# CLIMATE CHANGE AND POWER INFRASTRUCTURE

HOW DOES THE CHANGING CLIMATE AFFECT ELECTRICITY INFRASTRUCTURE?

#### EXTREME AND IRREGULAR WEATHER



## MORE FREQUENT AND INTENSE STORMS AND FLOODS

Can cause damage to power lines, transformers, substations, and other components of the power grid, leading to power outages and disruptions in service.

### RISING TEMPERATURES

## INCREASE IN DEMAND FOR POWER, ESPECIALLY FOR AIR CONDITIONING AND REFRIGERATION

Can strain power generation and transmission systems, leading to overheating and potential equipment failure; reduce efficiency.





#### **RISING SEA LEVELS**

#### SALTWATER INTRUSION AND STORM SURGES

Can corrode equipment and damage infrastructure, leading to outages and increased maintenance costs.

#### **CHANGES IN PRECIPITATION PATTERNS**

#### PRECIPITATION PATTERNS AND DROUGHTS

Droughts reduce water levels; lower capacity of hydropower plants to generate electricity.

More precipitation can lead to flooding, which can damage hydropower facilities and disrupt operations.





#### WHAT CAN WE DO?

#### TO MAKE POWER INFRASTRUCTURE MORE SUSTAINABLE:

- Improve grid management
- Improve infrastructure resilience
- Enhance disaster preparedness and response strategies
- Diversify to renewable resources like wind and solar











