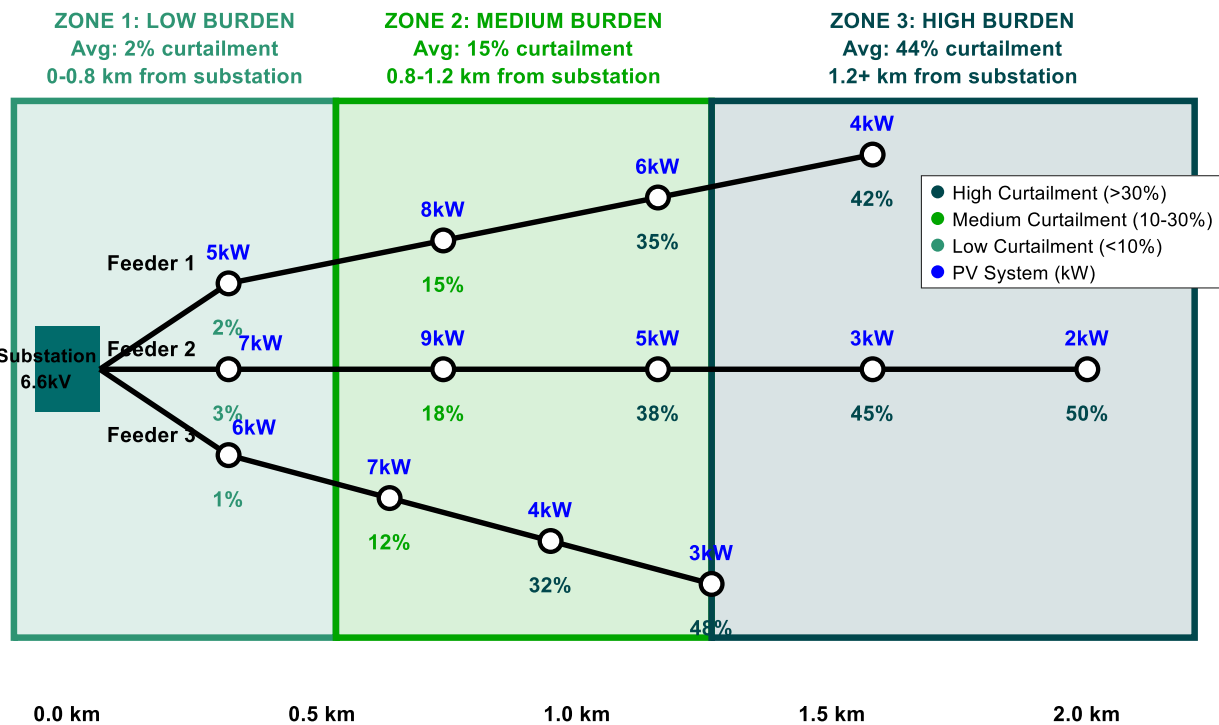


Background High PV penetration can cause voltage violations, mitigated by **curtailment** that imposes **uneven burdens across network clusters**.

Spatial Clustering of PV Curtailment Burden in Multi-Feeder Network
Different Network Areas Experience Vastly Different Curtailment Levels



Proposal & Method

- ❖ Spectral clustering (geo + topology + load profiles) to partition the distribution networks.
- ❖ Multi-objective optimization (ϵ -constraint): minimize curtailed energy subject to voltage limits and node/zone fairness bounds