



WIND POWER NEEDS AMERICAN METALS AND MINERALS

A single 3MW wind turbine needs:

- 335 tons steel
- 4.7 tons copper
- 1,200 tons concrete (cement and aggregates)
- Rare earth elements
- Aluminum
- Zinc
- Molybdenum



CARS NEED AMERICAN METALS AND MINERALS

A single car needs:

- | | |
|--------------------------------------|--------------------|
| 2,124 lbs. iron & steel | 17 lbs. manganese |
| 240 lbs. aluminum | 15 lbs. chromium |
| 50 lbs. carbon | 9 lbs. nickel |
| 42 lbs. copper, 75 lbs. for a hybrid | 4.5 lbs. magnesium |
| 41 lbs. silicon | 2 lbs. sulfur |
| 24 lbs. lead | 1 lb. molybdenum |
| 22 lbs. zinc | <1 lb. vanadium |
| | <1 lb. platinum |

However, we are increasingly dependent on foreign nations for many critical and strategic minerals.

METALS/MINERALS USED IN CLEAN POWER SYSTEMS	% NET IMPORT RELIANCE*
Concrete	7%
Steel	13%
Copper	36%
Nickel (with recycled).....	48%
Silver	58%
Palladium.....	60%
Zinc	74%
Cobalt	76%
Platinum	79%
Manganese	100%
Rare earth elements	100%

*2013 USGS DATA

WE INVITE YOU TO LEARN MORE

MINING MINNESOTA

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ABOUT MINING MINNESOTA

Mining Minnesota is a membership organization committed to sustainable and environmentally responsible critical and strategic metals mining development. Driven by a diverse coalition of organizations, companies and individuals, Mining Minnesota will bring growth and job creation to the state through the responsible development of Minnesota's natural resources.

