Functional Area: Network Infrastructure & Operation (Planning & Design)

1.	Title	Investigate the effectiveness of applying green technologies into existing network and NOC
2.	Code	ITCSNO508A
3.	Range	Operators are looking for better TCO (Total Cost of Ownership) in their network infrastructure. An area where costs of operation can be reduced would be having greener network operation centres (NOC) or switching stations where substantial amount of electricity is needed to keep network and equipment running. This UOC concerns investigating the effectiveness of applying green technologies in existing networks and NOC.
4.	Level	5
5.	Credit	3
6.	Competency	Performance Requirement 6.1 Possess the knowledge in the subject area • Experienced with network capacity planning (current and growth forecast) • Possess knowledge of the organisation's green policies • In tune with current and emerging power management and energy saving technologies, especially green products and technologies • Possess extensive knowledge of green technology such as U-Factor in heat transfer through windows and Energy Star classification on appliances, etc. • Possess extensive experience with server consolidation and virtual machine (VM) concepts • Understand health and safety procedures and government regulations 6.2 Investigate the effectiveness of applying green technologies into existing network and NOC Be able to: • Formulate a green technology evaluation strategy based on organisation green policy, local government regulatory requirements and international standards • Develop formulas and measurement processes which can be used to evaluate energy efficiency of network products based on its usage, or how much recyclability of each component, or how much recycled materials used to build the component/ device, etc • Formulate baseline metrics for network equipment evaluation. May use vendor's stated statistics or figures or from internal records • Perform the evaluation procedures and collect the needed data and statistics for analysis • Perform green factor analysis by comparing the acquired statistics with the baseline and manufacturers' figures • Document the investigation process with conclusion and recommendation for submitting to stakeholders 6.3 Exhibit professionalism • Follow green practices which comply with the organisation business policies and strategies as well as local regulatory requirements • Always take into consideration and strike a proper balance among all related technological, political, social, environmental and legal factors
7.	Assessment Criteria	The integrated outcome requirements of this UoC are the abilities to: i. formulate evaluation procedures which can measure and determine the "green factor" of a network component/technology ii. create baselines which can be effectively used for comparison and analysis iii. document and make appropriate recommendation
	Remark	