**Copper supply and demand**

- **Historical mine production**
- **Future refinery output**
- **Future mine output**
- **Net zero by 2050**

Global copper demand (10^6 tonnes/yr)

- Recycling increases along historic trends
- \( f_{rcyl} \) constant at 2018 value
**Copper supply and demand**

- **Historical mine production**
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- **$f_{rcyl}$ constant at 2018 value**

**Global copper demand (10^6 tonnes/yr)**

- **2018 production**
- **Historical mine production**

**Global net zero Emissions by 2050; 100% wind + solar**

- **Gas-electric hybrid**
- **EV+grid**
- **EV**
- **Baseline**

**Possible probable**

20.4x10^6 tpy