



# COPPER & CLEAN ENERGY

Copper is integral to our lives and the clean energy industry. The products produced at Resolution Copper, which will be capable of meeting up to 25% of U.S. copper demand, will be used for power transmission, renewable electricity generation, wind turbines, solar panels, electric vehicle production, batteries and more.

## ENERGY TRANSITION DRIVING GLOBAL DEMAND FOR COPPER

In 2023, the U.S. ranked fifth in copper mine production, trailing Chile, Peru, Congo, and China. With governments across the world agreeing to boost renewable energy capacity to at least 11,000 GW by 2030, the need for copper to build renewable energy is becoming increasingly urgent.<sup>1</sup>



### SOLAR

Solar energy, which is a key source of energy driving the energy transition, requires a significant amount of copper. The Resolution Copper project could supply enough copper to meet the entire world's projected solar uptake, which is anticipated to reach 75 TW by 2050.



### WIND

The U.S. is currently the second-largest producer of wind energy, trailing behind China.<sup>2</sup> To continue to increase our wind energy production, the U.S. will need significant amounts of copper. On average, onshore wind farms require about three metric tons of copper per MW, while offshore wind farms require 8 metric tons of copper per MW.<sup>3</sup> The Resolution Copper project has the potential to fulfill the entire projected global demand for wind energy throughout the lifespan of the mine, facilitating an estimated 5.5 TW of wind power growth.



### ENERGY STORAGE

Copper also plays a vital role in energy storage. By 2040, electrical grids will need 7.5 million tons of copper, and this will increase to nearly 10 million tons to support sustainable development scenarios.<sup>4</sup>



### ELECTRIC VEHICLES

Electric vehicles require nearly 3 to 4 times more copper than traditional automobiles.<sup>5</sup> Lithium batteries, which are crucial components in electric vehicle batteries, also require approximately 13 million metric tons of copper by 2040.<sup>6</sup> The Resolution Copper project has sufficient copper to produce nearly 700 million electric vehicles, which is approximately half of the anticipated global supply by 2040.



**SOURCES:**

<sup>1</sup> International Energy Agency (2023)

<sup>2</sup> Global Wind Energy Council (2023)

<sup>3</sup> American Experiment (2023)

<sup>4</sup> International Energy Agency (2021)

<sup>5</sup> International Copper Association (2022)

<sup>6</sup> Bloomberg NEF, Electric Vehicle Outlook (2024)

