
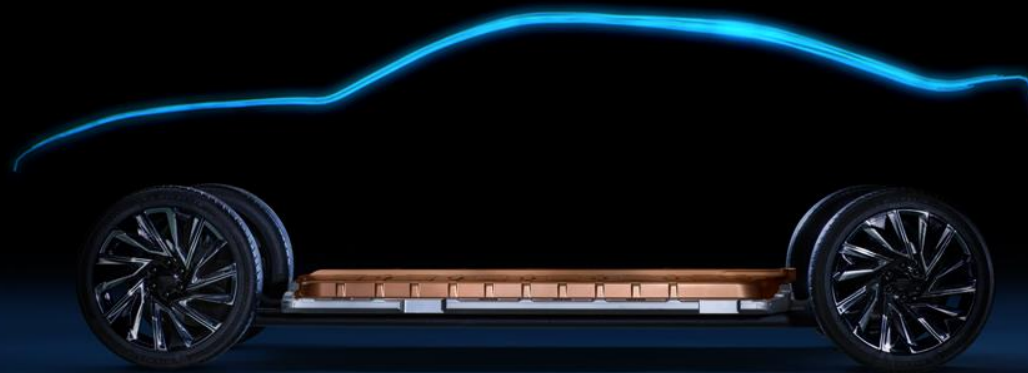


GM and the EV Future

everybody in. 

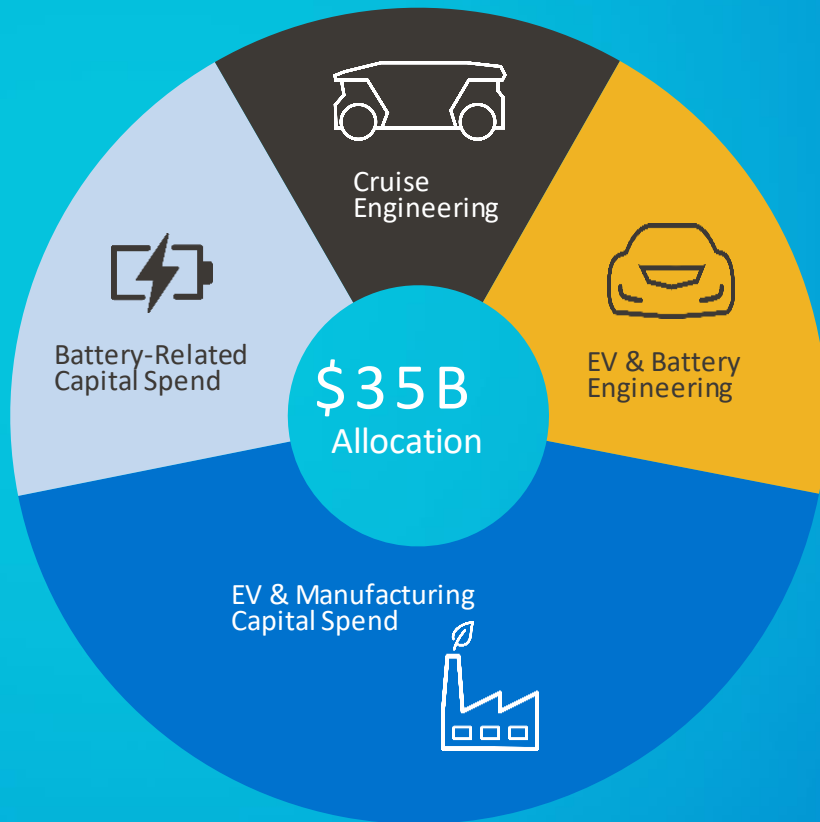


Simulated vehicle shown.

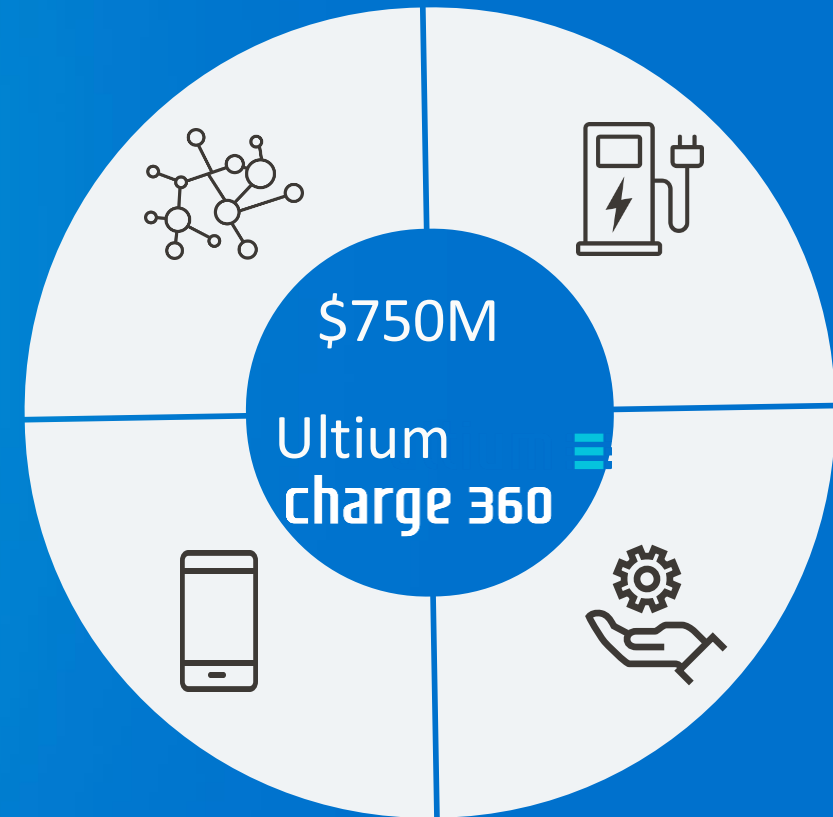


GM IS TRANSFORMING

INVESTMENT



CHARGING ECOSYSTEM



RAPIDLY ACCELERATING EV LAUNCHES

CURRENT EV PRODUCTION



CHEVROLET BOLT EV



CHEVROLET BOLT EUV



GMC HUMMER EV PICKUP



CADILLAC LYRIQ

2023 EV LAUNCHES



CHEVROLET SILVERADO EV



GMC HUMMER EV SUV



CHEVROLET BLAZER EV



CHEVROLET EQUINOX EV

Targeting 1 million units of annual EV capacity in North America in 2025 – “An EV for Everyone”

Ultium Battery System

Drive units, power electronics and battery pack

Inside the Ultium cell:

- ▶ State-of-the-art NCMA chemistry
- ▶ 70% reduced cobalt compared to Bolt EV
- ▶ Enables chemistry iterations
- ▶ ⬆ Energy density ⬇ Cost

Benefits:

- ▶ Design flexibility
- ▶ Large-scale, high-energy cells
- ▶ Battery energy from 50 to 200 kWh
- ▶ GM-estimated range up to 450 miles on a full charge



Enables a **complete lineup** of dedicated EVs

Enough cells for more than 1 million EVs per year



Lansing, MI | Late 2024

Warren, OH | Open

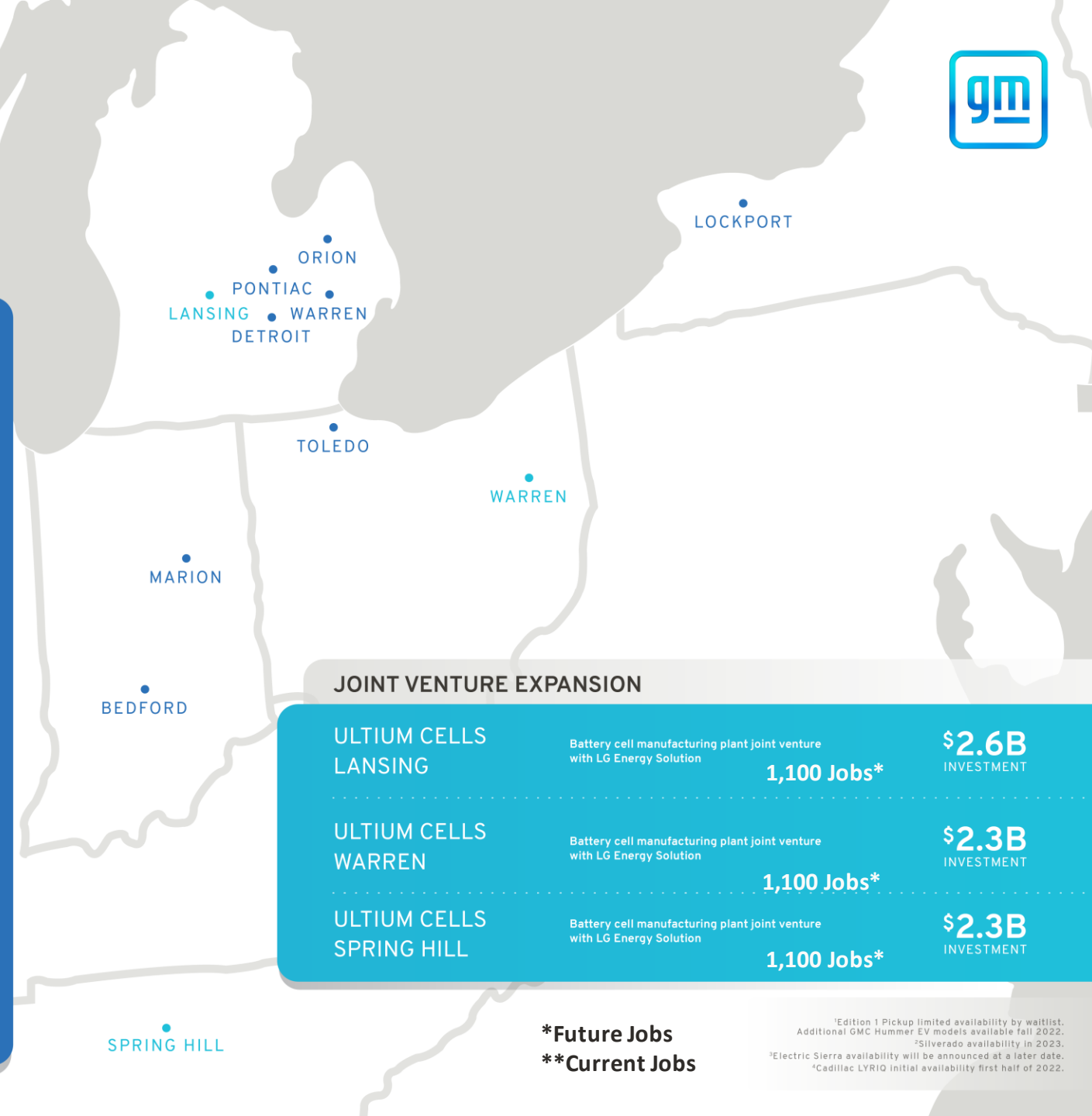
Spring Hill, TN | Late 2023

+ 4TH PLANT

=160 GWh/Year

A commitment to EVs for everyone.

GM and Ultium Cells are investing nearly \$17B in electric vehicle manufacturing which is expected to create nearly 9,000 jobs across the U.S.



ORION ASSEMBLY	MI	Chevrolet Bolt EV Chevrolet Bolt EUV Cruise AV test vehicles Chevrolet Silverado EV ² GMC Electric Sierra ³		\$4B INVESTMENT
FACTORY ZERO, DETROIT HAMTRAMCK	MI	GMC HUMMER EV Pickup ¹ GMC HUMMER SUV ¹ Chevrolet Silverado EV ² GMC Electric Sierra ³ Cruise Origin	2,200 Jobs**	\$2.2B INVESTMENT
SPRING HILL COMPLEX	TN	Cadillac LYRIQ ⁴	3,200 Jobs**	\$2B INVESTMENT
TOLEDO PROPULSION SYSTEMS	OH	Transform GM Toledo into the company's first EV propulsion plant in the United States		\$760M INVESTMENT
MARION METAL CENTER	IN	New press lines, upgrades and renovations to prepare the facility to produce a variety of steel and aluminum stamped parts for future products, including EVs		\$491M INVESTMENT
LOCKPORT COMPONENTS	NY	Renovation to facility and purchase/installation of new machinery and equipment		\$154M INVESTMENT
GLOBAL TECHNICAL CENTER	MI	Cadillac CELSTIQ production		\$81M INVESTMENT
BEDFORD CASTING OPERATIONS	IN	Upgrades to support drive unit castings for new Silverado EV		\$51.7M INVESTMENT
PONTIAC STAMPING	MI	Support future electric vehicle production		\$40M INVESTMENT

JOINT VENTURE EXPANSION

ULTIUM CELLS LANSING	Battery cell manufacturing plant joint venture with LG Energy Solution	1,100 Jobs*	\$2.6B INVESTMENT
ULTIUM CELLS WARREN	Battery cell manufacturing plant joint venture with LG Energy Solution	1,100 Jobs*	\$2.3B INVESTMENT
ULTIUM CELLS SPRING HILL	Battery cell manufacturing plant joint venture with LG Energy Solution	1,100 Jobs*	\$2.3B INVESTMENT

*Future Jobs
**Current Jobs

¹Edition 1 Pickup limited availability by waitlist. Additional GMC Hummer EV models available fall 2022.
²Silverado availability in 2023.
³Electric Sierra availability will be announced at a later date.
⁴Cadillac LYRIQ initial availability first half of 2022.



Secure



Sustainable



Scalable

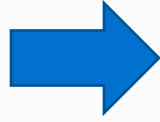


Cost Competitive

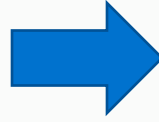
Executing **strategic partnerships** to secure each level of the **supply chain**

EV Battery Industry Supply Chain (~2025-26)

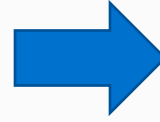
**Extraction/
Mining**



**Refining/
Processing**



**Battery Cell
Manufacturing**



**Battery
Pack and
EV Mfg.**



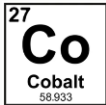
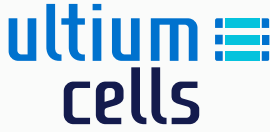
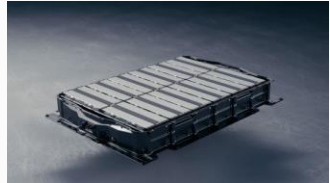
**Extracting Ores
and Brines**



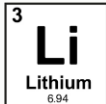
**Refining into Usable Material & Combining
into Battery Raw Materials
(Anodes and Cathodes)**



Battery Cell Manufacturing



GLENCORE

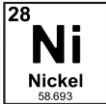


Livent

LithiumAmericas



posco



general motors

“GM now has binding agreements securing all battery raw material supporting our goal of 1 million units of annual capacity in North America by the end of 2025. This includes lithium, nickel, cobalt and full CAM supply.”

— Jeff Morrison, GM Vice President, Global Purchasing and Supply Chain

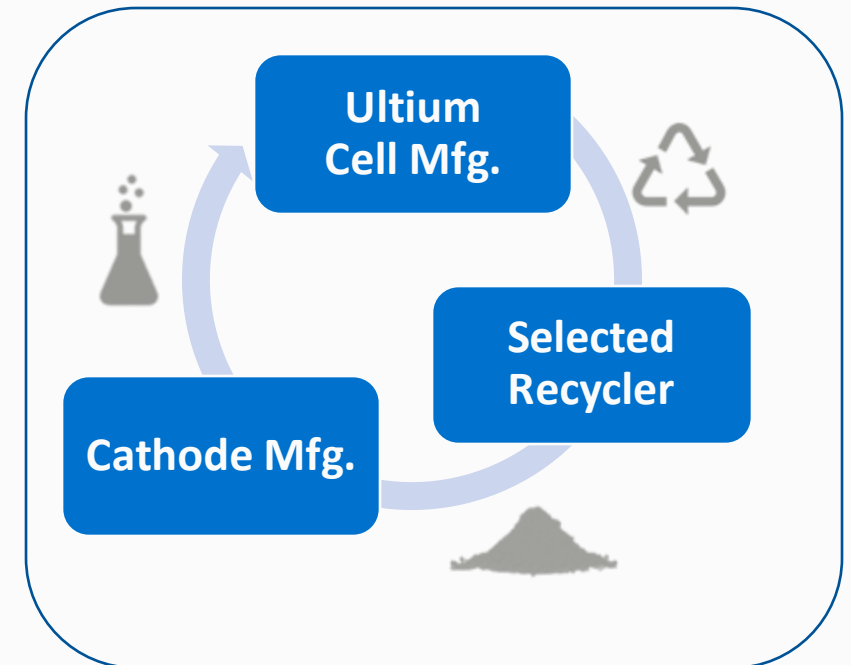
Our Recycling Strategy



Enabling circularity via closed-loop recycling of raw battery materials to augment supply

- **Strive for 100% battery recycling, from manufacturing through end-of-life**
 - Recycle all battery manufacturing and warranty returned battery scrap and reuse in our own manufacturing supply chain
 - Apply **robust design** for recycling principles to maximize the efficiency of recycling
 - Develop processes for the disposal of end-of-life EV batteries to mitigate the risks of improper disposal and to ensure that all batteries get recycled
- **Work toward increasing recycled material content in our batteries**
- **Continue to investigate re-use: ‘Spent’ EV batteries retain up to 75% of their energy storage capacity**

Co-location of Cell Plant, Recyclers, and Cathode supplier reduces logistics costs



Education and Charging Initiatives





Building Momentum

HOW WE'RE ACCELERATING EV ADOPTION

EDUCATION & ENGAGEMENT



- Continuous, multi-channel EV education
- Demystifying EV ownership by addressing adoption barriers

CHARGING SOLUTIONS



- Expanding portfolio of intelligent charging products
- Turnkey installation services for retail & commercial customers

CHARGING INFRASTRUCTURE



- Creating the largest, open, integrated charging network
- Control the entire charging & energy experience from the app

ULTIUM CHARGE 360 EXPERIENCE:

Create a compelling membership program with a unified customer experience across all GM-integrated charging networks

EV LIVE

EV LIVE is an on-demand, interactive platform that launched in July 2022, to accelerate EV adoption and enhance the experience of first-time EV owners.

SESSIONS



DEALERS

- Non-Product Training



CUSTOMERS

- Utility Customers
- Home Installation Customers
- EV Owner Second Deliveries
- GM Energy Customers



FLEET

- GM FLEET
- BrightDrop
- eCrate/ePowered
- GM Energy



GM EMPLOYEES AND FAMILIES



EV LIVE STUDIO

The EV LIVE Studio is a versatile physical space, designed incorporating user insights to address any adoption barriers.

- DESIGNED WITH CUSTOMER INSIGHTS IN MIND

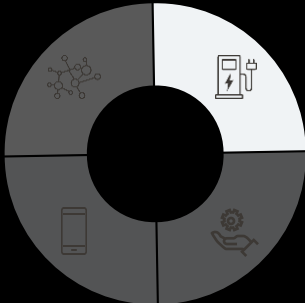
- 6 LED SCREENS

- 8 EDUCATIONAL ZONES TO AUGMENT STORYTELLING

For more information visit: evlive.gm.com

ULTIUM CHARGE 360

: PRODUCTS



11.5 KW/48-AMP
SMART
CHARGER

11.5 KW/48-AMP
PREMIUM
SMART CHARGER

19.2KW/80-AMP
PREMIUM
SMART CHARGER



PROFESSIONAL GRADE
CUSTOMIZABLE SCREENS
EMBEDDED CAMERAS

GM and Pilot Company to build a coast-to-coast fast charging network.



2,000 EV charging stalls will be installed at up to 500 Pilot and Flying J travel centers



Will help enable coast-to-coast EV travel and connect communities across America



Initial Phase 1 EV charging stalls (shown in reference map) expected to be operational in 2023



Chargers will be capable of delivering up to 350kW*



*Actual charge times will vary based on vehicle capabilities and settings. Locations intended to provide an approximation of future charging sites.

ULTIUM CHARGE 360

: DEALER COMMUNITY CHARGING



- ACCELERATE EV ADOPTION ACROSS US & CANADA
- SUPERIOR EXPERIENCE FOR GM EV OWNERS
- THE STRENGTH OF THE GM DEALER NETWORK

UP TO

40,000

DESTINATION
CHARGERS

1,000

DEALERS ENROLLED
TO DATE

Thank You

