low-Carbon Future



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1 BACKGROUND & OBJECTIVE

GLOBAL CONTEXT



APAC is becoming the world's fastest-growing decarbonisation market, driven by industrialisation, electrification and increasing climate commitments.

OBJECTIVE

Identify investable sectors, assess market attractiveness and recommend PE opportunities across APAC.



2 RESEARCH FRAMEWORK & DATA SOURCES

RESEARCH FRAMEWORK

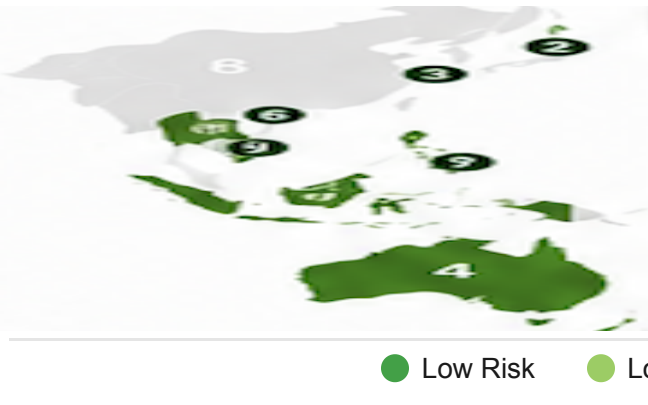
- 1 Country Selection
- 2 Country Risk Assessment
- 3 Sector Screening
- 4 Value Chain Analysis
- 5 Company Screening
- 6 Investment Recommendation



3 COUNTRY RISK ASSESSMENT (9 APAC MARKETS)

9 APAC MARKETS

- 1 Singapore
- 2 Japan
- 3 South Korea
- 4 Australia
- 5 Malaysia
- 6 Thailand
- 7 Vietnam
- 8 Indonesia
- 9 Philippines



COUNTRY RISK HEAT MAP

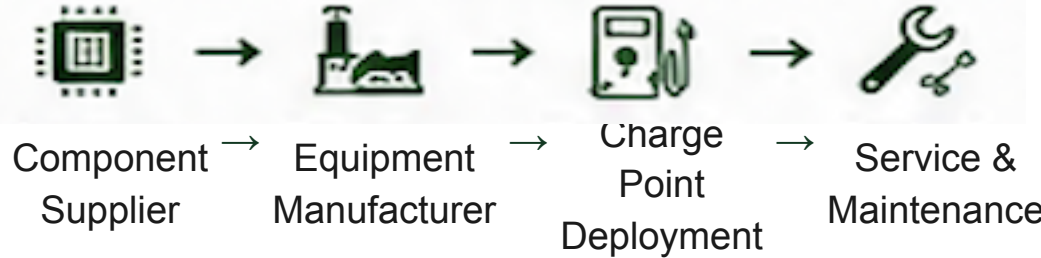
Country	Geopolitical Risk	Green Policy & Execution Risk	Currency Risk	Overall Risk
Singapore	Low	Low	Low	Low Risk
Japan	Low	Medium-High	Low	Low-Medium Risk
South Korea	Low-Medium	Low-Medium	Medium	Medium Risk
Australia	Low-Medium	Low-Medium	Medium	Medium Risk
Malaysia	Medium	Medium	Low-Medium	Medium Risk
Thailand	Medium	Medium	Low-Medium	Medium Risk
Vietnam	Medium	Medium	Low-Medium	Medium Risk
Indonesia	Medium-High	High	Medium	High Risk
Philippines	Medium-High	High	Medium	High Risk

Low Risk Low-Medium Risk Medium Risk Medium-High Risk High Risk

TAKEAWAY: Country risk should be treated as the first investment screening layer.

4 EV CHARGING INFRASTRUCTURE

VALUE CHAIN



KEY FINDINGS

- Strong EV adoption growth across APAC creates structural demand.
- Infrastructure gaps remain, especially in public fast-charging networks.
- Attractive opportunities lie beyond charger deployment, particularly in enabling technologies such as cooling systems.

WHY WE LOOKED BEYOND CHARGERS

Charger market is becoming increasingly competitive with margin compression.

FOCUS ON ENABLING TECHNOLOGIES (COOLING SYSTEM)

OUR RESEARCH PROCESS

- 1 Value Chain Mapping (4 Layers)
- 2 Company Screening (~30+ companies)
- 3 In-depth Analysis (Mkt, Tech, Fin)
- 4 Deep Dive (Financial, Syn, ESG)
- 5 Shortlist (Platform / Tech Partner)

- Cooling is a cross-sector enabler with strong and diversified demand.
- The market is fragmented with many SMEs and niche specialists.
- Liquid cooling is emerging as a major growth segment.
- Commercially mature SMEs with proven solutions and stable revenues are well-positioned as scalable platform investments.

TAKEAWAY: Prioritise fragmented, scalable cooling players to build platforms and expand across end-markets and geographies.

5 INVESTMENT THEMES ACROSS KEY SECTORS

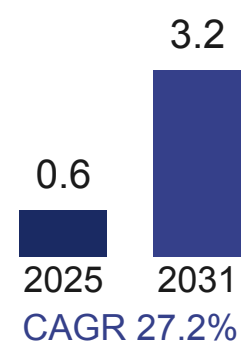
❄️ COOLING SYSTEM

A. RESEARCH BACKGROUND

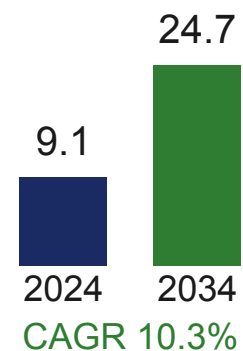
Rapid growth in EV fast charging, data centers, HVAC and industrial facilities has significantly increased demand for efficient cooling solutions. Cooling systems are a critical enabler for energy efficiency, equipment reliability and safety, forming a cross-sector, high-growth investment theme.

B. MARKET OVERVIEW

Global Market Size for EV Fast Charging Cooling (USD Billion)



Global Market Size for Data Center Cooling (USD Billion)



Source: Global Info Research (2025), Exactitude Consultancy (2025)

C. OUR RESEARCH PROCESS

- 1 Value Chain Mapping (4 Layers)
- 2 Company Screening (~70+ companies)
- 3 In-depth Analysis
- 4 Financial & Tech DD
- 5 Shortlist

D. KEY FINDINGS & CONCLUSION

- Cooling is a cross-sector enabler with strong and diversified demand.
- The market is fragmented with many SMEs and niche specialists.
- Liquid cooling is emerging as a major growth segment.
- Commercially mature SMEs with proven solutions and stable revenues are well-positioned as scalable platform investments.

KEY TAKEAWAY: Prioritise fragmented, scalable cooling players to build platforms and expand across end-markets and geographies.

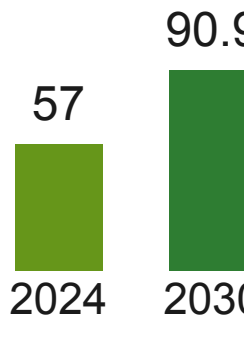
♻️ WASTE MANAGEMENT

A. RESEARCH BACKGROUND

Rising waste generation and stricter environmental regulations are accelerating the shift to a circular economy. Private capital can capture opportunities in recycling, resource recovery and waste infrastructure to reduce landfill dependency and create sustainable value chains.

B. MARKET OVERVIEW

Global Plastic Recycling Market Size (USD Billion)



- Key Drivers**
- Regulatory push (EPR, bans, recycling targets)
 - Corporate sustainability commitments
 - Rising demand for recycled materials
 - Public awareness & ESG pressure
- CAGR 8.1%

C. CIRCULAR ECONOMY VALUE CHAIN

- 1 Waste Collection & Transportation
- 2 Sorting & Processing
- 3 Resource Recovery (Pelletization, Reprocessing)
- 4 Recycling Technology & Equipment
- 5 End Use / Retail (New Products)

D. KEY FINDINGS & CONCLUSION

- Plastic recycling offers the strongest investment case due to market fragmentation and scalable platform potential.
- Many regional players lack scale, technology and access to high-quality feedstock.
- Opportunities exist in technology upgrades, capacity expansion and regional consolidation.
- Regional consolidation and strategic technology partnerships can accelerate platform scale.

KEY TAKEAWAY: Build integrated recycling platforms with technology edge and stable offtake to capture long-term value.

🏗️ ENGINEERING & GRID SERVICES

A. RESEARCH BACKGROUND

The energy transition requires substantial investment in grid modernisation, renewable integration, industrial electrification and infrastructure build-out. Engineering and grid services provide recurring, resilient and essential support across the value chain.

B. MARKET OVERVIEW

Global Power Grid Investment Need
USD 3.1tn
(2024–2030) · IEA

Renewable Integration Capacity Addition
~1,000 GW
(2024–2030) · IEA

Global O&M Market for Power Grids
USD 190bn
by 2030 (CAGR 5–6%) · Statista

Key Demand Drivers

- Grid upgrade & expansion
- Renewable penetration
- Electrification of transport & industry
- Policy mandates & funding programs

C. OUR RESEARCH PROCESS

- 1 Sub-sector Analysis
- 2 Market Sizing & Outlook
- 3 Company Screening (~60+ companies)
- 4 Detailed Assessment (Projects, Contracts, Financials)
- 5 Shortlist (Platform / Tech Partner)

Key Service Areas

- Engineering Design & Consulting
- Grid Upgrade & Infrastructure
- Installation & Construction
- Operation & Maintenance
- Energy & Smart Grid Management

D. KEY FINDINGS & CONCLUSION

- Engineering & grid services deliver stable, recurring cash flows with high barriers to entry through expertise and relationships.
- Strong pipeline of projects supported by policy and funding.
- Opportunities in EPC, substations, cabling, smart grid solutions and O&M platforms.
- Recurring O&M contracts provide downside protection through industry cycles.

KEY TAKEAWAY: Focus on engineering & O&M platforms with scale, execution capability and long-term contracted revenue.

6 INVESTMENT RECOMMENDATIONS

INVESTMENT APPROACH RECOMMENDATIONS

- Target fragmented, technology-enabled sectors with strong structural growth.
- Create scalable platforms through buy-and-build and operational improvements.
- Active ownership to drive profitability and ESG impact.
- Combine platform investments with strategic technology partnerships.

INVESTMENT STRATEGY MATRIX

Commercial Maturity: Low → High

Technology Differentiation / Novelty: Low → High

TECHNOLOGY PARTNER (Early Stage, High Potential)

- Innovative technology
- Early commercialisation
- Future pipeline

MONITOR (High Risk / Early Stage)

- Early stage with high risk
- Limited visibility

PLATFORM INVESTMENT (Commercially Mature)

- Stable revenue
- Proven technology
- Scalable business model
- Buy-and-build potential

SELECTIVE / SMALL BETS (Niche Opportunities)

- Niche opportunities
- Validate before scale

❄️ COOLING SYSTEM

- Prioritise platform investments in component suppliers and subsystem integrators with strong commercial track record.
- Leverage buy-and-build to create regional champions.
- Maintain pipeline of advanced technology players as strategic partners (e.g., liquid cooling specialists, advanced materials).
- Focus on cross-sector applications to diversify revenue.

Target Profile: Revenue USD 20–150m
Established | Profitable | Scalable

♻️ WASTE MANAGEMENT

- Focus on plastic recycling platforms with scalable capacity and downstream offtake visibility.
- Target consolidation opportunities in fragmented markets.
- Support technology and process upgrades to improve yield and cost efficiency.
- Invest in integrated players with collection to recycling capabilities.

Target Profile: Revenue USD 20–150m
Fragmented Market | Scalable | Policy Tailwind

🏗️ ENGINEERING & GRID SERVICES

- Invest in engineering and O&M companies with recurring revenue and strong project pipeline.
- Benefit from long-term demand for grid upgrade, renewable integration and industrial electrification.
- Seek opportunities in EPC, substations, cabling, smart grid and O&M.
- Prioritise companies with strong execution track record and relationships.

Target Profile: Revenue USD 30–200m
Established | Contracted Revenue | High Barriers



SMART CAPITAL. SUSTAINABLE IMPACT. BUILDING A GREENER FUTURE FOR APAC.