# 2018-22 Powerlink Queensland Revenue proposal

Supporting Document - PUBLIC

Powerlink Queensland Asset Maintenance - Policy

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## **Asset Maintenance**

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## 1. INTRODUCTION

#### 1.1. Purpose

This document sets out the policy adopted by the Powerlink Queensland for the maintenance of network assets. The objective of this policy is to establish the overarching principles which determine maintenance needs, plans and work.

#### 1.2. Scope

The requirements of this Functional Policy apply to the maintenance of all network assets.

## 2. MAINTENANCE STRATEGY

Maintenance strategy shall be developed based on the principles of Reliability-Centred Maintenance (RCM)<sup>1</sup>. RCM provides a rigorous and auditable analysis framework for identifying maintenance activities that are applicable and effective in managing plant performance, including possible failures.

RCM analysis is a process of logically analysing the desired functions of plant or equipment, causes of functional failure, consequences of failure and the type and frequency of maintenance activities that best manage the associated risks. RCM shall be undertaken by facilitated review teams of technical experts and field personnel with the greatest knowledge of the network assets being analysed. RCM also identifies those failures that cannot be dealt with effectively by maintenance alone, and thus require other activities to manage, such as re-design.

RCM analysis shall be conducted prior to the commissioning a new asset, and reviewed as required, to enable the implementation of appropriate maintenance plans and budgets.

### 3. MAINTENANCE PLANNING

#### 3.1. Objectives

It is Powerlink policy to maintain plant and equipment in service, and functioning correctly to the original design, for as long as it is economical and safe to do so. Work to achieve this objective is done under the categories of preventive or corrective maintenance, implemented in accordance with the maintenance strategy adopted through the application of Reliability-Centred Maintenance.

Work defined as maintenance is typically undertaken on a task level by a single technical workgroup in one geographical region.

Economies of scale are achieved by planning a number of single tasks at a common location (e.g. substation) or aligning tasks under the same planned network outage.

#### 3.2. Planning Process

Maintenance planning is an ongoing and iterative process where needs are coordinated within and between plant areas.

<sup>1</sup> Moubray, J 2000, Reliability-Centred Maintenance RCM II, Industrial Press, New York.



RCM analysis is performed prior to the commissioning of plant and equipment as an input to the development of overall maintenance strategy, plans and budgets.

The outcomes of the RCM analysis are documented in Asset Management policies, procedures and checklists as required by the particular maintenance activity.

Routine scheduled maintenance activities required from this analysis are defined as maintenance plans within SAP, from which the forward program of routine scheduled preventive maintenance is issued for execution by the relevant technical workgroup.

For non-routine maintenance activities (condition-based and corrective), Asset Management policies and procedures define the conditions (i.e. action and defect levels) under which plant or equipment requires preventive or corrective maintenance.

Annual maintenance budgets are formed through combining the forward program of routine scheduled maintenance and forecasting of non-routine (preventive or corrective) expenditure based on historical trends.

## 4. MONITORING AND REPORTING

Routine monitoring and reporting processes should be established to monitor both the progress and expenditure associated with the maintenance of network assets.

Reporting shall be undertaken on an asset, workgroup and geographical level to enable effective monitoring of performance and targeted management response.