



Resilience Analysis

Update

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Introduction

Study scope

Study tool

Result analysis

Next steps

Case

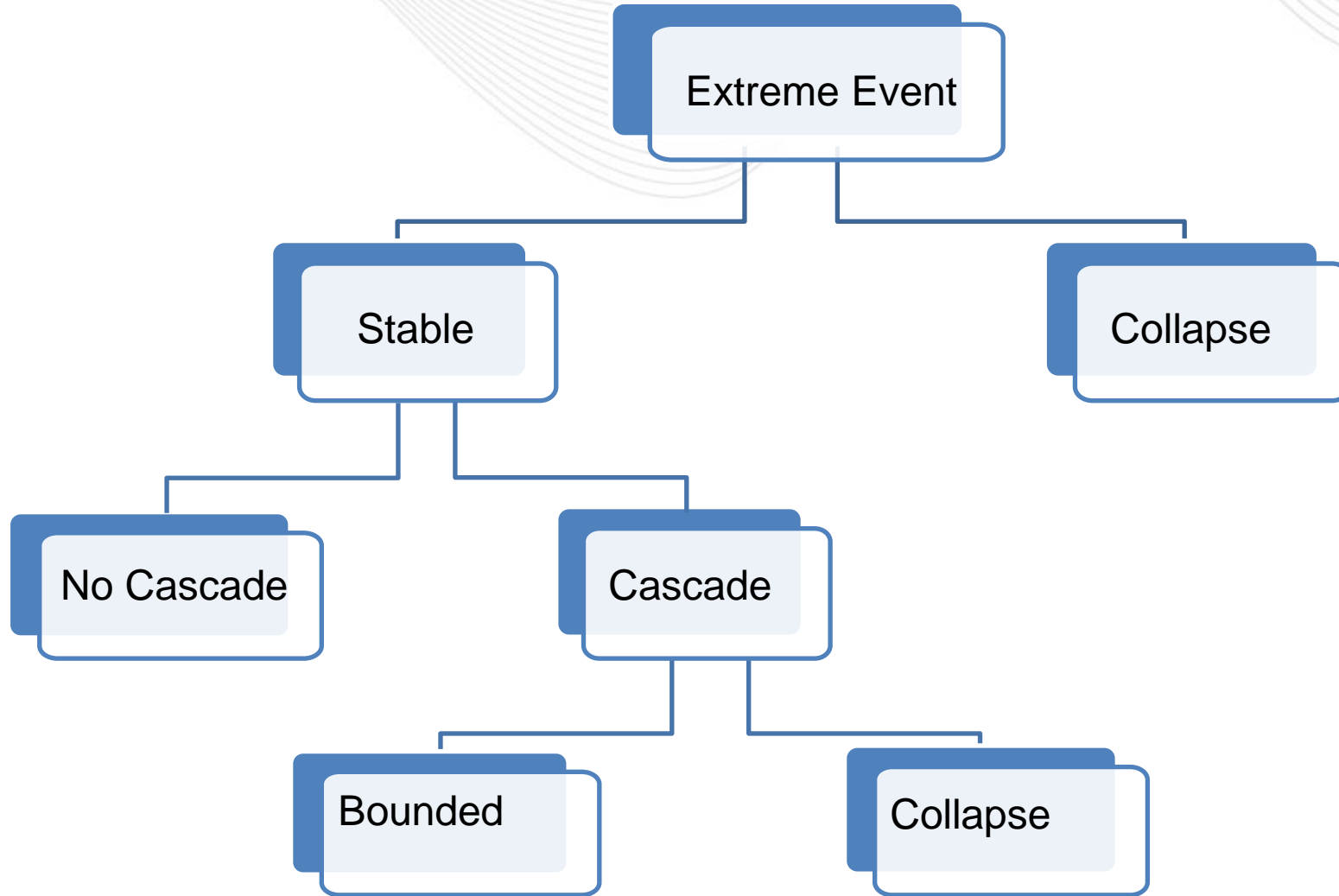
- RTEP 2022

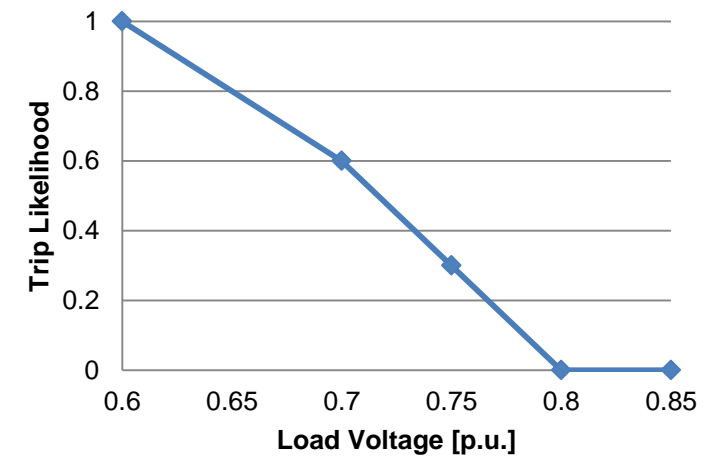
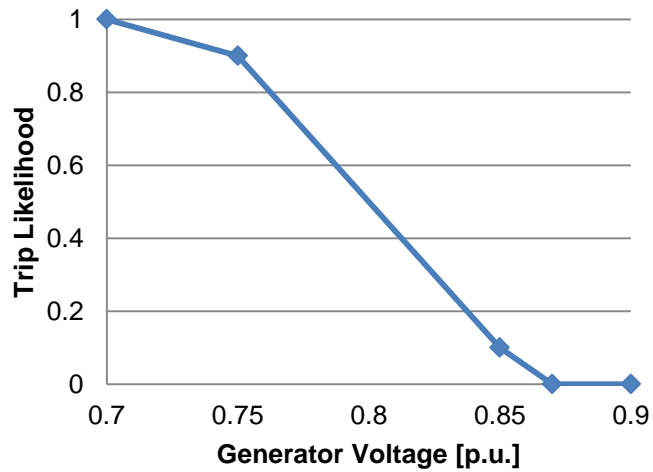
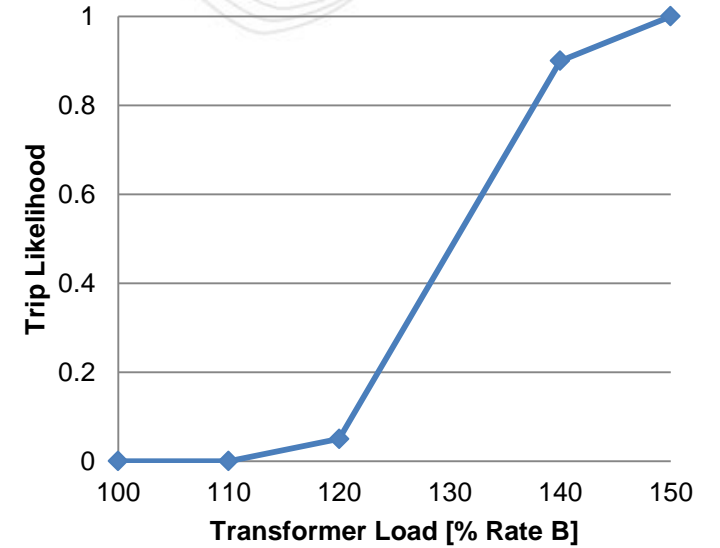
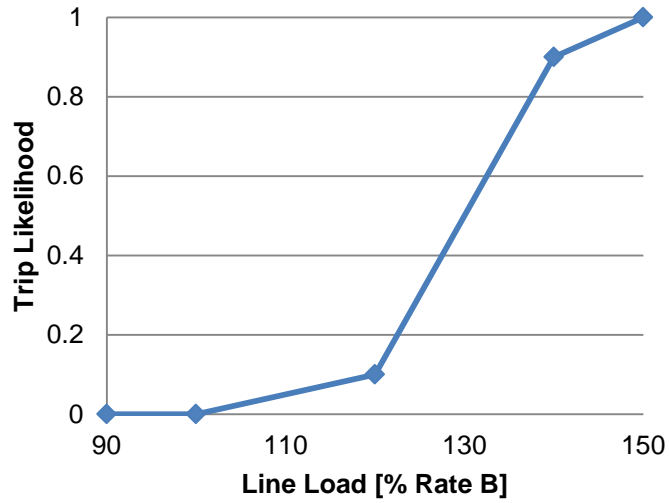
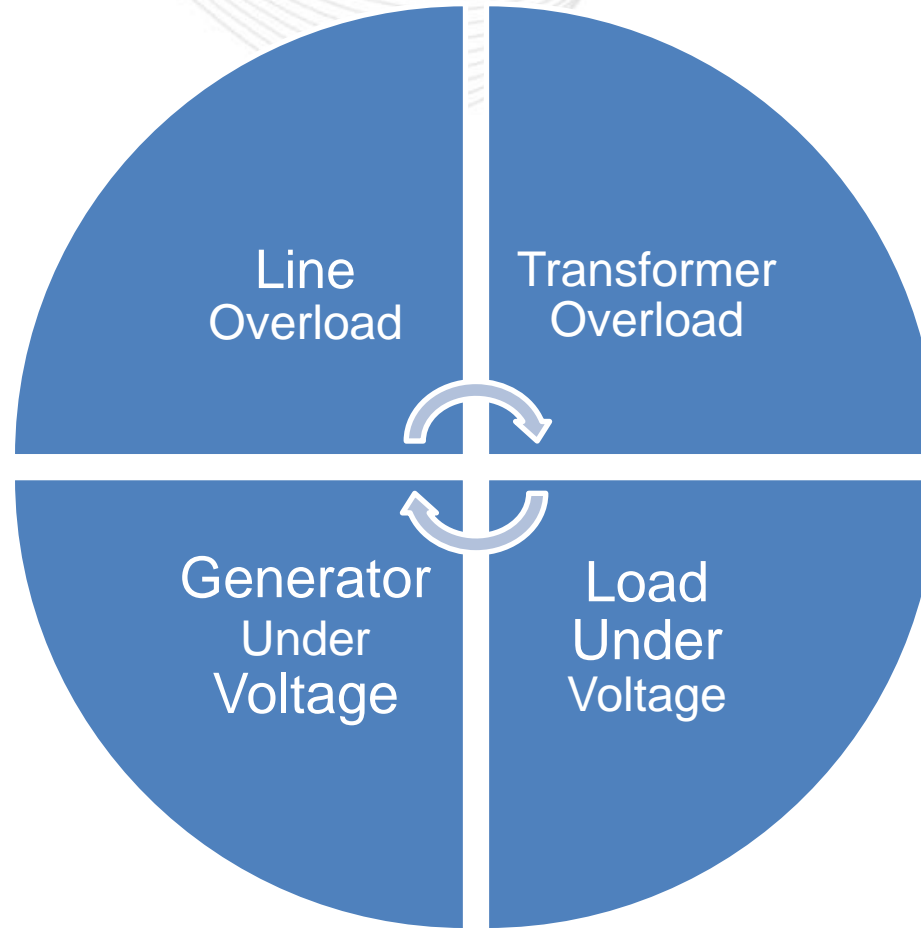
Contingency

- Extreme: 3396

Tool

- Cascading Trees





Cascading Probability

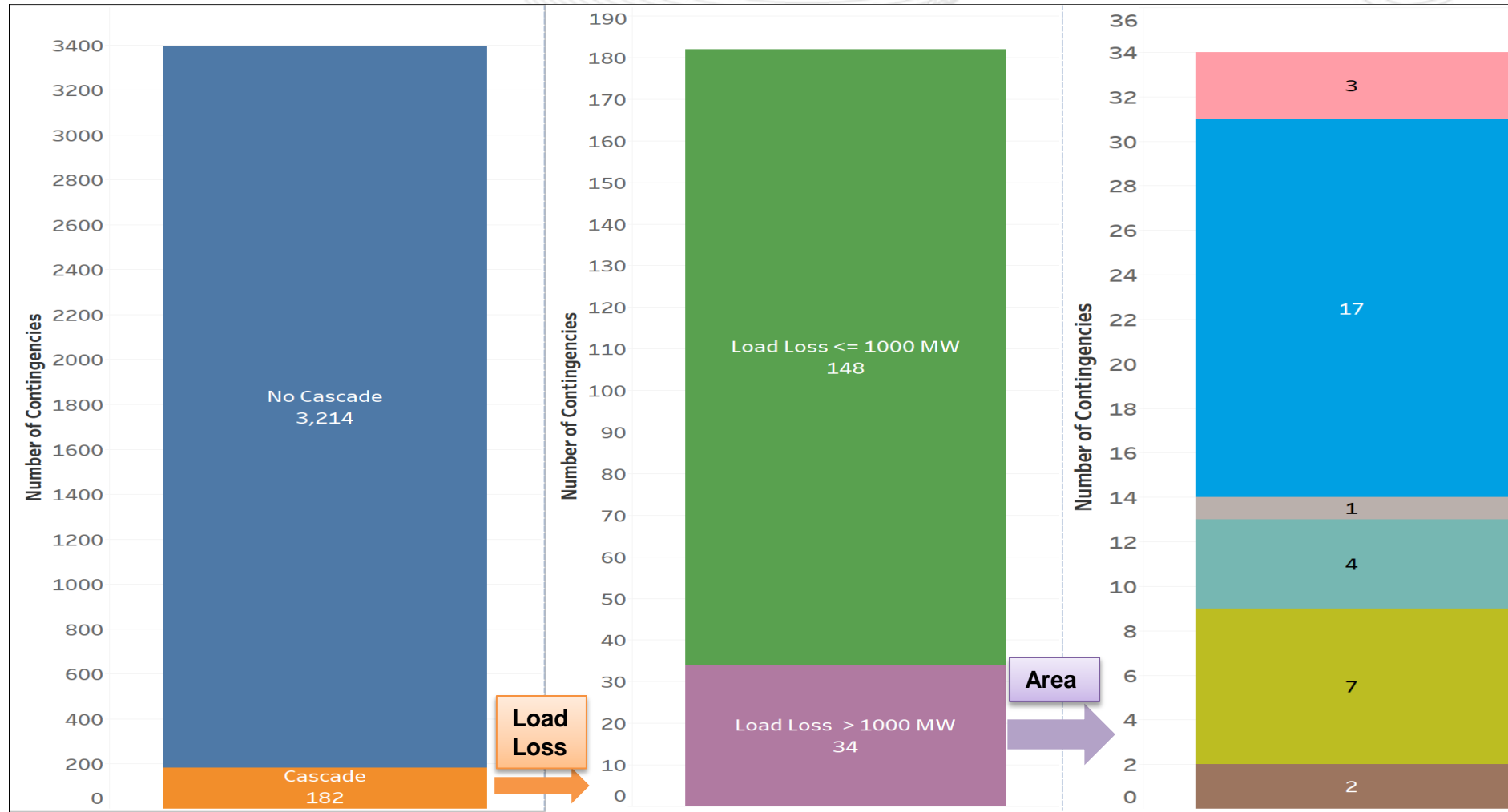
$$\sum Probability(Cascading Paths)$$

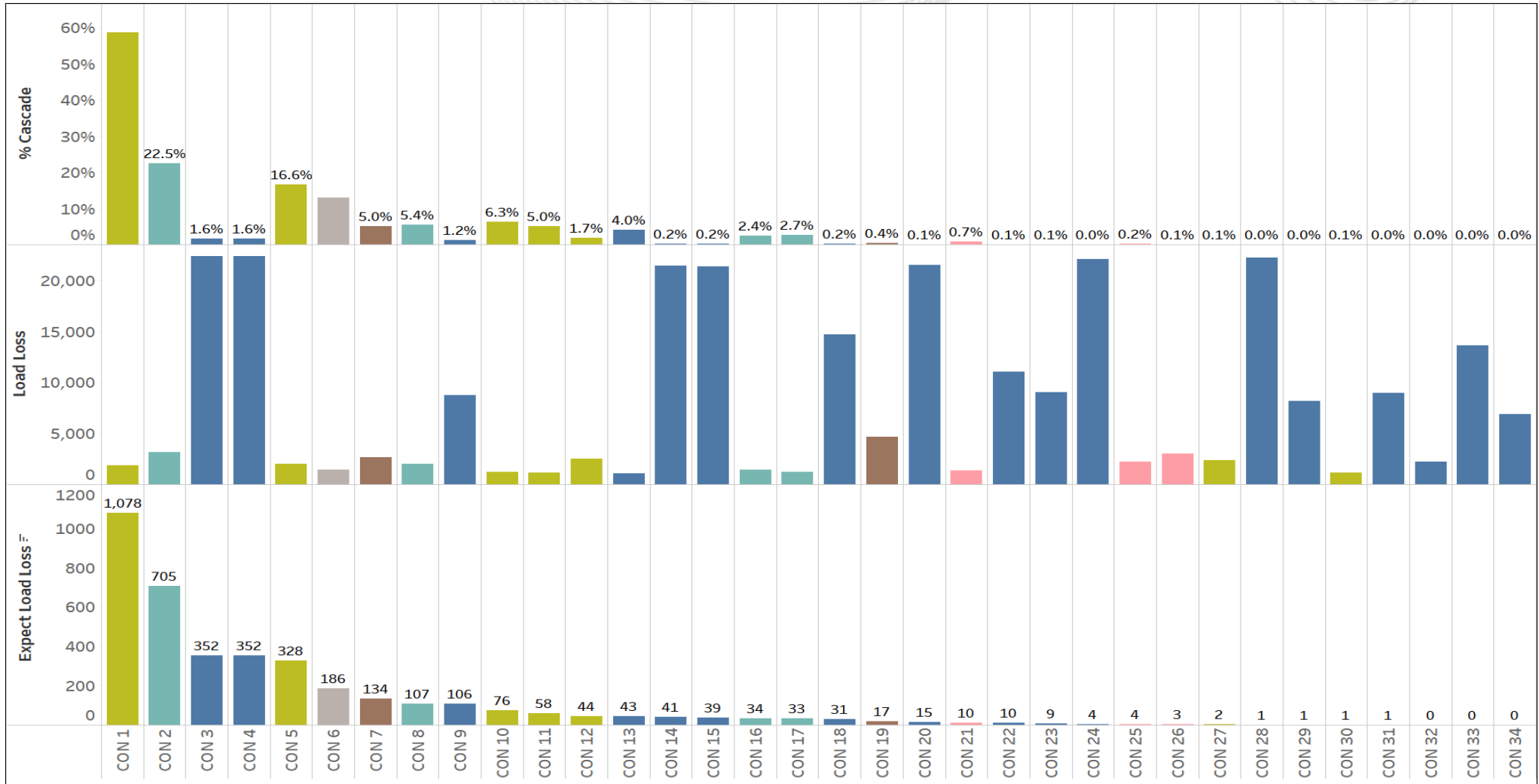
Load Loss

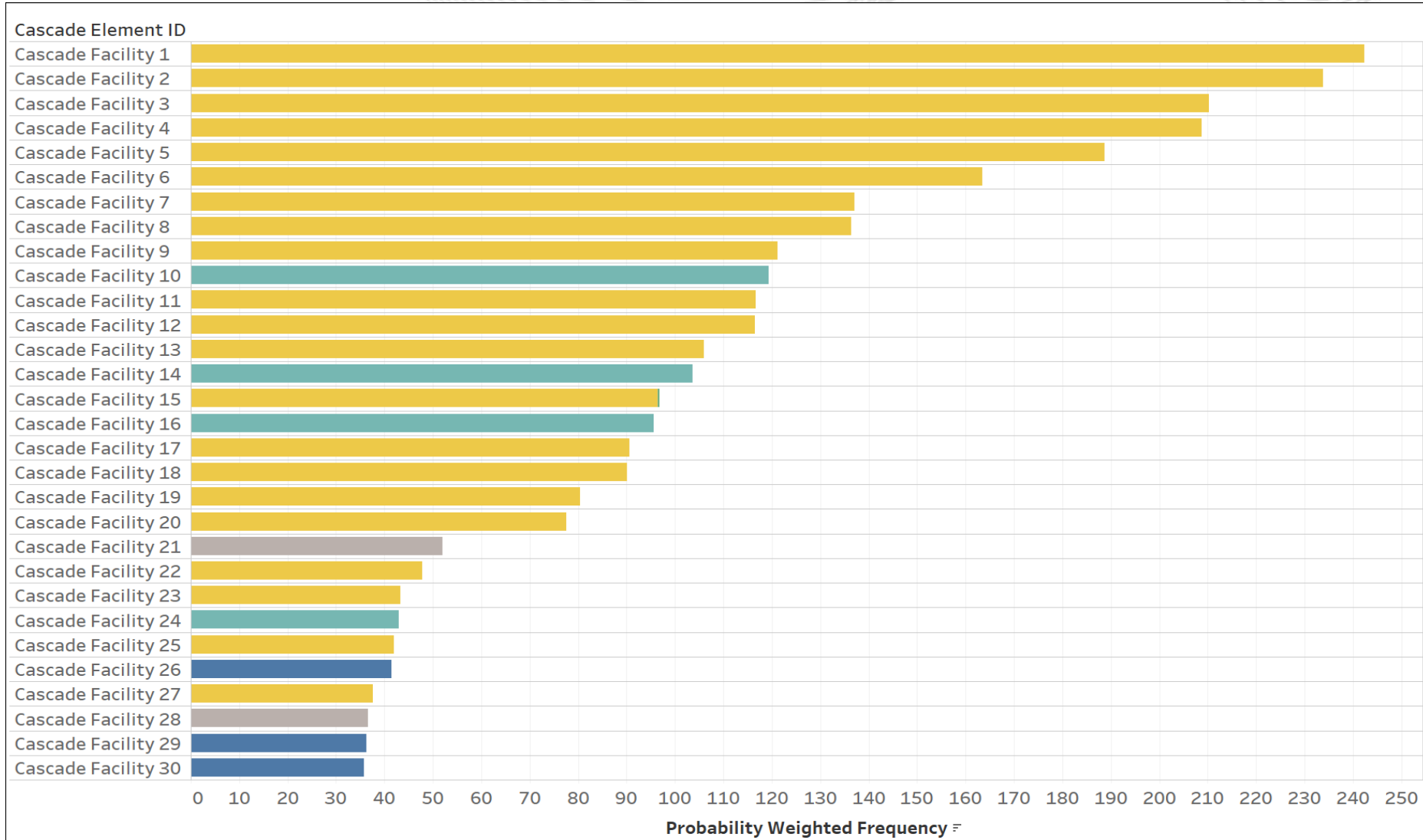
$$\frac{\sum Probability(Path_i) * LoadLoss_i}{Total Cascading Probability}$$

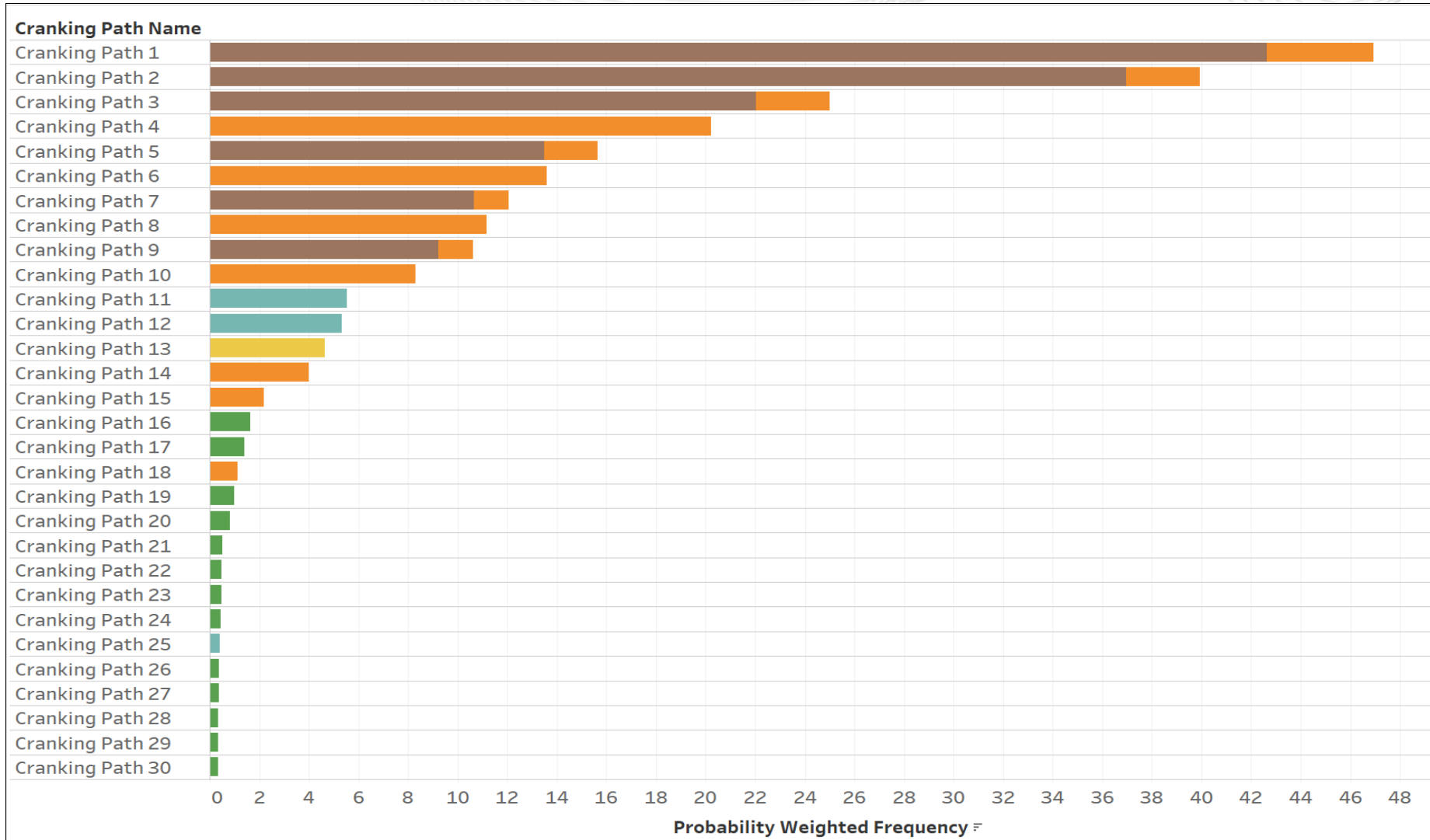
Repeat Offender

Frequency of a facility with violation (overload or low voltage) shown / impact cascading trees









Tool improvements

RTEP 2023 case

Generation loss

Black Start units impact