

E-ONE MOLI ENERGY CORP.



ESG 2023  
SUMMARY REPORT



**MOLICEL<sup>®</sup>**



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

Momentum Leader  
Momentum Driver

**MOLICEL**

Molybdenum Disulfide ( $\text{MoS}_2$ )  
(+) Cathode Material

**MOLICEL**

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

**MOLICEL**

Lithium (Li)  
(-) Anode Material



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# 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

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## The scope of disclosure

E-One Moli Energy Corporation( Tainan Plant)

Molie Quantum Energy Corporation(Kaoshiung Plant)

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Molicel  
Official Website



ESG Section





Milestones

1977	Molicel the brand founded	2017	Power cell approved by leading cordless vacuum cleaner maker	2022	<ul style="list-style-type: none"><li>▶ Technically collaborated with McMurtry, and set a new all-time record at Goodwood, Festival of Speed, UK</li><li>▶ Selected by eVTOL manufacturer Vertical Aerospace to develop and supply V4 into service</li><li>▶ Partnering with KULR for battery safety and thermal management solutions</li></ul>
1998	E-One Moli Energy founded	2018	Collaborated with Uber Elevate for eVTOL battery pack development Taiwan's first public tender for 1MWh ESS Long-jing Project for ITRI		
2000	E-One Energy Corp. acquired NEC Moli Energy (Canada) Limited	2019	1500kWh BESS system deployed in E-One Moli Energy Corp. (Taiwan)	2023	<ul style="list-style-type: none"><li>▶ Partner- McMurtry revealed Spéirling PURE for street legal version, using 21700 series batteries</li><li>▶ INR-18650-P30B, the market- leading ultra-high power cells launched</li><li>▶ Partner- Archer Aviation's Midnight eVTOL receives FAA Special Airworthiness Certificate</li><li>▶ Molie Quantum Energy Corporation started mass production operations with an annual production capacity target of 1.8 GWh.</li><li>▶ 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.</li></ul>
2001	E-One Moli Energy Corp. obtained ISO 9001:2000 certification	2020	<ul style="list-style-type: none"><li>▶ 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</li><li>▶ Selected by the British supercar brand McMurtry and limited to 130 units of production</li></ul>		
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	2021	<ul style="list-style-type: none"><li>▶ Collaborated with Williams Advanced Engineering to develop electrification of heavy-duty trucks</li><li>▶ New generation 4.5Ah P45B launched, highest capacity in the high-power cell market, and full fast charging in 12 minutes</li><li>▶ Selected by the Croatian supercar brand Rimac Automobili and limited to 150 units of production</li></ul>		
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				

# Sustainable Products

## PRODUCT HIGHLIGHTS

### 21700 SERIES (ULTRA-HIGH POWER CELL)

HIGHLIGHTS

HIGH DISCHARGE CURRENT AND CAPACITY

<b>P42A</b> *Compared with S companies' products	<b>P45B</b> *Compared with P42A	<b>P50B</b> *Compared with P45B
<b>Capacity +5%</b>	<b>Capacity +7%</b>	<b>Capacity +11%</b>
<b>Discharge Current +40%</b>	<b>Discharge Current +60.7%</b>	<b>Discharge Current +85.1%</b>
<b>Same Impedance</b>	<b>Impedance -31.67%</b>	<b>Impedance -6.5%</b>
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%	1,000 charging cycles
Applications: Electric vehicles, high-end home appliances	Capable of 3C charging rate	Applications: eVTOL, electric aircraft, electric supercars
	Applications: eVTOL, electric sports	

### 18650 SERIES (MEDIUM POWER CELL)

HIGHLIGHTS

ENERGY-SAVING AND SAFE

*Compared with P28A		
<b>Capacity +5.4%</b>	<b>Discharge Current +7.1%</b>	<b>Impedance -42%</b>
<b>P30B</b>		
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.



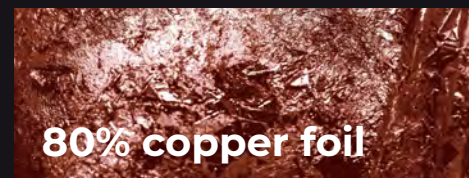
# Sustainable Products

## 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

  
**80%**

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

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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)

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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

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## Partners and Honors

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

2<sup>nd</sup> 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.

