Hydropower
UNFC-based Resource Classification
Hydropower is the most important and widely-used source of renewable energy

Hydropower represents > 16% (IEA) of total electricity production

China is the largest producer, followed by Canada, Brazil, and the US
• Hydropower relies on the water cycle:
  • Solar energy heats water on the surface (rivers, lakes, oceans) causing water to evaporate
  • Water vapor condenses into clouds and falls as precipitation (rain, snow, etc.).
  • Precipitation collects in streams and rivers, which empty into oceans and lakes, where it evaporates and begins the cycle again

• Hydroelectric power is produced from moving water
• Hydropower is a mature, cost-competitive energy source
• Emerging economies could double hydroelectric production by 2050, preventing up to 3 billion tons of CO2 annually

(Sources: IEA and EIA)
UNFC applies to Hydropower
... resource, project – uncertainty and maturities (feasibility, viability)
UNFC Journey to Date and Plans

- **2016** – First discussions with IHA representatives in Sutton, UK
- **2017** – Meeting UNECE and IHA representatives in Sutton, UK
  - Meetings at Hydropower World Congress in Addis-Ababa
- **2018** – Preparation of first draft Hydropower Specifications at Cranfield University under Professor Gioia Falcone’s leadership
- **Future** – Renewed stakeholder engagement (IHA, CHA, others), forming of Hydropower Sub-Group, update and finalization of Specifications, Case Studies
Thank you!

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UNECE
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