



ESG 2023
SUMMARY REPORT

MOLICEL[®]



Moli Energy is the first company in the world to commercialize Rechargeable Lithium Battery.

Momentum Leader
Momentum Driver

MOLICEL

Molybdenum Disulfide (MoS_2)
(+) Cathode Material

MOLICEL

Cell-A single unit of device that converts chemical energy into electrical energy

MOLICEL

Lithium (Li)
(-) Anode Material

Contents

Milestones	04
2023 ESG Highlights	05
Sustainable Products	05
Environment	07
Social	08
Governance	08
Partners and Honors	09
Environment: EU Battery Regulation Strategy	10
Carbon Footprint	10
Product life cycle management	11
Reuse to extend product lifecycle	12
Recycled raw materials in manufacture	13
Environment : Product R&D and Innovation	16
Partnership	17
AI Super Factory	18
Sustainable Factory	21
Molie Quantum Energy Corporation Certified as Gold-Level Green Building by LEED and EEWH	27
Social : Diversity and inclusion	30
Human Right and Diversity, Inclusion, and Equality	30
Occupational Health and Safety	36
Talent Cultivation and Retention	37
Customer Demands	41
Prosperity Society	43
Governance: Corporate Co-prosperity	48
Supply Chain Management	48
Sustainable Governance	50
Climate Change Governance(TCFD)	54

About the Report

Reporting Period

Molicel publishes ESG Report on an annual basis.

This Report covers the reporting period from January 1 to December 31, 2023, English version only.

Publication date of the previous issue: September 2023

Publication date of the current issue: September 2024

Publication date of the next issue: August 2025

The scope of disclosure

E-One Moli Energy Corporation(Tainan Plant)

Molie Quantum Energy Corporation(Kaoshiung Plant)

Contact Information

Should you have any comment or suggestion regarding this Report, welcome to contact us at:

Email: molicel.esg@molicel.com

Tel: 886 6 505 0666

Fax: 886 6 505 0777

Report Team

Joshua Lin, Min-Han Chen, Corporate Sustainability Team

Supervisor

Yi-Chung Chen,

Sustainable Development Planning Division, TCC Group Holdings

Molicel
Official Website



ESG Section



Milestones

- 1977 Molicel the brand founded
- 1998 E-One Moli Energy founded
- 2000 E-One Energy Corp. acquired NEC Moli Energy (Canada) Limited
- 2001 E-One Moli Energy Corp. obtained ISO 9001:2000 certification
- 2004 Cooperated with Japanese power tool maker to announce world's first power tool Li-ion battery pack
Launched the first 18650 Li-ion cell for power tool application in the world
- 2005 Sole battery provider of CTO in Asia
- 2006 E-One Moli Energy Corp. obtained ISO 14001:2004 certification
- 2013 Cooperated with ITRI to successfully develop Taiwan's first made-in-Taiwan electric car
- 2016 Teamed up with ITRI Green Energy Department for 1MWh Solar Energy Storage System

- 2017 Power cell approved by leading cordless vacuum cleaner maker
- 2018 Collaborated with Uber Elevate for eVTOL battery pack development
Taiwan's first public tender for 1MWh ESS Long-jing Project for ITRI
- 2019 1500kWh BESS system deployed in E-One Moli Energy Corp. (Taiwan)
- 2020
 - ▶ Collaborated with NHOA.TCC to obtain Taipower's first ESS Automatic Frequency Control (AFC) contract, and became the only facility that won the highest 5MW service capacity, as the same level as TESLA
 - ▶ Selected by the British supercar brand McMurtry and limited to 130 units of production
- 2021
 - ▶ Collaborated with Williams Advanced Engineering to develop electrification of heavy-duty trucks
 - ▶ New generation 4.5Ah P45B launched, highest capacity in the high-power cell market, and full fast charging in 12 minutes
 - ▶ Selected by the Croatian supercar brand Rimac Automobili and limited to 150 units of production

- 2022
 - ▶ Technically collaborated with McMurtry, and set a new all-time record at Goodwood, Festival of Speed, UK
 - ▶ Selected by eVTOL manufacturer Vertical Aerospace to develop and supply V4 into service
 - ▶ Partnering with KULR for battery safety and thermal management solutions
- 2023
 - ▶ Partner- McMurtry revealed Spéirling PURE for street legal version, using 21700 series batteries
 - ▶ INR-18650-P30B, the market-leading ultra-high power cells launched
 - ▶ Partner- Archer Aviation's Midnight eVTOL receives FAA Special Airworthiness Certificate
 - ▶ Molicel Quantum Energy Corporation started mass production operations with an annual production capacity target of 1.8 GWh.
 - ▶ Molicel and the PM of Canada jointly announced the construction of the world's largest high-performance ternary lithium battery cell factory in Vancouver. The factory aims to become the world's first facility utilizing 100% green electricity.

Sustainable Products

PRODUCT HIGHLIGHTS

21700 SERIES (ULTRA-HIGH POWER CELL)

HIGHLIGHTS HIGH DISCHARGE CURRENT AND CAPACITY

P42A *Compared with S companies' products	P45B *Compared with P42A	P50B *Compared with P45B
Capacity +5%	Capacity +7%	Capacity +11%
Discharge Current +40%	Discharge Current +60.7%	Discharge Current +85.1%
Same Impedance	Impedance -31.67%	Impedance -6.5%
Capacity: 4200mAh	Capacity: 4500mAh (+7%)	Capacity: 5000mAh (+11%)
Impedance: ~18mohm	Impedance: ~12.3mohm(-31.7%)	Impedance: ~11.5mohm(-6.5%)
Endure up to 500 charging cycles	Retain 73% of its capacity after 1,000 charging cycles	Retain 83% of its capacity after 1,000 charging cycles
Certified by third-party ISO 14067 verification (P42A)	DCR -22%	Applications: eVTOL, electric aircraft, electric supercars
Applications: Electric vehicles, high-end home appliances	Capable of 3C charging rate	
	Applications: eVTOL, electric sports	

18650 SERIES (MEDIUM POWER CELL)

HIGHLIGHTS ENERGY-SAVING AND SAFE

*Compared with P28A

Capacity +5.4%	Discharge Current +7.1%	Impedance -42%
P30B		
Capacity: 2950mAh(+5.4%)		
Impedance: ~7mohm(-42%)		
Charge current: 9A		
Highlights: Energy Efficiency & Safety (Higher storage capacity, Faster charging, Reduced heat generation)		
Applications: Electric vehicles, high-end home appliances		



Note: As the Molie Quantum Energy Corporation officially started mass production in the second half of 2023, there is no complete annual data available. Therefore, some performance data only covers the E-One Moli Energy Corp.

Sustainable Products

MOLICEL PRODUCTS' SUSTAINABLE FEATURES

The cathode material used in the product's raw materials contains recycled content, including



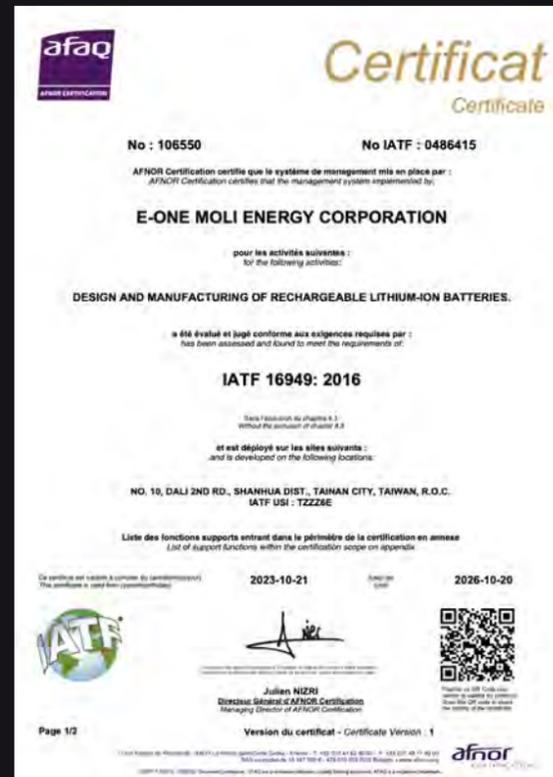
The product's base materials include recycled content, comprising



The recovery rate from waste electrode to black mass



The precursor recovery rate from waste slurry to black mass



The E-One Moli Energy Corp. has obtained the IATF 16949



Environment

E-ONE MOLI ENERGY CORP. (TAIWAN)



Power management

-1.43%



renewable energy usage

+8.4%



reduction in hazardous waste

-41%



waste recycling rate

+48%



reduction in water usage **-19.4%**

in wastewater generation **-20.8%**



+1.7MW
of Energy storage system capacity (an increase of 42%)



third-party certified

MOLIE QUANTUM ENERGY CORPORATION (TAIWAN)

Gold-Level Green Building by LEED and EEWH certified



Smart manufacturing

+2.25 times production capacity boosted



-60% labor costs



+8MW of Energy storage system capacity

Note: As the Molie Quantum Energy Corporation officially started mass production in the second half of 2023, there is no complete annual data available. Therefore, some performance data only covers the E-One Moli Energy Corp.

Social

100% human rights advocacy coverage rate, with a 96% achievement rate for online statement reading



100% participation rate in the DEI inclusion program for foreign colleagues



27.5% females in management
(averaged between E-One Moli Energy Corp. and Molie Quantum Energy Corp.)

0 recruitment costs for migrant employees

64.3% of research and development personnel hold master's or doctoral degrees



156 certifications obtained by employees



200 saplings were planted (plant variety: Breynia disticha)

Note: As the Molie Quantum Energy Corporation officially started mass production in the second half of 2023, there is no complete annual data available. Therefore, some performance data only covers the E-One Moli Energy Corp.

Governance

11% of revenue invested in battery R&D

41% green procurement ratio

34% local suppliers

8.68 customer satisfaction
+7.86% compared to 2022

100% Restriction of Hazardous Substances (RoHS) declaration



3 social engineering drills conducted with a non-compliance rate below the 5% standard set by the Executive Yuan

1,840 hours of information security training

831 hours of integrity and ethics training

100% average attendance of the Board of Directors

100% of employees signing the Statement of Integrity and Ethical Conduct

0 incidents of corruption or bribery

Note: As the Molie Quantum Energy Corporation officially started mass production in the second half of 2023, there is no complete annual data available. Therefore, some performance data only covers the E-One Moli Energy Corp.

Partners and Honors

1st electric off-road motorcycle to defeat traditional internal combustion engine motorcycles at the 2024 Arenacross Championship in the UK.

2nd place in the autonomous figure-eight loop and Best Technical Inspection Award at Czech Formula Student competition.

McMurtry's race car now reaches 190 mph and charges in just 20 minutes.

