Rights Offering and Battery Materials Business Growth Strategy

2022. 12. 1



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Hence, please be advised that some of their contents may be altered due to a variety of factors.

Forecasts and projections contained in this material are based on current business environments and management's strategies, and they may differ from the actual results upon changes and unaccounted variables.

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1. Summary on Rights Offering

- ✓ Supplement existing portfolio, which was originally focused on commodity petrochemical business, by investing in high-growth expected battery material business followed by demand growth of electric vehicle
- ✓ Expected to contribute to enhancement of shareholder value, by corporate value re-evaluation through early realization of new growth business earnings

Details on Rights Offering

Details of Issuance of new Shares • Share class: LOTTE Chemical Common Stock

• Size of capital increase: 1.105 T KRW

• Number of new shares: 8,500,000 shares

Par value per share : 5,000 KRW

- Total number of shares issued before increase of capital stock: 34,275,419 Shares
- Expected issuing price¹: 130,000 KRW
- Record date for new share allotment
 : December 15th, 2022
- Preferential allotment ratio for employee stock ownership association: 20%

Schedule Going Forward

- Scheduled date of subscription:
 January 19^{th~}20th, 2023
 (Existing shareholders & Employee stock ownership association)
- Date of payment: January 31st, 2023
- Scheduled date for listing: February 13th, 2023

Purpose of Financing Acquisition of securities issued by other corporations: 605 B KRW
 Operating Capital: 500 B KRW

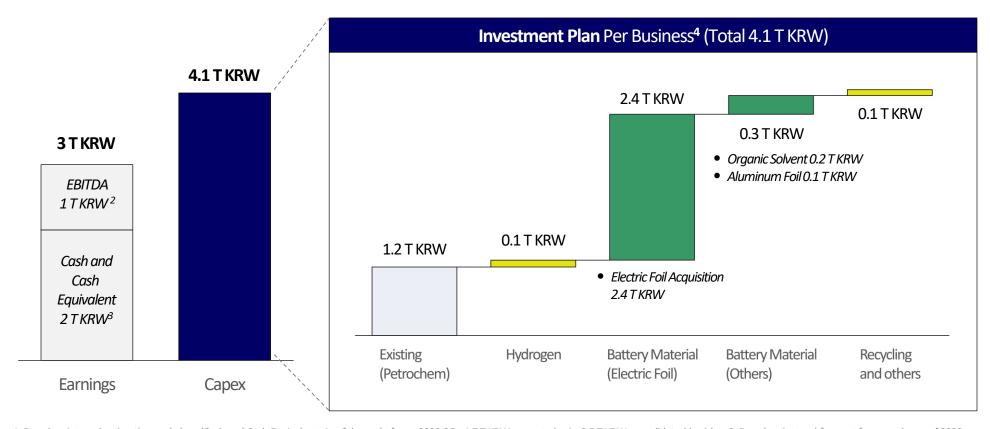
Method of Capital Increase

- After rights offering, public offering for forfeited shares
- 1. Calculating method of issuing price: refer to "Other matters factored into investment decisions" from disclosure of Financial Supervisory Service

2. Background on Rights Offering

- ✓ Investment needed in the early stages of high-growth in order to foster new business, including battery materials
- ✓ CAPEX of 4.1 T KRW by 2023 (Existing business: 1.2 T KRW, New business: 2.9 T KRW Battery Materials: 2.7 T KRW)

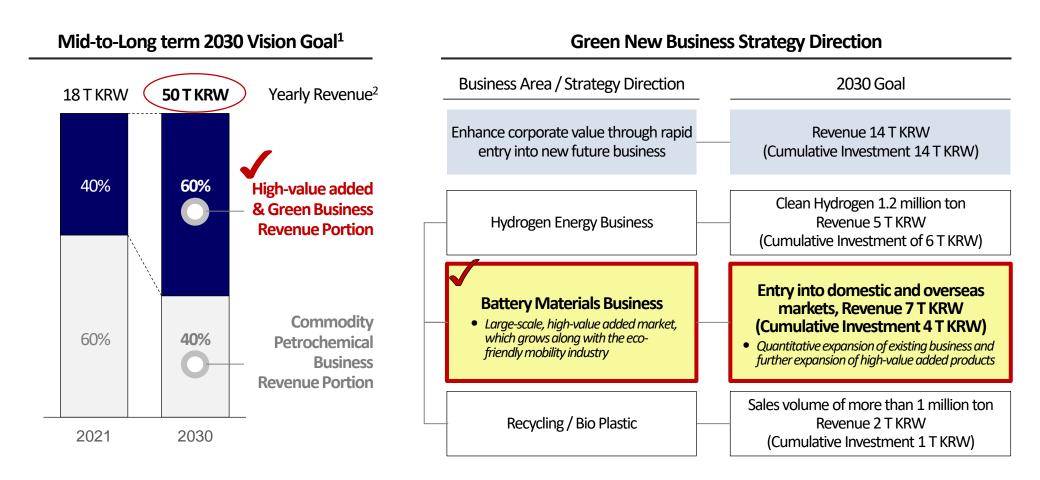
Year 2023 Earnings and Investment plan¹ (Separate Basis)



^{1.} Based on internal estimation and plans (Cash and Cash Equivalent: As of the end of year 2022.3Q., 1.7 T KRW separate basis, 3.5 T KRW consolidated basis); 2. Based on internal forecast for annual year of 2023; 3. Based on internal estimation for year end of 2022; 4. ① Existing(Petrochemical) – Ordinary Activity 250 B KRW, Cracker Expansion 280, EOA Expansion 140, and others, ② Hydrogen – JV 50, Ammonia 30, ③ Battery Materials – Electric foil Acquisition 2.4 T KRW, Organic Solvent 150, Aluminum Foil 130, and others, ④ Recycling – Chemical Recycling 25

3. Mid-to-Long Term Business Plan: VISION 2030

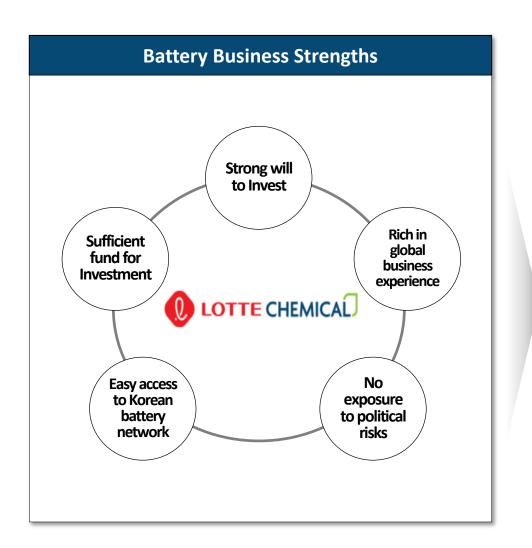
- ✓ Focused on commodity petrochem business → Moving towards High-value added & Green business focused portfolio
- ✓ Goal for 2030: Achieve revenue growth to 50 T KRW, increase the portion of High-value added & Green business to 60%

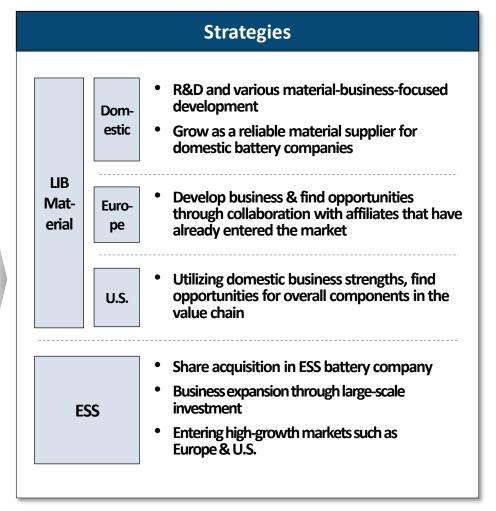


4. LOTTE's Strength on Battery Material Business & Strategy



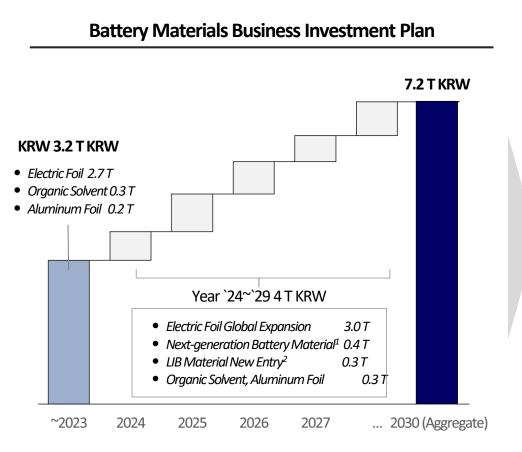
✓ Utilize LOTTE's strengths to continuously expand its presence in domestic / global markets



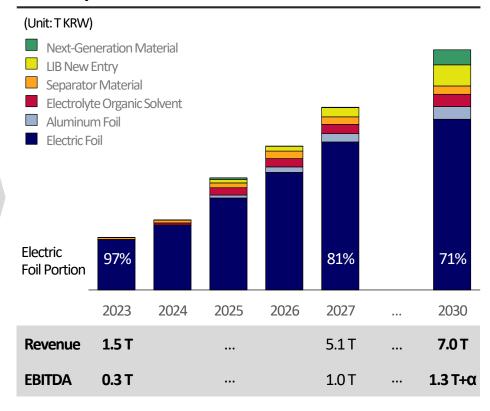


4. Battery Materials Business — 1 Investment & Revenue Plan

- ✓ Preemptive investment needed in order to secure competitive edge, which matches the re-organization of global electric vehicle battery supply chain
- ✓ Through investment, expecting battery materials business to grow to EBITDA 1 T KRW by 2027, corporate value re-evaluated by actualizing the earnings performance of new business



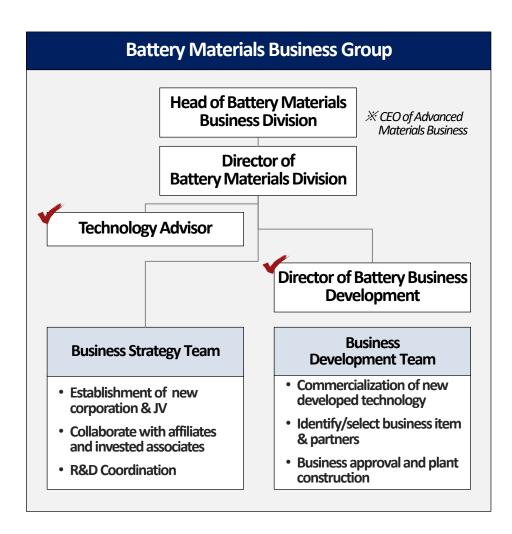
Battery Materials Business Revenue and EBITDA Goal³

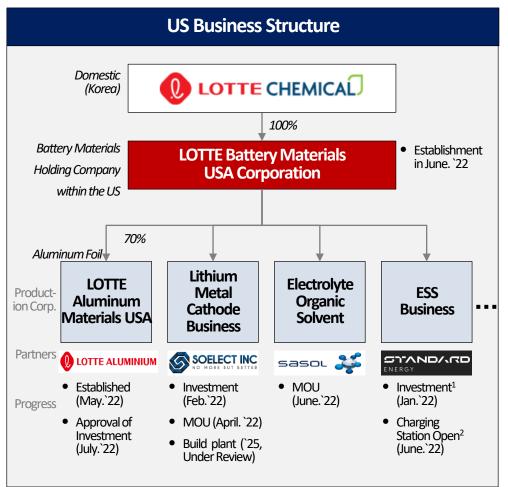


^{1.} Including business such as vanadium batteries; 2. Among major materials of Lithium Ion Battery, excluding business areas which we have already made entry (aluminum foil, electric foil (copper foil), electrolyte organic solvent, separator material); 3. Simple addition (estimated) of each individual business

4. Battery Materials Business — 2 Organization Structure

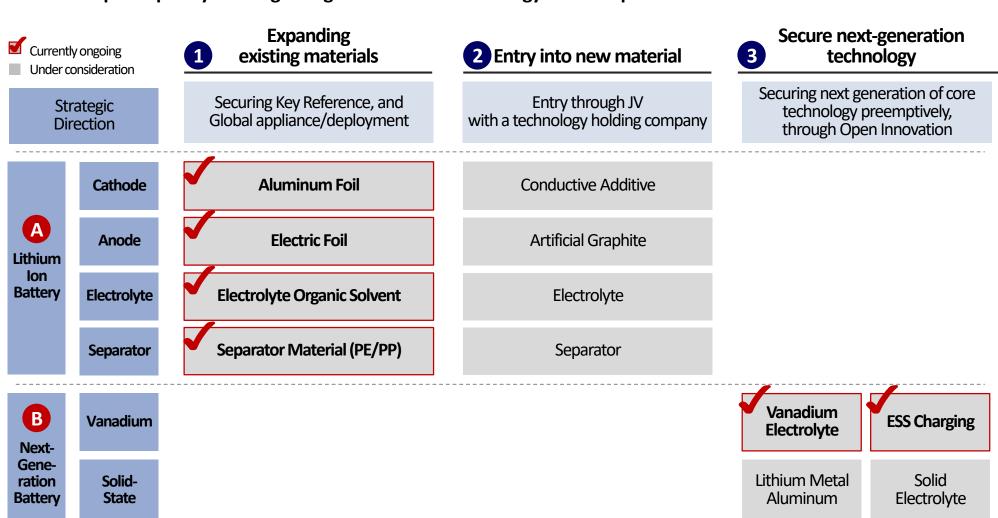
- ✓ Established organizational structure to overlook LOTTE Group Chemical Business Unit's battery material business (`22.3)
- ✓ Established a Holding company to drive battery materials business in the U.S. (`22.)





4. Battery Materials Business - 3 Plans Going Forward

- ✓ Promoting to establish a global supply chain centered around 4 major components of Lithium Ion Battery : Collaborate with diverse partners with already established capabilities/strengths
- ✓ Push for preemptively securing next generation core technology : Utilize Open Innovation

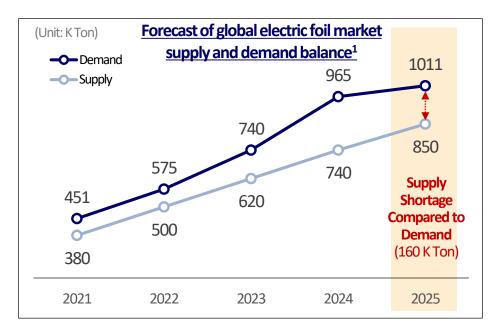


5. Electric foil Business – ① Growth potential & Competitive edge

- ✓ Continuous supply shortage expected, with high entry barrier for production, despite the expansion of electric foil due to increased demand for EV
- ✓ Iljin Materials expected to continuously generate profit due to superior technology and cost competitiveness, securance of major customers, compared to its competitors

Market Growth Potential (Electric Foil)

- **Demand**: Usage will continuously increase due to EV demand growth
- Supply: Technology entry barrier, Large-scale Capex investment,
 Restriction for new companies to enter, due to switching cost from demand perspective



Competitive Edge



- Top tier unique technology compared to peers, acquired cost competitiveness
- Establish high-value added products portfolio, profitability expected to grow



 Industry-leading productivity(yield) with superior process technology and know-how compared to other players



 Comparatively low production cost by utilizing ecofriendly low cost energy

(Malaysia: Hydro-electric power 100%, Spain: Solar/wind power, low cost energy acquired compared to EU average)

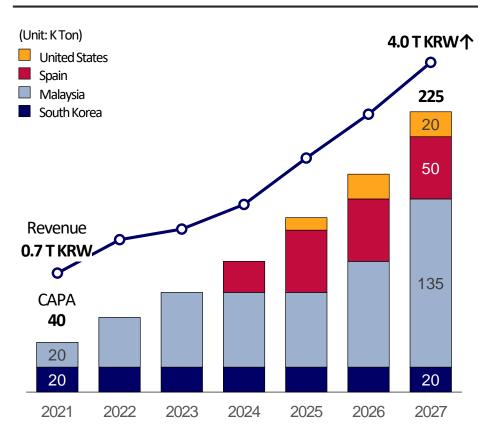


 Securing customers through long-term supply contracts with domestic and global battery/electric vehicle Key Players (Signed a long-term supply contract of 8 T KRW until 2030 with Samsung SDI)

5. Electric foil Business – ② Mid-to-Long term Growth Plan

- ✓ Plan to expand total production CAPA up to 225 K Ton by 2027, revenue goal up to 4 T KRW by 2030
- ✓ Secure economic feasibility through overseas low-cost / eco-friendly production sites, also completely secured investment and key equipment for capacity expansion

Global Capacity and Revenue Expansion Plan



Direction Going Forward

- Develop expansion plans based on established customer demand
- Secure investment for expansion
 - : Can invest with retained cash and Iljin Material's future operating cash flow
- Secure low-cost & eco-friendly production sites
- Completed securing high-quality titanium drums, key equipment for expansion

Current Status of Major Business Sites¹

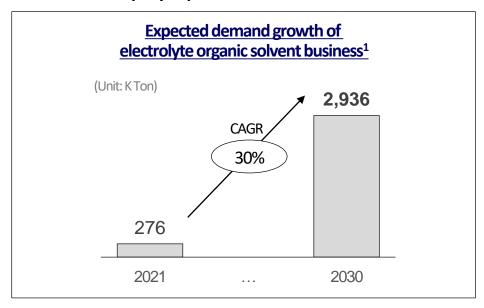
	Vorce	Overseas ²		
	Korea	Malaysia	Spain	U.S.
Location	Iksan	Sarawak	Catalunya	TBD
Start of Operation	1987	2017	2024	2025
CAPA(KTon)	20	40→135	50	20

5. Electrolyte Organic Solvent Business

- ✓ Entering organic solvent business by utilizing self-owned raw materials and technology, First Korean company to start commercialization
- ✓ Collaborate with U.S. partner to construct local production plant and expand market size, 2030 target revenue 350 B KRW

Demand Growth Forecast

- Organic solvent account for 30% of total cost of electrolyte, one of the 4 major components of LIB
- Global Demand by year 2030, CAGR 30%
- Currently all demand volume rely on import, LCC is the first Korean company to push for commercialization



Business Going Forward

Preemptively secure original technology

Strengthen competitive edge by vertical integration through utilizing feedstock (HPEO)

Step 1

- Currently constructing domestic production plant (Daesan → 110 K Ton)
 - → Complete construction by 2024
- Products: HP-EC, DMC, HP-EMC, DEC

Step 2

 Signed MOU with Sasol Chemicals of U.S, Louisiana (June.2022), Construction of organic solvent plant under review



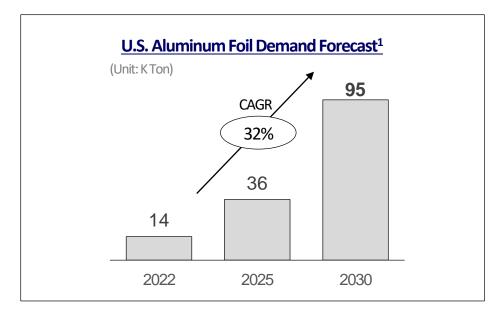
 Push to increase global market share by utilizing capabilities of running U.S. business, and reviewing additional expansion of organic solvent plant

5. Aluminum Foil Business

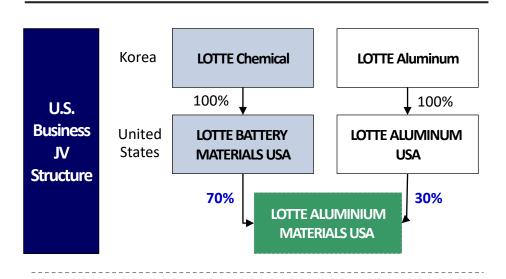
- ✓ Completed establishment of U.S. company, Promoting to increase additional aluminum foil production sites in the U.S. and Europe
- ✓ Unrivaled position in the market as the only aluminum foil production base in the U.S., Revenue goal of 350 B KRW in `30

U.S. Aluminum Foil Demand Forecast

- Trend of rapid U.S. battery market growth and supply chain formation
- U.S. aluminum foil demand quantity CAGR 32% by year 2030
- First to establish an aluminum foil production site in the U.S



Business Going Forward



Strategic Direction

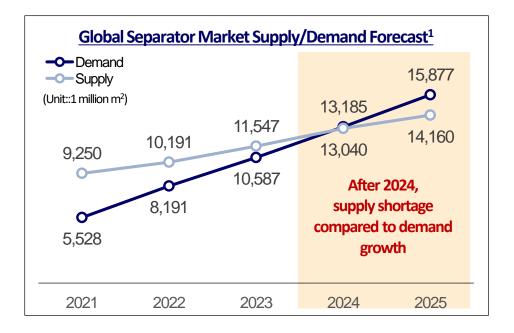
- Securing a local production site through new investment in the U.S. and expansion in Hungary -> acquire competitive edge against competitors (No aluminum foil plant in the U.S. as of now)
- Goal: Expand CAPA up to 140 K Ton by 2030

5. Separator Material

- ✓ Started commercial production in 2018, sales goal of 100K tons by 2030
- ✓ Can secure competitiveness through vertical integration if LCC enters separator business as well

Market and Demand Forecast (Separator)

- Demand: As LIB key component, Separator market expected to continuously grow (Global separator market `20~`30 CAGR 23%)
- Supply: Market with limited manufacturers due to safety issues



Competitive Edge and Business Going Forward

Competitive Edge

- Rich with HDPE, and PP production experience, acquired large-scale CAPA
- High production quality such as high-density, high-strength, and others
- Build lineups of wet (HDPE) and dry (PP) products

Current Status and Sales Target Sold 7K ton in `21, Goal: 50K ton in `25, 100K ton in `30

	2021	2025	2030
Production (Ton)	7,000	50,000	100,000

• Focus on securing overseas customers, push for expansion

Business Going Forward

- Increase sales volume and customer portfolio
- Develop differentiated products in order to secure additional competitive edge
- In accordance with material business capabilities and plans to expand U.S. battery materials business
 - → Review entering U.S separator business

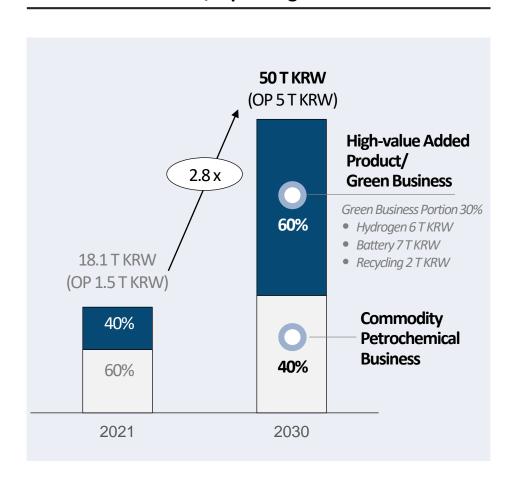
6. Expected Benefit

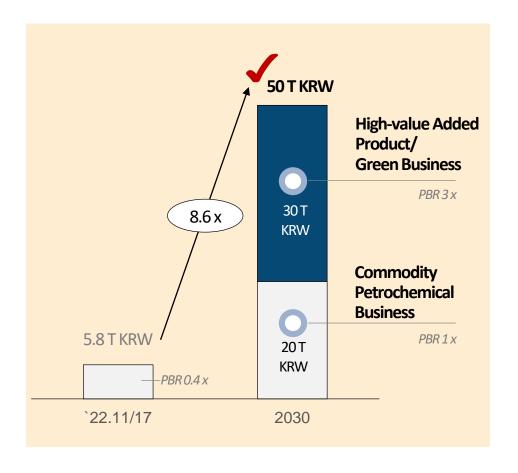
→ →

✓ Contribute to enhancement of shareholder value, with corporate value re-evaluation through transition into High-value & Green business focused portfolio by 2030

Revenue / Operating Profit Goal

Market Capitalization Goal







사랑과 신뢰를 받는 제품과 서비스를 제공하여 인류의 풍요로운 삶에 기여한다

We enrich people's lives by providing Superior products and services that Our customers love trust

