

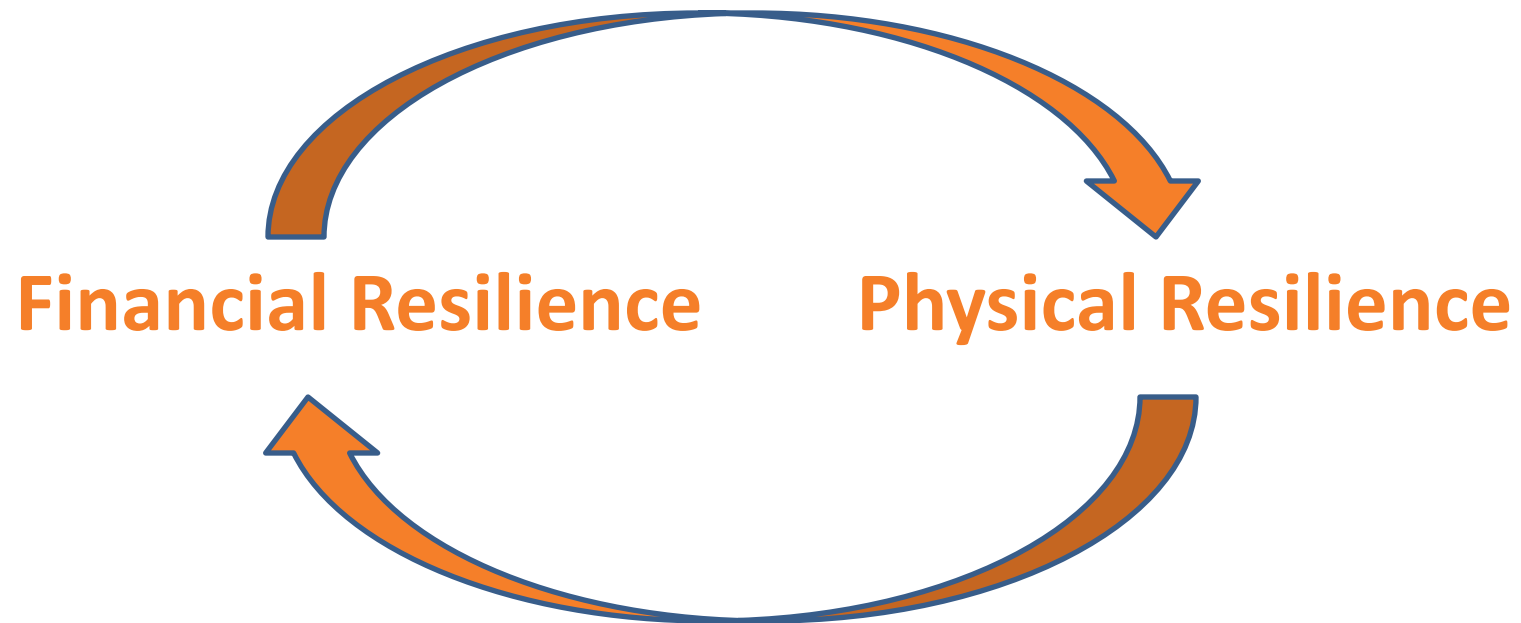
Creating an enabling environment to enhance climate resilience – financial perspective

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What type of financial environment is needed to drive resilience measures and investments?



One doesn't exist without the other

What type of financial environment is needed to drive resilience measures and investments?

- **Sound Regulatory Environment**

- Full cost-recovery tariff mechanism**

- Enables adequate system maintenance & investment
- A financially viable utility can raise funds easily

How to expand financial mechanisms to address disaster recovery but also asset preparedness?

- **Disaster Recovery**

- Insurance

- Limited access in storm prone areas even in developed countries

- Self-Insurance in the form of a 'Storm Damage Reserve'

- Via a small surcharge to ratepayers

- Deferrals – 'Regulatory Asset' creation

- Amortizes the recovery costs
 - Also funded by a surcharge to ratepayers

How to expand financial mechanisms to address disaster recovery but also asset preparedness?

- **Asset Preparedness**
 - Proper Design specifications
 - Proper Equipment specifications / Building codes
 - Adequate Systems - Planning

Design Specifications

Examples:

- Substation and other infrastructure cited away from flood-prone areas
- Areas subject to high wind speed events may require altered design
- Raising transformers and other equipment above maximum flood levels
- Ring/‘Mesh’ distribution systems

Equipment Specifications

Examples:

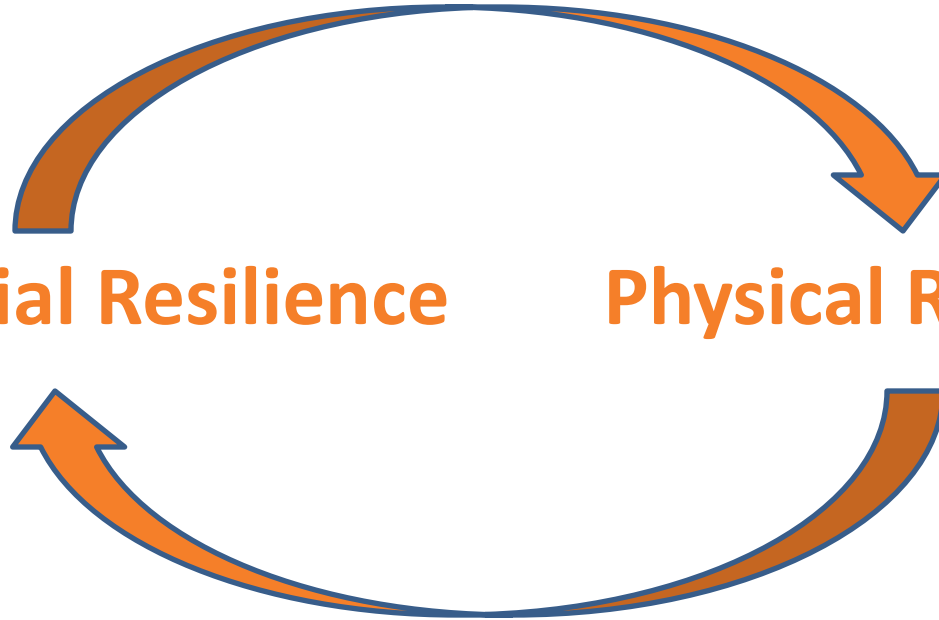
- Reinforced narrow based lattice structure transmission towers
- Pre-stressed, spun concrete poles
- Underground cabling at certain critical locations
- Gas Insulated Switchgear (GIS) Substations
- Appropriate load control and switching capabilities to enable faster disaster response and restoration

Systems

- **Mutual Assistance Agreements**
 - Mechanism for outside utility personnel assistance
- **Inventory pooling arrangements**
 - Distribution poles, distribution transformers
- **Data collection for future planning**
 - Storm frequency, damage levels, recovery times

Financial Resilience

Physical Resilience



Thank you

