

# OPTIONS EVALUATION REPORT (OER)



Test Equipment and Tools

OER- 00000001747 revision 1.0

**Ellipse project no(s):** N/A

**TRIM file:** [TRIM No]

**Project reason:** Capability - Asset Replacement for end of life condition

**Project category:** Prescribed - Replacement

## Approvals

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<b>Approved</b>	Colin Mayer	Manager Field Resources
<b>Date submitted for approval</b>	10 January 2017	

## Change history

Revision	Date	Amendment
0	13/12/2016	Initial revision
1	10/01/2017	Title Updated

## 1. Need/opportunity

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TransGrid owns a number of test equipment and tool assets that will reach the end of their serviceable lives within the next regulatory period. These typically include items such as Omicrons, Elcons, SF6 Gas Analysers and Testers, Thermovision cameras, Kelman testers, Hydraulic Crimping/Cutting Kits, Ethernet and Data test sets and Defibrillators.

The majority of these assets are required to be used for testing to ensure plant and equipment is within manufacturers required tolerance for safe operation and to monitor equipment degradation over its economic life. Should equipment degrade a rate quicker than anticipated, without being effectively monitored, there is a risk of early equipment failure and loss of supply.

Hydraulic crimping and cutting kits are used whilst constructing or repairing transmission line conductor and earth wire. There is a risk of joint failure if the correct crimping pressure is not applied. Similarly, tool bits, crimps, and cutting blades wear and require period replacement.

Working on HV and LV equipment is intrinsically a high risk activity, as defined by the WHS Act. Defibrillators are required to treat heart attack in the event of accidental electric shock.

## 2. Related needs/opportunities

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Nil

## 3. Options

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### Base case

The base case 'do nothing' is not considered to be a feasible option due to the failure and unavailability of the fixed assets.

### Option A — Replacement of test equipment and tools

- > The replacement of the individual test equipment and tools as they reach the end of their serviceable lives.

## 4. Evaluation

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### 4.1 Technical and commercial evaluation

The base case is not considered to be technically feasible as it does not allow the network to be safely operated or maintained.

### Option A — Replacement of test equipment and tools

Based on a 7 year replacement, which is the depreciated life of these assets, the Ellipse data is predicting a total of \$9.6m or \$1.92m per year for the period 2018/19 to 2022/23.

TransGrid is proposing a per year allowance of \$1.92m, in today's dollars, for the five years 2018/19 to 2022/23. This will allow the purchase of replacement items when required, as well as the purchase of any new test equipment required due to changing technology.

### 4.2 ALARP evaluation

ALARP evaluation is not relevant to this business case.

### 4.3 Preferred option

Option A is the preferred option.

#### Capital and operating expenditure

There are no operating expenditure trade-offs identified.

## 5. Recommendation

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It is recommended that option A is implemented.