

The Situation of Electrical Accidents and Challenges in Electrical Safety in Japan

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FESIA

Company presentation

- The Electrical Safety Inspection Associations, which are 10 general incorporated foundations established in Japan, are operating under the mission of contributing to local communities in each region through electrical safety.
- The Forum of Electrical Safety Inspection Associations is a national organization of the Electrical Safety Inspection Associations.

★ Electrical Safety Inspection Association (FY 2025)

Number of business sites: 326

Number of employees: about 12,000

Number of customers: about 370,000 (a market share of about 40%)

Number of homes, etc. investigated: about 11,000,000

★ Forum of Electrical Safety Inspection Associations

Established on: August 26, 1966

Number of employees: 4

Business details

- Hosting meetings for information exchange
- Collection of information on systems and technologies
- Statement of opinions to the national government and relevant bodies



Seminar – 07 and 08 October 2026

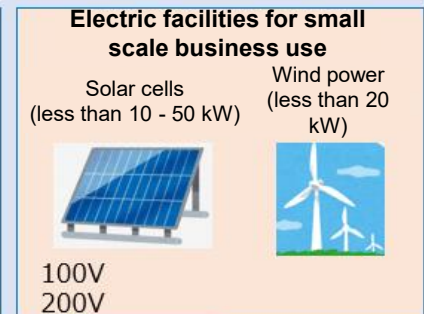
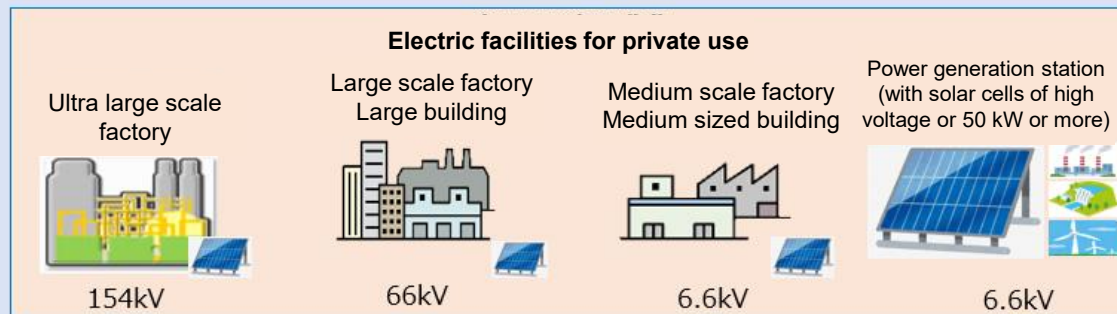
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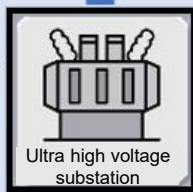
Classification of electric facilities

- In Japan, electric facilities are roughly classified into electric facilities for business use (= for industrial use) and electric facilities for general use (= for housing, etc.).

Electric facilities for business use



275kV
~500kV



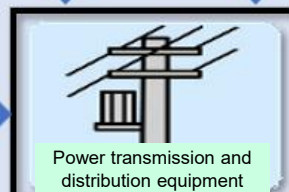
154kV



66kV



6.6kV



100V
200V



Obligations to report an accident

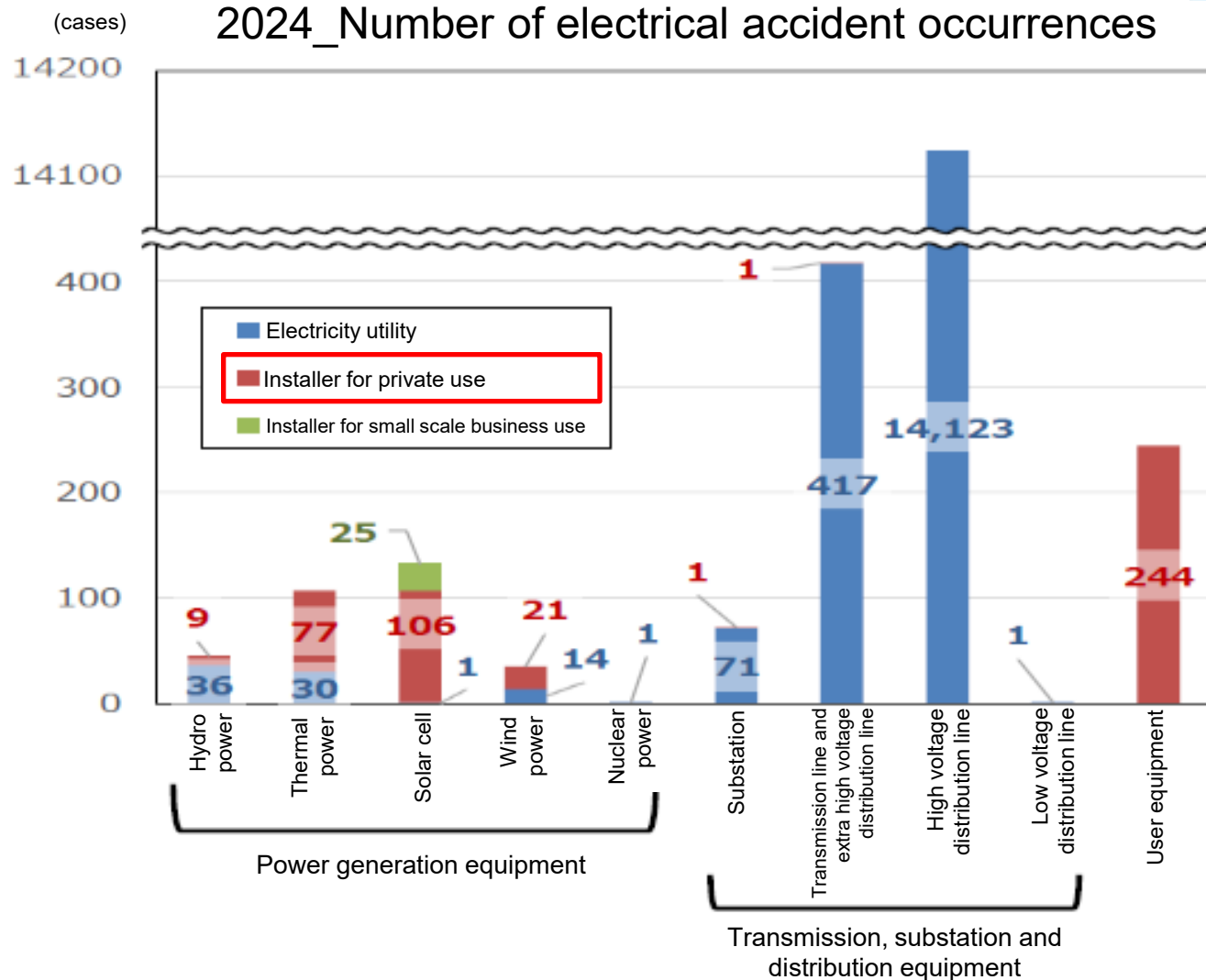
The obligations to report an accident are classified by the classification of electric facilities pursuant to the **Electrical Reporting Regulations (Ordinance)**.

Classification of electric facilities	Obligations to report	Major contents of the accident to be reported
Electricity utility (electric facilities for business use)	Yes	• Accident involving death or injury due to electric shock (death or hospitalization) • Electrical fire accident (half-burnt equipment or severer) • Damage to major electric facilities • Accident involving power generation trouble (output: 100,000 kW or more/for 7 days or more) • Accident caused by ripple effects (accident causing trouble in supply to other companies)
Installer for private use Installer for small scale business use (factories, buildings, part of solar cell power generation equipment, etc.)	Yes	• Accident involving death or injury due to electric shock (death or hospitalization) • Electrical fire accident (half-burnt equipment or severer) • Damage to other properties (physical damage or loss of functions) • Damage to major electric facilities • Accident caused by ripple effects (accident causing trouble in supply to other companies) • Accident that had social influence
Electric facilities for general use (general housing, small scale stores, etc.)	No	* The general transmission and distribution business side that supplies electricity checks the situation and take response from the viewpoint of inspection

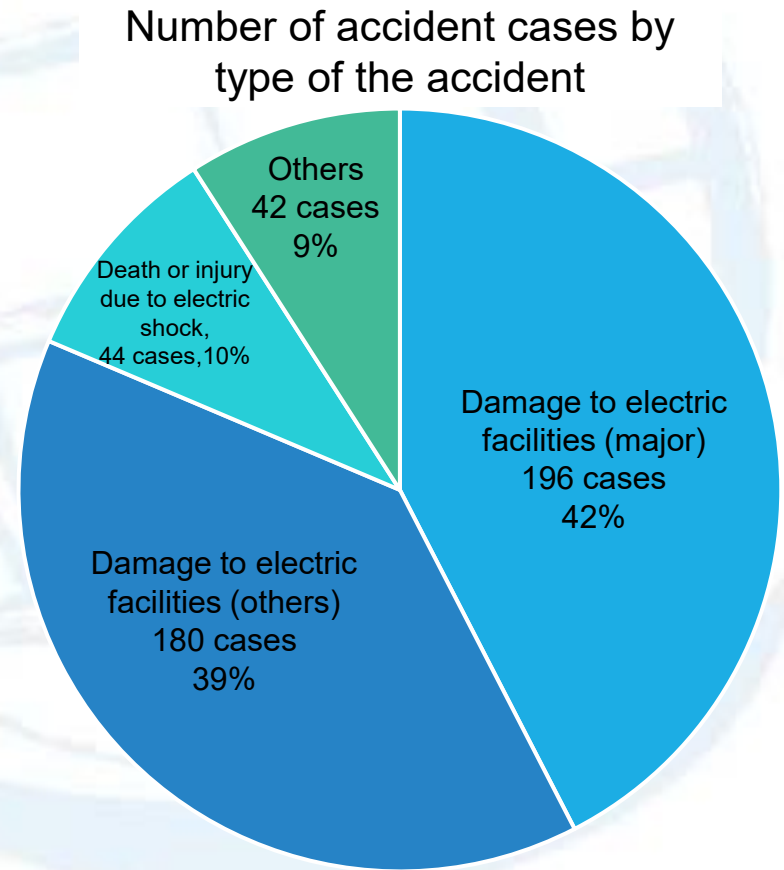
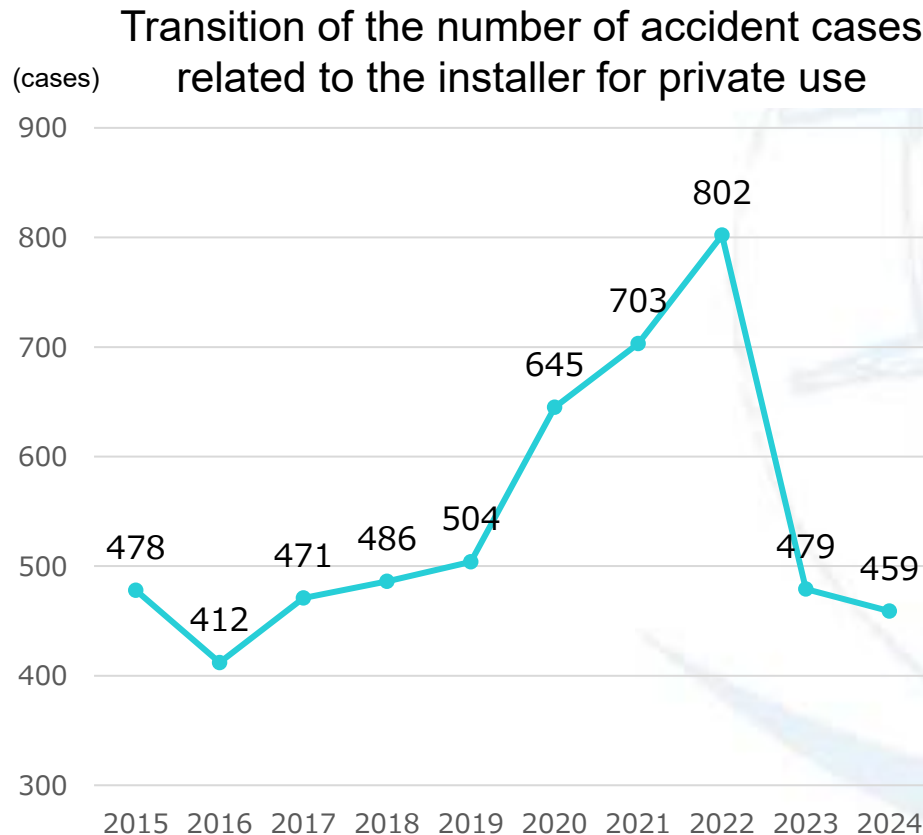
Electrical Safety Inspection Statistics



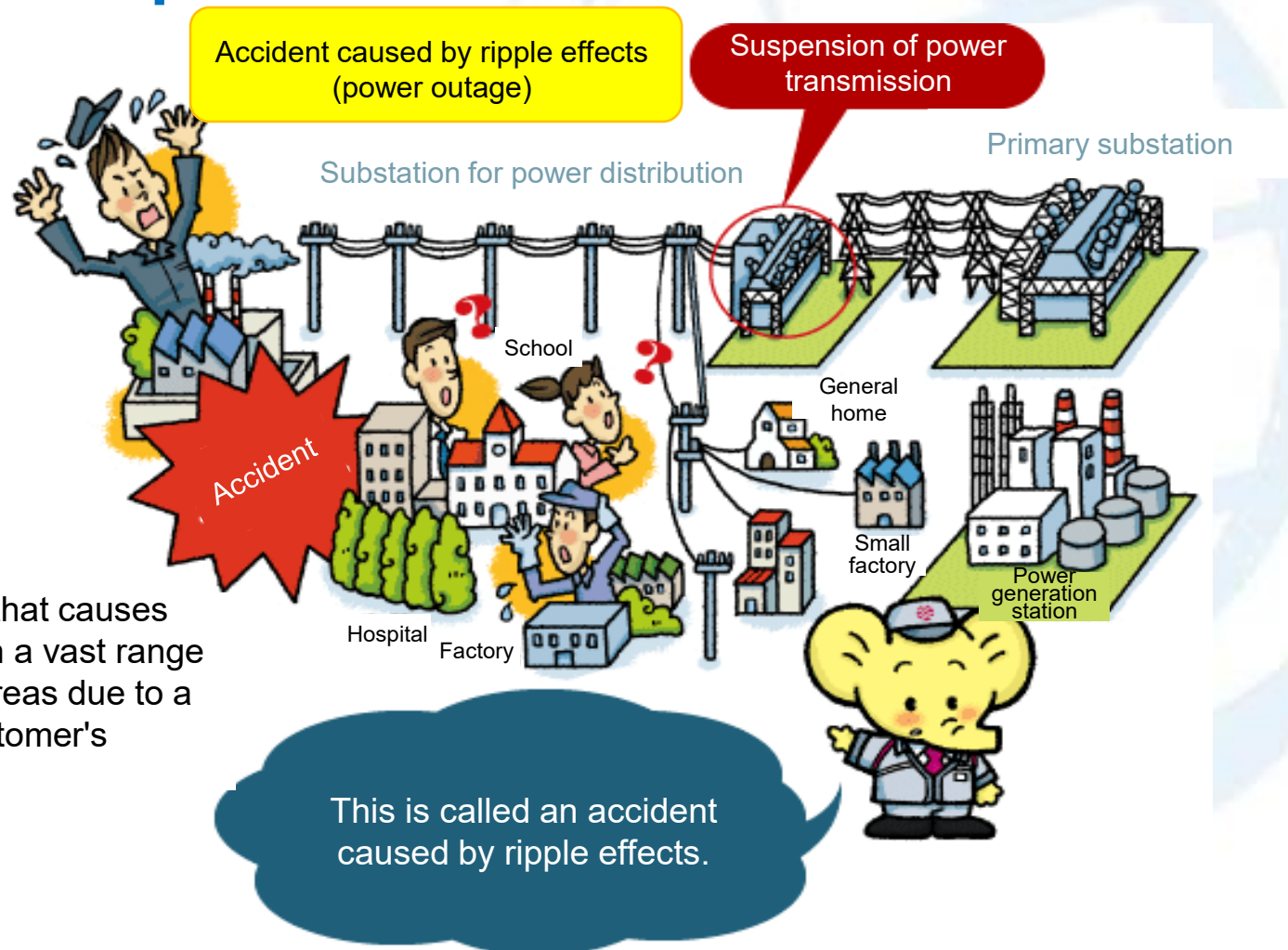
Trends of accidents in electric facilities



Transition of the number of accident cases reported by the installer for private use



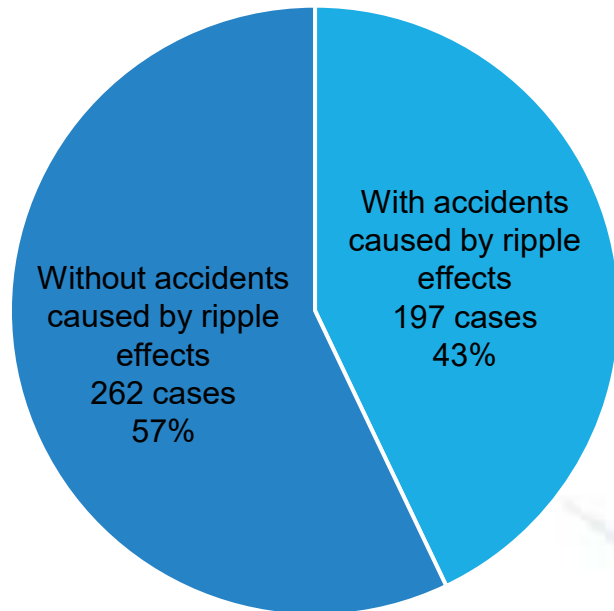
"Accident caused by ripple effects" - a problem peculiar to Japan



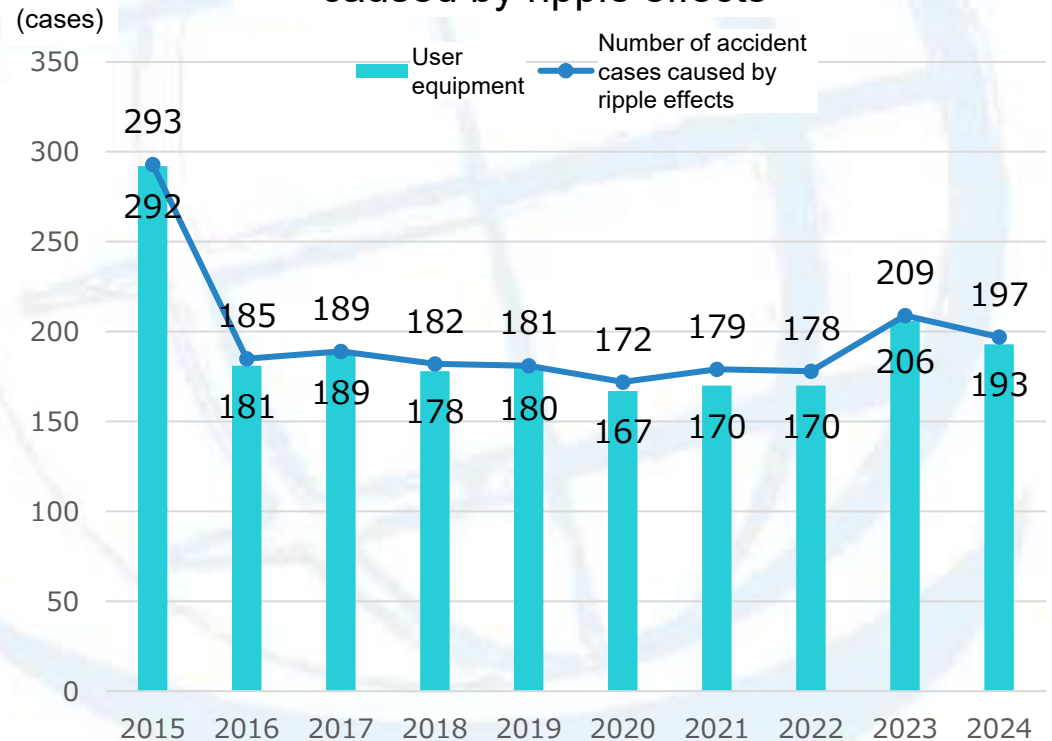
It is an accident that causes power outages in a vast range of surrounding areas due to a failure of the customer's equipment.

"Accident caused by ripple effects" - a problem peculiar to Japan

Number of accident cases caused by ripple effects

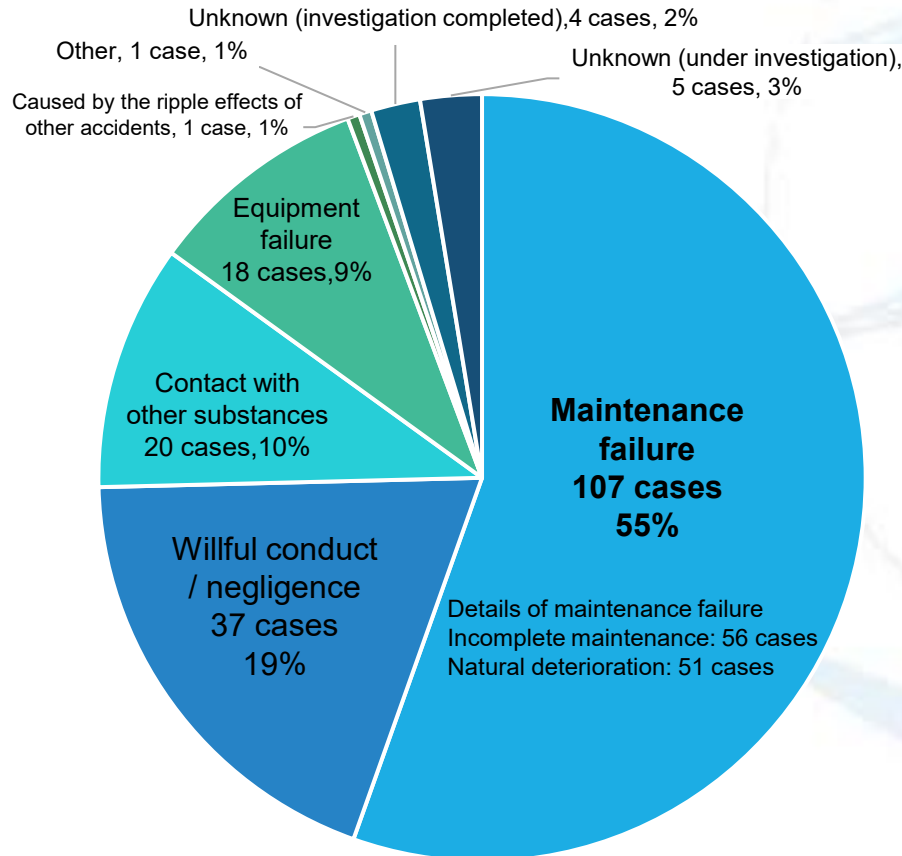


Transition of accident cases caused by ripple effects

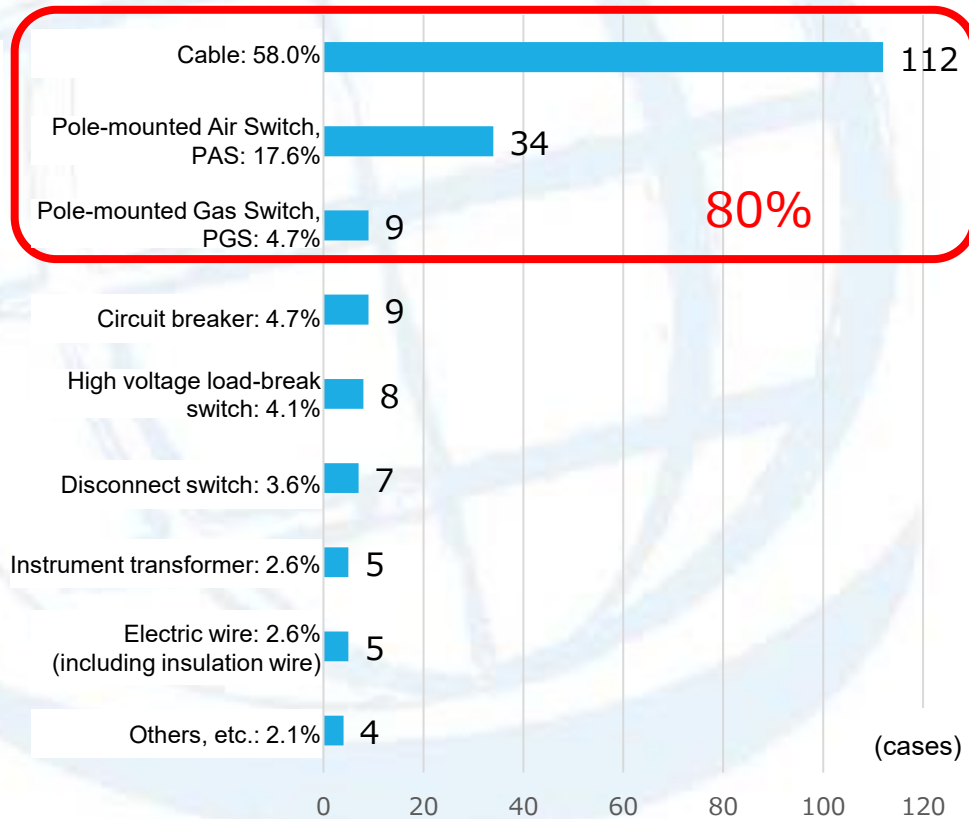


Analysis of the causes of accidents caused by ripple effects

Number of accident cases caused by ripple effects in user equipment by cause

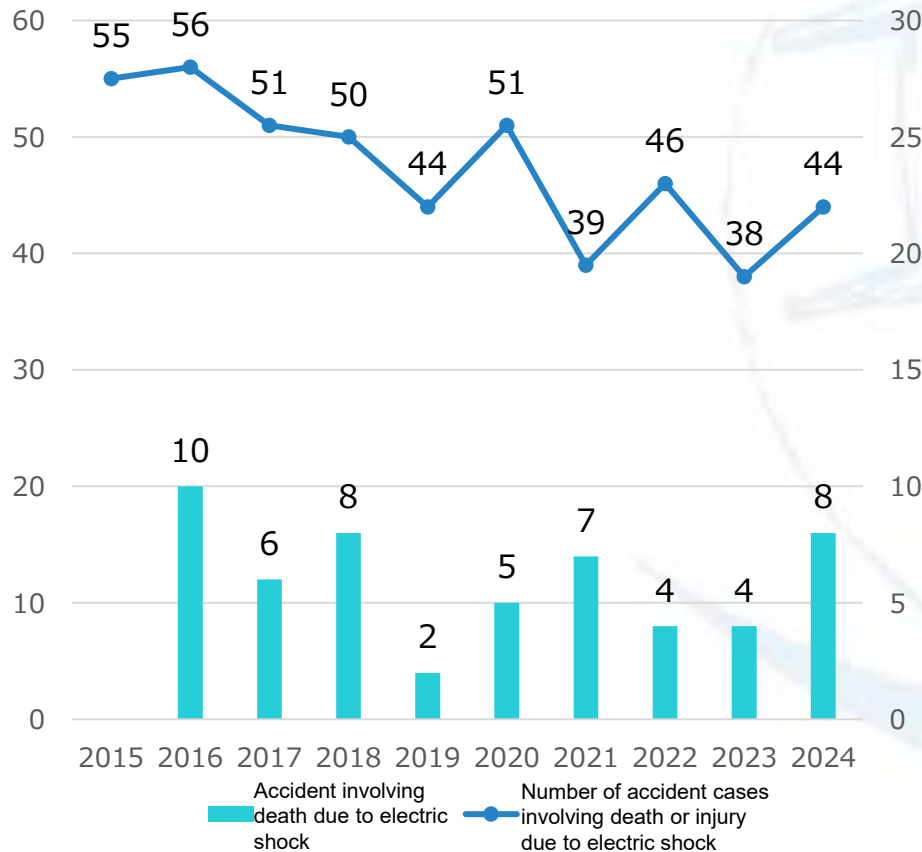


Areas of equipment prone to the occurrence of an accident caused by ripple effects

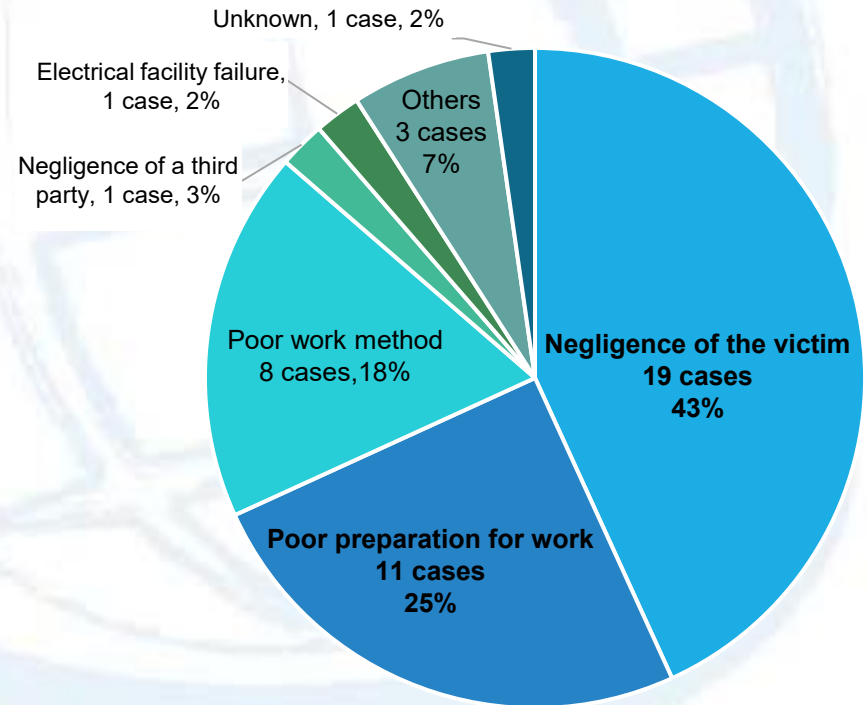


Accident involving death or injury due to electric shock (installer for private use)

Transition of the number of accident cases involving death or injury due to electric shock (cases)



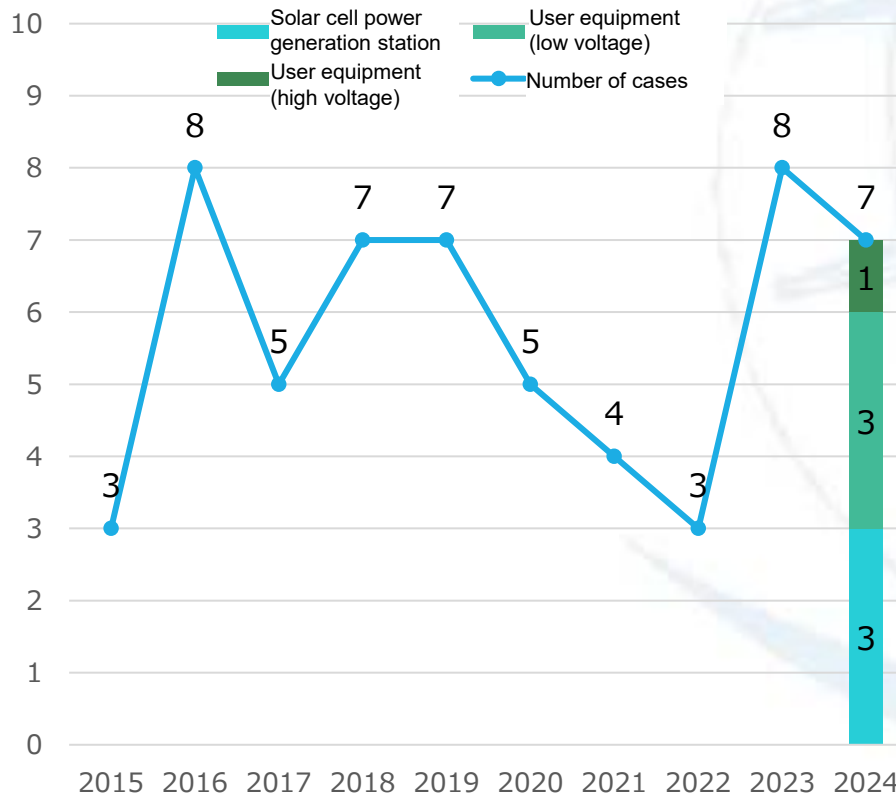
Number of accident cases involving death or injury due to electric shock by cause



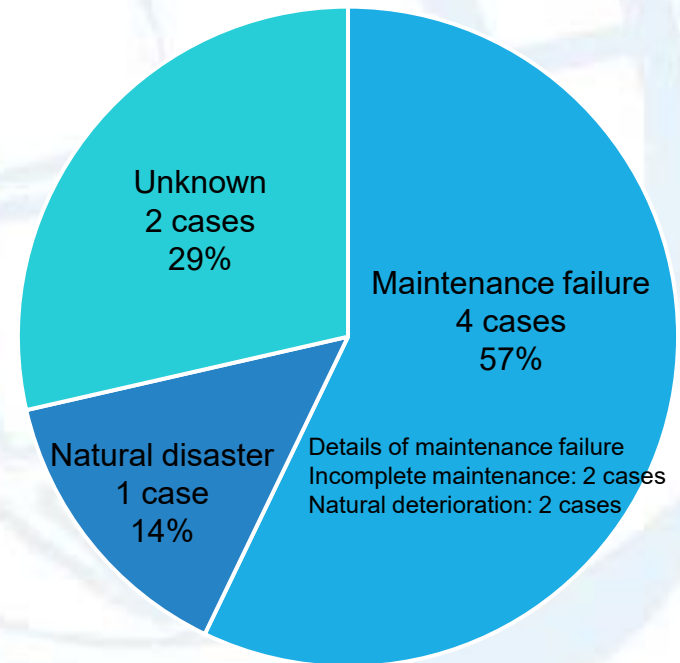
Electrical fire accident (installer for private use)

Transition of the number of electrical fire accident cases

(cases)

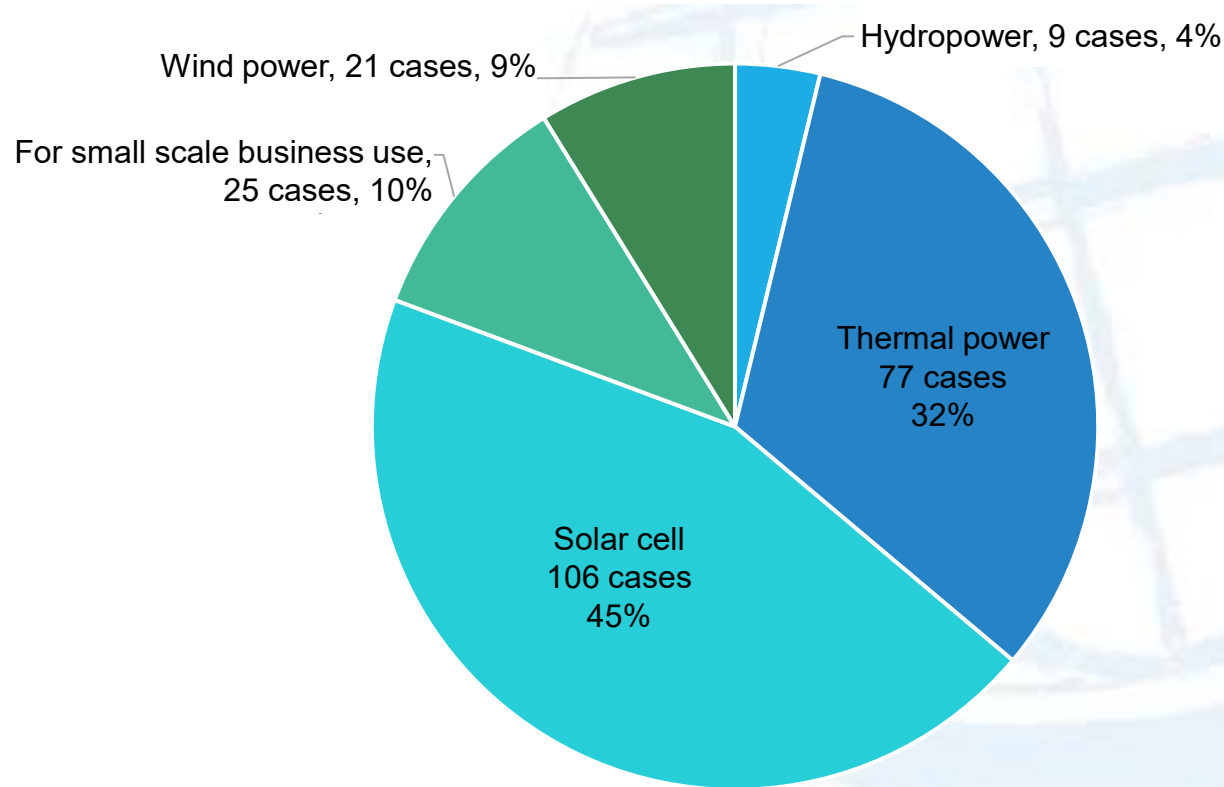


Number of electrical fire accident cases by cause



Power generation equipment (installer for private use / installer for small scale business use)

Number of accident cases by type of power generation equipment

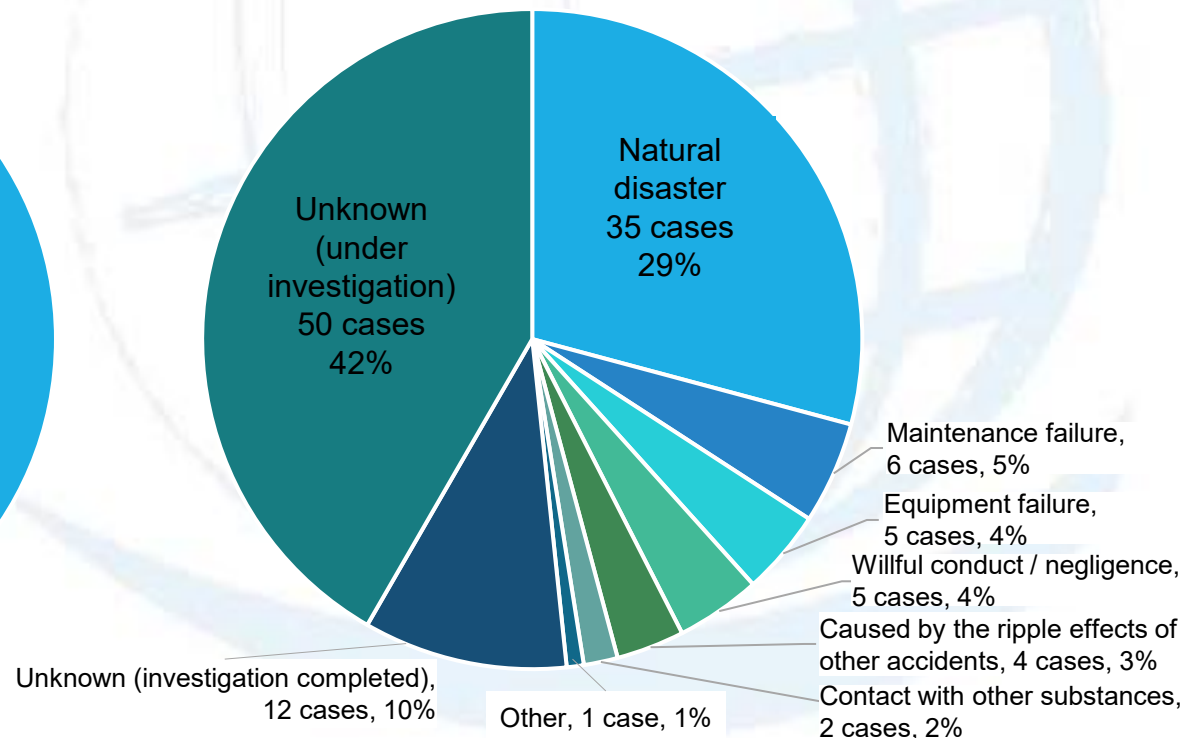
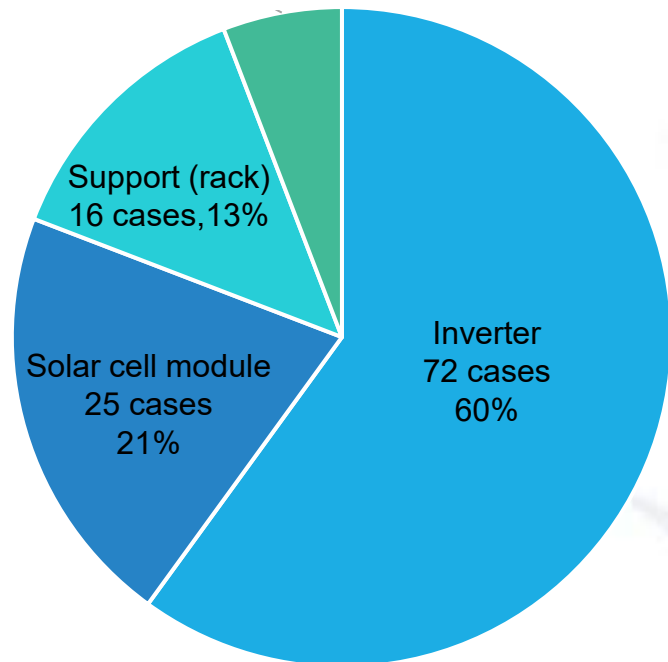


Solar cell power generation station (installer for private use)

Number of damage accident cases by place of occurrence

Number of damage accidents by cause

Others, etc., 7 cases, 6%



Problems Japan is facing

1. Response to aging equipment

- Building mechanisms that detect signs by utilizing digital technology, and systematic renewal and support
- Optimization of the regulations according to the risks of each piece of equipment, instead of uniform regulations on all the equipment

2. Improvement of human factors (securing human resources / human resources development)

- Safety awareness reform of the electricity utility by newly launching the "Frontline First Initiative," etc.
- Prevention of human errors by means of smart technology

3. Response to solar cell power generation equipment

- Thorough implementation of quality control / maintenance management of inverters, and improvement of the systems for obtaining cooperation from manufacturers, etc.
- Improvement of systems for verification of the structural safety of solar cell module supports by third parties, and improvement of private sector certification systems and systems for standardization, etc. utilizing standards

Closing Seminar

MERCI - THANKS

