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Views on Rel-19 Network Energy Savings

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Extending NES enhancements to NCR

- Release-18 standardized Network controlled repeaters (NCR)
  - NCR is advanced repeater capable of receiving side control information (SCI) from gNB
  - SCI improves effectiveness of beamforming, DL-UL switching.
- NES in Release-18 focused on following energy saving techniques
  - Spatial and power domain adaptations
  - Cell DTX/DRX enhancements
  - SSB less operation
- NES techniques in Release-18 did not consider deployment scenario with NCR
- To improve energy saving, NES techniques can be extended to deployment scenario with NCR
  - New SCI and NCR behavior can be defined to adapt operations at NCR according to the adaptation pattern at gNB
  - E.g., NCR adapting its operation based on DTX/DRX pattern active at gNB to save energy at NCR and to reduce interference in the network

Proposal

- **Rel. 19 should consider extending NES enhancements to deployment scenario with NCR**
  - SCI for NCR when connected to NES-capable gNB
  - Backhaul/control link behavior/signaling for efficient interaction between NES-capable gNB and associated NCR
  - Note: The enhancement should consider the case where the gNB would operate with Spatial/Power domain adaptation or cell DTX/DRX adaptation for NW energy saving