An Integrated MV Distributed Generation Connection Planning Tool

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CIRED
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The situation

Current Process - WORKFLOW

- Customer Enquiry
- Geospatial System Network Documentation And Planning
- Study Request
- Design/Report Quotation
- Study Complete
- Network Analysis Load, Voltage, Flicker

Current Process - TIMELINE

- Enquiry
- Review/budget cost
- Build Model
- Analysis/Design
- Final Proposal

33/11kV AVC/LDC

Wind

11kV +/-6%

400V +10/-6%

Start Finish

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IFI Project Approach

Project Team:
- EDF Energy
- GE Energy

Project Methodology:
- Develop a proof-of-concept generator connection planning tool which will provide network planning staff with a single tool comprising a GIS to identify topographic details and an embedded network analysis engine

Deliverables:
- Project Report
- Prototype/demonstration of solution for review by EDF Energy stakeholders
Project Results 1

Integrated Tool Benefits:
- Significant time and manpower reduction
- Customer service improvement
- Consistent tool across EDF Energy
- More easily manage enquiries at multiple locations
- Identify ‘deep reinforcement’ arising from multiple connection enquiries and other planned projects

Identified gaps in present solution:
- Static Data Including
  - Transformer Rating Info
  - Source Impedance Data
  - Type information
- Dynamic Data Including
  - Feeder Loads
  - Transformer Tap settings
Project Results 2

Current Process - TIMELINE

Start

Enquiry

Review/budget
cost

Build Model

Analysis/Design

Final Proposal

Finish

Proposed Process - TIMELINE

Start

Enquiry

Review/budget
cost

Build Model

Analysis/Design

Final Proposal

Finish
THANK YOU