Welcome
NDT Group R&D roadmap

greg.innes@edf-energy.com
Background

- Inspection challenges due to ageing plant
- New opportunities/challenges
- Roadmap restructured to focus on plant driven risks not technology driven
Focus Areas

• Reduction of dose

• Outage Optimisation

• Improved capability for safety case

• Enhance engagement with Industrial partners and R&D institutions
Outage reduction and ALARP risk reduction

- Investigate the replacement of conventional surface techniques or automated inspections with eddy current array inspection.

- Development and increased use of phased array ultrasonic testing:, fixed beam phased array at SZB, sectoral phased array inspection and development of generic phased array inspection capability statement.
Enhancement of inspection capability

- Improve defect detection and sizing capability
- Enhance theoretical understanding
- Improve inspection coverage on restricted or limited access components: Guided wave tested and on-load monitoring
- Optimise techniques and determine deployment strategy for specialised phased array inspections i.e. Full Matrix capture and Virtual Source Aperture.

Reconstructed image assuming planar interface

Image reconstructed using FMC *auto-focus* algorithm
Expand Inspection modelling and theoretical capability

- To remain at forefront of inspection qualification.
- RCNDE rough modelling.
- POGO modelling.
- Validation of POGO model and CIVA model.
- Use of modelling to optimise inspection design and justify detection capability of specialised inspection techniques.
Enhanced Engagement

- EDF NDT Group Limited resource

- Engage with industry

- Actively engage with collaborative bodies EPRI, ANRC, RCNDE, TWI

- Engage with internal stakeholders

- Membership of ENIQ
Focus Areas

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Other focus areas

• Develop forward strategy for SZB Automated inspection software to mitigate obsolescence and resourcing risks.

• Maintain central hub of legacy R&D, supporting technical evidence, OPEX and inspection risk logs.

• Maintain SQEP resilience and knowledge.
Thank You