

EUSGNEM19

Develop a strategy for the design process of utility network assets



Overview

This national occupational standard defines the competence needed for developing a systematic process which will be followed to enable networks to be designed. It involves understanding the network design requirements, making decisions about the most suitable types of people who will be invited subsequently to undertake the actual design, and the responsibilities they will each have for specific aspects of the design process. It requires an understanding of the regulations and guidelines for major structural designs

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Performance criteria

You must be able to:

Determine design activities and establish responsibilities

- P1 decide the design activities that need to be undertaken
- P2 include the use of internal and external resources in the design strategy
- P3 establish the responsibilities for developing specific aspects of the design process
- P4 ensure the strategy meets all contractual and quality standards as well as organisational guidelines and codes of practice
- P5 agree the design activities and responsibilities with the people specified within the organisation's procedures
- P6 obtain the people, time, finance, materials and equipment resources necessary to undertake the design process

You must be able to:

Prioritise and schedule the design process

- P7 develop a schedule for the design process to ensure it is completed in time to achieve any deadlines
- P8 agree the schedule with the people who are involved or affected by it as well as those who make decisions
- P9 generate contingency plans to ensure potential critical problems can be managed
- P10 produce a design process strategy with sufficient detail to enable decisions to be made

You must be able to:

Use and communicate data and information

- P11 establish a means of storing the design documentation and set up version control
- P12 involve the essential people in developing the design process
- P13 carry out all activities in line with quality management processes
- P14 record and communicate the strategy to the people who are connected with or affected by it
- P15 use a mix of verbal and other forms of electronic communication to suit the communication content
- P16 ensure the strategy complies with British Standards or ISO standards, and compliance agency standards
- P17 establish and agree procedures for disseminating information on the designs, obtaining resources, reviewing designs, change management, configuration management, and resource procurement
- P18 agree the final strategy for the design process with the people specified in the organisation's procedures

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Knowledge and understanding

You need to know and understand:

General

- K1 network engineering design principles and processes
- K2 general engineering principles and processes
- K3 health, safety, and environmental issues
- K4 legislative and regulatory frameworks
- K5 organisational procedures and systems
- K6 patents, copyright, and intellectual property issues
- K7 resource management factors
- K8 planning and control methods
- K9 contracting principles

You need to know and understand:

Design process

- K10 the importance of establishing responsibilities and the procedures for recording strategy information
- K11 how to identify who should have responsibility for developing different parts of a design process
- K12 the factors to be taken into account when agreeing the procedures for disseminating information
- K13 the types of problem that could occur during the design process
- K14 the items to be included in contingency plans
- K15 the procedures for prioritising and scheduling design activities
- K16 the procedures for obtaining information on resources
- K17 how to determine what resources are necessary and are available
- K18 when and how to include sub-consultant contractors
- K19 the legislation, Codes of Practice and industry procedures which need to be complied with, and the procedures for obtaining information on regulations and guidelines

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Behaviours

You work in a manner which:

1. is positive and creative to setbacks
2. develops an atmosphere of professionalism and mutual support

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