

# SOUTH WAIRARAPA DISTRICT COUNCIL

3 APRIL 2013

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## AGENDA ITEM C5

### UPDATE ON STREET LIGHTING

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#### **Purpose of Report**

To inform Councillors and provide a progress review of the works plan on the Street Lighting Asset, compared to maintenance and budget estimates for capital expenditure for the 2012 / 2013 financial year.

#### **Recommendations**

Officers recommend that the Council:

1. *Receives the information.*

## **1. Executive Summary**

This report relates to the actual and forecast spends on the 2012/2013 maintenance plan and capital expenditure programme. Actual spend to the 31 January 2013 and forecast spend to the 30 June.

Electricity billing costs are not considered.

Initiatives are within budget.

## **2. Discussion**

### **2.1.1. Purchase of Streetlight Mounting Brackets.**

Streetlight mounting bracket design to fit the new Powerco Busck poles is complete and prices have been obtained for the manufacture from Tower Gates in Carterton.

### **2.1.2. Supply and Installation of Isolation Fuses**

Powerco are presently replacing a number of poles on the Revans Street Feeder in Featherston. Several of these poles support Street lighting outreach arms. Fuses are being installed on the new poles at Powerco's cost.

The \$2400.00 approved in this plan will be applied to various sites in conjunction (Street by Street basis) with the above Powerco programme over the next three months. The work will be carried out by Power Services Wairarapa.

### 2.1.3. The Installation of 10 Additional Street Light Fittings

Several sites have been identified as follows;

- Roberts Road Martinborough – (3 sites plus street light circuit extension) **estimated cost \$7700.00.**
- French Street Martinborough – (1 additional light and 1 repositioned) **estimated cost \$1150.00**
- Cambridge Road Martinborough – (1 additional light as a result of residence request) **estimated cost \$1550.00.**
- Brandon Street Featherston – (3 additional lights and 3 repositioned) **estimated cost \$3390.00**
- Kempton Street Greytown – (1 additional light on corner of Humphries Street) **estimated cost \$980.00**
- Reading Street Greytown – (1 additional light and 2 repositioned) **estimated cost \$1280.00.**
- Several intersections have been identified for lighting upgrades and will be included in the 2014 / 2015 works plan.

### 2.1.4. State Highway Lighting

- Fitzherbert Street Featherston (State Highway 2) – there is approximately 20 street lights located between the southern entrance into Featherston and the Railway line that require replacement and upgrading to 150watt. These lights are the older design and due to age and condition should be considered for replacement. ***Recommendation is to plan the replacement of 20 Street lights in Fitzherbert Street in the 2014 / 2015 works plan.***
- Main Street Greytown (State Highway 2) – there is twenty one Windsor Heritage Street light fittings installed in Main Street that require modifications to prevent water entry. The manufacturer has inspected the fittings and has recommended that each fitting be returned to the factory for modifications. ***The proposal is to progressively cycle each fitting so that the modifications would be completed over a period of time. The cost is estimated to be \$980.00 per light = total cost \$20580.00.***
- Revans Street Featherston (State Highway 53) – is identified as requiring three additional Street lights and a repositioning of three lights. ***Recommendation is that these lights be included in the 2014 /2015 works plan.***

### 2.1.5. Lamp Replacement & Maintenance Programme

Work completed to the 31 January 2013.

Billing period	Budget	Actual Total	Jun 2012	Jul 2012	Aug 2012	Sep 2012	Oct 2012	Nov 2012	Dec 2012	Jan 2013
Lamps number	180	74	26	1	10	17	5	5	10	74
Control gear number		14	3	1	2	5	3	0	0	14
Diffusers number		8	1	0	2	2	0	1	2	8
Complete Fittings number	10	2	0	0	0	2	0	0	0	2
Fuses numbers	30	1	0	0	0	1	0	0	0	1
Replacement leads numbers		0	0	0	0	0	0	0	0	0
Photo Cells replaced		1	0	0	0	1	0	0	0	1

**The works programme will be completed by the 30 June 2013.**

### 2.1.6. Lighting Design

The lighting design standard adopted by the South Wairarapa District Council is AS/NZS 1158.

This discussion concerns the selection of lamp types and light fittings. At what point do we install the new technology? The reason for the change is based on the economics and the cost benefit with consideration for the environment.

#### Options to consider:

Metal Halide lamps (35watt) this lamp has a very good colour rendition and it produces a white light. Could be used to replace existing 70watt SON's but would be limited to a maximum spacing span of 45 metres to comply with AS/NZS.1158. **The cost per fitting is \$398.00 if purchased by the SWDC in quantities of 10. Electricity consumption is 50% lower and the lamp life is similar to the 70watt SON.**

Light Emitting Diodes (LED's) (28watt) LED's are an emerging technology; the design of the light fittings is constantly changing making the fittings obsolete in a very short period of time. The colour is a white light and the lamp life is considered to be 50000 hours or the life of the fitting. **The electricity consumption is 60% lower than the 70watt SON. The cost per fitting is \$480.00.**

**Recommendation is to install LED light fittings (a total of six fittings) as a trial in Roberts Road and French Street. Estimated cost is \$4800.00 plus installation.**

### 2.1.7. Featherston Reliability

Powerco have upgraded four master control points and have replaced the identified bare conductors that are believed to have been the cause of the unscheduled outages. Since this work was carried out there have been two occasions where the Brandon Street area has experienced a fault causing

area outage. Their poling work being undertaken at present may rectify this situation.

### 2.1.8. Martinborough Square Lighting

Four replacement light fittings have been purchased and awaiting installation. Work is expected to be completed by the end of March 2013.

There is one area remaining that has an intermittent cable fault – further investigation is in progress.

## 2.2 Budget / Actual Performance to 31 January 2013

Item #	Description	Total Budget	Actual Spend to 31 January 2013	Forecast total spend to 30 June 2013
1	Purchase of 30 Streetlight mounting brackets with provision to rewire & relocate Lantern @ \$150.00 each	\$4500.00		\$4500.00
2	Supply and installation of isolation fuses to existing Street lights Qty 30 @ \$80.00each	\$2400.00		\$2400.00
3	Installation of 10 additional Street lights to existing Network connections @ \$520.00 each	\$5200.00		\$5200.00
4	Repositioning of 10 existing Street lights to improve illumination efficiency @ \$250.00 each	\$2500.00		\$2500.00
5	Lamp Change programme 180 lamps @ \$85.00 each	\$15300.00	\$7426.18	\$15300.00
6	Monthly Street Light patrols, outage schedule preparation and reporting.	\$11985.00	\$6991.45	\$11985.00
7	Monthly repairs other than lamp changes (Diffuser & Control gear replacements, misc cable repairs).	\$9950.00	\$2020.00	\$9224.00
8	Martinborough Square replace 4 in-ground lights including colour filters	\$8000.00	\$7006.60	\$8726.60
9	Project Management and Professional Services for review and assessment of street light spacing's	\$1500.00		\$1500.00
	<b>Total</b>	<b>\$61335.00</b>	<b>\$23444.23</b>	<b>\$61335.60</b>

*The above budgetary estimates exclude Energy and Line charges as applied by the electricity retailer and GST.*

## 2.3 Financial Considerations

There are no financial considerations as the above are within existing budget.

Contact Officer: Mark Allingham, Group Manager Infrastructure and Services

Reviewed By: Paul Crimp, Acting Chief Executive Officer