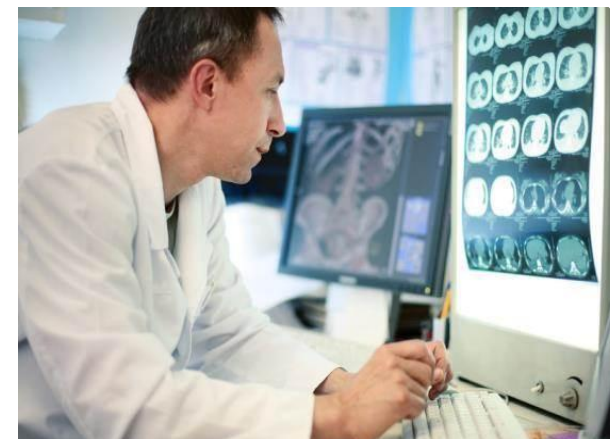


Energy Policy Issues Mining & Metals Industry

Chris C. Neaville
Asset Development Director

MECC Conference
Overland Park, Kansas
Wednesday, May 17, 2017

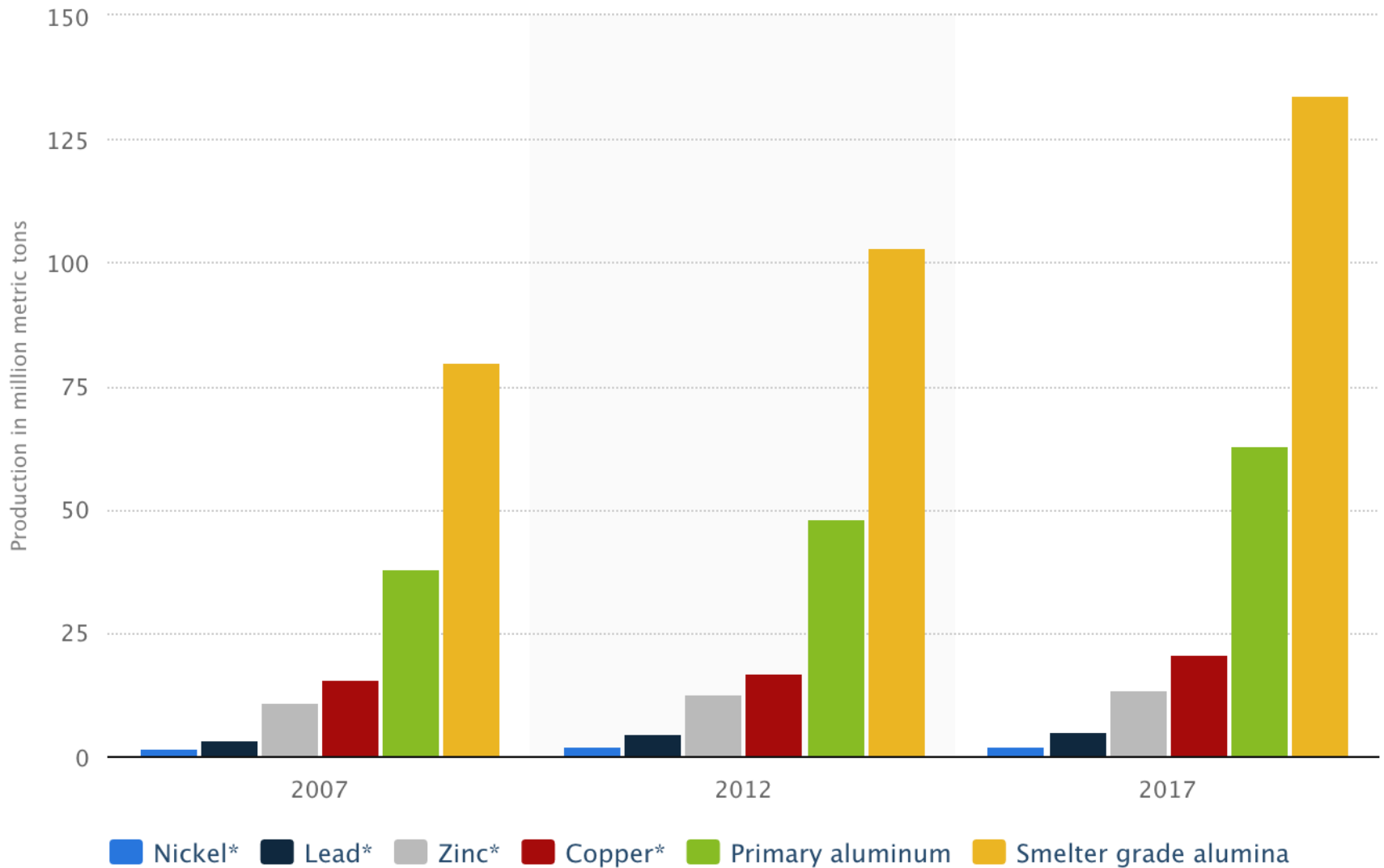


The Doe Run Company: Who We Are

- Metals & mining company (lead, zinc, & copper)
- Recycle ~13.5 million batteries/year
- \$1 billion annual economic impact in Missouri
- 150 year history



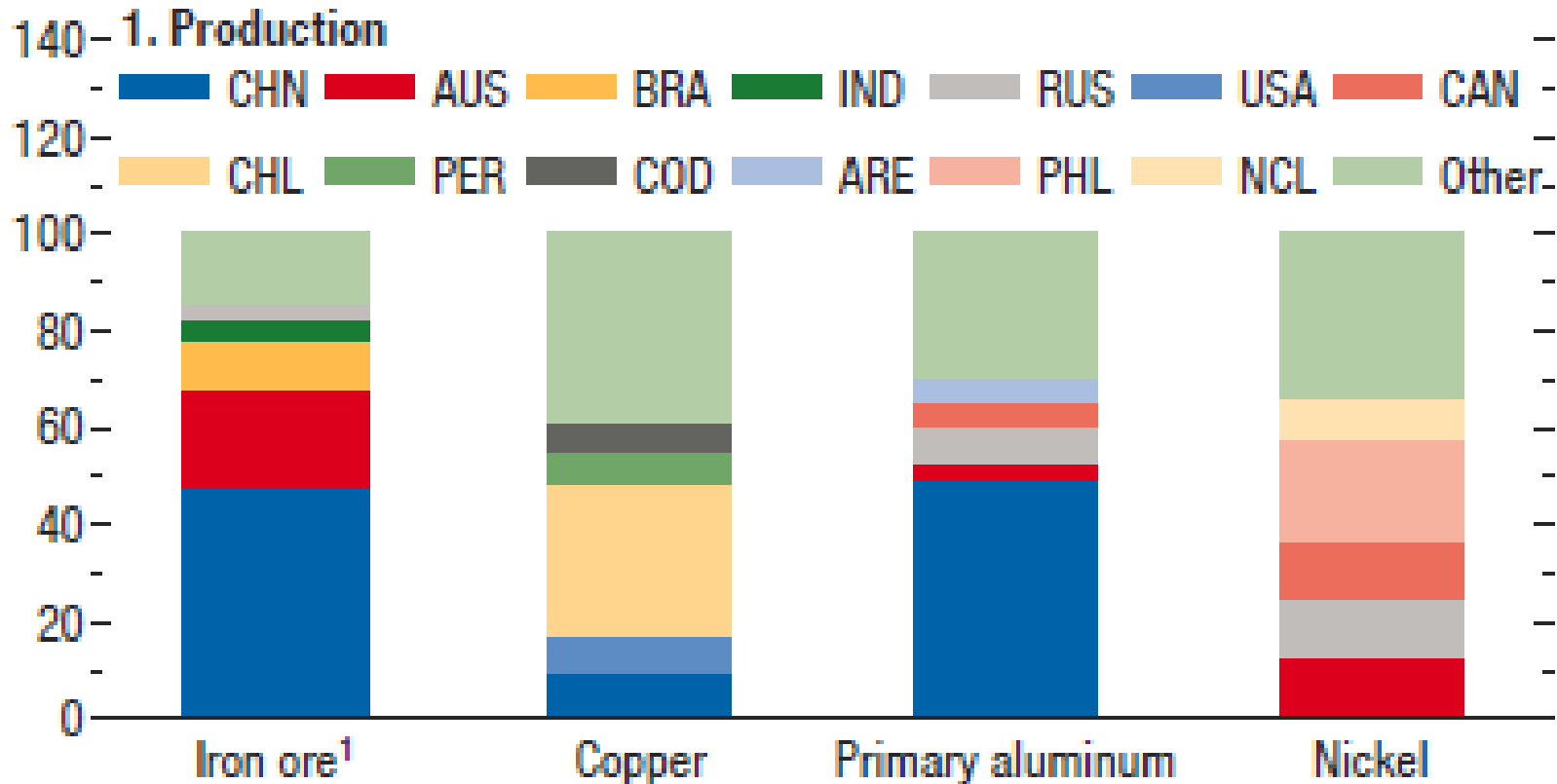
Global Metal Production Trends



Statista, 2017

US Metal Production Compared to Competition

World Metal Production and Consumption by Country, 2014



IMF, 2015

Decline of US Metal Production

Remaining primary smelters in the US:

- **Aluminum** – 6 (Noranda New Madrid closed 2016)
- **Copper** – 2
- **Zinc** – 1
- **Lead** – 0 (Doe Run Herculaneum closed 2013)

Global Competition Factors:

- **Labor Costs**
- **Environmental Regulation:**
 - **Air, Water, Waste & CERCLA**
- **Energy Costs:**
 - **Electricity rates have increased 40% since 2008**
 - **Largest consumer in Ameren system – 65+ megawatts**

Energy Initiatives

- **Legislative – Missouri Senate Bill 190**
 - **Economic Retention Rate**
 - **Economic Development Rate**
- **Energy Efficiency**
- **Fuel Switching Options:**
 - **Propane to Natural Gas**
 - **Diesel to Electric Mining Equipment**
 - **Diesel to CNG for trucking**
- **Self Generation: solar & natural gas**
- **Microgrid Research: S&T Microgrid Consortium**

Stewardship. Integrity. Commitment.

THE
DOE RUN
COMPANY

Questions?

