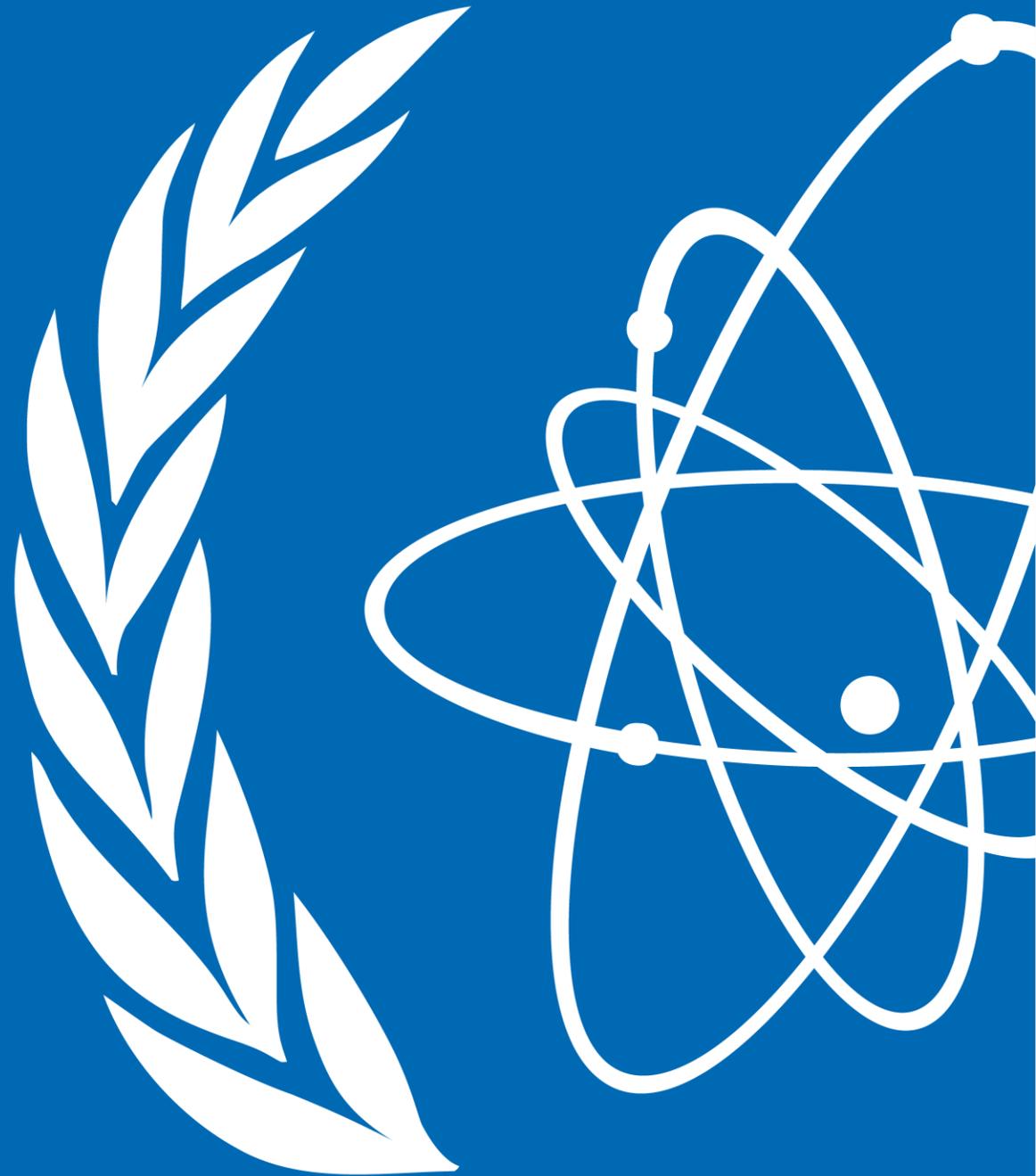


# Achieving Net Zero by 2050 in Europe

FISA-EURADWASTE 2025  
& SNETP Forum

---

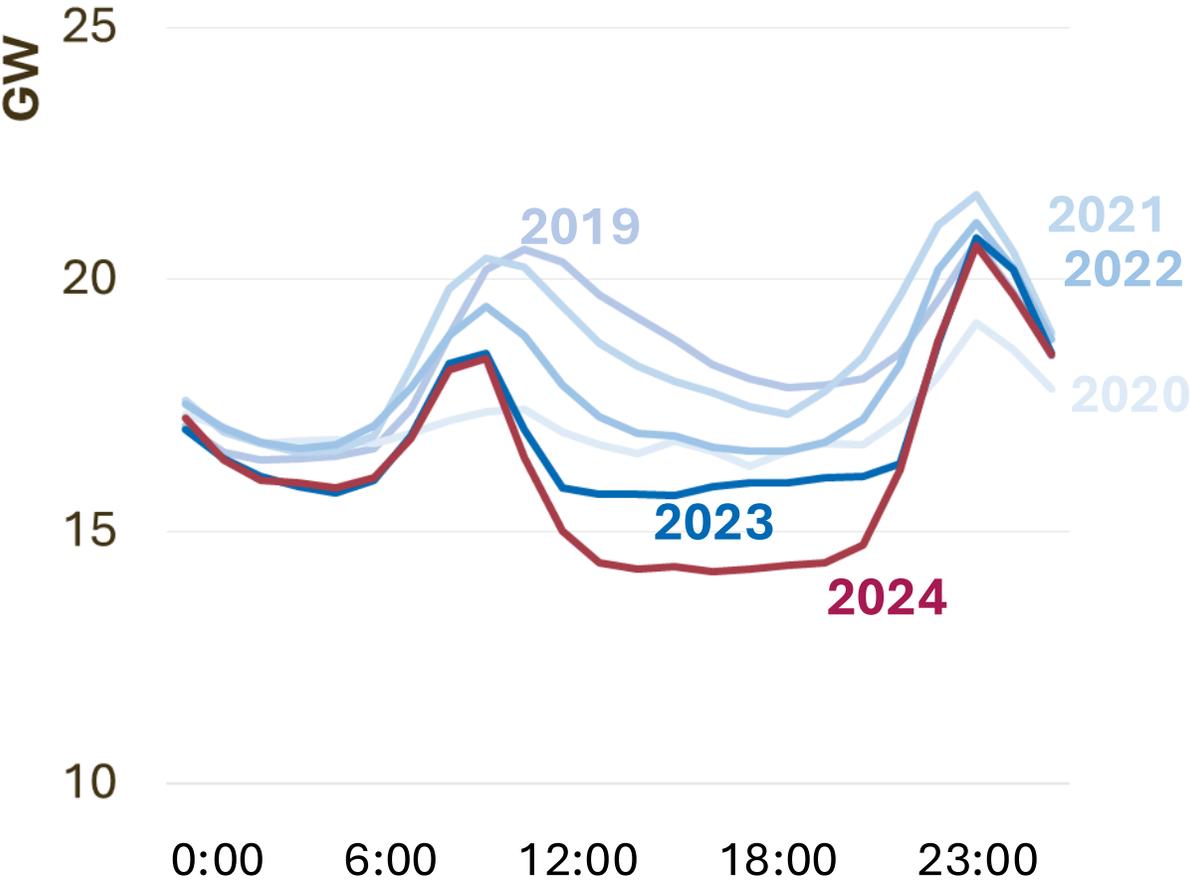
Brianna Lazerwitz, Energy Economist  
Department of Nuclear Energy  
International Atomic Energy Agency



# Dual contributors to energy system volatility and security of supply in Europe

## VRE deployment

April net load in Spain

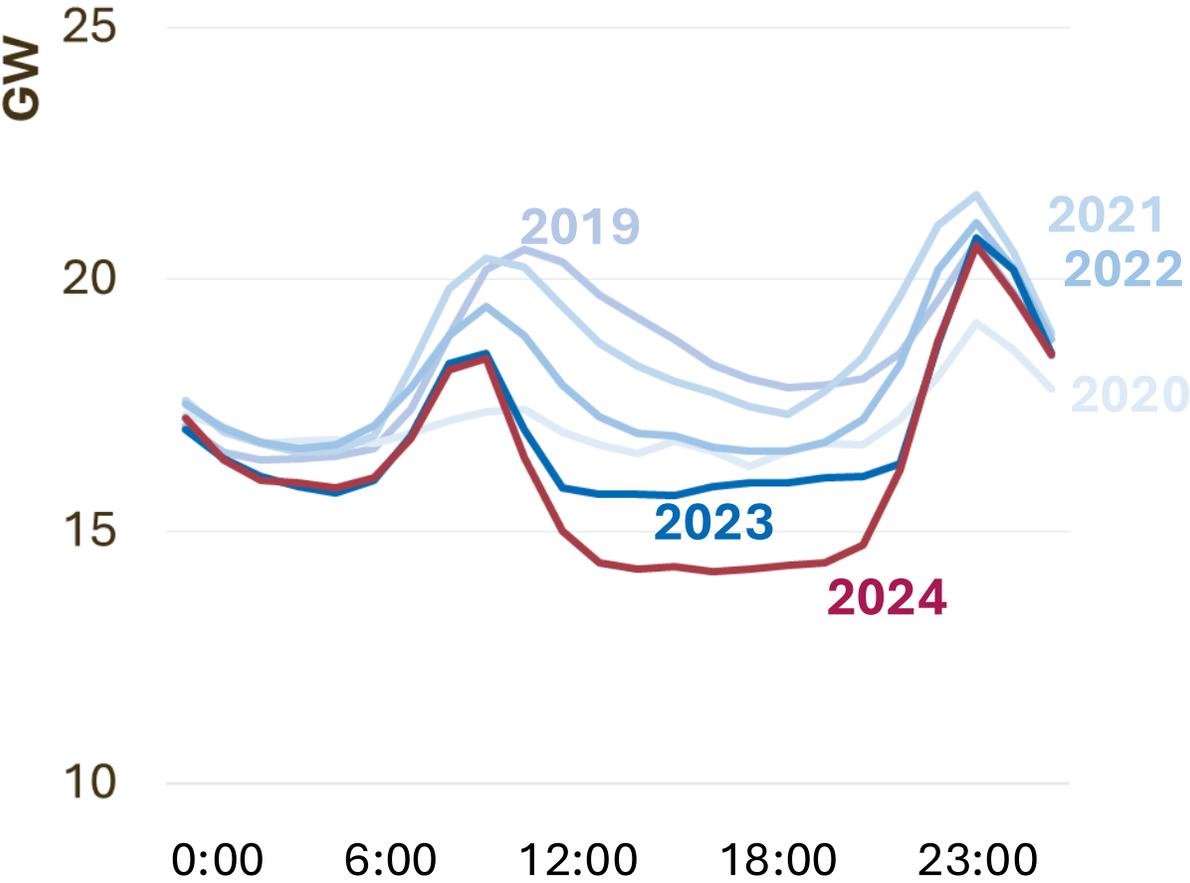


Source: Entso-e, IPCC

# Dual contributors to energy system volatility and security of supply in Europe

## VRE deployment

April net load in Spain



## Climate impacts

Climate risks for energy supply in Europe

Major sources or energy supply		Northern Europe	Western and Central Europe	Eastern Europe	Southern Europe
Wind power potential (onshore)	Proj. +1.5°C	▼	▼	▼	▼▲
	Proj. +2.0°C	▼	▼	▼	▼▲
	Proj. ≥3.0°C	▼▲	▼▲	▼	▼▲
Wind power potential (off-shore)	Proj. +1.5°C	▼▲	The whole Baltic Sea and North Sea are allocated to Northern Europe	The whole Black Sea is allocated to Southern Europe	▼▲
	Proj. +2.0°C	▼▲			▼▲
	Proj. ≥3.0°C	▼▲			▼▲
Solar power potential	Proj. +1.5°C	▼▲	▼	▼	▲
	Proj. +2.0°C	▼▲	▼	▼	▲
	Proj. ≥3.0°C	▼	▼	▼	▼
Hydropower potential	Proj. +1.5°C	▲	▼▲	▼▲	▼
	Proj. +2.0°C	▼▲	▼▲	▼▲	▼
	Proj. ≥3.0°C	▲	▼▲	▼▲	▼
Bioenergy potential	Proj. +1.5°C	/	▼	▲	/
	Proj. +2.0°C	/	/	/	/
	Proj. ≥3.0°C	/	▼	▲	/
Thermoelectric power capacity (incl. nuclear)	Proj. +1.5°C	▼	▼	/	▼
	Proj. +2.0°C	▼	▼	▼	▼
	Proj. ≥3.0°C	▼	▼	▼	▼

**Sign and magnitude of change\***

Decrease      Increase

High: ▽      ▲

Moderate: ▾      △

Low: ▿      ◀

/ = no evidence

**Confidence level**

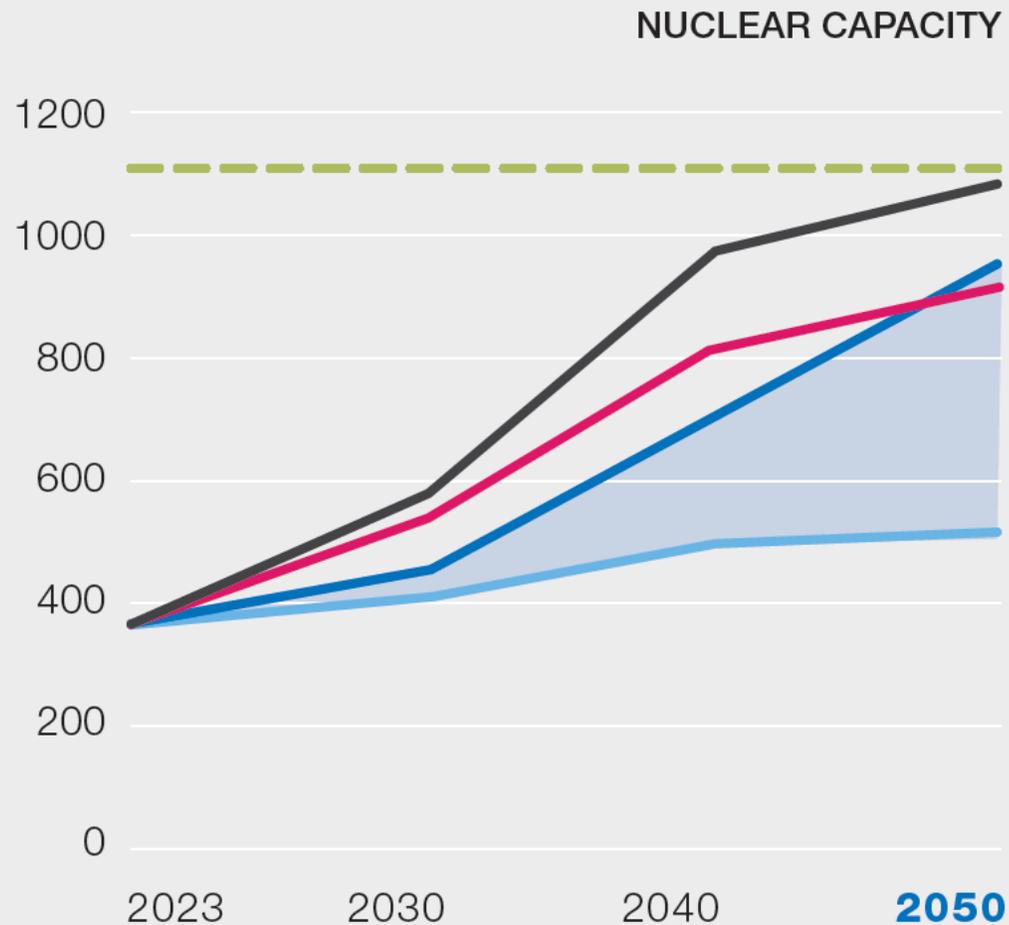
Low    Medium    High

●    ●    ●

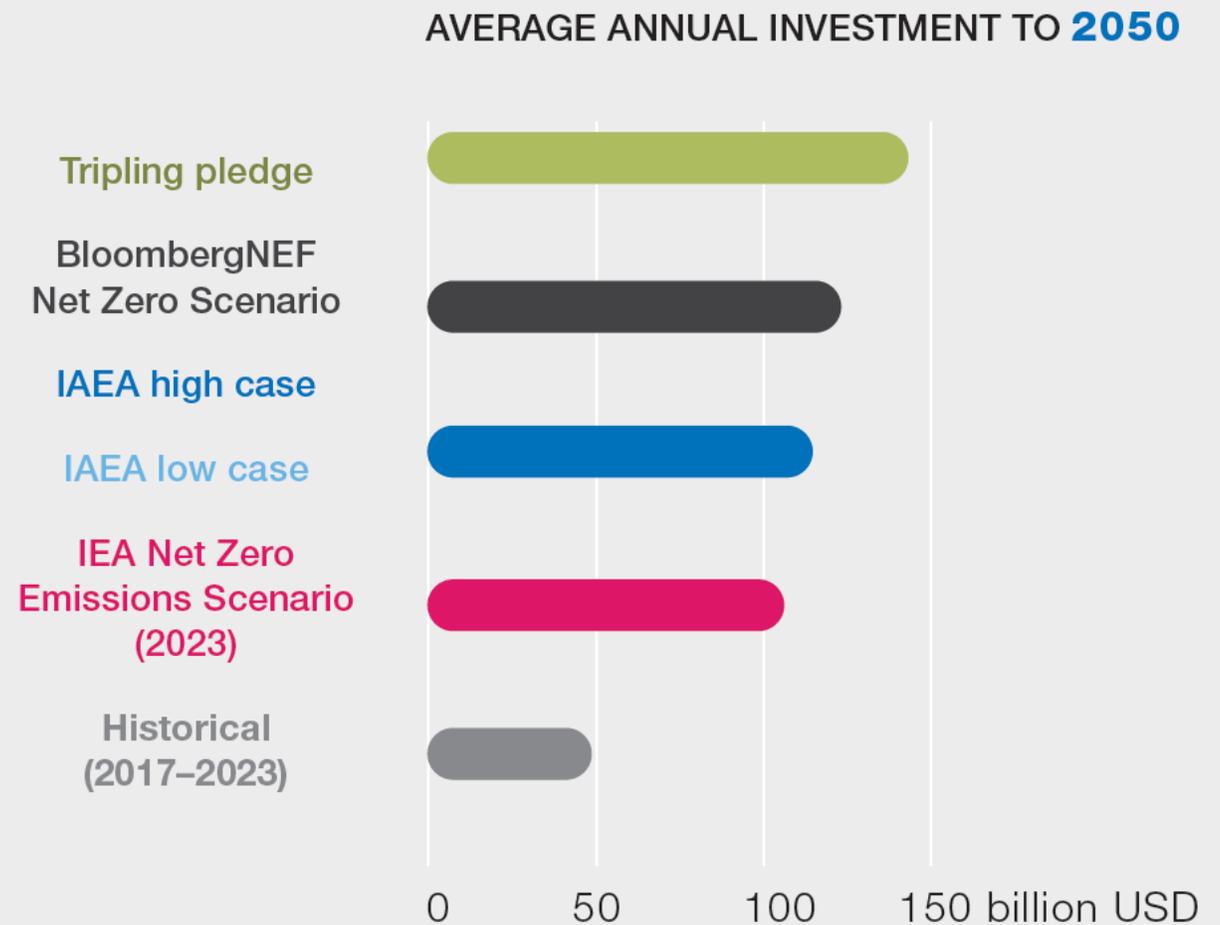
\* High: change within <-20% and >+20%  
Moderate: change within +5% and +20%, -20% and -5%  
Low: change within -5% and +5%

# Financing nuclear energy for climate action

## A crystal ball for nuclear capacity



## The US \$125 billion challenge



# Financing pathways



## GOVERNMENT

- Direct investment
- Loan guarantee
- Export credit
- Subsidy



## MULTILATERAL DEVELOPMENT BANKS

- Development policy loan
- Loan guarantee
- Expertise and project oversight



## PRIVATE SECTOR

- Bank loan
- Private equity
- Green bond
- Offtake contract  
(Power purchase agreement,  
Contract for difference, etc.)

