The expansion of renewable energies leads to a need for active grid operation management in the distribution grid. Conventional methods are too slow to react to short term disturbances.

**OUR IDEA:** A grid optimization tool based on graph neural networks (GNNs) to support distribution system operators.

**GOAL:** Reduction of grid expansion and avoidance of supply bottlenecks through intelligent use of the existing grid infrastructure.

**Possible Solutions:**
- Integrating the curtailment of generation and consumption
- Test at the Digital Grid Lab (Fraunhofer ISE)

**REFERENCES**

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