

## Semi-Diamond Shaped Structure for Snow Accumulation

### SCB2 (Overhead Lines)

(PS1) Q1.14 Would experts from other countries/utilities share their experience of undertaking strengthening/refurbishment of existing overhead line towers to enhance reliability against changing weather conditions (high intensity wind/snow storms etc.)?

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# Tower member deformation caused by snow accumulation

- *Snow accumulation*

- Heavy snow accumulation can be seen.

- *Deformation of tower members*

- Heavy snow accumulation can cause deformation of tower members.



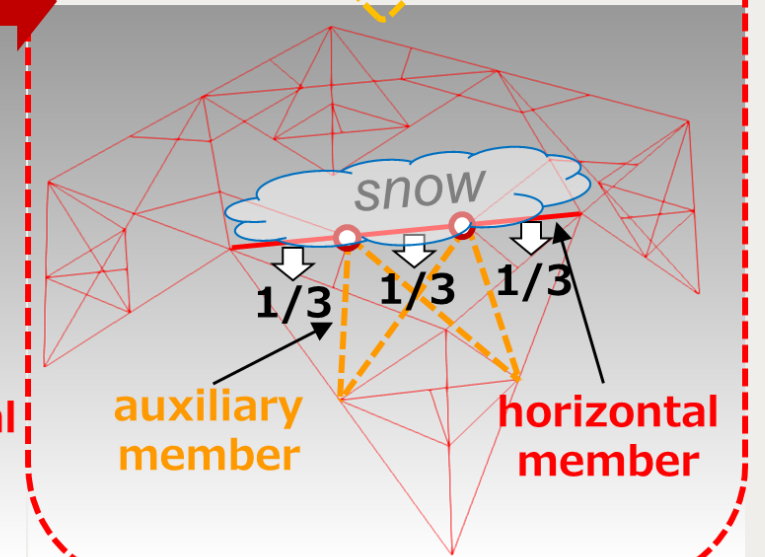
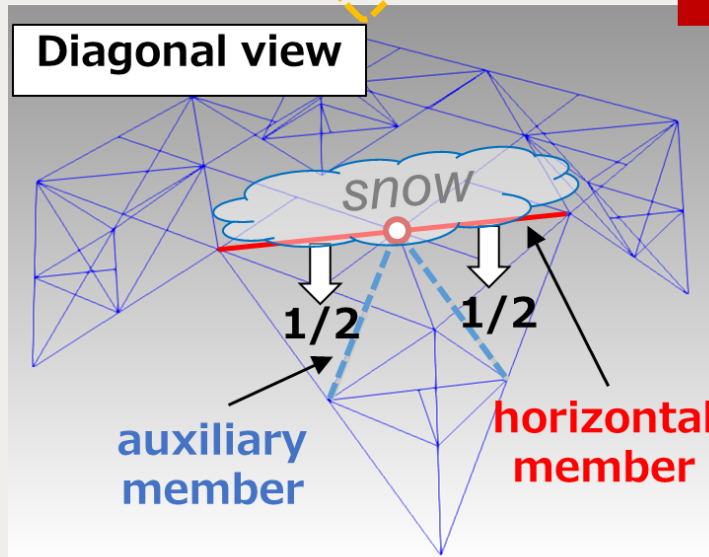
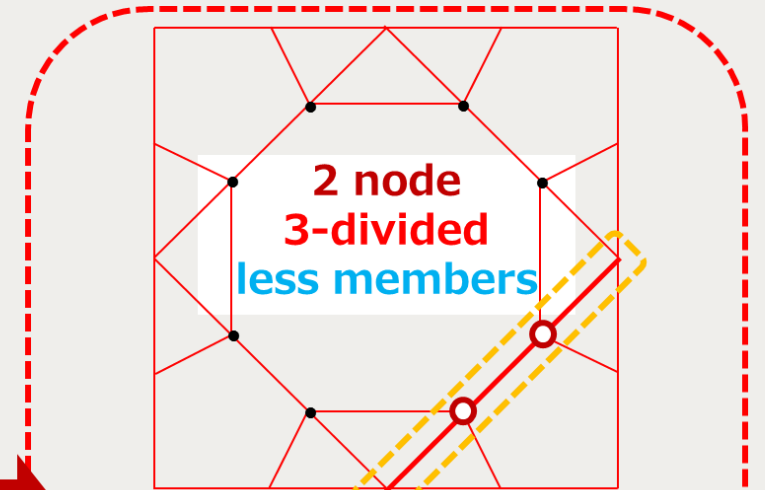
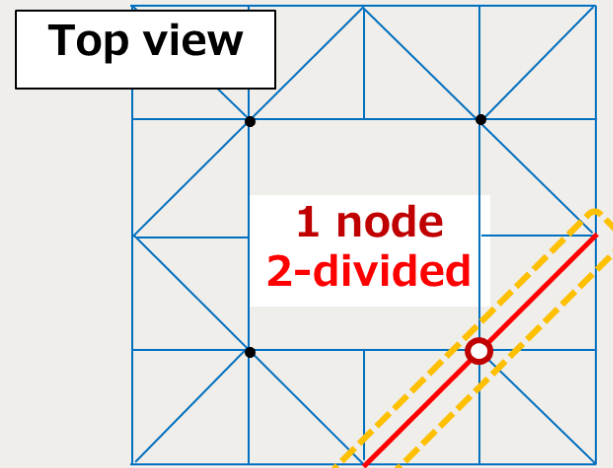
# Semi-diamond structure for snow accumulation

• *Development of new structure*

Main key advantages;

- Hard to bend
- Hard to accumulate

Group Discussion Meeting



Diamond structure (Conv.)

Semi-diamond structure (New)

# Application to existing facilities

## ① Member load & Stress : *Reduced*

-> This structure will be hard to bend.

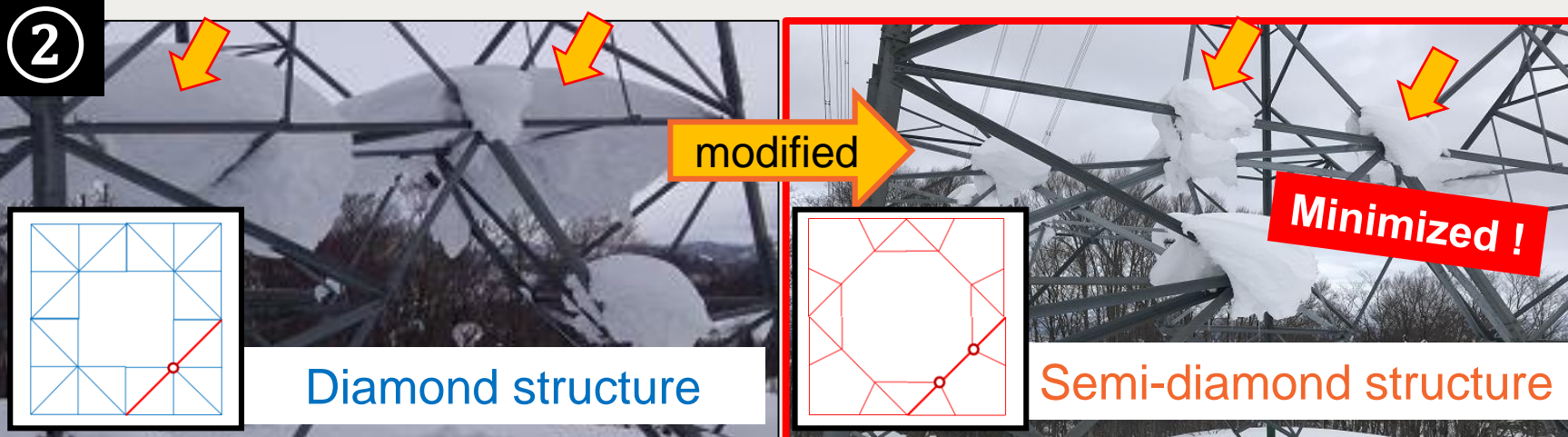
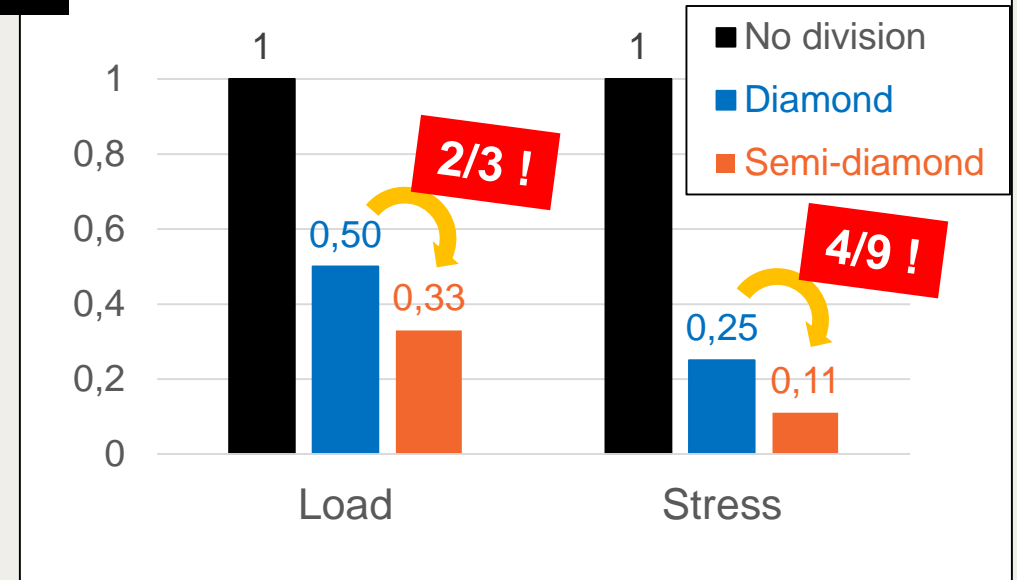
## ② Snow accumulation : *Reduced*

-> This structure will be hard to accumulate snow.

## ③ Section weight : *Reduced*

-> This structure weight will be lighter.

## ① Load & Stress Index on each part



## ③ Section weight (ton)

