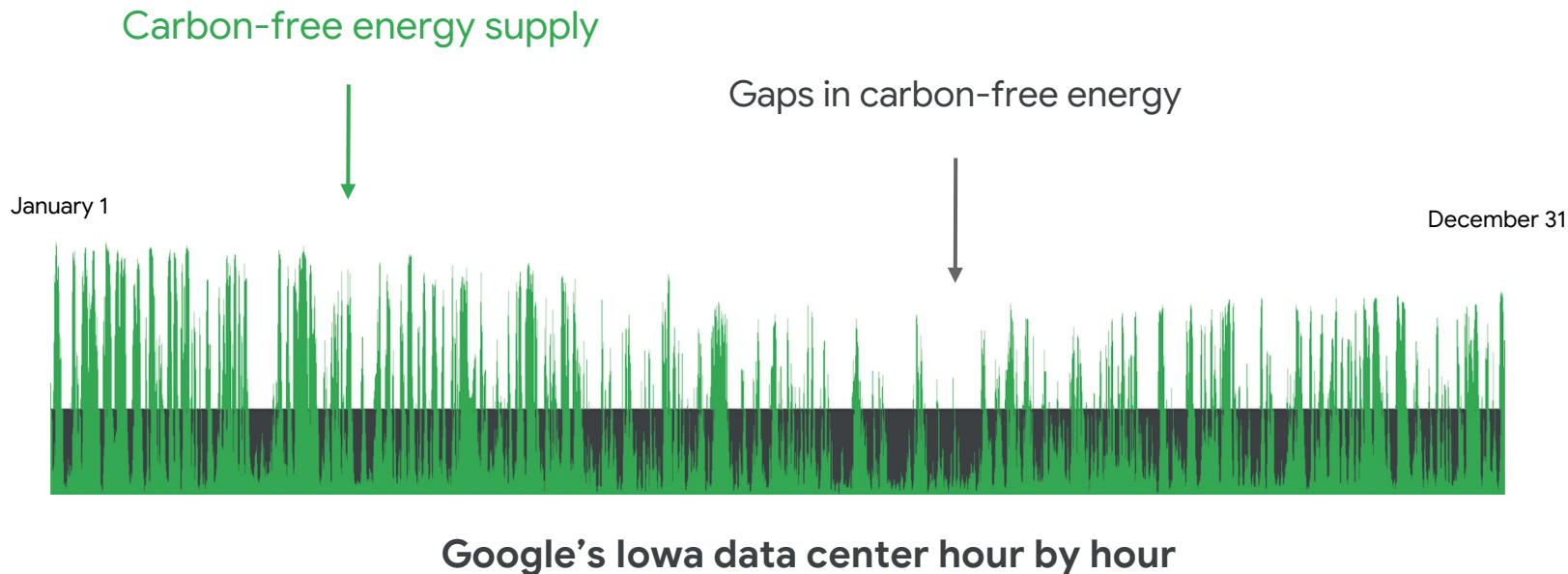


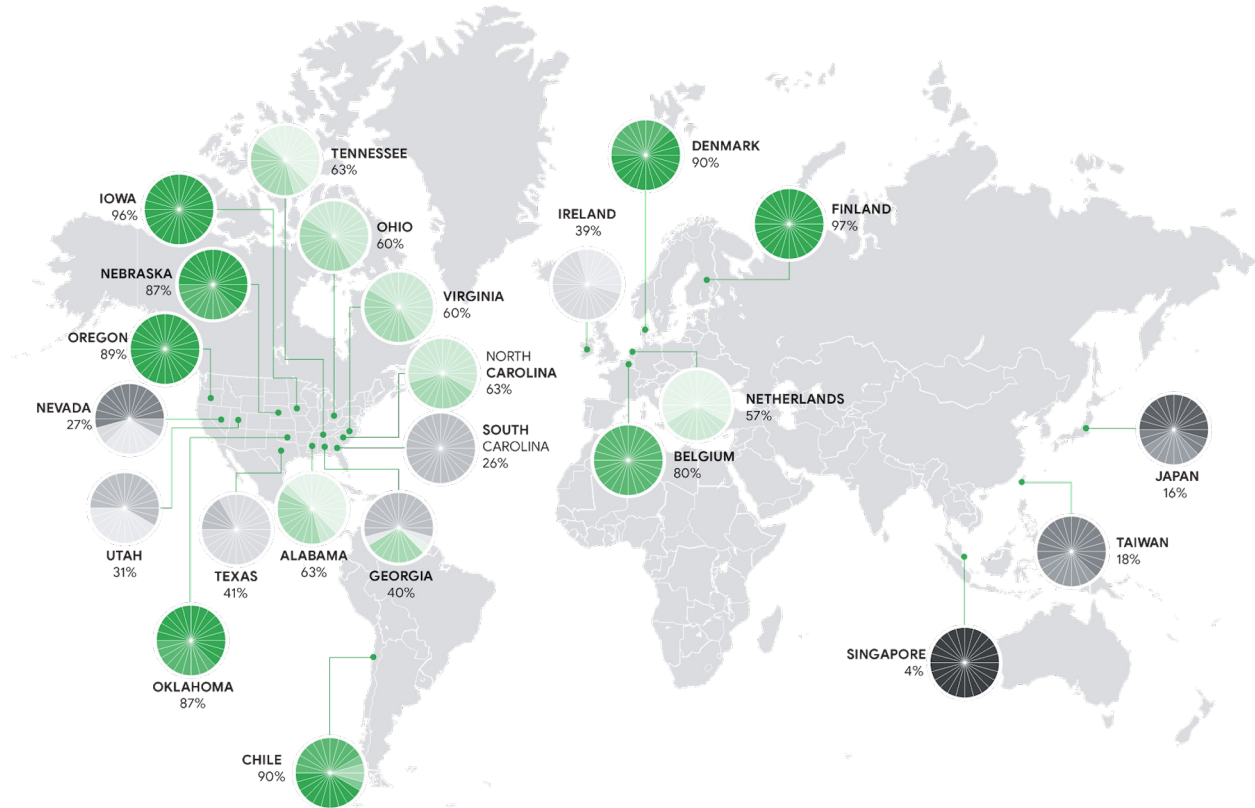
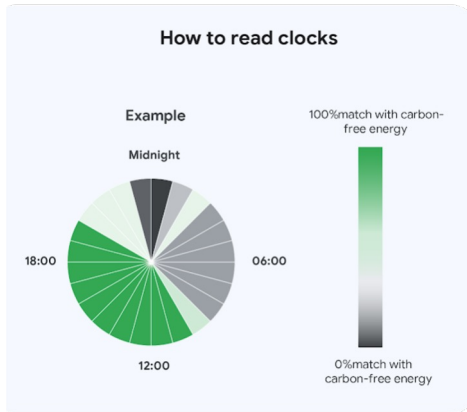
100% RE does not fundamentally solve the problem: *Time Matters*

Due to the variability associated with renewables, we still rely heavily on fossil fuels from the grid during periods of low wind or solar



In 2022, Google reached **64%** carbon-free energy globally on an hourly basis.

Seven of our regions achieved at least **90% carbon-free energy**, and thirteen achieved at least 85%.



Advanced clean electricity technology risks create a “Valley of Death”

Barriers to commercialization:

- Technology and financing risk
- Development risks
- Commercial structuring challenges
- Lack of enabling infrastructure
- Electricity market design

Clean energy buyers can reduce barriers:

- **Procurement:** Long-term offtake contracts, replicable contracts, designing new market products
- **Investment:** Development capital, Direct corporate investment
- **Technology policy advocacy**

