



Draft decision

## **New South Wales**

# **draft distribution determination 2009–10 to 2013–14 Alternative control (public lighting) services**

6 March 2009

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## Request for submissions

This document sets out the Australian Energy Regulator's (AER) draft decision for Country Energy, EnergyAustralia and Integral Energy with respect to alternative control (public lighting) services for the period 1 July 2009 to 30 June 2014. This draft decision is supplementary to the draft decision for these distribution businesses published by the AER on 28 November 2008.

Interested parties are invited to make written submissions on issues regarding this supplementary draft decision to the AER by 27 March 2009. The AER will deal with all information it receives in accordance with the ACCC/AER information policy. The policy is available at [www.aer.gov.au](http://www.aer.gov.au).

Submissions can be sent electronically to [aer inquiry@aer.gov.au](mailto:aer inquiry@aer.gov.au)

Alternatively, submissions can be mailed to:

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The AER prefers that all submissions be publicly available to facilitate an informed and transparent consultative process. Submissions will be treated as public documents unless otherwise requested. Parties wishing to submit confidential information are requested to:

- clearly identify the information that is the subject of the confidentiality claim
- provide a non-confidential version of the submission.

All non-confidential submissions will be placed on the AER website, [www.aer.gov.au](http://www.aer.gov.au).

Copies of Country Energy, EnergyAustralia and Integral Energy's regulatory proposals, proposed negotiating frameworks, consultancy reports, submissions from interested parties and the AER's draft decision and determinations are available on the AER website.

Inquiries about this supplementary draft decision or about lodging submissions should be directed to the Network Regulation North Branch on (02) 6243 1233.

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## Shortened forms

ACCC	Australian Competition and Consumer Commission
AER	Australian Energy Regulator
capex	capital expenditure
CEG	Competition Economists Group
CPI	consumer price index
current regulatory control period	1 July 2004 to 30 June 2009
DNSP	distribution network service provider
draft decision	AER, Draft decision, NSW distribution determination 2009–10 to 2013–14, November 2008
EGW	Electricity Gas and Water Sector
ESCV	Essential Services Commission of Victoria
EWP	elevated work platform
IPART	Independent Pricing and Regulatory Tribunal
NER	National Electricity Rules
next regulatory control period	1 July 2009 to 30 June 2014
NPV	net present value
NSW DNSPs	Country Energy, EnergyAustralia and Integral Energy
PE	photoelectric
RAB	regulatory asset base
supplementary draft decision	AER, Draft decision, NSW distribution determination 2009–10 to 2013–14, Alternative control (public lighting) services, 6 March 2009
WACC	weighted average cost of capital

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# 1 Introduction

## 1.1 Background

Clause 6.2.3A(a) of the transitional chapter 6 rules classify distribution services into the following classes:

- direct control services
- negotiated distribution services
- unregulated distribution services.

The services in each class are subject to different forms of regulation. Clause 6.2.3A(b) of the transitional chapter 6 rules divides direct control services into standard control services and alternative control services. Public lighting services in NSW have been classified as alternative control services.

## 1.2 Regulatory requirements

### 1.2.1 Current regulatory control period

#### 1.2.1.1 IPART's 2004 determination

In its 2004 decision<sup>1</sup>, IPART determined that the construction and maintenance of public lighting infrastructure was an excluded distribution service and would be regulated under its Excluded Distribution Services Rule. Under the excluded distribution services rule IPART could approve or refuse to approve a DNSP's proposed prices for public lighting services based on the following requirements:<sup>2</sup>

- prices are to reflect the economic costs of service provision
- underlying service classifications, cost data, cost allocations and other elements that contribute to pricing decisions should be periodically reviewed and updated
- DNSPs must provide information about the service, including a description, terms and conditions, and indicative prices and rates
- when a price increase is requested, DNSPs must provide a report to IPART outlining the proposed price changes, the costs of service provision, the applicable service standards and an assessment of the customer impact of the proposed price changes.

As part of its 2004 determination, IPART established opening asset bases for each of the NSW DNSPs, however, it did not review tariffs that existed at that time. IPART indicated

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<sup>1</sup> IPART, *NSW Electricity Distribution Pricing 2004/05 to 2008/09 Final Report*, June 2004, pp. 171–172.

<sup>2</sup> IPART, *Final Report: NSW Electricity Distribution Pricing, 2. Regulation of Excluded Distribution Services Rule 2004*, June 2004, clause 2.3.

that it would assess any proposed price changes submitted by DNSP's during the current regulatory control period against the above requirements.

Each of the NSW DNSPs have at various times during the current regulatory control period submitted applications to IPART seeking to have their public lighting charges increased. The applications generally state that current public lighting charges were below the cost of service provision and involved some degree of cross subsidisation. The applications from the NSW DNSPs also anticipate that further increases are necessary in order to move existing charges to a cost reflective position. IPART reviewed the capital and operating expenditures proposed by the DNSPs and, based on its conclusions, modelled the revenues and price paths. IPART accepted annual real price increases of between 2 per cent and 10 per cent in the current regulatory control period on the basis that the increases met its Excluded Distribution Services Rule 2004/1 and were required to move prices towards the actual cost of service provision.

The AER has reviewed the NSW DNSPs schedule of tariffs for 2008-09 with those proposed by the AER for 2009-10. It is difficult however, to make a like for like comparison of tariffs as current tariffs include a mixture of old and new assets (whereas the AER's approach models existing and new assets separately). A better comparison of the impact of the AER's proposed tariffs for existing assets can be obtained by comparing customers total bills for 2008-09 with an estimate of customer total bills for 2009-10 based on the AER's proposed tariffs. The AER has undertaken this analysis and has found that the total bill for Country Energy and EnergyAustralia's customers will decrease on average by around 33 per cent and 6 per cent respectively between 2008-09 and 2009-10 based on the AER's proposed prices for existing assets. However, the total bills for Integral Energy's customers will increase on average between these years by 4 per cent.

## **1.2.2 NER requirements**

### **1.2.2.1 Alternative control services for NSW DNSPs**

Clause 6.2.3B of the transitional chapter 6 rules prescribes which services will be classified as alternative control services. According to clause 6.2.3B(b)(1) the services classified by IPART as excluded distribution services—the construction and maintenance of public lighting infrastructure—are deemed to be classified as an alternative control service for the next regulatory control period.

A note to clause 6.2.3B(b) of the transitional chapter 6 rules states that IPART's 2004–09 distribution determination determined that the construction and maintenance of public lighting infrastructure is an excluded distribution service. IPART defined public lighting infrastructure as:<sup>3</sup>

The structures, wiring, globes and other equipment:

- (1) used for, or associated with, the provision of public lighting to streets, roads and other public places; and
- (2) which are connected or attached to (or which form part of) a DNSPs distribution system (as that term is defined in the determination).

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<sup>3</sup> IPART, *Regulation of Excluded Distribution Services Rule 2004*, annexure 1, pp. 103–104.



### 1.2.2.2 Control mechanism for alternative control services

Clause 6.2.5(c2) of the transitional chapter 6 rules sets out the form of control that the AER may apply:

(c2) The control mechanism for alternative control services may consist of:

- (1) a schedule of fixed prices;
- (2) caps on the prices of individual services;
- (3) caps on the revenue to be derived from a particular combination of services;
- (4) tariff basket price control;
- (5) revenue yield control;
- (6) a combination of any of the above.

### 1.2.3 AER statement of approach

Clause 6.2.5(e) of the transitional chapter 6 rules provides:

The AER must, before 1 March 2008 or the date that is one month after the commencement date (whichever is the later), publish a statement indicating its likely approach to the control mechanisms for alternative control services. In preparing the statement, the AER may carry out such consultation as the AER thinks appropriate and may take into consideration any consultation carried out before the commencement date

In its statement indicating the likely approach to the control mechanism for alternative control services (statement on alternative control services), the AER proposed to apply the following form of control to public lighting services over the next regulatory control period:<sup>4</sup>

- a schedule of fixed prices in the first year of the regulatory control period
- a price path (such as CPI-X) for the remaining years of the regulatory control period.

The AER proposed to determine the initial price levels and the price path with reference to the efficient costs of providing public lighting services. The statement on alternative control services indicated that a limited building block analysis would be employed to assess the efficiency of the prices.<sup>5</sup>

The AER is able to make amendments to its likely approach to the control mechanism for alternative control services at the distribution determination. However, if the AER does make any amendments to the control mechanism for alternative control services it is required to provide its reasons for doing so.<sup>6</sup>

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<sup>4</sup> AER, *Statement on control mechanisms for alternative control services for the ACT and NSW 2009 distribution determinations*, February 2008, pp. 4–5.

<sup>5</sup> AER, *Statement on control mechanisms for alternative control services ACT and NSW*, pp. 4–5.

<sup>6</sup> AER, *Statement on control mechanisms for alternative control services ACT and NSW*, p. 7.

### 1.3 AER draft decision

On 2 June 2008, Country Energy, EnergyAustralia and Integral Energy submitted their regulatory proposals to the AER for the next regulatory control period. The proposals included a submission on public lighting charges to apply to the next regulatory period. Consistent with the AER's statement on control mechanisms, the tariffs were developed by combining the capital costs of both new and existing assets.

The AER reviewed the public lighting proposals submitted by the businesses and identified a number of issues with them, including that the current pricing schedules were not cost reflective, the businesses did not have comprehensive records of the age and condition of assets and that it was not appropriate to apply replacement costs to prices for existing assets. In order to address these issues the AER modified its approach to approving public lighting charges in its *Draft decision, NSW distribution determination 2009–10 to 2013–14* (draft decision).<sup>7</sup>

Under its modified approach, the AER requested each NSW DNSP to develop two schedules of fixed charges for the first year of the next regulatory control period and a price path for the remaining years of the next regulatory control period. The first schedule of prices related to public lighting assets constructed before 1 July 2009 and the second schedule related to public lighting assets constructed after 30 June 2009. It should be noted that these prices are for the construction and maintenance of public lights, they do not include energy charges or network charges for delivery of energy to the lights.

The schedule of charges for public lighting assets constructed prior to 1 July 2009 was to be developed using a building block method and the schedule of prices for public lighting assets constructed after 30 June 2009 using an annuity capital charge method.

The AER stated that following consideration of, and consultation on, the DNSP's proposed schedules of prices and price paths, it would determine the schedules of fixed prices for each NSW DNSP for the first year of the next regulatory control period. For each remaining year of the next regulatory control period the charges in the schedules would be permitted to increase in accordance with a price path approved by the AER.

This supplementary draft decision sets out the AER's draft decision on the schedules of prices and price paths proposed by the NSW DNSPs.

### 1.4 Review process

The AER is undertaking the following consultation, in addition to the consultation on its draft decision and determinations, regarding the NSW DNSPs' proposed schedules of fixed charges and price paths for alternative control services:

- NSW DNSP proposals—NSW DNSPs submitted their proposed schedules of fixed prices and price path on 16 January 2009 for publication on the AER's website.

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<sup>7</sup> AER, *Draft decision, New South Wales draft distribution determination 2009–10 to 2013–14*, 21 November 2008, p. 346.

- Supplementary draft decision—The AER published this supplementary draft decision setting out its draft decision on the 2009–10 tariffs and the price path for the NSW DNSPs on 13 March 2009.
- Submissions—submissions on the AER’s proposed tariffs and price paths are due by 27 March 2009.
- Final decision—AER will publish its final determination in April 2009, including its consideration of issues raised in response to submissions on the draft decision and on this supplementary draft decision.

## **1.5 Structure of supplementary draft decision**

This supplementary draft decision considers the charges proposed by the NSW DNSPs for alternative control services for 2009–10, as well as their proposed price paths for the remaining years of the next regulatory control period. The proposed charges and price paths were lodged in response to the AER’s draft decision. Other issues raised in response to the draft decision and this supplementary draft decision will be taken into consideration in the AER’s final decision for the NSW DNSPs, to be published in April 2009. This supplementary draft decision is structured as follows:

- chapter 2 summarises the revised regulatory proposals submitted by the DNSPs in January 2009
- chapter 3 sets out the AER’s analysis and considerations of the proposed 2009–10 tariffs and price path for public lighting assets constructed before 1 July 2009
- chapter 4 sets out the AER’s analysis and considerations of the proposed 2009–10 tariffs and price paths for public lighting assets constructed after 30 June 2009
- chapter 5 proposes changes to the designation of tariffs, a tariff approval process for the charges relating to new types of public lighting assets introduced during the next regulatory control period and provides clarification on a transitional timing issue.

## **2 NSW DNSP alternative control pricing proposals**

This chapter summarises the revised regulatory proposals submitted by the DNSPs in response to the draft decision.

### **2.1 Building block model**

The draft decision required the NSW DNSPs to develop a proposed schedule of charges for assets constructed before 1 July 2009 by applying a building block approach that would establish:

- an annual capital charge for each individual customer
- an annual maintenance charge for each individual customer
- a total annual charge for each individual customer.

Clause 6.4.3 of the NER provides a definition of a building block method. For the purposes of the public lighting model the inputs required are:

- indexation of the public lighting regulatory asset base (RAB)
- a rate of return on the asset base
- depreciation on the asset base
- estimated cost of corporate tax
- forecast operating (maintenance) expenditure.

### **2.2 Annuity approach**

The draft decision prescribed that the capital charges for assets constructed after 30 June 2009 should be based on an annuity approach. The draft decision set out the following inputs to the annuity model:

- annual annuitised capital charge for each asset
- annual maintenance charge for each asset
- total annual charge.

## 2.3 Country Energy<sup>8</sup>

### 2.3.1 Building block model

#### Public lighting RAB

Country Energy has determined its closing RAB as at 2008–09 by applying IPART’s opening RAB of \$11 million as at 1 July 2004, applying an annual indexation to the RAB, adding capex and subtracting depreciation. Using this method, Country Energy has valued its RAB as at 30 June 2009 to be \$16 million.

#### Rate of return on assets invested

Country Energy has applied a pre–tax real weighted average cost of capital (WACC) of 8.11 per cent in its model.

#### Depreciation

Country Energy has apportioned its opening RAB to individual customers to derive a RAB per customer. Country Energy has then applied straight line depreciation, adopting a remaining life of 10 years, to these asset values, producing a single depreciation rate for each customer. No differentiation in age between lights and poles has been made by Country Energy.

#### Tax

Country Energy has applied a pre-tax building block methodology. Therefore, it has not specifically included an allowance for tax recovery.

#### Maintenance charge

Country Energy developed an annual maintenance cost for each asset and provided a detailed break down of each component. The component costs that make up the total maintenance cost are:

- pole maintenance
- maintenance costs associated with spot replacement for each lamp type which includes:
  - labour and plant
  - lamp / ignitor cost
  - starter / photoelectric (PE) cell cost
  - traffic control
  - provision for other maintenance and repairs
- street light patrol costs.

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<sup>8</sup> Country Energy, *Country Energy’s electricity network revised regulatory proposal 2009–2014*, 16 January 2009, pp. 76–84.

## 2.3.2 Annuity approach

### Capital charge

Country Energy has calculated an annuity to derive its capital charge using the following inputs:

- standard life of luminaires and brackets of 20 years
- standard life of poles of 35 years
- discount rate of a pre-tax real WACC of 8.11 per cent
- capital cost of materials
- construction costs of a new light, consisting of labour and plant.

### Maintenance charge

Country Energy has adopted a consistent approach between its building block and annuity methods for developing its maintenance charge. As a result, the annual maintenance charge per customer is the same under both approaches.

### Annual charge

Country Energy has developed an annual charge for each asset by combining the relevant annual operating and an annuitised capital charge.

## 2.4 EnergyAustralia<sup>9</sup>

In its revised regulatory proposal, EnergyAustralia stated that it did not agree with the AER's modified approach to the calculation of public lighting charges and considered that its June 2008 annuity method for establishing charges remained appropriate.<sup>10</sup> At the AER's request, EnergyAustralia provided it with schedules of tariffs developed in a manner it considered was consistent with the draft decision.

### 2.4.1 Building block model

#### Public lighting RAB

EnergyAustralia has determined its closing RAB as at 2008–09 by applying IPART's opening RAB of \$98 million as at 1 July 2004, applying an annual indexation to the RAB, adding capex and subtracting depreciation. Using this method, EnergyAustralia has valued its RAB as at 30 June 2009 to be \$111 million.

#### Rate of return on assets invested

EnergyAustralia has applied a vanilla WACC of 9.72 per cent in its model.

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<sup>9</sup> EnergyAustralia, *Revised regulatory proposal and interim submission*, January 2009, pp. 171–181.

<sup>10</sup> EnergyAustralia, *Revised regulatory proposal and interim submission*, p.173.

## **Depreciation**

EnergyAustralia has provided a schedule of average asset lives for all public lighting assets. It estimated its public lighting asset ages using a database which includes a register of individual assets for each individual customer. EnergyAustralia has developed a remaining life for each individual asset by subtracting the average remaining life from assumed standard lives of 20 years for luminaires and brackets and 35 years for supports. It has then applied straight line depreciation to the individual asset values using the remaining life values.

## **Tax**

EnergyAustralia has not included an allowance for tax recovery as part of its building block method.

## **Maintenance charge**

EnergyAustralia has developed an annual maintenance charge for a 2.5 year bulk replacement program, which includes an element of spot replacement.

The maintenance charge has been developed as:

- the contracted out cost to bulk replace each lamp
- a percentage to annualise the cost
- the labour costs of a spot replacement of a lamp
- the costs of the materials of a spot replacement of a lamp
- the number of spot lamp replacements per annum
- an overhead provision.

### **2.4.2 Annuity approach**

#### **Capital charge**

EnergyAustralia has calculated an annuity to derive a capital charge per customer as follows:

- capital cost of materials
- construction costs of a new light
- capital cost of materials multiplied by a store handling overhead rate of 20 per cent
- standard life of luminaires and brackets of 20 years; poles of 35 years and lamps of 2.5 years
- a discount rate of a pre-tax real WACC of 7.69 per cent.

### **Maintenance charge**

EnergyAustralia has adopted a consistent approach between its building block and annuity methods for calculating its maintenance charge. As a result, the annual maintenance charge per customer is the same under both approaches.

### **Annual charge**

EnergyAustralia has provided an annual charge for each asset by combining the relevant annual maintenance and an annuitised capital charge.

## **2.5 Integral Energy<sup>11</sup>**

### **2.5.1 Building block model**

#### **Public lighting RAB**

Integral Energy has determined its closing RAB as at 2008–09 by applying IPART's opening RAB of \$21 million as at 1 July 2004, applying an annual indexation to the RAB, adding capex and subtracting depreciation. Using this method, Integral Energy has valued its RAB as at 30 June 2009 to be \$37 million.

#### **Rate of return on assets invested**

Integral Energy has applied a post-tax nominal WACC of 10.02 per cent in its public lighting analysis.

#### **Depreciation**

Integral Energy has assumed that all luminaires and brackets have a standard life of 20 years and columns have a standard life of 35 years.

Integral Energy has adopted a straight line depreciation approach applying different remaining lives for different asset classes.

#### **Tax**

Integral Energy has not included an allowance for tax recovery as part of its building block method.

#### **Maintenance charge**

Integral Energy has developed an annual maintenance charge for each asset. The maintenance charge is derived from the sum of:

- cost based maintenance
- fault and emergency
- group cost
- patrol costs.

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<sup>11</sup> Integral Energy, *Revised regulatory proposal to the Australian Energy Regulator 2009 to 2014, Delivering efficient and sustainable network services*, 14 January 2009, pp. 92–96.



### **Treatment of gifted assets**

When an asset is gifted to a DNSP, it is treated as income and therefore attracts a tax liability. To allow Integral Energy to recover the tax liability associated with assets which it has been gifted, a tax recovery allowance has been included in its capital charge.

### **2.5.2 Annuity approach**

#### **Capital charge**

Integral Energy has calculated an annuity to derive its capital charge with the following inputs:

- the inventory cost of individual public lighting assets
- standard life of luminaires and brackets of 20 years
- standard life of poles of 35 years
- discount rate of a pre-tax real WACC of 8.09 per cent.

#### **Maintenance charge**

The method used by Integral Energy to develop its operating expenditures under both the annuity and building block models is consistent.

The maintenance charge under the building block method does not incorporate an allowance for tax on capital contributions whereas the annuity approach does.

#### **Annual charge**

Integral Energy has provided an annual charge for each asset as required by combining the relevant annual operating and an annuitised capital charge.

### 3 Assets constructed before 1 July 2009

This chapter sets out the AER's review of whether the charges proposed by the NSW DNSPs have been modelled in accordance with the AER's draft decision. It also reviews the closing 2009 RABs, limited building block components and maintenance charges proposed by the NSW DNSPs. The chapter also sets out the AER's proposed tariffs for 2009–10 and a price path for the remainder of the next regulatory control period for public lighting assets constructed before 1 July 2009.

#### 3.1 Limited building block

The draft decision required the NSW DNSPs to develop a proposed schedule of prices for public lighting assets constructed before 1 July 2009 by applying a limited building block approach that would establish:<sup>12</sup>

- an annual capital charge for each individual customer
- an annual maintenance charge for each individual customer
- a total annual charge for each individual customer.

The AER's objective in requiring DNSPs to apply a building block approach to existing public lighting assets is to separate existing assets from new replacement assets—given the age of the NSW DNSP's existing assets and the significant increases in replacement costs in recent times. This approach provides certainty and transparency to customers and allows the NSW DNSPs to recover a return on their investment.

The NSW DNSPs are required to provide a single annual charge for each public lighting asset by adding the relevant annual capital charge and the annual maintenance charge.

In assessing the efficiency of the proposed charges, the AER has adopted a two stage approach. Firstly, it has assessed whether the building block method applied by the DNSPs was calculated in accordance with the draft decision. Secondly, it has assessed whether the inputs (assumptions regarding the opening RAB and return on and of capital) into the calculation were reasonable.

Each of the NSW DNSPs submitted a schedule of charges per lighting type or public lighting component derived using a limited building block method. These charges are set out in appendices A, B and C for Country Energy, EnergyAustralia and Integral Energy respectively.

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<sup>12</sup> AER, *Draft decision*, p. 336–340.

## 3.2 Regulated asset base

### 3.2.1 Calculation of the opening regulated asset base

#### 3.2.1.1 Draft decision

The draft decision required the NSW DNSPs to determine the 30 June 2009 closing RAB for alternative control services using IPART's 2004 opening RAB plus actual capital expenditure in the current regulatory control period less an allowance for depreciation.<sup>13</sup>

#### 3.2.1.2 NSW DNSP revised regulatory proposals

##### Country Energy

Country Energy proposed an opening RAB of \$12 million as at 1 July 2004 and a closing RAB of \$15.9 million as at 30 June 2009.<sup>14</sup> Country Energy applied the same indexation to its alternative control services RAB roll forward as it has to its RAB roll forward for standard control services. The derivation of the closing RAB is shown in table 3.1.

**Table 3.1: Country Energy's public lighting RAB (\$m, nominal)**

	2004–05	2005–06	2006–07	2007–08	2008–09
Opening RAB	11.5	12.5	11.6	13.3	14.9
Indexation	0.3	0.3	0.5	0.3	0.5
Capex	1.6	0.2	2.3	2.4	1.8
Depreciation	-0.9	-1.0	-1.0	-1.1	-1.3
Closing RAB	12.5	11.6	13.3	14.9	15.9

Source: Country Energy, Pre 1 July 2009 public lighting model.

Note: The indexation rates for the years 2005-06 to 2008-09 were 2.67 per cent, 3.54 per cent, 2.33 per cent and 3.00 per cent.

Country Energy applied a half life assumption to calculate the depreciation on its public lighting assets constructed before 1 July 2009.

##### EnergyAustralia

EnergyAustralia has proposed an opening RAB of \$98 million as at 1 July 2004 and a closing RAB of \$111 million as at 30 June 2009.<sup>15</sup> The derivation of the closing RAB is shown in table 3.2.

<sup>13</sup> AER, *Draft decision*, p. 339.

<sup>14</sup> Country Energy, *Revised regulatory proposal*, p. 82.

<sup>15</sup> EnergyAustralia, *Revised regulatory proposal*, p. 175.

**Table 3.2: EnergyAustralia’s public lighting RAB (\$m, nominal)**

	2004–05	2005–06	2006–07	2007–08	2008–09
Opening RAB	97.8	99.6	102.9	107.4	106.8
Indexation	2.9	2.9	3.5	2.1	2.5
Capex	9.7	12.1	13.8	11.2	16.9
Depreciation	-10.9	-11.8	-12.8	-14.0	-14.9
Closing RAB	99.6	102.9	107.4	106.8	111.3

Source: EnergyAustralia, Pre 1 July 2009 public lighting model.

Note: The indexation rates for the years 2005-06 to 2008-09 were 2.9 per cent, 3.5 per cent, 2.1 per cent and 2.5 per cent.

EnergyAustralia applied a half life assumption to calculate the depreciation on public lighting assets constructed before 1 July 2004 and used actual remaining lives for all new assets from 1 July 2004 to calculate depreciation. The remaining lives for capital expenditure incurred after 1 July 2004 are based on a 20 year standard life assumption for all assets

EnergyAustralia originally submitted an opening RAB in its regulatory proposal of \$139 million<sup>16</sup> based on the IPART approved 2004 closing RAB. However, it stated that it disagreed with IPART’s pricing decision in regard to the 2004 opening RAB and viewed the AER’s approach to valuing the closing 2009 RAB based on the IPART pricing decision as inappropriate. EnergyAustralia proposed its own valuation using an ODRC valuation of \$129 million.<sup>17</sup> In December 2008, EnergyAustralia provided the AER with a revised public lighting RAB estimate of \$111 using figures from its public lighting data base and IPART’s 2004 opening asset base (see table 3.2).<sup>18</sup>

### **Integral Energy**

Integral Energy has proposed an opening RAB of \$24 million as at 1 July 2004 and a closing RAB of \$38 million as at 30 June 2009.<sup>19</sup> The derivation of the closing RAB is shown in table 3.3.

<sup>16</sup> EnergyAustralia, *Regulatory proposal*, p. 198.

<sup>17</sup> EnergyAustralia, *Regulatory proposal*, p. 198.

<sup>18</sup> EnergyAustralia, *Revised regulatory proposal*, p. 175.

<sup>19</sup> Integral Energy, *Revised regulatory proposal*, p. 95.

**Table 3.3: Integral Energy’s public lighting RAB (\$m, nominal)**

	2004–05	2005–06	2006–07	2007–08	2008–09
Opening RAB	24.1	26.8	30.3	33.0	35.2
Capex	4.6	5.6	4.9	5.0	5.1
Indexation	0.6	0.8	1.2	0.8	1.1
Depreciation	-2.6	-2.9	-3.3	-3.6	-4.0
Closing RAB	26.8	30.3	33.0	35.2	37.5

Source: Integral Energy, *Revised regulatory proposal*, p. 95.

Integral Energy has applied a half life assumption to calculate depreciation on public lighting assets prior to 1 July 2004 and a 20 year remaining life for all new public lighting assets installed from 1 July 2004 to calculate its straight line depreciation.

### 3.2.1.3 Issues and considerations

The NSW DNSPs have proposed public lighting opening RABs in compliance with clause 6.8.2(c)(3A)(i) of the transitional chapter 6 rules. However, there are some variations to the calculations for each of the NSW DNSPs, for example:

- Country Energy applied a half life assumption to calculate depreciation on its public lighting assets constructed before 1 July 2009, while Integral Energy and EnergyAustralia have used actual remaining lives for all new assets from 1 July 2004
- EnergyAustralia has revised downwards its public lighting RAB since its June 2008 regulatory proposal from \$139 million to \$111 million based on a more detailed analysis of the remaining lives of its public lighting assets<sup>20</sup>
- Integral Energy and Country Energy have applied indexation to new capex on fifty per cent in the year incurred and the remaining fifty per cent in the following year.

Table 3.4 sets out the 1 July 2009 opening RABs proposed by each the NSW DNSPs.

In order to review the proposed public lighting opening RABs the AER compared each DNSP’s proposed opening RAB with an opening RAB derived by estimating historical capex over the past twenty years and deducting depreciation. The objective was to gauge the level of asset value remaining as at 30 June 2009 that resulted from a standard twenty year life of public lighting assets (to simplify the calculation the 35 year standard asset life of supports was excluded). The estimated historical capex was calculated by averaging actual public lighting capital expenditure in the current regulatory control period and assuming the same average level of expenditure was made over the last twenty years. The notional capital expenditure was depreciated using the straight line method.

<sup>20</sup> EnergyAustralia, *Revised regulatory proposal*, p. 174.

**Table 3.4: Opening RABs proposed by the NSW DNSPs as at 1 July 2009 (\$m, nominal)**

	<b>DNSP proposal</b>	<b>AER benchmark estimate</b>
Country Energy	15.9	15.3
EnergyAustralia	111.3	110.8
Integral Energy	37.5	37.7

Sources: Country Energy, *Revised regulatory proposal*, p. 82; EnergyAustralia, *Revised regulatory proposal*, p. 175; and Integral Energy, *Revised regulatory proposal*, p. 95.

The AER considers that the opening public lighting RABs derived in this manner provides a benchmark by which to judge the reasonableness of the opening RAB's proposed by the NSW DNSPs. The AER's benchmark opening RABs are also shown in table 3.4.

The analysis indicates a minimal difference between the AER estimated RABs and those proposed by the NSW DNSPs. The AER therefore considers that the proposed RAB's represent a reasonable value from which to calculate an annual capital charge.

Country Energy's application of a half life assumption to calculate depreciation on its assets constructed before 1 July 2009 until they reach the end of their useful lives is considered reasonable by the AER. The AER formed this view after reviewing the data limitations faced by Country Energy.

Integral Energy and EnergyAustralia's use of actual remaining lives for all new assets from 1 July 2004 is reasonable in the AER's view because it provides cost reflective inputs into the closing 2009 RAB.

#### **3.2.1.4 AER conclusion**

The opening RABs proposed by the NSW DNSPs and the benchmark RAB's estimated by the AER are not significantly different. The approaches used by the NSW DNSPs to calculate remaining lives and depreciation are considered reasonable by the AER. The AER has therefore concluded that the public lighting opening RABs proposed by the NSW DNSPs are reasonable estimates.

### **3.2.2 Allocation of closing RAB**

#### **3.2.2.1 Draft decision**

The draft decision required the NSW DNSPs to allocate their 2009 closing RAB's to individual public lighting customers using each customer's individual asset inventories.<sup>21</sup> The AER's objective in allocating the closing RAB to individual customers was to produce tariffs that more closely reflect the age of the assets contained in an individual customer's asset inventory.

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<sup>21</sup> AER, *Draft decision*, p. 339.

### 3.2.2.2 NSW DNSP revised regulatory proposals

#### Country Energy

Country Energy obtained inventory records based on asset type from its public lighting database and valued the inventory using the current replacement cost. The valuation of each asset type was divided by the total inventory value to obtain an apportionment percentage. This percentage was then applied to the 2009 closing RAB to determine the value of the assets for each asset type. Country Energy has applied the asset type valuations to customer inventory records and produced a total bill for each customer.<sup>22</sup>

#### EnergyAustralia

EnergyAustralia obtained customer inventory records from its public lighting database and valued the inventory using the replacement cost of materials. The valuation of each component for each customer was divided by the total inventory value to obtain an apportionment percentage. This percentage was then applied to the 2009 closing RAB to determine the value of the assets for each customer.<sup>23</sup>

#### Integral Energy

Integral Energy obtained asset type inventory records by asset category from its public lighting database and valued the inventory using the current replacement cost. The valuation of each asset category was written down according to the estimated remaining lives. The written down value for each asset category was divided by the total inventory value to obtain an apportionment percentage. This percentage was then applied to the 2009 closing RAB to determine the value of assets for each asset category.

Integral Energy applied the asset category tariffs to customer inventory records and produced a total bill for each customer.<sup>24</sup>

### 3.2.2.3 Issues and considerations

The NSW DNSPs state they do not have accurate information on their public lighting assets and consequently the remaining lives for individual assets is unknown. The AER accepts that data limitations have impacted on the RAB allocation process and considers that the simplifying assumptions made by the DNSPs to estimate the remaining lives of customer's assets and allocate the 2009 closing RAB to individual customers are necessary.

EnergyAustralia has allocated its 2009 closing RAB by using a proportion of the RAB value based on replacement cost, not the written down value. This results in the allocation of the 2009 closing RAB being higher on older assets and lower on newer assets than it should be. Integral Energy has based its 2009 closing RAB allocation on written down values. The AER notes that, in terms of Country Energy, replacement values based on a half life assumption would not require a reduction to written down value because all the assets would be written down equally (by half life) and this would not impact on the final RAB apportionment calculation.

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<sup>22</sup> Country Energy, *Revised regulatory proposal*, p. 82.

<sup>23</sup> EnergyAustralia, *Revised regulatory proposal*, pp. 175–176.

<sup>24</sup> Integral Energy, *Public lighting pricing proposal to the Australia Energy Regulator, Delivering efficient and sustainable network services*, 16 January 2009, p. 4.

### 3.2.2.4 AER conclusion

The AER is of the view that the approach taken by Integral Energy to allocate its 2009 closing RAB using an apportionment based on a written down value is reasonable. EnergyAustralia's approach to allocating the 2009 closing RAB is also considered reasonable with the exception of full replacement cost being used in the apportionment calculation. The AER requested EnergyAustralia to determine the written down value of the assets using the estimated remaining lives prior to calculating the apportionment percentage to be applied to its 2009 closing RAB. While Country Energy has also applied full replacement cost to develop its apportionment percentage this is considered reasonable given its data limitations and its use of a half life assumption.

## 3.3 Annual capital charge

### 3.3.1 Return on and of capital

#### 3.3.1.1 Draft decision

The draft decision required the NSW DNSPs to calculate a total annual capital charge for each customer for each year of the next regulatory control period using a limited building block approach.<sup>25</sup>

Return on capital (depreciation) was to be calculated based on the 30 June 2009 closing RAB using estimated remaining lives. Remaining lives were to be estimated by the DNSPs on the basis of the type and condition of the assets within their RABs. The NSW DNSPs' average remaining life estimates were to be supported by documented analysis or alternatively a default remaining life of three quarters of the standard life of the asset.

Return on capital was to be calculated by applying the WACC to the opening 2009 RAB. The draft decision indicated that the WACC applied should be the same as that applied to standard control services (that is, a nominal vanilla WACC of 9.72 per cent).

The draft decision states that no additional capex is to be added to the public lighting RAB after 1 July 2009 as capital charges for assets constructed after 30 June 2009 are to be determined using an annuity approach. It was also noted that capex for 2007–08 and 2008–09 should be updated before the AER's final decision to reflect actual capex in 2007–08 and updated forecasts for 2008–09.

#### 3.3.1.2 NSW DNSP revised regulatory proposals

##### Country Energy

Country Energy has calculated a total annual capital charge for each customer for each year of the next regulatory control period. The 2009 closing RAB has been allocated to asset categories and depreciation and return on capital has been calculated for each inventory type for each customer.<sup>26</sup>

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<sup>25</sup> AER, *Draft decision*, p. 338.

<sup>26</sup> Country Energy, *Revised regulatory proposal*, p. 81–82.



### ***Return of capital***

Country Energy has allocated its 2009 closing RAB to each of its asset categories based on replacement costs. Depreciation has been calculated for each asset category using a straight line method and a 10 year average remaining life for all assets. The half life assumption was proposed by Country Energy because it does not have age related information for every public lighting asset in service.<sup>27</sup> Country Energy has calculated depreciation by dividing the 2009 closing RAB value for each asset type by the 10 year remaining life.

### ***Return on capital***

Country Energy has calculated its return on capital by multiplying the average RAB over the next 10 years (adjusted for inflation and reduced by depreciation) by a pre-tax real WACC of 8.11 per cent. This has been allocated to each asset category using the apportionment calculation of replacement costs divided by total replacement costs.<sup>28</sup>

### **EnergyAustralia**

EnergyAustralia has calculated a total capital charge for each customer for each year of the next regulatory control period. The 2008–09 closing RAB has been allocated proportionately to customers using inventory levels from EnergyAustralia’s public lighting database. Depreciation and return on capital has been calculated for each inventory item for each customer.<sup>29</sup>

### ***Return of capital***

EnergyAustralia has calculated depreciation using a straight line method and remaining lives estimated from its public lighting database. The database only contains information on the date an asset was first installed but does not record subsequent replacement details. Assets that had installation dates that were more than 20 years old had multiples of 20 years subtracted from their age until their age was less than 20 years and this has been used as an estimate of the assets current age. Supports (poles and columns) were calculated in the same manner using multiples of 35 years. Remaining lives were determined for each public light component allocated to each customer and deducted from the standard life to obtain the average remaining lives for each customer’s inventories. Average remaining lives for each of EnergyAustralia’s public lighting components are set out in table 3.5.

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<sup>27</sup> Country Energy, *Revised regulatory proposal*, p. 82.

<sup>28</sup> Country Energy, *Revised regulatory proposal*, p. 82.

<sup>29</sup> EnergyAustralia, *Revised regulatory proposal*, p. 176.

**Table 3.5: EnergyAustralia’s proposed average remaining lives for pre 1 July 2009 assets**

Component type	Average remaining life (years)
Supports (poles and columns)	24.9
Connections	12
Lamps	1.4
Luminaires	12.7
Brackets	13.1

Source: EnergyAustralia, *Revised regulatory proposal*, p. 176.

The relevant portion of the 2009 closing RAB has been divided by the average remaining life of the asset class which had been allocated to each customer for every year of the next regulatory control period. The average remaining life has been reduced in every year of the next regulatory control period. The RAB used to calculate depreciation was inflated by inflation and reduced by the depreciation in the previous year.

### ***Return on capital***

EnergyAustralia inflates its RAB by 3 per cent in 2009–10 and 2.5 percent for the remaining years of the next regulatory control period. It has calculated the return on capital for each component type by multiplying the RAB (adjusted for inflation and reduced by depreciation in the previous year) in each year by a nominal vanilla WACC of 9.72 per cent.

### **Integral Energy**

Integral Energy has allocated the 2009 closing RAB to each asset type and has calculated return of and return on capital for each of these asset types. The return of and on capital have been added together with the maintenance component to establish a total charge per asset type. The total charges for each asset type have been allocated to customers using inventory records on Integral Energy’s public lighting database.<sup>30</sup>

### ***Return of capital***

Integral Energy calculated depreciation using a straight line method and average remaining lives. The average remaining lives of each asset class have been determined using the following principles:

- for assets that have not been installed in the last 15 years, an average life equal to the standard life was assigned (that is the remaining life is zero)
- for assets recently added, an average life of less than 5 years was assigned. The remaining life was set at close to the standard life (for example, 2 x 14 W fluorescents are estimated to be two years of age)

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<sup>30</sup> Integral Energy, *Public lighting proposal*, p. 6.

- all other asset classes were assigned an average life of half way through the standard life and the remaining life was calculated at approximately 10 years.<sup>31</sup>

The average remaining lives for each asset type are set out in table 3.6.

**Table 3.6: Integral Energy’s proposed average remaining lives for pre 1 July 2009 assets**

Description	Average remaining life (years)	Description	Average remaining life (years)
1 x 20 W Fluorescent	0	1000W Incandescent	5
2 x 20 W Fluorescent	0	1500W Incandescent	5
2 x 14 W Fluorescent	18	100W Metal Halide	5
1 x 40 W Fluorescent	0	150W Metal Halide	5
2 x 40 W Fluorescent	0	250W Metal Halide	5
80W Mercury	9	400W Metal Halide	5
250W Mercury	9	1000W Metal Halide	5
400W Mercury	9	600W Sodium	17
150W Sodium	11	Bracket minor	10
250W Sodium	11	Bracket major	10
400W Sodium	11	Outreach minor	10
60W Incandescent	0	Outreach major	10
100W Incandescent	0	Column minor	20
500W Incandescent	2	Column major	20

Source: Integral Energy, *Public lighting proposal*, p. 5.

### ***Return on capital***

Integral Energy has inflated its RAB by 2.55 per cent in years 2009–10 to 2013–14. Return on capital is calculated on the RAB (adjusted for inflation and depreciation from the previous year only) using equity and debt ratios. A return on equity of 11.83 per cent and a return on debt of 8.82 per cent is applied. This equates to a nominal vanilla WACC of 10.02 per cent. This calculation is performed every year of the next regulatory control period.

#### **3.3.1.3 Issues and considerations**

The AER has reviewed the methodologies and inputs underpinning each of the NSW DNSPs’ capital charge calculations.

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<sup>31</sup> Integral Energy, Response to AER questions, 13 February 2009.

Country Energy, EnergyAustralia and Integral Energy provided a total bill for each customer that applies to 2009–10.

#### *Return of capital*

Country Energy states that due to the absence of age profile data to determine remaining lives, a 10 year remaining life (half life assumption) has been proposed and applied to all assets.<sup>32</sup> The AER considers that given the data and time limitations Country Energy's proposed 10 year remaining life assumption is reasonable to calculate depreciation under a straight line method.

EnergyAustralia provided an estimation of average asset lives for each asset class per customer based on original installation dates. Although the replacement dates for each asset are unknown, EnergyAustralia has produced an estimate of the ages of individual customer assets. EnergyAustralia has used the estimated remaining lives to calculate depreciation on each component for each customer by using a proportion of the RAB value based on replacement cost. The AER notes that depreciation is calculated on the replacement cost of each component, not the written down value. This results in the depreciation component of the charge being higher on older assets and lower on newer assets than it should be. The AER requested EnergyAustralia to adjust this calculation and apply written down replacement value to apportion the 2009 closing RAB.

Integral Energy proposed an alternative approach to calculating its remaining lives due to the short timeframe available and insufficient information regarding the lives and condition of the public lighting assets for individual customers.<sup>33</sup> Integral Energy has created 28 assets classes and estimated the remaining lives based on asset category and its estimated installation date. The AER considers that Integral Energy's approach to estimate remaining lives to calculate depreciation under a straight line method is reasonable.

#### *Return on capital*

EnergyAustralia and Integral Energy have applied a nominal vanilla WACC to their opening RAB. EnergyAustralia has used the WACC provided in the draft decision and Integral Energy has proposed a 10.02 per cent nominal vanilla WACC. Country Energy has applied a pre tax real WACC of 8.11 per cent. The draft decision applied a nominal vanilla WACC of 9.72 per cent to the NSW DNSPs and a pre tax real WACC of 7.65 per cent to Country Energy. The AER therefore requested that Integral Energy apply a nominal vanilla WACC of 9.72 per cent and Country Energy a pre tax real WACC of 7.65 per cent.

The WACC will need to be updated to reflect the AER's final determination on the WACC to apply to standard control services.

#### **3.3.1.4 AER conclusion**

#### *Return of capital*

The AER considers the methodology applied by Country Energy to calculate depreciation and return of capital is reasonable.

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<sup>32</sup> Country Energy, *Revised regulatory proposal*, p. 82.

<sup>33</sup> Integral Energy, *Public lighting proposal*, p. 4.

The AER has considered EnergyAustralia's approach to calculating return of capital and requires EnergyAustralia to amend the apportionment calculation of the closing RAB to each component. The RAB should be allocated to each component based on its proportion of the written down value of the asset, not on the replacement value. The objective of this amendment is to allocate the RAB to individual customers to reflect the age of their assets.

The AER also requires an amendment to the return of capital calculation because it does not reasonably comply with the building block requirements or the draft decision. The return of capital calculation should be amended to comply with the following formulae:

- calculate the depreciation on the closing real RAB from the previous period using the remaining life in the first year only (apply this to all years)
- multiply the depreciation by the inflation rate in the current year
- deduct the inflation component of the closing nominal RAB from the previous period using the inflation rate in the current year.

Consequently the asset values must also be amended to exclude inflation adjustments because inflation is incorporated into the calculation above and including it in the asset values will result in the double counting of inflation.

The AER considers the methodology applied by Integral Energy to calculate depreciation is reasonable. Integral Energy calculates its return of capital in accordance with the building block method used for standard control services.

The AER has considered the remaining lives estimated by the NSW DNSPs and is of the view that they have been estimated reasonably by EnergyAustralia and Integral Energy. Given the data limitations it faces, the AER also accepts Country Energy's half life assumption.

### ***Return on capital***

The AER accepts the methodology applied by County Energy, Integral Energy and EnergyAustralia to calculate return on capital with the exception that Integral apply a nominal vanilla WACC of 9.72 per cent and Country Energy apply a pre tax real WACC of 7.65 per cent.

The WACC will need to be updated for the AER's final decision on alternative control (public lighting) services to reflect the WACC parameters specified by the AER in its final decision on standard control services.

## **3.4 Efficient maintenance charges**

### **3.4.1 Draft decision**

The draft decision required the NSW DNSPs to calculate an annual maintenance charge for each asset based on efficient labour and materials costs.<sup>34</sup> It was assumed that this

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<sup>34</sup> AER, *Draft decision*, p. 338.

maintenance cost would be based on a three year spot within bulk replacement program and that maintenance charges would be the same for new and existing assets.<sup>35</sup> A total annual maintenance charge for each customer was required to be calculated by multiplying the number of assets in the asset register for the customer by the annual maintenance charges associated with each asset type.

### **3.4.2 NSW DNSP revised regulatory proposals**

#### **Country Energy**

Country Energy calculated annual maintenance charges for every asset type using a 3 year bulk lamp replacement program for street lights and a 5 year bulk lamp replacement program for traffic lights.<sup>36</sup> Country Energy's maintenance charge for each asset type (used to estimate tariff classes 2 and 4) is the same for both existing and new assets.

#### **EnergyAustralia**

EnergyAustralia has calculated an annual maintenance charge for each component of its public lighting RAB. The charge includes labour, material and overheads. An annual maintenance charge has been developed for each customer according to recorded inventory.

EnergyAustralia's bulk lamp replacement program is based on a 2.5 year cycle and results in an average annual spot lamp failure rate of 34 per cent. EnergyAustralia has used the same annual maintenance charge for assets constructed before and after 1 July 2009. However, the price path varies slightly for pre and post assets for the remaining years of the next regulatory control period as a result of the application of different percentages of maintenance costs being attributable to labour.<sup>37</sup>

#### **Integral Energy**

Integral Energy's maintenance charge is based on a 3 year spot within bulk lamp replacement program.<sup>38</sup> Integral Energy has provided a total charge payable (including an annual maintenance component) by customer for tariff class 1 and tariff class 2.

Integral Energy's maintenance charge for assets constructed before and after 1 July 2009 differs slightly due to an additional charge for the recovery of tax on contributed (gifted) assets which is applied to tariff class 4 but not to tariff class 2.

### **3.4.3 Issues and considerations**

The NSW DNSPs have calculated their maintenance charges using different methods and assumptions. The AER compared the assumptions made by each of the NSW DNSPs against the other NSW and assumptions applied to the Victorian DNSPs.

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<sup>35</sup> A spot within bulk lamp replacement program refers to the situation where a bulk replacement of lamps is undertaken on a cyclical basis and factors in the lower number of spot lamp replacements that will be required within the cycle as a result of the bulk replacement program.

<sup>36</sup> Both these programs include a spot within bulk component.

<sup>37</sup> EnergyAustralia, *Revised regulatory proposal*, pp. 175–177.

<sup>38</sup> Integral Energy, Pre July 2009 public lighting model.

### *Three year spot within bulk lamp replacement cycle*

EnergyAustralia has proposed a 2.5 year spot within bulk lamp replacement program which it states is based on its history regarding lamp failure rates.<sup>39</sup> EnergyAustralia noted that the draft decision required a 3 year spot within bulk program to be modelled, however, it stated that a change to bulk lamp replacement from 2.5 to 3 years would have an adverse impact on the number of spot replacements required and, consequently increase its total maintenance costs.<sup>40</sup> EnergyAustralia stated that the AER needs to consider this balance if it requires EnergyAustralia to undertake modelling using a 3 year bulk replacement program.

The AER has considered EnergyAustralia's comments but considers the 3 year spot within bulk lamp replacement cycle is reasonable. The AER notes that in other jurisdictions, bulk replacement programs are even less frequent than 3 years. For example, a report prepared in 2005 on public lighting for the then Australian Greenhouse Office indicates that DNSPs in Victoria, Queensland and Western Australia carried out bulk lamp replacement programs consisting of 4 year cycles.<sup>41</sup>

In considering the adverse impact on spot replacements from a longer bulk replacement cycle, the AER notes that Country Energy has based its model on spot replacement rates that average 27 per cent with no bulk replacement and average 8 per cent with a bulk replacement cycle of 3 years. Data on the improvement rate in spot replacement for Integral Energy is not available. EnergyAustralia has based its model on an average 35 per cent spot replacement with no bulk replacement and an average 34 per cent spot replacement rate with a bulk replacement cycle of 2.5 years. This is an improvement of only 1 per cent in spot replacement rates as a result of the bulk replacement program. The AER considers that the spot replacement rate should improve by significantly more than 1 per cent with a 2.5 year bulk replacement program.

EnergyAustralia stated that this 1 per cent does not represent an accurate reflection of its spot replacement improvement rates under its bulk replacement program. It indicated that the calculation used to derive the spot replacement rates ensures that total maintenance costs are scaled to ensure that its forecast maintenance budget is recovered. EnergyAustralia indicated that the maintenance budget is based on its historical maintenance expenditure and includes costs such as spot lamp replacements, ad hoc maintenance, bulk lamp replacements, fleet costs and overheads.<sup>42</sup>

The calculation to determine the spot replacement rate under a bulk replacement program contains a value that is adjustable and is not related to the expected improvement in the spot replacement rate. Rather, it is used as a mechanism to adjust EnergyAustralia's maintenance costs to meet its forecast maintenance budget.

The AER considers that EnergyAustralia's top down approach to calculating its maintenance charges is not cost reflective and the spot lamp replacement rates assumed are not reasonable when compared to other DNSPs. The spot replacement rate applied by

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<sup>39</sup> EnergyAustralia, *Revised regulatory proposal*, p. 180.

<sup>40</sup> EnergyAustralia, *Revised regulatory proposal*, p. 180.

<sup>41</sup> Kevin Poulton and Associates, Genesis Automation, and Deni Greene Consulting Services for the Australian Greenhouse Office in the Department of the Environment and Heritage, *Public Lighting in Australia – Energy Efficiency Challenges and Opportunities*, Final Report 2005, p. 12.

<sup>42</sup> EnergyAustralia, Response to public lighting questions sent on 24 February 2009.

EnergyAustralia should represent the improvement under a bulk lamp replacement regime. The AER requested that EnergyAustralia remodel its maintenance charges based on a spot replacement improvement rate of 20 per cent.

*Cost of bulk lamp replacement*

The AER compared the cost per lamp under a bulk lamp replacement program between the NSW DNSPs and found the costs to be similar for EnergyAustralia and Integral Energy. However, the AER found that the per lamp cost of bulk lamp replacement for Country Energy to be more than double that of EnergyAustralia. Table 3.7 sets out the bulk replacement comparison between the NSW DNSPs.

**Table 3.7: Comparison of the cost of bulk replacement between NSW DNSPs**

	Country Energy	EnergyAustralia	Integral Energy
Cost of bulk replacement per lamp over BLR period	\$80.35 <sup>^</sup>	\$31.46	\$47.25 <sup>^</sup>
Cost of bulk replacement per lamp per annum.	\$26.78	\$12.58	\$15.75
Time to replace each lamp	16.8 minutes	N/A	6.85 minutes

Source: Country Energy, Pre 1 July 2009 public lighting model; EnergyAustralia, Post 1 July 2009 public lighting model; Integral Energy, Pre 1 July 2009 public lighting model.

Notes: <sup>^</sup> Average cost across total inventory calculated by the AER.

Country Energy and Integral Energy perform their bulk lamp replacements using internal labour while EnergyAustralia largely contracts out this function.<sup>43</sup> From its review of the models, the AER found that Country Energy takes 2.5 times longer to change a lamp under its bulk replacement program than Integral Energy. Country Energy also adds a travel time labour cost to the bulk replacement of a lamp which further increases its bulk lamp replacement costs.

While the AER understands that Country Energy operates predominantly in a rural environment and Integral Energy in an urban environment, the AER considers the cost variance per light is not reasonable. It is noted that in a recent Essential Services Commission of Victoria (ESCV) decision regarding energy efficient lighting, the ESCV made an exception to its benchmarks in its approach within its pricing model to reflect the differences in geographic circumstances over which the distributors have no control. In particular, it allowed for a decrease of between 15 to 20 per cent in the number of bulk lamp changes made per day in rural areas in comparison to bulk changes made in urban

<sup>43</sup> No information on bulk lamp change durations was contained in EnergyAustralia’s public lighting model.



areas. That is, more time per bulk lamp change is allowed in rural areas relative to urban areas.<sup>44</sup>

On the basis of the above comparisons and the ESCV report, the AER considers Country Energy should apply Integral Energy's time to replace each lamp under a bulk replacement program (that is, 6.85 minutes per lamp) with a 20 per cent increase in this time per lamp to take into account the rural nature of Country Energy's network (that is, 8.22 minutes per lamp).

#### *Application of overheads*

The NSW DNSPs use different approaches to applying overhead rates in their public lighting models. Table 3.8 outlines the overheads applied by each of the NSW DNSPs.

**Table 3.8: Overhead assumptions applied by NSW DNSPs**

Description	EnergyAustralia	Country Energy	Integral Energy
Overhead on materials	20 per cent on capex materials	56 per cent on all materials	N/A
Overhead on maintenance	25 per cent	N/A	N/A
Overhead on labour	N/A	131 per cent	57 per cent
Overhead on plant	N/A	48 per cent	N/A

Source: Country Energy, Pre 1 July 2009 public lighting model; EnergyAustralia, Post 1 July 2009 public lighting model; Integral Energy, Pre 1 July 2009 public lighting model.

As can be seen from table 3.8 there is no consistency in the application or size of overheads applied by each of the NSW DNSPs.

With respect to overhead rates for materials, the AER accepts that some quantum of general overhead is appropriate to reflect general support activities such as corporate finance and human resources. The AER expects that the overhead allocation to alternative control services to be consistent with each DNSP's cost allocation method approved by the AER.

The AER accepts that with respect to Country Energy there is a case for a materials premium to reflect the rural nature of the network. However, the AER has not been provided with sufficient information from Country Energy to support a materials overhead of 56 per cent or a plant overhead of 48 per cent. The AER notes that in its recent review, the ESCV considered a 5 per cent materials premium for rural areas was reasonable.<sup>45</sup>

EnergyAustralia has applied overheads to maintenance costs at a rate of 25 per cent to allow for operating overhead costs which are not specifically priced in the public lighting

<sup>44</sup> ESCV, *Energy efficient public lighting charges, draft decision*, November 2008, p. 16.

<sup>45</sup> ESCV, p. 20.

model.<sup>46</sup> These costs include costs associated with non-operational staff, contact centre operations and corporate/executive costs. The AER notes that the ESCV has allowed a 25 per cent overhead rate to apply to maintenance charges and on this basis considers the rate to be reasonable.

The AER's considerations in regard to overheads applied to labour are discussed in further detail at section 4.2.3.

With respect to overhead rates, the NSW DNSPs have proposed plant overhead rates to reflect inventory holding costs. However, as part of the AER's examination of supplier invoices relating to the supply luminaires, it was apparent that purchases were not always made in bulk quantities. The AER considers that in the absence of bulk purchases being undertaken, there is little justification for a materials overhead. For this reason, the AER requires the DNSPs to demonstrate that the majority of purchases are made in bulk quantities.

### **3.4.4 AER conclusions**

#### *Three year bulk lamp replacement rate*

In assessing EnergyAustralia's public lighting model, the AER has found the 3 year bulk lamp replacement rate to be more appropriate in light of the programs used by others DNSPs. The AER requires EnergyAustralia to remodel its maintenance charges based on a 3 year bulk replacement program.

The AER has reviewed EnergyAustralia's approach to calculating the spot replacement costs in its public lighting model and does not consider the approach to be reasonable. The spot replacement rate applied by EnergyAustralia should represent the improvement under a bulk replacement regime. The AER requires EnergyAustralia to remodel its maintenance charges based on a spot replacement improvement rate of 20 per cent.

#### *Cost of bulk lamp replacement*

The AER's comparison of the assumptions made by the NSW DNSPs in calculating bulk lamp replacement costs per lamp have indicated that Country Energy has capacity to significantly improve the time it takes to undertake a bulk lamp replacements. The AER requested that Country Energy to model its annual maintenance charges using the assumption of a lamp replacement under a bulk lamp replacement regime taking 8.22 minutes (that is, 20 per cent higher than Integral Energy's time per lamp under a bulk lamp regime).

#### *Overheads*

While the AER accepts that there is a case for an overhead premium to reflect the rural nature of Country Energy's network, the AER does not consider the difference in Country Energy's proposed overhead rates compared to the other NSW DNSP's rates to be reasonable. The AER considers a 5 per cent premium over and above the materials rate applied by urban DNSPs is reasonable and therefore requested that Country Energy remodel its charges applying a plant overhead rate of 25 per cent and a materials overhead rate of 25 per cent.

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<sup>46</sup> EnergyAustralia, Response to public lighting questions sent on 24 February 2009.

With respect to the overhead rate for materials the AER requires that the DNSPs demonstrate that the majority of purchases are made in bulk quantities.

The AER's considerations in regard to overheads applied to labour are discussed in further detail at section 4.2.3.

The overhead rate applied to maintenance costs by EnergyAustralia is considered reasonable by the AER.

## **3.5 Price path**

### **3.5.1 Draft decision**

The draft decision requires that the NSW DNSPs propose a price path by which their proposed 2009–10 tariffs for assets constructed before 1 July 2009 are to be escalated annually over the remaining years of the next regulatory control period.<sup>47</sup>

### **3.5.2 NSW DNSP revised regulatory proposals**

#### **Country Energy**

Country Energy proposed that its fixed schedule of tariffs for 2009–10 be adjusted for regulatory years 2010–2014 in line with the inflation and the escalation rates allowed in the AER's determination for standard control services.<sup>48</sup> It claims that a significant amount of public lighting costs are driven by the cost of labour and therefore proposed to escalate its tariffs by the annual increase in EGW wages.<sup>49</sup>

Country Energy have applied an inflation rate of 3.3 per cent and a labour escalation rate of 3.6 per cent to 2008–09 tariffs to determine its 2009–10 tariffs.<sup>50</sup>

#### **EnergyAustralia**

In its model used for calculating tariffs for assets constructed before 1 July 2009 EnergyAustralia applies the same maintenance charges that it developed for assets constructed post 1 July 2009. EnergyAustralia has applied a real labour escalator in the following manner to calculate its tariffs for public lighting assets constructed before 1 July 2009:<sup>51</sup>

- tariffs for 2009–10 - maintenance costs are escalated by 2.1 per cent (this figure is based on a 3.16 per cent EGW NSW real wages escalation rate applied to 67 per cent of maintenance costs) and the RAB is escalated by inflation
- tariffs for 2010–14 - maintenance costs are escalated by 1.9 per cent and the RAB is escalated by inflation.

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<sup>47</sup> AER, *Draft decision*, p. 339.

<sup>48</sup> Country Energy, *Revised regulatory proposal*, p. 81.

<sup>49</sup> Country Energy, *Revised regulatory proposal*, p. 81.

<sup>50</sup> Country Energy, Pre July 2009 public lighting model.

<sup>51</sup> EnergyAustralia, Pre July 2009 public lighting model.

## Integral Energy

The price path applied by Integral Energy includes inflation and real labour cost escalators. The Competition Economists Group (CEG) escalators proposed in its direct control services submission are also proposed to be used to escalate its public lighting tariffs. Integral Energy has applied a 2.55 per cent inflation rate in every year of the next regulatory control period to capital and maintenance costs.<sup>52</sup>

Table 3.9 provides the real CEG labour escalators. These have been applied by Integral Energy to 65 per cent of its maintenance costs.

**Table 3.9: Integral Energy’s real labour escalator (December 2008)**

	2009–10	2010–11	2011–12	2012–13	2013–14
Index (%)	3.9	3.4	3.0	2.8	2.1

Source: Integral Energy, Pre 1 July 2009 public lighting tariff model.

### 3.5.3 Issues and considerations

The NSW DNSPs all proposed price paths based on labour escalators and inflation.

The AER notes the labour escalators have been applied differently by each of the businesses. Country Energy applied the labour escalator directly to its tariffs at 3.6 per cent because it considers that the majority of its public lighting costs are associated with labour.<sup>53</sup> EnergyAustralia applied a labour escalator of 1.9 per cent to maintenance costs (assuming 59 per cent of its tariffs consist of maintenance costs). Integral Energy proposed that as 65 per cent of its maintenance cost is made up of labour it is appropriate to apply its labour escalator to 65 per cent of its maintenance cost in calculating its tariffs.

The AER notes the different approaches used by the NSW DNSPs but considers that it is reasonable to apply a labour escalator to maintenance charges based on labour costs representing 60 per cent of maintenance costs. The AER’s draft decision on labour escalators as applied to standard control services have been applied to derive the tariffs for alternative control services. The AER labour escalators are shown in table 3.10.

**Table 3.10: AER draft decision real labour escalators**

	2009–10	2010–11	2011–12	2012–13	2013–14
Index (%)	3.9	3.4	3.0	2.8	2.1

Source: AER, *Draft decision*, p. 180.

Inflation rates applied by the NSW DNSPs are compared to the draft decision inflation rates in table 3.11. The draft decision considered that an average inflation forecast of 2.55 per cent per annum produces the best estimate for a 10 year period to be applied in the Post Tax Revenue Model.<sup>54</sup> EnergyAustralia has applied the inflation rates set out in table 3.11 while Integral Energy has applied the average rate. Country Energy was

<sup>52</sup> Integral Energy, Pre 1 July 2009 public lighting tariff model.

<sup>53</sup> Country Energy, response to questions sent by the AER on 24 February 2009.

<sup>54</sup> AER, *Draft decision*, p. 228.

requested to modify its charges based on the draft decision inflation rates for year 2009-10.

**Table 3.11: Inflation rate used by NSW DNSPs and AER draft decision**

	2009-10	2010-11	2011-12	2012-13	2013-14
Country Energy	3.30	2.50	2.50	2.50	2.50
EnergyAustralia	3.00	2.50	2.50	2.50	2.50
Integral Energy	2.55	2.55	2.55	2.55	2.55
Draft decision	3.00	2.50	2.50	2.50	2.50

Source: Country Energy pre 1 July 2009 public lighting model, EnergyAustralia pre 1 July 2009 public lighting model, Integral Energy pre 1 July 2009 public lighting model, AER, *Draft decision*, p. 228.

The AER notes that Country Energy has applied inflation to its asset base as well as in its price path escalation. The AER considers that this results in a double counting of inflation on the capital component of Country Energy’s tariffs and has requested that the double counting be removed.

### 3.5.4 AER conclusion

The price path for the remaining years of the next regulatory control period for tariffs relating to assets constructed before 1 July 2009 is to be calculated by applying 60 per cent of the NSW EGW real labour growth rates to maintenance costs and the draft decision forecast inflation rates used in table 3.11. The NSW DNSPs were requested to update their models based on this approach.

The AER considers that the approach used by EnergyAustralia and Integral Energy to apply inflation is reasonable. However, the approach taken by Country Energy to apply inflation requires amendment to remove a double counting of inflation on the capital component of its tariffs as the RAB has already been inflated.

The real labour escalator and inflation forecasts will be updated in the modelling for the AER’s final decision on alternative control services so that they are consistent with the AER’s final decision for standard control services.

## 3.6 AER conclusion on 2009-10 charges and price path

The AER requested the NSW DNSPs to recalculate their 2009–10 tariffs and price paths for assets constructed prior to 1 July 2009 based on the inputs and assumptions contained in table 3.12. The resultant 2009–10 tariffs for the NSW DNSPs are contained at appendices A, B, and C for Country Energy, EnergyAustralia and Integral Energy respectively. Appendix D compares the percentage change in the total bills of each of the businesses customers between 2008-09 and 2009-10 based on the businesses proposed tariffs for existing assets and the AER’s proposed tariffs for existing assets.

The price path for the remaining years of the next regulatory control period will be calculated by applying 60 per cent of the NSW EGW real labour growth rates to maintenance costs and the draft decision forecast inflation rates used in table 3.11.

**Table 3.12: AER decision on key inputs and assumptions for 2009–10**

	Country	EnergyAustralia	Integral
Nominal vanilla WACC	9.72 per cent	9.72 per cent	9.72 per cent
Pre-tax real WACC	7.65 per cent	N/A	N/A
Bulk lamp replacement rate	3 years	3 years	3 years
Time taken to replace a lamp under a bulk lamp replacement	8.22 minutes	N/A	6.85 minutes
Spot lamp failure rate	N/A	Amended to reflect spot failure rates under a bulk replacement program	N/A
Percentage of real labour escalation rate applied to maintenance charge	60 per cent	60 per cent	60 per cent
NSW EGW real labour growth rate	3.9 per cent	3.9 per cent	3.9 per cent
Inflation	3 per cent	3 per cent	3 per cent
Materials overhead	25 per cent	20 per cent	-
Plant overhead	25 per cent	-	-

### 3.7 AER supplementary draft decision

In accordance with clause 6.12.1(12) of the transitional chapter 6 rules, the AER's supplementary draft decision for Country Energy is that the schedule of fixed prices for the first year of the next regulatory control period for assets constructed before 1 July 2009 are as set out in appendix A of this draft decision.

In accordance with clause 6.12.1(12) of the transitional chapter 6 rules, the AER's supplementary draft decision for EnergyAustralia is that the schedule of fixed prices for the first year of the next regulatory control period for assets constructed before 1 July 2009 are as set out in appendix B of this draft decision.

In accordance with clause 6.12.1(12) of the transitional chapter 6 rules, the AER's supplementary draft decision for Integral Energy is that the schedule of fixed prices for the first year of the next regulatory control period for assets constructed before 1 July 2009 are as set out in appendix C of this draft decision.

In accordance with clause 6.12.1(12) of the transitional chapter 6 rules, the AER's supplementary draft decision for the NSW DNSPs is that the price path for the remaining years of the next regulatory control period will be calculated by applying 60 per cent of the NSW EGW real labour growth rates to maintenance costs and the draft decision forecast inflation rates used in table 3.11 of this draft decision.

## 4 Assets constructed after 30 June 2009

This chapter discusses whether the charges proposed by the NSW DNSPs have been modelled in accordance with the draft decision, reviews the underlying inputs and assumptions used to calculate the charges and sets out the AER's proposed tariffs for 2009–10 and a price path for the remaining regulatory years of the next regulatory control period for assets constructed after 30 June 2009.

### 4.1 Annuity model

#### 4.1.1 Draft decision

The draft decision required the NSW DNSPs to calculate tariffs 3 and 4 as a single annual charge for each asset constructed after 30 June 2009 by adding together the annual capital charge (if relevant) and the annual maintenance charge.<sup>55</sup>

In developing their proposed schedule of charges for assets constructed after 30 June 2009, the NSW DNSPs were to calculate their capital charge using an annuity approach. The AER's objective in requiring DNSPs to adopt an annuity approach was to convert the capital investment of an individual streetlight asset into an annual charge that remains constant over the life of the asset. This approach provides certainty and transparency in terms of charges to customers, while at the same time allowing a DNSP to recover an appropriate return on its investment.

The annual annuity capital charge for each street light asset was required to be derived adopting the following assumptions:<sup>56</sup>

- efficient material and installation costs
- standard life of luminaires and brackets of 20 years
- standard life of poles of 35 years
- discount rate applied by the AER to standard control services in its draft determination.

The draft decision stated that the maintenance charge for assets constructed after 30 June 2009 were to be the same as that for assets constructed before 30 June 2009. It also required maintenance charges to be calculated based on a three year spot within bulk replacement program.<sup>57</sup> The AER's review of maintenance charges can be found in chapter 3 of this document.

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<sup>55</sup> AER, *Draft decision*, p. 338.

<sup>56</sup> AER, *Draft decision*, p. 338.

<sup>57</sup> AER, *Draft decision*, p. 338.



## 4.1.2 NSW DNSP revised regulatory proposals

### Country Energy

Country Energy has provided the AER with its annuity model and a schedule of charges per lighting type. Its annuity model has adopted the assumptions as required by the AER and has included component costs as at July 2007.

Country Energy has applied a real WACC of 8.11 per cent.<sup>58</sup>

### EnergyAustralia

EnergyAustralia has provided the AER with its annuity model and a schedule of charges per public lighting component. Its annuity model adopts the assumptions as required by the draft decision and has included component costs as at 30 June 2007.

EnergyAustralia has applied a real WACC of 7.69 per cent.<sup>59</sup>

### Integral Energy

Integral Energy has provided the AER with its annuity model and a schedule of charges per lighting type. Integral Energy's annuity model has adopted the assumptions required by the AER and has included component costs as at 30 June 2008.

Integral Energy has included a tax loss component in its annuity calculation to reflect its tax liability when street lighting assets are gifted to it by customers.

Integral Energy has applied a real WACC of 8.09 per cent.<sup>60</sup>

## 4.1.3 AER conclusion

The AER is satisfied that the models provided by the NSW DNSPs correctly calculate an annuity capital charge for public lighting assets to be constructed after 1 July 2009 against the requirements of the draft decision. However, while the approach taken to the annuity calculation has been consistent between the DNSPs, the models apply different assumptions regarding construction costs and overheads and do not meet the draft decision requirements regarding the rate of return. These issues are further discussed in sections 4.2 and 4.3 of this supplementary draft decision.

## 4.2 Efficient material and installation costs

### 4.2.1 Draft decision

In its draft decision, the AER stated that it intended to review the efficiency of the charges proposed by the NSW DNSPs by reviewing the underlying costs and assumptions used by the DNSPs.<sup>61</sup>

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<sup>58</sup> Country Energy, *Revised regulatory proposal*, p. 83.

<sup>59</sup> EnergyAustralia, Annuity pricing model.

<sup>60</sup> Integral Energy, Annuity pricing model.

<sup>61</sup> AER, *Draft decision*, p. 330.

## 4.2.2 NSW DNSP revised regulatory proposals

The NSW DNSPs' proposed capital costs for key replacement luminaire types and brackets are presented in table 4.1 and their proposed construction costs for each component are contained in table 4.2.

**Table 4.1: NSW DNSPs' proposed uninstalled cost per luminaire and bracket (\$, 2008-09)**

Asset	Country Energy	EnergyAustralia	Integral Energy
80W MBF/MV	101.58	N/A *	79.00
2*14W T5	246.00	████████	208.00
42W CFL	153.60	████████	145.00
150W SON/HPS	250.74	████████	196.00
250W SON/HPS	241.58	████████	198.50
Bracket – minor roads	79.12	████████████████	80.30
Bracket – major roads	289.64	████████████████	486.04

Sources: NSW DNSPs, Annuity pricing models.

\* Not part of replacement luminaire offerings from July 2009.

Note that the cost for EnergyAustralia's 2\*14W T5 and its 42W CFL includes the cost of a replacement electronic control gear.

**Table 4.2: NSW DNSPs' proposed construction costs including overheads (\$, 2008-09)**

	Country Energy	EnergyAustralia	Integral Energy
Luminaire – minor roads	\$73.26	\$18.74 + 20% OH on uninstalled luminaire	208.17
Bracket – minor roads	\$230.42	\$168.62 + 20% OH on uninstalled cost per bracket	N/A
Luminaire – major roads	N/A	\$37.48 + 20% OH on uninstalled luminaire	217.06
Bracket – major roads	N/A	\$337.25 + 20% OH on uninstalled cost per bracket	N/A
Design	\$177.30	N/A	N/A

Sources: NSW DNSPs, Annuity pricing models.

## 4.2.3 Issues and considerations

The AER notes that when making a comparison of public lighting charges there are a number of different combinations with respect to the construction of a street light that make direct comparison problematic. For instance, constructed street lights may use a different combination of bracket, bracket size, pole and pole size. As a result, there are many permutations regarding the cost of a constructed light. In addition, a DNSP may allocate the costs of construction to the luminaire, the bracket or a ratio between the two.

For example, EnergyAustralia allocates 90 per cent of the construction costs to the bracket and 10 per cent to the luminaire; Country Energy separately identifies the cost of the luminaire, the design work and the bracket and allocates the costs of construction to each component; Integral Energy allocates the construction costs 100 per cent to the luminaire.<sup>62</sup>

Given these differences in apportioning costs, the AER considers that it is necessary for proposed charges for a constructed light to be deconstructed and reconstructed on a like for like basis. In doing this, the AER is able to make direct comparison between the DNSPs and will also allow stakeholders to obtain a clear understanding of public lighting costs and how they compare across businesses.

A summary of the DNSPs' proposed annual capital charges for a sample of key replacement luminaire types (assuming a single light) is contained in table 4.3. In addition, a summary of the annual construction costs of a light assuming all costs of construction are allocated to the luminaire are provided at table 4.4. Both tables present data on a directly comparable basis.

**Table 4.3: DNSPs' proposed annuitised capital cost for a constructed streetlight (\$, 2008-09)**

Asset	Country Energy	EnergyAustralia	Integral Energy
80W MBF/MV	16.92	N/A <sup>^</sup>	8.10
2*14W T5	40.17	21.84	21.32
42W CFL	24.57	17.98	14.86
150W HPS/SON	40.08	17.71	20.09
250W HPS/SON	40.58	16.50	20.35
Bracket – minor roads	47.29	N/A <sup>*</sup>	49.82
Bracket – major roads	12.92	N/A <sup>*</sup>	8.23

Sources: NSW DNSPs, Annuity pricing models.

<sup>^</sup> EnergyAustralia offers a broad range of brackets. As a result a direct comparison of costs is not possible.

<sup>\*</sup> Not part of replacement luminaire offerings from July 2009.

<sup>62</sup> NSW DNSPs, Annuity pricing models.

**Table 4.4: DNSPs proposed annuitised construction cost for a streetlight (\$, 2008-09)**

Asset	Country Energy	EnergyAustralia	Integral Energy
80W MBF/MV	49.39	N/A *	21.34
2*14W T5	49.39	23.00	21.34
42W CFL	49.39	22.24	21.34
150W HPS/SON	49.39	40.82	22.35
250W HPS/SON	49.39	40.57	22.35

Sources: NSW DNSPs, Annuity pricing models.

\* Not part of replacement luminaire offerings from July 2009

The data shows EnergyAustralia and Integral Energy have comparable costs, with the exception of the construction of the 150 and 250 High Pressure Sodium (HPS) luminaires but Country Energy's capital and construction costs are significantly greater than the other NSW DNSPs.

To understand this difference, the AER has examined the make up of the capital and labour costs. With respect to capital this involves assessing the purchase costs of the luminaire (inclusive of lamp and photoelectric (PE) cell) and brackets, and for the construction costs this involves examining the amount of labour and associated services required to construct a streetlight.

#### **Luminaire costs**

In terms of the options available in the construction of a streetlight, there are as many as 100 different luminaires that could be installed by a DNSP. Rather than assessing the individual cost for each of these luminaires, the AER has elected to assess the five most common luminaires that will be used by the NSW DNSPs to replace older types of luminaires.

The AER understands that when a luminaire is purchased from a supplier it is increasingly shipped to the DNSP with lamp, PE cell and connection wiring pre-installed. On that basis, the AER has not separately assessed these components, rather, it assessed a luminaire as an assembled item.

The AER is aware that the prices paid for luminaires is the outcome of a competitive tendering process, with prices being based on the bulk supply of luminaires. On this basis, the price obtained by the DNSP should be reflective of a market price, provided there is sufficient competition in the luminaire supply market.

While there have been some concerns about the extent of competition in the luminaire supply market,<sup>63</sup> the AER has regard to the findings of the ACCC.<sup>64</sup> The ACCC recently reviewed the Gerard Lighting Acquisitions Limited acquisition of Lighting Corporation

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<sup>63</sup> Letter to ACCC from SSROC, 15 January 2008.

<sup>64</sup> ACCC, Decision 30698, *Gerard Lighting Acquisitions Ltd proposed acquisition of Lighting Group Limited*, February 2008.

Limited and found that the acquisition would be unlikely to result in a substantial lessening of competition. The ACCC considered there are other suppliers capable of expansion in response to an attempted increase in price and that there is the potential for luminaires to be sourced from overseas.

For these reasons the AER accepts that a luminaire price determined from a competitive tender process would be a price reflective of a competitive market.

To substantiate the costs included by the NSW DNSPs in their models the AER sought copies of invoices relating to the supply of luminaires from each of the DNSPs. The invoices indicate that the costs paid by the NSW DNSPs for luminaires are generally consistent with the costs included in their annuity models as shown in table 4.1.

In examining the product costs it was revealed that, while each luminaire is generic, the types and quality of components such as the PE cell, lamp and ballast being installed in the luminaires were not.

While Country Energy's costs in particular appear to be incompatible with the costs provided by the other DNSPs, Country Energy has provided the AER with very detailed cost information on a component by component basis.<sup>65</sup> While the AER is satisfied with the level of componentry and the costs of the componentry, it is not satisfied with the amount of on-costs applied to the components by Country Energy.

The appropriateness of Country Energy's on-costs is discussed later in this section.

The use of different types and quality of components therefore explains to some extent why the NSW DNSPs are paying different prices for what would otherwise be considered the same product.

### **Component costs**

Other key components of a constructed streetlight include the bracket or outreach and the support (that is, either pole or column). The AER notes that in many instances lights are installed on wooden poles whose primary purpose is the delivery of standard control services and as a result the cost of the pole is not charged to the public lighting customer (for example, this is the approach adopted by EnergyAustralia).

The costs for each of these components proposed by the NSW DNSPs are contained in table 4.2.

A difficulty for the AER in assessing brackets is the ability to make a like for like comparison given the multitude of different brackets offered by the DNSPs. This is particularly pronounced for larger brackets associated with major road lighting.

The reason an assessment of brackets should be considered in concert with luminaires is that both assets are assumed to have the same life. For this reason, whenever a bracket or luminaire is replaced, it would be appropriate for the other component to also be replaced.

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<sup>65</sup> Country Energy, Annuity pricing model.

To partially overcome the problem of direct comparability of bracket costs, the AER has separately identified the construction costs of a bracket and has included these with the construction costs of the luminaire. By bundling construction costs together, the AER has been able to at least make a direct comparison of construction costs as presented in table 4.4.

### **Construction costs**

A comparison of the construction cost data provided in table 4.4 indicates that EnergyAustralia and Integral Energy are broadly consistent with the exception of the 150 and 250 HPS/SON luminaires. Further examination revealed that these luminaires apply to major road lighting, that is, freeways, arterial roads and sub-arterial roads. In these instances EnergyAustralia's construction costs are 81 per cent higher than Integral Energy's construction costs. The AER does not consider this difference has been justified by EnergyAustralia.

As indicated in table 4.4, Integral Energy's annuitised construction costs for major road lighting is \$22 per luminaire whereas EnergyAustralia report costs of about \$40 per luminaire.

While Country Energy has construction costs consistently greater across every luminaire category, this largely due to design costs making up \$18 of each construction charge.

To examine the reasons for these differences, the AER has assessed the following elements of the DNSPs' construction costs:

- the amount of labour required to construct the light
- the time taken
- elevated work platform capital charges
- the design costs.

The costs of construction have been separated into labour rates, time taken to construct and overheads. This data is presented in table 4.5.

**Table 4.5: NSW DNSPs' proposed labour and overhead rates**

	Country Energy	EnergyAustralia	Integral Energy
Hours of labour to construct a new light – minor (excluding pole; including bracket)	2.75 hours	2 hours	1.39 hours
Hours of labour to construct a new light – major (excluding pole; including bracket)	2.75 hours	4 hours	1.39 hours
Effective labour rate per hour (base rate plus overheads)	\$79.76	\$89.39	\$127.51
Design costs	\$177.30	N/A	N/A
Overhead rate applied to plant/stores	48%	20%	N/A
Overhead rate applied to materials and elevated work platform	56%	N/A	N/A
Elevated work platform per hour without overheads	\$49.25	Incorporated in its \$89.39 labour rate	\$44.86

Source: NSW DNSPs, Annuity pricing models.

#### ***Hours of labour to construct a streetlight***

While EnergyAustralia's effective labour rate is significantly lower than that of Integral Energy, it is insufficient to offset the cost impact from the greater number of labour hours (4 hours opposed to Integral's 1.39 hours) required to construct a light for major road lighting.

Similarly, while Country Energy has the lowest effective labour rate, this is insufficient to offset its higher labour hours to construct minor road lighting (that is, lighting for local roads and bicycle paths).

This suggests Integral Energy is the most efficient for constructing a light in terms of labour hours for both minor and major road lighting. However, this needs to be balanced against the fact that Integral Energy's labour rates are also the highest amongst the NSW DNSPs.

In terms of an assessment of the reasonableness of installation costs, it is clear that this must be made considering both labour hours and labour costs together.

### ***Labour rates***

In the draft determination the AER identified a number of indicative labour rates ranging from \$76 to \$92 per hour depending on the nature of the service.<sup>66</sup> In addition, the ESCV has identified a benchmark wage rate of \$60 per hour (2004 dollars) inclusive of overheads.<sup>67</sup> Also, in a recent study for the European Commission on public lighting, researchers estimated that the average hourly labour cost including overhead for the maintenance and construction of streetlights in the European Union was €1.83 (\$64 AUD).<sup>68</sup>

While EnergyAustralia and Country Energy fall within the range of labour rates referred to above, Integral Energy's effective labour rate is significantly higher than the top of the range of accepted labour rates.

The AER is not aware of any specific reason justifying the higher rate proposed by Integral Energy and does not consider that the rate could be fully attributable to labour. Further, it is noted that Integral Energy has not presented costs associated with supplementary aspects of light construction such as design costs. Hence the AER requests Integral Energy to provide additional information identifying the composition of this rate.

### ***Design costs***

While Country Energy has provided an explicit light design cost in its model of \$177 per light<sup>69</sup> the AER understands that EnergyAustralia's design costs are embedded within its labour rate.<sup>70</sup> The AER could not ascertain how Integral Energy had treated these costs.

Country Energy's design costs account for a significant component of the difference in construction costs between it and the other DNSPs. Further examination revealed that Country Energy had applied an effective labour rate of \$115 in the calculation of design costs.<sup>71</sup> The AER does not consider that a difference of this magnitude in the effective labour rate for design costs and the effective labour for construction costs has been justified by Country Energy.

### ***Inventory holding costs***

With respect to overhead rates, the NSW DNSPs have proposed plant overhead rates to reflect inventory holding costs. However, as part of the AER's examination of supplier invoices relating to the supply luminaires, it was apparent that purchases were not always made in bulk quantities. The AER considers that in the absence of undertaking bulk purchases, there is little justification for a materials overhead.

For this reason, the AER requires the DNSPs to demonstrate that the majority of purchases are made in bulk quantities.

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<sup>66</sup> AER, *Draft decision*, p. 414.

<sup>67</sup> ESCV, p. 19.

<sup>68</sup> Andras Toth, Final Report, Lot 9: Public street lighting, Study for the European Commission DGTREN unit D3, p. 87.

<sup>69</sup> Country Energy, Annuity pricing model.

<sup>70</sup> EnergyAustralia, Annuity pricing model.

<sup>71</sup> Country Energy, Annuity pricing model.



### *General overhead*

With respect to overhead rates for materials, the AER accepts that some quantum of general overhead is appropriate to reflect general support activities such as corporate finance and human resources. The AER expects that the overhead allocation to alternative control services to be consistent with each DNSP's cost allocation method approved by the AER.

### *Elevated work platform capital charge*

The elevated work platform (EWP) capital charges proposed by Country Energy and Integral Energy appear consistent with the charges considered reasonable by the ESCV in its recent energy efficient street light review.<sup>72</sup> With respect to EnergyAustralia, it is difficult to ascertain what the EWP cost per hour is, as it appears to be embedded in its labour costs. The AER notes that on this basis EnergyAustralia's combined labour and EWP costs are significantly lower than the other NSW DNSPs.

### *Premium to reflect the rural nature of Country Energy's network*

The AER accepts that with respect to Country Energy there is a case for a materials premium to reflect the rural nature of its network. However, the AER has not been provided with sufficient information from Country Energy to support a materials overhead of 56 per cent or a plant overhead of 48 per cent. The AER notes that in its recent review, the ESCV considered a 5 per cent materials premium for rural areas was reasonable.<sup>73</sup>

## **4.2.4 AER conclusion**

The AER accepts that the cost of supply of luminaires results from a competitive market and that these costs have been used by the DNSPs in calculating their capital charges. For this reason, the AER also considers that the costs of the associated components (which are part of the purchased luminaire) are reasonable.

While the AER queries the magnitude of Integral Energy's labour rate, assessed in combination with its labour hours to perform the activity, the AER considers Integral Energy's construction costs reasonable. Notwithstanding, the AER requires Integral Energy to provide additional information identifying whether supplementary aspects of construction (for example, design) are also included in this rate.

Similarly, assessing EnergyAustralia's costs in combination, the AER considers that with the exception of the construction of major road lights EnergyAustralia's construction costs are reasonable. With respect to major roads, the AER requires EnergyAustralia to remodel its tariffs applying an hours of labour rate of 2 hours.

With respect to Country Energy, the AER does not accept its proposed effective labour rate for design costs. The AER requires Country Energy to remodel its charges applying an effective labour rate consistent with the labour rate to construct a streetlight.

While the AER accepts that there is a case for an overhead premium to reflect the rural nature of Country Energy's network, the AER does not consider the difference in

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<sup>72</sup> ESCV, p. 20.

<sup>73</sup> ESCV, p. 20.

Country Energy’s proposed overhead rates compared to the other NSW DNSPs’ rates to be reasonable. The AER considers a 5 per cent premium over and above the materials rate applied by urban DNSPs is reasonable and requires Country Energy to remodel its charges applying a plant and materials overhead rate of 25 per cent respectively.

With respect to the overhead rate for materials the AER requires that the DNSPs demonstrate that the majority of purchases are made in bulk quantities.

The AER considers that the proposed EWP costs per hour are consistent with such costs in other jurisdictions and are therefore reasonable.

## 4.3 Weighted average cost of capital

### 4.3.1 Draft decision

The draft decision specified that the discount rate in the annuity model used to develop the capital charge for assets constructed after 30 June 2009 should be a post tax nominal WACC of 9.72 per cent.<sup>74</sup>

### 4.3.2 NSW DNSP revised regulatory proposals

Each of the NSW DNSPs proposed real WACC is consistent with the WACC they have applied in calculating the rate of return on their standard control services The NSW DNSP’s real WACCs for their alternative control services are set out in table 4.6.

**Table 4.6: NSW DNSPs’ proposed real WACCs for annuity models**

	Country Energy	EnergyAustralia	Integral Energy
Real WACC (%)	8.11	7.69	8.09

Source: NSW DNSPs, Annuity pricing models.

Integral Energy stated that the use of an annuity form of pricing is most consistent with, and most easily represented by using a real WACC approach as it ensures that the known present values for capital costs can be recovered on a forward looking basis by simply applying the annual compound inflationary impacts to the resulting annuity value. It stated that this would ensure that regardless of the future year that capital expenditure occurs, (assuming the correct inflationary adjustments) the pricing outcomes calculated for existing assets will be the same as for new assets.<sup>75</sup>

Integral Energy stated the same cannot be said if a nominal approach was adopted because the manner in which the inflationary impacts are managed in a nominal framework means the pricing of assets changes over time due to a ‘back–end loaded’ capital recovery profile. This would lead to the need to develop new annuities for each and every year’s capital expenditure over time to ensure that the correct annuity profile is maintained to deliver the required net present value of cash flows.<sup>76</sup>

<sup>74</sup> AER, *Draft decision*, p. 338.

<sup>75</sup> Integral Energy, Email correspondence 18 February 2009.

<sup>76</sup> Integral Energy, Email correspondence 18 February 2009.

Integral Energy noted a further complication of using a nominal WACC is that it reduces transparency and would increase compliance costs and require significantly greater data intensive annual pricing processes, as well as the ever expanding billing issues that would also need to be managed.<sup>77</sup>

### **4.3.3 Issues and considerations**

It is acknowledged that the use of a real discount rate in an annuity calculation simplifies the calculation without undermining its robustness. It is also accepted that irrespective of which rate is applied, provided that inflation has been treated appropriately, the resulting capital charge would be net present value neutral between the two approaches.

However, while the AER accepts the DNSP's proposals to apply a real discount rate, it does not consider that the rates proposed by Country Energy and Integral Energy are consistent with the WACC they applied in calculating the rate of return on their standard control services for the draft decision. Country Energy proposed a rate of 8.11 per cent and Integral 8.09 per cent. The AER considers the rate that should be applied in the annuity models for Country Energy and Integral Energy should be 7.65 per cent and 7.71 per cent respectively. Consistent with the AER's draft decision for standard control services, EnergyAustralia applied a real discount rate of 7.69 per cent.

### **4.3.4 AER conclusion**

The AER decides the real rate of return to be applied in the annuity models for Country Energy and Integral Energy is 7.5 per cent and 7.71 per cent respectively. The AER requested Country Energy and Integral Energy to remodel their capital charges in their annuity models using these rates.

The rate of return in the annuity models will be updated as part of the AER's final decision so that it is consistent with the AER's final cost of capital decision for standard control services.

## **4.4 Early replacement of assets at customer's request**

### **4.4.1 Draft decision**

In the draft decision, the AER established a tariff class (tariff class 6) for assets owned by a DNSP but replaced at the request of the customer before the end of their economic lives. The draft decision indicated that this tariff would be based upon a residual asset charge calculated for the replaced asset using remaining lives determined through an assessment of the assets condition and type. Unless it could be demonstrated that the remaining life of an asset was more than 10 years, the residual value was to be based on a default age of at least three quarters of its standard life.<sup>78</sup>

### **4.4.2 DNSP revised regulatory proposals**

Integral Energy stated that the rates for tariff class 6 would be either tariff class 3 or 4, depending on who provided the capital funding, with an up front payment for the residual capital charge determined at the time of the customer's request for early replacement.

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<sup>77</sup> Integral Energy, Email correspondence 18 February 2009.

<sup>78</sup> AER, *Draft decision*, p. 332.

Integral Energy noted that it had not submitted charges for tariff class 6, as it believed there were too many variables relating to the residual asset charge to be able to calculate an appropriate tariff to cover all scenarios.

In its revised regulatory proposal EnergyAustralia acknowledged that there were better approaches to calculate a proxy for the residual asset value due to early replacement of a public lighting component than it had originally proposed.<sup>79</sup> EnergyAustralia has therefore proposed a new approach to produce its rate 4 tariff (the equivalent to the AER's tariff class 6). Under the proposed approach, the current replacement cost for each component, is depreciated by 75 per cent to take into account the likely age of assets that are replaced under rate 4. The remaining capital value is converted to an annuity. This capital charge is added to EnergyAustralia's Rate 1 prices (equivalent to AER's tariff class 3) for brackets and luminaires to give a new rate 4 price. That is, the new rate 4 prices are 25 per cent higher than the rate 1 prices.

EnergyAustralia considered this approach to be a fair and reasonable method of estimating the lost depreciation associated with the early replacement of public lighting components. It also considered that its proposed approach was consistent with the AER's draft decision and that this method should apply unless data is found that suggests that the remaining life of the asset in question is more than 10 years.<sup>80</sup>

#### **4.4.3 Issues and considerations**

The AER has decided to change its tariff class designations to reflect the fact that tariff class designation is primarily driven by the capital funding arrangements and not necessarily ownership arrangements. As a result the AER has merged tariff classes 4 and 5 into tariff class 4 and as a consequence tariff class 6 becomes tariff class 5 (see table 5.1 in chapter 5 of this supplementary draft decision).

The AER agrees with Integral that the rates for tariff class 6 (now tariff class 5) would be either tariff class 3 or 4 (depending on the capital funding arrangements) plus an upfront payment or an annual payment for the residual asset charge determined at the time of agreement to a customer's request for early replacement. The AER also accepts that there are many variables relating to calculation of the residual asset charge to be able to develop an appropriate tariff covering all scenarios. On that basis, the AER does not require the NSW DNSP's to publish tariffs for tariff class 6. These tariffs, should be calculated at the time of the agreement with the customer based on an agreed method for determining residual asset value.

The AER has reviewed the approach proposed by EnergyAustralia to calculate its rate 4 tariff (the equivalent of the AER's tariff class 6). It does not consider that the approach proposed by EnergyAustralia is appropriate as it uses the replacement cost of the asset that is being replaced early rather than the depreciated value of the asset's original cost. The AER considers that it is likely that customers will request that relatively old assets be replaced early and that the original capital costs associated with these assets will be lower than their current replacement costs.

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<sup>79</sup> EnergyAustralia, *Revised regulatory proposal*, p. 178.

<sup>80</sup> EnergyAustralia, *Revised regulatory proposal*, p. 181.

The AER also considers that when a customer requests replacement of existing assets before the end of their economic life the DNSP would calculate a residual capital charge for the asset being replaced early. This residual capital charge is to be calculated by the DNSP based on the depreciated value of the assets original cost and a remaining life determined through an assessment of the assets condition or by the application of the AER's default remaining life value. In relation to the latter, unless it can be demonstrated that the remaining life of the asset is more than 10 years, based on an assessment of the type of the asset and its condition, then its residual value is to be based on a default age of at least three quarters of its assumed life. The residual capital charge for the asset being replaced early can be either a one off charge or an annual charge calculated for the duration of the remaining life of the asset.

In addition to the residual capital charge, the customer would also be responsible for efficient maintenance costs associated with the new asset and the relevant annual capital charge associated with that asset. The relevant charge for the new asset will depend upon which party funds the capital, that is, either tariff class 3 or 4 will apply.

Tariff class 6 (now tariff class 5) is therefore the addition of the residual capital charge of the asset to be replaced early; the efficient maintenance costs of the new asset; and the relevant annual capital charge associated with the new asset (if applicable). Once the residual value of the asset has been returned to the DNSP, tariff class 6 (now tariff class 5) would no longer be required and the appropriate tariff would be tariff class 3 or 4, depending upon who funded the capital associated with the new asset.

#### **4.4.4 AER conclusion**

The AER accepts that there are many variables relating to calculation of the residual asset charge and therefore does not require the NSW DNSP's to develop tariffs for tariff class 6 (now tariff class 5). These tariffs, primarily the residual capital value, should be calculated at the time of the agreement with the customer.

The AER also does not consider that the approach put forward by EnergyAustralia to calculate its rate 4 tariff (equivalent to the AER's tariff class 6) is appropriate as it uses current replacement values for the asset that is being replaced early rather than the depreciated original capital cost. The AER's tariff class 6 (now tariff class 5) is the combination of the residual capital charge of the asset to be replaced early; the efficient maintenance costs associated with the new asset; and the relevant annual capital charge (either tariff class 3 or 4) associated with the new asset.

## **4.5 AER conclusion on annuity model inputs**

The AER requested that the NSW DNSPs recalculate their 2009-10 tariffs for assets constructed after 30 June 2009 based on, where relevant, the amended inputs and assumptions contained in table 4.7.

**Table 4.7: AER’s amended inputs and assumptions for annuity models**

	Country Energy	EnergyAustralia	Integral Energy
Hours of labour to construct a new light – major (excluding pole; including bracket)	2.75 hours	2 hours	–
Design costs	Apply effective labour rate of \$79.76	–	–
Overhead rate applied to plant/stores	25%	–	–
Overhead rate applied to materials and elevated work platform	25%	–	–

## 4.6 Price path

### 4.6.1 Draft decision

The AER’s draft decision indicated that following the calculation of an annuity charge for 2009–10, subsequent price changes are to be calculated multiplying the first year’s schedule of charges by an appropriate escalator (for example CPI).<sup>81</sup>

The draft decision required each DNSP to nominate an escalator.<sup>82</sup>

### 4.6.2 NSW DNSP’s revised regulatory proposals

Country Energy did not provide an escalation rate.

EnergyAustralia proposed an escalation rate based on a ratio of labour costs relative to the expected revenue from public lighting services multiplied by the real labour escalation rate in NSW for the EGW sector.<sup>83</sup>

Integral Energy proposed a composite escalation rate, made up of capital and CPI.<sup>84</sup>

### 4.6.3 Issues and considerations

The AER is generally accepting of methods for deriving escalators which reflect the movement in input costs. With respect to public lighting assets, the labour costs of construction account for around half of the total costs associated with a constructed light. For this reason, the AER considers that the application of a labour cost escalator appropriate.

<sup>81</sup> AER, *Draft decision*, p. 339.

<sup>82</sup> AER, *Draft decision*, p. 339.

<sup>83</sup> EnergyAustralia, Annuity pricing model.

<sup>84</sup> Integral Energy, Annuity pricing model.

The application of a CPI escalator is consistent with the approach adopted for standard control services, and the AER also considers this is equally appropriate for alternative control services.

However, the AER has been unable to make an assessment of the proposed escalation rates on the basis that the formulas provided by the DNSPs have unexplained input data.

#### **4.6.4 AER conclusion**

While the AER accepts in principle the approach proposed by the DNSPs, it cannot endorse this approach until it is satisfied that it has a full understanding of the calculation of the escalation rates.

The AER will apply the forecast CPI set out in its draft decision as the price path to apply to charges for assets constructed after 30 June 2009 (see table 3.11 of this document).

### **4.7 AER supplementary draft decision**

In accordance with clause 6.12.1(12) of the transitional chapter 6 rules, the AER's supplementary draft decision for Country Energy is that the schedule of fixed prices for the first year of the next regulatory control period for assets constructed before 1 July 2009 are as set out in appendix A.

In accordance with clause 6.12.1(12) of the transitional chapter 6 rules, the AER's supplementary draft decision for EnergyAustralia is that the schedule of fixed prices for the first year of the next regulatory control period for assets constructed before 1 July 2009 are as set out in appendix B.

In accordance with clause 6.12.1(12) of the transitional chapter 6 rules, the AER's supplementary draft decision for Integral Energy is that the schedule of fixed prices for the first year of the next regulatory control period for assets constructed before 1 July 2009 are as set out in appendix C.

In accordance with clause 6.12.1(12) of the transitional chapter 6 rules, the AER's supplementary draft decision for the NSW DNSPs is the price path for the remaining years of the next regulatory control period will be calculated using the AER's draft decision forecast inflation rates set out in table 3.11.

## 5 Other issues

This chapter discusses a number of issues on which the AER seeks the views of interested parties. The issues relate to proposed changes to tariff classes and tariff class designations; clarification of transitional arrangements; and how charges for new types of public lighting assets introduced during the next regulatory control period are proposed to be determined.

### 5.1 Revised tariff classes and tariff class designations

#### Draft decision

In its draft decision, the AER set out six tariff classes relating to public lighting assets. Tariff classes 1 and 2 relate to assets constructed prior to 1 July 2009 and tariff classes 3 to 5 related to assets constructed after 30 June 2008. Tariff class 6 related to the early replacement of existing assets. The key designation in the tariff classes was whether the asset was owned and constructed by the DNSP or whether the asset was owned and constructed by the customer.<sup>85</sup>

#### NSW DNSP's revised regulatory proposals

Country Energy stated that the tariff class designations should reflect varying arrangements for the funding of public lighting assets and that funding arrangements determine whether capital charges are applicable. It submitted that capital charges currently are, and should continue to be, based solely on whether the capital costs for purchase or construction was provided by the DNSP or the customer (regardless of ownership). On this basis, Country Energy suggested that tariff classes 4 and 5 of the draft decision be merged.<sup>86</sup>

Integral Energy also considered that the key factor in terms of designating tariffs was whether the capital was funded by the DNSP or the customer.<sup>87</sup> It stated that its preference would be that the current definition of 'Asset owned and constructed by the customer' be replaced with 'Capital not funded by DNSP' and the current definition of 'Asset owned and constructed by the DNSP' be replaced with 'Capital funded by the DNSP'.

Integral Energy also noted that the AER's tariff class 5 referred to assets owned by the customer but maintained by the DNSP, that is, gifted to the DNSP. Integral Energy stated that it considered this work to be contestable and therefore unregulated. On this basis Integral Energy has not proposed any tariffs for tariff class 5.<sup>88</sup>

#### Issues and considerations

The AER accepts that the key determinant in relation to tariff classes relates to which party has provided the capital funding rather than ownership. For example, while an asset may be funded by a customer, as a result of its being gifted to a DNSP ownership would transfer to the DNSP. In this instance, the important factor in relation to the charges

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<sup>85</sup> AER, *Draft decision*, pp. 340–341.

<sup>86</sup> Country Energy, *Revised regulatory proposal*, p. 77–78.

<sup>87</sup> Integral Energy, *Public lighting proposal*, table 1, p. 3.

<sup>88</sup> Integral Energy, *Public lighting proposal*, table 1, p. 3.



payable would be that the customer originally funded the capital for the asset. The AER has therefore revised its descriptions of tariff classes to reflect which party has provided the funding.

The AER also agrees that the change in designation means that tariff classes 4 and 5 can be merged. The impact of the merger of these two assets classes is that tariff class 6 (early replacement of existing assets at customers request) now becomes tariff class 5.

### **AER conclusion**

The AER considers that designation of a tariff class should be determined on the basis of who has funded the capital expenditure. The AER's proposed revised tariff classes and designations are set out in table 5.1.

**Table 5.1: Summary of public lighting tariffs and their determination**

<b>Tariff class</b>	<b>Description</b>	<b>Basis of tariff determination</b>
Assets constructed prior to 1 July 2009		
1	Capital funded by DNSP	Annual efficient maintenance charge. Capital charge based on IPART approved RAB.
2	Capital not funded by DNSP	Annual efficient maintenance costs. DNSP not entitled to a return on or of capital.
Assets constructed after 30 June 2009		
3	Capital funded by DNSP	Annual efficient maintenance charge (same as those for tariff class 2). Annual capital charge (return of and on) based on efficient material and installation costs.
4	Capital not funded by DNSP	Annual efficient maintenance charge (same as those for tariff class 2). DNSP not entitled to a return on or of capital.
5	Capital funded by the DNSP but asset replaced at the request of the customer before the end of its economic life.	Tariff based on annual efficient maintenance charge (discount provided on maintenance costs if asset replacement is aligned with DNSP's bulk maintenance cycle). Annual capital charge based on whether or not the DNSP has funded the capital (that is, potentially tariff class 3). Residual asset charge calculated for replaced asset based on remaining life determined through an assessment of the assets condition or the AER default value.

## 5.2 The need for transitional arrangements

### Draft decision

In the draft decision, the AER stated that different tariffs would apply to assets constructed before 1 July 2009 compared to those assets constructed after 30 June 2009.<sup>89</sup>

### Integral Energy

Integral Energy submitted that transitional arrangements were required as there was some potential for confusion regarding whether the new rates would apply to assets commissioned after the cut off date; substantively constructed but not commissioned; or committed by acceptance of a quotation. Integral Energy sought this transitional issue be clarified as part of the public lighting consultation process.<sup>90</sup>

### Issues and considerations

The AER agrees that there is a need to clarify when the new tariffs will apply to a DNSP's customers. Clarification is primarily required in relation to tariff classes 1 and 3 as tariff classes 2 and 4 are the same regardless of when an agreement with the DNSP is entered into (that is, the efficient maintenance charge is the same for existing and new assets).

The AER notes that while several dates or events could be used to classify assets to which the post 30 June 2009 tariffs will apply, an unambiguous date needs to be selected, to minimise scope for varying interpretation of the cut off point. For this reason the AER considers that the post 30 June 2009 tariffs should apply if there is acceptance of a quotation for construction of the assets from the relevant DNSP after 30 June 2009. The AER considers that the date of acceptance of a quotation should be unambiguous and documented for both the DNSP and the customer.

### AER conclusion

The new tariffs will apply if a customer accepts a quotation for construction of new assets from the relevant DNSP after 30 June 2009.

## 5.3 Introduction of new assets during the next regulatory control period

### Draft decision

This issue was not addressed in the draft decision.

### EnergyAustralia

EnergyAustralia has questioned what approval process will operate in relation to the tariffs to apply to new types of public lighting assets introduced by the DNSPs during the next regulatory control period.<sup>91</sup>

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<sup>89</sup> AER, *Draft decision*, p. 346.

<sup>90</sup> Integral Energy, *Public lighting proposal*, p. 10.

<sup>91</sup> EnergyAustralia, Discussions with AER staff, 23 February 2009.

### **Issues and considerations**

The AER considers that it is likely that new types of public lighting assets will become available during the next regulatory control period and will be offered by the NSW DNSPs, either at the request of public lighting customers or at the initiative of the DNSPs themselves. It is reasonable that customers would expect to be able to implement these new lighting technologies as soon as possible and that the charges for these assets would be set at an efficient level.

Consistent with its draft decision on public lighting, the AER will determine efficient capital and maintenance charges for new types of public lighting assets introduced after the commencement of the next regulatory control period. The NSW DNSPs will be required to submit an application regarding the charges that it proposes to apply to the new assets. The application will be reviewed by the AER and decided upon prior to the assets being offered to the DNSP's customers. The application should demonstrate that the proposed charges are efficient and include a model demonstrating how the charges have been calculated. It should be noted that:

- the annual capital charge must be based on an annuity approach, consistent with capital charges for other public lighting assets constructed after 30 June 2009
- the proposed charges will be escalated in accordance with the price paths contained in the AER's final determination for alternative control services for next regulatory control period
- the proposed charges for a new public lighting asset will only apply within a regulatory control period
- once an application is received from a DNSP, the AER will make its final decision within six months. Before making its final decision, the AER may consult with interested parties and publish a draft decision. The AER may accept the proposed charges or may reject and substitute its own charges.

### **AER conclusion**

Should a DNSP wish to introduce new types of public lighting assets during the next regulatory control period it will need to make an application to the AER for approval of the efficient capital and maintenance charges associated with asset the prior to the asset being offered to the DNSP's customers.

## Appendix A: Country Energy schedule of fixed prices 2009–10

Tariff class	Tariff description	Description	Dedicated pole	Number of lights	CE proposed January 2009	AER revised March 2009	% Change
1	FLU0010-ST-0110-001-B	Fluorescent 9	SHARED OR NO POLE	1	67.27	52.87	-21
1	FLU0010-ST-0110-001-S	Fluorescent 9	SHARED OR NO POLE	1	74.28	66.77	-10
1	FLU0020-ST-0010-001-B	Fluorescent 11	SHARED OR NO POLE	1	79.46	64.83	-18
1	FLU0020-ST-0010-001-S	Fluorescent 11	SHARED OR NO POLE	1	86.48	78.73	-9
1	FLU0050-ST-0010-001-B	Fluorescent 20	SHARED OR NO POLE	1	79.46	64.83	-18
1	FLU0050-ST-0010-001-S	Fluorescent 20	SHARED OR NO POLE	1	86.48	78.73	-9
1	FLU0060-ST-0010-001-B	Fluorescent Twin 20	SHARED OR NO POLE	1	86.37	70.28	-19
1	FLU0060-ST-0010-001-S	Fluorescent Twin 20	SHARED OR NO POLE	1	92.79	83.71	-10
1	FLU0060-ST-0990-001-B	Fluorescent Twin 20	STEEL POLE	1	197.42	171.01	-13
1	FLU0060-ST-0990-001-S	Fluorescent Twin 20	STEEL POLE	1	203.84	184.44	-10
1	FLU0070-ST-0010-001-B	Fluorescent 3x20	SHARED OR NO POLE	1	93.28	75.74	-19
1	FLU0070-ST-0010-001-S	Fluorescent 3x20	SHARED OR NO POLE	1	99.11	88.70	-10
1	FLU0080-ST-0010-001-B	Fluorescent 4x20	SHARED OR NO POLE	1	100.19	81.19	-19
1	FLU0080-ST-0010-001-S	Fluorescent 4x20	SHARED OR NO POLE	1	105.42	93.68	-11
1	FLU0080-ST-0990-001-B	Fluorescent 4x20	STEEL POLE	1	211.24	181.92	-14
1	FLU0080-ST-0990-001-S	Fluorescent 4x20	STEEL POLE	1	216.47	194.41	-10
1	FLU0100-ST-0010-001-B	Fluorescent 26	SHARED OR NO POLE	1	79.46	64.83	-18
1	FLU0100-ST-0010-001-S	Fluorescent 26	SHARED OR NO POLE	1	86.48	78.73	-9
1	FLU0130-ST-0010-001-B	Fluorescent 40	SHARED OR NO POLE	1	78.00	63.67	-18
1	FLU0130-ST-0010-001-S	Fluorescent 40	SHARED OR NO POLE	1	85.28	77.79	-9
1	FLU0130-ST-0110-001-B	Fluorescent 40	SHARED OR NO POLE	1	65.81	51.71	-21
1	FLU0130-ST-0110-001-S	Fluorescent 40	SHARED OR NO POLE	1	73.09	65.82	-10
1	FLU0130-ST-0740-001-B	Fluorescent 40	SHARED OR NO POLE	2	87.56	72.47	-17
1	FLU0130-ST-0740-001-S	Fluorescent 40	SHARED OR NO POLE	2	94.84	86.58	-9

1	FLU0130-ST-0810-001-B	Fluorescent 40	WOOD POLE	1	136.16	118.89	-13
1	FLU0130-ST-0810-001-S	Fluorescent 40	WOOD POLE	1	143.44	133.00	-7
1	FLU0130-ST-0990-001-B	Fluorescent 40	STEEL POLE	1	189.05	164.40	-13
1	FLU0130-ST-0990-001-S	Fluorescent 40	STEEL POLE	1	196.33	178.51	-9
1	FLU0140-ST-0010-001-B	Fluorescent 2x40	SHARED OR NO POLE	1	83.45	67.98	-19
1	FLU0140-ST-0010-001-S	Fluorescent 2x40	SHARED OR NO POLE	1	90.43	81.85	-9
1	FLU0140-ST-0990-001-B	Fluorescent 2x40	STEEL POLE	1	194.50	168.70	-13
1	FLU0140-ST-0990-001-S	Fluorescent 2x40	STEEL POLE	1	201.47	182.57	-9
1	FLU0150-ST-0010-001-B	Fluorescent 3x40	SHARED OR NO POLE	1	88.89	72.28	-19
1	FLU0150-ST-0010-001-S	Fluorescent 3x40	SHARED OR NO POLE	1	95.57	85.91	-10
1	FLU0160-ST-0010-001-B	Fluorescent 4x40	SHARED OR NO POLE	1	94.34	76.58	-19
1	FLU0160-ST-0010-001-S	Fluorescent 4x40	SHARED OR NO POLE	1	100.71	89.97	-11
1	FLU0160-ST-0990-001-B	Fluorescent 4x40	STEEL POLE	1	205.39	177.30	-14
1	FLU0160-ST-0990-001-S	Fluorescent 4x40	STEEL POLE	1	211.76	190.69	-10
1	FLU0180-ST-0010-001-B	Fluorescent 58	SHARED OR NO POLE	1	78.00	63.67	-18
1	FLU0180-ST-0010-001-S	Fluorescent 58	SHARED OR NO POLE	1	85.28	77.79	-9
1	FLU0190-ST-0010-001-B	Fluorescent 2x58	SHARED OR NO POLE	1	83.45	67.98	-19
1	FLU0190-ST-0010-001-S	Fluorescent 2x58	SHARED OR NO POLE	1	90.43	81.85	-9
1	FLU0240-ST-0010-001-B	Fluorescent 80	SHARED OR NO POLE	1	78.00	63.67	-18
1	FLU0240-ST-0010-001-S	Fluorescent 80	SHARED OR NO POLE	1	85.28	77.79	-9
1	FLU0240-ST-0990-001-B	Fluorescent 80	STEEL POLE	1	189.05	164.40	-13
1	FLU0240-ST-0990-001-S	Fluorescent 80	STEEL POLE	1	196.33	178.51	-9
1	FLU0250-ST-0010-001-B	Fluorescent 2x80	SHARED OR NO POLE	1	83.45	67.98	-19
1	FLU0250-ST-0010-001-S	Fluorescent 2x80	SHARED OR NO POLE	1	90.43	81.85	-9
1	HPS0010-ST-0040-001-B	High Pressure Sodium 50	SHARED OR NO POLE	1	78.60	63.05	-20
1	HPS0010-ST-0040-001-S	High Pressure Sodium 50	SHARED OR NO POLE	1	74.00	66.27	-10
1	HPS0010-ST-0350-001-B	High Pressure Sodium 50	WOOD POLE	1	136.76	118.26	-14
1	HPS0010-ST-0350-001-S	High Pressure Sodium 50	WOOD POLE	1	132.16	121.48	-8
1	HPS0010-ST-0360-001-B	High Pressure Sodium 50	STEEL POLE	1	189.65	163.77	-14
1	HPS0010-ST-0360-001-S	High Pressure Sodium 50	STEEL POLE	1	185.05	166.99	-10
1	HPS0010-ST-0750-001-B	High Pressure Sodium 50	SHARED OR NO POLE	3	101.46	83.88	-17

1	HPS0010-ST-0750-001-S	High Pressure Sodium 50	SHARED OR NO POLE	3	96.86	87.10	-10
1	HPS0010-TA-0090-001-B	High Pressure Sodium 50	SHARED OR NO POLE	1	66.59	54.95	-17
1	HPS0010-TA-0090-001-S	High Pressure Sodium 50	SHARED OR NO POLE	1	64.50	57.42	-11
1	HPS0010-TA-0140-001-B	High Pressure Sodium 50	WOOD POLE	1	124.75	110.17	-12
1	HPS0010-TA-0140-001-S	High Pressure Sodium 50	WOOD POLE	1	122.66	112.64	-8
1	HPS0010-TA-0170-001-B	High Pressure Sodium 50	STEEL POLE	1	177.64	155.68	-12
1	HPS0010-TA-0170-001-S	High Pressure Sodium 50	STEEL POLE	1	175.55	158.15	-10
1	HPS0010-TA-1180-001-B	High Pressure Sodium 50	SHARED OR NO POLE	2	79.67	66.80	-16
1	HPS0010-TA-1180-001-S	High Pressure Sodium 50	SHARED OR NO POLE	2	77.57	69.27	-11
1	HPS0010-TA-1200-001-B	High Pressure Sodium 50	SHARED OR NO POLE	4	105.81	90.48	-14
1	HPS0010-TA-1200-001-S	High Pressure Sodium 50	SHARED OR NO POLE	4	103.72	92.95	-10
1	HPS0020-ST-0040-001-B	High Pressure Sodium 70	SHARED OR NO POLE	1	78.47	62.94	-20
1	HPS0020-ST-0040-001-S	High Pressure Sodium 70	SHARED OR NO POLE	1	74.49	66.66	-11
1	HPS0020-ST-0350-001-B	High Pressure Sodium 70	WOOD POLE	1	136.62	118.15	-14
1	HPS0020-ST-0350-001-S	High Pressure Sodium 70	WOOD POLE	1	132.65	121.87	-8
1	HPS0020-ST-0360-001-B	High Pressure Sodium 70	STEEL POLE	1	189.51	163.66	-14
1	HPS0020-ST-0360-001-S	High Pressure Sodium 70	STEEL POLE	1	185.54	167.38	-10
1	HPS0020-ST-0730-001-B	High Pressure Sodium 70	STEEL POLE	2	200.94	174.08	-13
1	HPS0020-ST-0730-001-S	High Pressure Sodium 70	STEEL POLE	2	196.97	177.80	-10
1	HPS0020-ST-0890-001-B	High Pressure Sodium 70	SHARED OR NO POLE	2	89.89	73.35	-18
1	HPS0020-ST-0890-001-S	High Pressure Sodium 70	SHARED OR NO POLE	2	85.92	77.07	-10
1	HPS0020-ST-0910-001-B	High Pressure Sodium 70	WOOD POLE	2	148.05	128.57	-13
1	HPS0020-ST-0910-001-S	High Pressure Sodium 70	WOOD POLE	2	144.08	132.29	-8
1	HPS0020-TA-0090-001-B	High Pressure Sodium 70	SHARED OR NO POLE	1	72.29	59.45	-18
1	HPS0020-TA-0090-001-S	High Pressure Sodium 70	SHARED OR NO POLE	1	69.94	61.72	-12
1	HPS0020-TA-0140-001-B	High Pressure Sodium 70	WOOD POLE	1	130.44	114.66	-12
1	HPS0020-TA-0140-001-S	High Pressure Sodium 70	WOOD POLE	1	128.09	116.93	-9
1	HPS0020-TA-0170-001-B	High Pressure Sodium 70	STEEL POLE	1	183.34	160.17	-13
1	HPS0020-TA-0170-001-S	High Pressure Sodium 70	STEEL POLE	1	180.98	162.44	-10
1	HPS0070-ST-0040-001-B	High Pressure Sodium 100	SHARED OR NO POLE	1	78.47	62.94	-20
1	HPS0070-ST-0040-001-S	High Pressure Sodium 100	SHARED OR NO POLE	1	74.49	66.66	-11

1	HPS0070-ST-0350-001-B	High Pressure Sodium 100	WOOD POLE	1	136.62	118.15	-14
1	HPS0070-ST-0350-001-S	High Pressure Sodium 100	WOOD POLE	1	132.65	121.87	-8
1	HPS0070-ST-0360-001-B	High Pressure Sodium 100	STEEL POLE	1	189.51	163.66	-14
1	HPS0070-ST-0360-001-S	High Pressure Sodium 100	STEEL POLE	1	185.54	167.38	-10
1	HPS0080-ST-0050-001-B	High Pressure Sodium 120	SHARED OR NO POLE	1	104.70	85.22	-19
1	HPS0080-ST-0050-001-S	High Pressure Sodium 120	SHARED OR NO POLE	1	98.75	87.37	-12
1	HPS0090-ST-0050-001-B	High Pressure Sodium 150	SHARED OR NO POLE	1	111.69	90.48	-19
1	HPS0090-ST-0050-001-S	High Pressure Sodium 150	SHARED OR NO POLE	1	101.40	90.64	-11
1	HPS0090-ST-0220-001-B	High Pressure Sodium 150	WOOD POLE	1	169.85	145.69	-14
1	HPS0090-ST-0220-001-S	High Pressure Sodium 150	WOOD POLE	1	159.55	145.85	-9
1	HPS0090-ST-0310-001-B	High Pressure Sodium 150	STEEL POLE	1	209.30	179.57	-14
1	HPS0090-ST-0310-001-S	High Pressure Sodium 150	STEEL POLE	1	199.01	179.73	-10
1	HPS0090-ST-0690-001-B	High Pressure Sodium 150	STEEL POLE	2	227.91	196.20	-14
1	HPS0090-ST-0690-001-S	High Pressure Sodium 150	STEEL POLE	2	217.62	196.37	-10
1	HPS0090-ST-0720-001-B	High Pressure Sodium 150	STEEL POLE	4	265.14	229.48	-13
1	HPS0090-ST-0720-001-S	High Pressure Sodium 150	STEEL POLE	4	254.84	229.64	-10
1	HPS0090-ST-1010-001-B	High Pressure Sodium 150	SHARED OR NO POLE	2	130.30	107.11	-18
1	HPS0090-ST-1010-001-S	High Pressure Sodium 150	SHARED OR NO POLE	2	120.01	107.28	-11
1	HPS0090-TA-0050-001-B	High Pressure Sodium 150	SHARED OR NO POLE	1	101.66	83.93	-17
1	HPS0090-TA-0050-001-S	High Pressure Sodium 150	SHARED OR NO POLE	1	92.74	81.87	-12
1	HPS0090-TA-0220-001-B	High Pressure Sodium 150	WOOD POLE	1	159.81	139.14	-13
1	HPS0090-TA-0220-001-S	High Pressure Sodium 150	WOOD POLE	1	150.90	137.08	-9
1	HPS0090-TA-0310-001-B	High Pressure Sodium 150	STEEL POLE	1	199.27	173.02	-13
1	HPS0090-TA-0310-001-S	High Pressure Sodium 150	STEEL POLE	1	190.35	170.96	-10
1	HPS0100-ST-0060-001-B	High Pressure Sodium 220	SHARED OR NO POLE	1	114.34	92.71	-19
1	HPS0100-ST-0060-001-S	High Pressure Sodium 220	SHARED OR NO POLE	1	102.88	91.83	-11
1	HPS0100-ST-0320-001-B	High Pressure Sodium 220	STEEL POLE	1	211.95	181.80	-14
1	HPS0100-ST-0320-001-S	High Pressure Sodium 220	STEEL POLE	1	200.49	180.92	-10
1	HPS0100-ST-0430-001-B	High Pressure Sodium 220	STEEL POLE	3	249.57	215.41	-14
1	HPS0100-ST-0430-001-S	High Pressure Sodium 220	STEEL POLE	3	238.11	214.53	-10
1	HPS0110-ST-0060-001-B	High Pressure Sodium 250	SHARED OR NO POLE	1	113.29	91.75	-19

1	HPS0110-ST-0060-001-S	High Pressure Sodium 250	SHARED OR NO POLE	1	102.88	91.83	-11
1	HPS0110-ST-0230-001-B	High Pressure Sodium 250	WOOD POLE	1	171.45	146.97	-14
1	HPS0110-ST-0230-001-S	High Pressure Sodium 250	WOOD POLE	1	161.04	147.04	-9
1	HPS0110-ST-0320-001-B	High Pressure Sodium 250	STEEL POLE	1	210.90	180.85	-14
1	HPS0110-ST-0320-001-S	High Pressure Sodium 250	STEEL POLE	1	200.49	180.92	-10
1	HPS0110-ST-0390-001-B	High Pressure Sodium 250	STEEL POLE	2	229.71	197.65	-14
1	HPS0110-ST-0390-001-S	High Pressure Sodium 250	STEEL POLE	2	219.30	197.72	-10
1	HPS0110-ST-0470-001-B	High Pressure Sodium 250	STEEL POLE	4	267.32	231.26	-13
1	HPS0110-ST-0470-001-S	High Pressure Sodium 250	STEEL POLE	4	256.91	231.33	-10
1	HPS0110-ST-0550-001-B	High Pressure Sodium 250	R/BOUT COLUMN	3	337.15	293.65	-13
1	HPS0110-ST-0550-001-S	High Pressure Sodium 250	R/BOUT COLUMN	3	326.74	293.72	-10
1	HPS0110-ST-0590-001-B	High Pressure Sodium 250	R/BOUT COLUMN	4	355.96	310.45	-13
1	HPS0110-ST-0590-001-S	High Pressure Sodium 250	R/BOUT COLUMN	4	345.55	310.52	-10
1	HPS0110-ST-0610-001-B	High Pressure Sodium 250	SHARED OR NO POLE	1	121.03	98.46	-19
1	HPS0110-ST-0610-001-S	High Pressure Sodium 250	SHARED OR NO POLE	1	110.62	98.53	-11
1	HPS0110-ST-0760-001-B	High Pressure Sodium 250	WOOD POLE	2	190.26	163.77	-14
1	HPS0110-ST-0760-001-S	High Pressure Sodium 250	WOOD POLE	2	179.85	163.84	-9
1	HPS0110-ST-0960-001-B	High Pressure Sodium 250	SHARED OR NO POLE	2	132.10	108.56	-18
1	HPS0110-ST-0960-001-S	High Pressure Sodium 250	SHARED OR NO POLE	2	121.69	108.63	-11
1	HPS0110-ST-1070-001-B	High Pressure Sodium 250	WOOD POLE	1	179.19	153.67	-14
1	HPS0110-ST-1070-001-S	High Pressure Sodium 250	WOOD POLE	1	168.78	153.74	-9
1	HPS0110-ST-1120-001-B	High Pressure Sodium 250	STEEL POLE	1	218.64	187.55	-14
1	HPS0110-ST-1120-001-S	High Pressure Sodium 250	STEEL POLE	1	208.23	187.62	-10
1	HPS0110-ST-1160-001-B	High Pressure Sodium 250	WOOD POLE	2	205.74	177.18	-14
1	HPS0110-ST-1160-001-S	High Pressure Sodium 250	WOOD POLE	2	195.33	177.25	-9
1	HPS0110-TA-0060-001-B	High Pressure Sodium 250	SHARED OR NO POLE	1	97.38	80.45	-17
1	HPS0110-TA-0060-001-S	High Pressure Sodium 250	SHARED OR NO POLE	1	89.38	79.23	-11
1	HPS0110-TA-0230-001-B	High Pressure Sodium 250	WOOD POLE	1	155.54	135.66	-13
1	HPS0110-TA-0230-001-S	High Pressure Sodium 250	WOOD POLE	1	147.53	134.44	-9
1	HPS0110-TA-0320-001-B	High Pressure Sodium 250	STEEL POLE	1	194.99	169.54	-13
1	HPS0110-TA-0320-001-S	High Pressure Sodium 250	STEEL POLE	1	186.99	168.32	-10



1	HPS0110-TA-0470-001-B	High Pressure Sodium 250	STEEL POLE	4	251.41	219.95	-13
1	HPS0110-TA-0470-001-S	High Pressure Sodium 250	STEEL POLE	4	243.41	218.74	-10
1	HPS0110-TA-0590-001-B	High Pressure Sodium 250	R/BOUT COLUMN	4	340.05	299.14	-12
1	HPS0110-TA-0590-001-S	High Pressure Sodium 250	R/BOUT COLUMN	4	332.05	297.93	-10
1	HPS0110-TA-0960-001-B	High Pressure Sodium 250	SHARED OR NO POLE	2	116.19	97.25	-16
1	HPS0110-TA-0960-001-S	High Pressure Sodium 250	SHARED OR NO POLE	2	108.18	96.03	-11
1	HPS0140-ST-0070-001-B	High Pressure Sodium 310 (Retrofit)	SHARED OR NO POLE	1	118.85	96.57	-19
1	HPS0140-ST-0070-001-S	High Pressure Sodium 310 (Retrofit)	SHARED OR NO POLE	1	108.44	96.64	-11
1	HPS0140-ST-1030-001-B	High Pressure Sodium 310 (Retrofit)	SHARED OR NO POLE	2	143.22	118.19	-17
1	HPS0140-ST-1030-001-S	High Pressure Sodium 310 (Retrofit)	SHARED OR NO POLE	2	132.81	118.26	-11
1	HPS0160-ST-0070-001-B	High Pressure Sodium 360	SHARED OR NO POLE	1	124.12	100.73	-19
1	HPS0160-ST-0070-001-S	High Pressure Sodium 360	SHARED OR NO POLE	1	112.10	99.53	-11
1	HPS0160-ST-0240-001-B	High Pressure Sodium 360	WOOD POLE	1	182.28	155.94	-14
1	HPS0160-ST-0240-001-S	High Pressure Sodium 360	WOOD POLE	1	170.25	154.74	-9
1	HPS0160-ST-0330-001-B	High Pressure Sodium 360	STEEL POLE	1	221.73	189.82	-14
1	HPS0160-ST-0330-001-S	High Pressure Sodium 360	STEEL POLE	1	209.71	188.62	-10
1	HPS0160-ST-1020-001-B	High Pressure Sodium 360	SHARED OR NO POLE	3	156.18	129.53	-17
1	HPS0160-ST-1020-001-S	High Pressure Sodium 360	SHARED OR NO POLE	3	156.18	128.33	-18
1	HPS0160-ST-1030-001-B	High Pressure Sodium 360	SHARED OR NO POLE	2	148.49	122.35	-18
1	HPS0160-ST-1030-001-S	High Pressure Sodium 360	SHARED OR NO POLE	2	148.49	121.15	-18
1	HPS0170-ST-0070-001-B	High Pressure Sodium 400	SHARED OR NO POLE	1	124.12	100.73	-19
1	HPS0170-ST-0070-001-S	High Pressure Sodium 400	SHARED OR NO POLE	1	124.12	99.53	-20
1	HPS0170-ST-0240-001-B	High Pressure Sodium 400	WOOD POLE	1	182.28	155.94	-14
1	HPS0170-ST-0240-001-S	High Pressure Sodium 400	WOOD POLE	1	182.28	154.74	-15
1	HPS0170-ST-0330-001-B	High Pressure Sodium 400	STEEL POLE	1	221.73	189.82	-14
1	HPS0170-ST-0330-001-S	High Pressure Sodium 400	STEEL POLE	1	221.73	188.62	-15
1	HPS0170-ST-0400-001-B	High Pressure Sodium 400	STEEL POLE	2	246.10	211.44	-14
1	HPS0170-ST-0400-001-S	High Pressure Sodium 400	STEEL POLE	2	246.10	210.24	-15
1	HPS0170-ST-0440-001-B	High Pressure Sodium 400	STEEL POLE	3	270.47	233.06	-14
1	HPS0170-ST-0440-001-S	High Pressure Sodium 400	STEEL POLE	3	270.47	231.85	-14
1	HPS0170-ST-0620-001-B	High Pressure Sodium 400	SHARED OR NO POLE	1	122.10	98.98	-19

1	HPS0170-ST-0620-001-S	High Pressure Sodium 400	SHARED OR NO POLE	1	122.10	97.77	-20
1	HPS0170-ST-1030-001-B	High Pressure Sodium 400	SHARED OR NO POLE	2	148.49	122.35	-18
1	HPS0170-ST-1030-001-S	High Pressure Sodium 400	SHARED OR NO POLE	2	148.49	121.15	-18
1	HPS0170-ST-1100-001-B	High Pressure Sodium 400	WOOD POLE	1	188.14	161.02	-14
1	HPS0170-ST-1100-001-S	High Pressure Sodium 400	WOOD POLE	1	188.14	159.81	-15
1	HPS0170-ST-1130-001-B	High Pressure Sodium 400	STEEL POLE	2	257.82	221.58	-14
1	HPS0170-ST-1130-001-S	High Pressure Sodium 400	STEEL POLE	2	257.82	220.38	-15
1	HPS0170-ST-1170-001-B	High Pressure Sodium 400	STEEL POLE	1	227.59	194.89	-14
1	HPS0170-ST-1170-001-S	High Pressure Sodium 400	STEEL POLE	1	227.59	193.69	-15
1	HPS0170-ST-1250-001-B	High Pressure Sodium 400	WOOD POLE	3	248.59	214.39	-14
1	HPS0170-ST-1250-001-S	High Pressure Sodium 400	WOOD POLE	3	248.59	213.19	-14
1	HPS0170-TA-0070-001-B	High Pressure Sodium 400	SHARED OR NO POLE	1	111.79	92.24	-17
1	HPS0170-TA-0070-001-S	High Pressure Sodium 400	SHARED OR NO POLE	1	111.79	89.14	-20
1	HPS0180-ST-0860-001-B	High Pressure Sodium 2x400	R/BOUT COLUMN	3	402.77	348.06	-14
1	HPS0180-ST-0860-001-S	High Pressure Sodium 2x400	R/BOUT COLUMN	3	402.77	340.30	-16
1	HPS0180-ST-0870-001-B	High Pressure Sodium 2x400	R/BOUT COLUMN	4	433.00	374.75	-13
1	HPS0180-ST-0870-001-S	High Pressure Sodium 2x400	R/BOUT COLUMN	4	433.00	366.99	-15
1	HPS0210-ST-0250-001-B	High Pressure Sodium 600 (Internal Ignitor)	WOOD POLE	1	380.78	328.43	-14
1	HPS0210-ST-0250-001-S	High Pressure Sodium 600 (Internal Ignitor)	WOOD POLE	1	380.78	310.97	-18
1	HPS0250-ST-0120-001-B	High Pressure Sodium 1000	SHARED OR NO POLE	1	295.67	239.07	-19
1	HPS0250-ST-0120-001-S	High Pressure Sodium 1000	SHARED OR NO POLE	1	295.67	194.35	-34
1	HPS0250-ST-0850-001-B	High Pressure Sodium 1000	R/BOUT COLUMN	2	480.58	406.68	-15
1	HPS0250-ST-0850-001-S	High Pressure Sodium 1000	R/BOUT COLUMN	2	480.58	361.96	-25
1	HPS0250-ST-1050-001-B	High Pressure Sodium 1000	R/BOUT COLUMN	4	541.03	460.06	-15
1	HPS0250-ST-1050-001-S	High Pressure Sodium 1000	R/BOUT COLUMN	4	541.03	415.34	-23
1	INC0010-ST-0810-001-B	Incandescent 30	WOOD POLE	1	165.66	146.40	-12
1	INC0010-ST-0810-001-S	Incandescent 30	WOOD POLE	1	165.66	149.72	-10
1	INC0020-ST-0010-001-B	Incandescent 40	SHARED OR NO POLE	1	107.50	91.19	-15
1	INC0020-ST-0010-001-S	Incandescent 40	SHARED OR NO POLE	1	107.50	94.50	-12
1	INC0020-ST-0810-001-B	Incandescent 40	WOOD POLE	1	165.66	146.40	-12
1	INC0020-ST-0810-001-S	Incandescent 40	WOOD POLE	1	165.66	149.72	-10

1	INC0030-ST-0010-001-B	Incandescent 60	SHARED OR NO POLE	1	107.50	91.19	-15
1	INC0030-ST-0010-001-S	Incandescent 60	SHARED OR NO POLE	1	107.50	94.50	-12
1	INC0040-ST-0010-001-B	Incandescent 75	SHARED OR NO POLE	1	107.50	91.19	-15
1	INC0040-ST-0010-001-S	Incandescent 75	SHARED OR NO POLE	1	107.50	94.50	-12
1	INC0040-ST-0810-001-B	Incandescent 75	WOOD POLE	1	165.66	146.40	-12
1	INC0040-ST-0810-001-S	Incandescent 75	WOOD POLE	1	165.66	149.72	-10
1	INC0040-ST-0990-001-B	Incandescent 75	STEEL POLE	1	218.55	191.91	-12
1	INC0040-ST-0990-001-S	Incandescent 75	STEEL POLE	1	218.55	195.23	-11
1	INC0050-ST-0010-001-B	Incandescent 100	SHARED OR NO POLE	1	107.50	91.19	-15
1	INC0050-ST-0010-001-S	Incandescent 100	SHARED OR NO POLE	1	107.50	94.50	-12
1	INC0050-ST-0810-001-B	Incandescent 100	WOOD POLE	1	165.66	146.40	-12
1	INC0050-ST-0810-001-S	Incandescent 100	WOOD POLE	1	165.66	149.72	-10
1	INC0050-ST-0990-001-B	Incandescent 100	STEEL POLE	1	218.55	191.91	-12
1	INC0050-ST-0990-001-S	Incandescent 100	STEEL POLE	1	218.55	195.23	-11
1	INC0080-ST-0010-001-B	Incandescent 150	SHARED OR NO POLE	1	113.53	95.50	-16
1	INC0080-ST-0010-001-S	Incandescent 150	SHARED OR NO POLE	1	113.53	94.50	-17
1	INC0080-ST-0810-001-B	Incandescent 150	WOOD POLE	1	171.69	150.71	-12
1	INC0080-ST-0810-001-S	Incandescent 150	WOOD POLE	1	171.69	149.72	-13
1	INC0090-ST-0010-001-B	Incandescent 200	SHARED OR NO POLE	1	113.53	95.50	-16
1	INC0090-ST-0010-001-S	Incandescent 200	SHARED OR NO POLE	1	113.53	94.50	-17
1	INC0090-ST-0810-001-B	Incandescent 200	WOOD POLE	1	171.69	150.71	-12
1	INC0090-ST-0810-001-S	Incandescent 200	WOOD POLE	1	171.69	149.72	-13
1	INC0100-ST-0010-001-B	Incandescent 300	SHARED OR NO POLE	1	113.53	95.50	-16
1	INC0100-ST-0010-001-S	Incandescent 300	SHARED OR NO POLE	1	113.53	94.50	-17
1	INC0100-ST-0610-001-B	Incandescent 300	SHARED OR NO POLE	1	143.97	121.84	-15
1	INC0100-ST-0610-001-S	Incandescent 300	SHARED OR NO POLE	1	143.97	120.85	-16
1	INC0100-ST-0810-001-B	Incandescent 300	WOOD POLE	1	171.69	150.71	-12
1	INC0100-ST-0810-001-S	Incandescent 300	WOOD POLE	1	171.69	149.72	-13
1	INC0100-ST-0990-001-B	Incandescent 300	STEEL POLE	1	224.58	196.22	-13
1	INC0100-ST-0990-001-S	Incandescent 300	STEEL POLE	1	224.58	195.23	-13
1	INC0110-ST-0010-001-B	Incandescent 500	SHARED OR NO POLE	1	113.53	95.50	-16

1	INC0110-ST-0010-001-S	Incandescent 500	SHARED OR NO POLE	1	113.53	94.50	-17
1	INC0110-ST-0110-001-B	Incandescent 500	SHARED OR NO POLE	1	101.34	83.54	-18
1	INC0110-ST-0110-001-S	Incandescent 500	SHARED OR NO POLE	1	101.34	82.54	-19
1	INC0110-ST-0810-001-B	Incandescent 500	WOOD POLE	1	171.69	150.71	-12
1	INC0110-ST-0810-001-S	Incandescent 500	WOOD POLE	1	171.69	149.72	-13
1	INC0130-ST-0010-001-B	Incandescent 800	SHARED OR NO POLE	1	113.53	95.50	-16
1	INC0130-ST-0010-001-S	Incandescent 800	SHARED OR NO POLE	1	113.53	94.50	-17
1	INC0160-ST-0640-001-B	Incandescent 1500	SHARED OR NO POLE	1	139.76	118.20	-15
1	INC0160-ST-0640-001-S	Incandescent 1500	SHARED OR NO POLE	1	139.76	117.20	-16
1	LPS0010-ST-0040-001-B	Low Pressure Sodium 18	SHARED OR NO POLE	1	95.44	76.30	-20
1	LPS0010-ST-0040-001-S	Low Pressure Sodium 18	SHARED OR NO POLE	1	95.44	84.60	-11
1	LPS0010-ST-0350-001-B	Low Pressure Sodium 18	WOOD POLE	1	153.60	131.52	-14
1	LPS0010-ST-0350-001-S	Low Pressure Sodium 18	WOOD POLE	1	153.60	139.81	-9
1	LPS0020-ST-0040-001-B	Low Pressure Sodium 35	SHARED OR NO POLE	1	95.44	76.30	-20
1	LPS0020-ST-0040-001-S	Low Pressure Sodium 35	SHARED OR NO POLE	1	95.44	84.60	-11
1	LPS0030-ST-0040-001-B	Low Pressure Sodium 55	SHARED OR NO POLE	1	95.44	76.30	-20
1	LPS0030-ST-0040-001-S	Low Pressure Sodium 55	SHARED OR NO POLE	1	95.44	84.60	-11
1	LPS0030-ST-0360-001-B	Low Pressure Sodium 55	STEEL POLE	1	206.49	177.03	-14
1	LPS0030-ST-0360-001-S	Low Pressure Sodium 55	STEEL POLE	1	206.49	185.32	-10
1	LPS0040-ST-0050-001-B	Low Pressure Sodium 90/100	SHARED OR NO POLE	1	118.75	96.28	-19
1	LPS0040-ST-0050-001-S	Low Pressure Sodium 90/100	SHARED OR NO POLE	1	118.75	104.00	-12
1	LPS0040-ST-0060-001-B	Low Pressure Sodium 90/100	SHARED OR NO POLE	1	118.94	96.45	-19
1	LPS0040-ST-0060-001-S	Low Pressure Sodium 90/100	SHARED OR NO POLE	1	118.94	104.16	-12
1	LPS0040-ST-0220-001-B	Low Pressure Sodium 90/100	WOOD POLE	1	176.91	151.49	-14
1	LPS0040-ST-0220-001-S	Low Pressure Sodium 90/100	WOOD POLE	1	176.91	159.21	-10
1	LPS0040-ST-0310-001-B	Low Pressure Sodium 90/100	STEEL POLE	1	216.36	185.37	-14
1	LPS0040-ST-0310-001-S	Low Pressure Sodium 90/100	STEEL POLE	1	216.36	193.09	-11
1	LPS0050-ST-0060-001-B	Low Pressure Sodium 135	SHARED OR NO POLE	1	122.22	99.03	-19
1	LPS0050-ST-0060-001-S	Low Pressure Sodium 135	SHARED OR NO POLE	1	122.22	103.50	-15
1	LPS0050-ST-0230-001-B	Low Pressure Sodium 135	WOOD POLE	1	180.38	154.24	-14
1	LPS0050-ST-0230-001-S	Low Pressure Sodium 135	WOOD POLE	1	180.38	158.71	-12

1	LPS0080-ST-0070-001-B	Low Pressure Sodium 180	SHARED OR NO POLE	1	134.71	109.04	-19
1	LPS0080-ST-0070-001-S	Low Pressure Sodium 180	SHARED OR NO POLE	1	134.71	115.70	-14
1	LPS0080-ST-0230-001-B	Low Pressure Sodium 180	WOOD POLE	1	187.30	159.44	-15
1	LPS0080-ST-0230-001-S	Low Pressure Sodium 180	WOOD POLE	1	187.30	166.10	-11
1	LPS0080-ST-0240-001-B	Low Pressure Sodium 180	WOOD POLE	1	192.86	164.25	-15
1	LPS0080-ST-0240-001-S	Low Pressure Sodium 180	WOOD POLE	1	192.86	170.91	-11
1	MHR0060-ST-0320-001-B	Metal Hallide (Reactor Control Gear) 250	STEEL POLE	1	231.94	197.41	-15
1	MHR0060-ST-0320-001-S	Metal Hallide (Reactor Control Gear) 250	STEEL POLE	1	231.94	208.71	-10
1	MHR0060-ST-0610-001-B	Metal Hallide (Reactor Control Gear) 250	SHARED OR NO POLE	1	142.07	115.02	-19
1	MHR0060-ST-0610-001-S	Metal Hallide (Reactor Control Gear) 250	SHARED OR NO POLE	1	142.07	126.32	-11
1	MHR0070-ST-0070-001-B	Metal Hallide (Reactor Control Gear) 400	SHARED OR NO POLE	1	144.34	116.65	-19
1	MHR0070-ST-0070-001-S	Metal Hallide (Reactor Control Gear) 400	SHARED OR NO POLE	1	144.34	127.44	-12
1	MHR0070-ST-0620-001-B	Metal Hallide (Reactor Control Gear) 400	SHARED OR NO POLE	1	142.31	114.89	-19
1	MHR0070-ST-0620-001-S	Metal Hallide (Reactor Control Gear) 400	SHARED OR NO POLE	1	142.31	125.69	-12
1	MHR0070-ST-0640-001-B	Metal Hallide (Reactor Control Gear) 400	SHARED OR NO POLE	1	142.31	114.89	-19
1	MHR0070-ST-0640-001-S	Metal Hallide (Reactor Control Gear) 400	SHARED OR NO POLE	1	142.31	125.69	-12
1	MHR0070-ST-1100-001-B	Metal Hallide (Reactor Control Gear) 400	WOOD POLE	1	208.35	176.93	-15
1	MHR0070-ST-1100-001-S	Metal Hallide (Reactor Control Gear) 400	WOOD POLE	1	208.35	187.73	-10
1	MHR0100-ST-0120-001-B	Metal Hallide (Reactor Control Gear) 1000	SHARED OR NO POLE	1	294.56	238.14	-19
1	MHR0100-ST-0120-001-S	Metal Hallide (Reactor Control Gear) 1000	SHARED OR NO POLE	1	294.56	230.76	-22
1	MVA0010-ST-0010-001-B	Mercury Vapour 50	SHARED OR NO POLE	1	72.41	58.16	-20
1	MVA0010-ST-0010-001-S	Mercury Vapour 50	SHARED OR NO POLE	1	72.41	65.01	-10
1	MVA0010-ST-0990-001-B	Mercury Vapour 50	STEEL POLE	1	183.46	158.89	-13
1	MVA0010-ST-0990-001-S	Mercury Vapour 50	STEEL POLE	1	183.46	165.73	-10
1	MVA0020-ST-0010-001-B	Mercury Vapour 80	SHARED OR NO POLE	1	72.75	58.43	-20
1	MVA0020-ST-0010-001-S	Mercury Vapour 80	SHARED OR NO POLE	1	72.75	65.37	-10
1	MVA0020-ST-0740-001-B	Mercury Vapour 80	SHARED OR NO POLE	2	82.31	67.22	-18
1	MVA0020-ST-0740-001-S	Mercury Vapour 80	SHARED OR NO POLE	2	82.31	74.16	-10
1	MVA0020-ST-0810-001-B	Mercury Vapour 80	WOOD POLE	1	130.91	113.64	-13
1	MVA0020-ST-0810-001-S	Mercury Vapour 80	WOOD POLE	1	130.91	120.58	-8
1	MVA0020-ST-0990-001-B	Mercury Vapour 80	STEEL POLE	1	183.80	159.15	-13

1	MVA0020-ST-0990-001-S	Mercury Vapour 80	STEEL POLE	1	183.80	166.09	-10
1	MVA0080-ST-0010-001-B	Mercury Vapour 125	SHARED OR NO POLE	1	73.23	58.81	-20
1	MVA0080-ST-0010-001-S	Mercury Vapour 125	SHARED OR NO POLE	1	73.23	65.18	-11
1	MVA0080-ST-0990-001-B	Mercury Vapour 125	STEEL POLE	1	184.28	159.53	-13
1	MVA0080-ST-0990-001-S	Mercury Vapour 125	STEEL POLE	1	184.28	165.90	-10
1	MVA0170-ST-0020-001-B	Mercury Vapour 175	SHARED OR NO POLE	1	103.70	84.42	-19
1	MVA0170-ST-0020-001-S	Mercury Vapour 175	SHARED OR NO POLE	1	103.70	89.16	-14
1	MVA0190-ST-0020-001-B	Mercury Vapour 250	SHARED OR NO POLE	1	109.82	89.25	-19
1	MVA0190-ST-0020-001-S	Mercury Vapour 250	SHARED OR NO POLE	1	109.82	92.70	-16
1	MVA0190-ST-0200-001-B	Mercury Vapour 250	WOOD POLE	1	167.98	144.47	-14
1	MVA0190-ST-0200-001-S	Mercury Vapour 250	WOOD POLE	1	167.98	147.91	-12
1	MVA0190-ST-0290-001-B	Mercury Vapour 250	STEEL POLE	1	207.43	178.34	-14
1	MVA0190-ST-0290-001-S	Mercury Vapour 250	STEEL POLE	1	207.43	181.79	-12
1	MVA0190-ST-0370-001-B	Mercury Vapour 250	STEEL POLE	2	226.79	195.63	-14
1	MVA0190-ST-0370-001-S	Mercury Vapour 250	STEEL POLE	2	226.79	199.08	-12
1	MVA0190-ST-0940-001-B	Mercury Vapour 250	SHARED OR NO POLE	2	129.18	106.54	-18
1	MVA0190-ST-0940-001-S	Mercury Vapour 250	SHARED OR NO POLE	2	129.18	109.99	-15
1	MVA0220-ST-0030-001-B	Mercury Vapour 400	SHARED OR NO POLE	1	128.26	103.83	-19
1	MVA0220-ST-0030-001-S	Mercury Vapour 400	SHARED OR NO POLE	1	128.26	103.49	-19
1	MVA0220-ST-0210-001-B	Mercury Vapour 400	WOOD POLE	1	186.42	159.04	-15
1	MVA0220-ST-0210-001-S	Mercury Vapour 400	WOOD POLE	1	186.42	158.70	-15
1	MVA0220-ST-0300-001-B	Mercury Vapour 400	STEEL POLE	1	225.87	192.92	-15
1	MVA0220-ST-0300-001-S	Mercury Vapour 400	STEEL POLE	1	225.87	192.58	-15
1	MVA0220-ST-0790-001-B	Mercury Vapour 400	WOOD POLE	2	206.00	176.51	-14
1	MVA0220-ST-0790-001-S	Mercury Vapour 400	WOOD POLE	2	194.69	176.17	-10
1	MVA0220-ST-0950-001-B	Mercury Vapour 400	SHARED OR NO POLE	2	147.84	121.30	-18
1	MVA0220-ST-0950-001-S	Mercury Vapour 400	SHARED OR NO POLE	2	136.53	120.96	-11
1	MVA0250-ST-0300-001-B	Mercury Vapour 500	STEEL POLE	1	209.09	179.67	-14
1	MVA0250-ST-0300-001-S	Mercury Vapour 500	STEEL POLE	1	202.62	183.14	-10
1	MVA0260-ST-0190-001-B	Mercury Vapour 700	SHARED OR NO POLE	1	276.72	237.17	-14
1	MVA0260-ST-0190-001-S	Mercury Vapour 700	SHARED OR NO POLE	1	267.20	238.24	-11

2	FLU0010-ST-0010-002-B	Fluorescent 9	SHARED OR NO POLE	1	55.48	42.06	-24
2	FLU0010-ST-0010-002-S	Fluorescent 9	SHARED OR NO POLE	1	62.49	55.96	-10
2	FLU0030-ST-0110-002-B	Fluorescent 13	SHARED OR NO POLE	1	55.48	42.06	-24
2	FLU0030-ST-0110-002-S	Fluorescent 13	SHARED OR NO POLE	1	62.49	55.96	-10
2	FLU0040-ST-0010-002-B	Fluorescent 15	SHARED OR NO POLE	1	55.48	42.06	-24
2	FLU0040-ST-0010-002-S	Fluorescent 15	SHARED OR NO POLE	1	62.49	55.96	-10
2	FLU0050-ST-0010-002-B	Fluorescent 20	SHARED OR NO POLE	1	55.48	42.06	-24
2	FLU0050-ST-0010-002-S	Fluorescent 20	SHARED OR NO POLE	1	62.49	55.96	-10
2	FLU0050-ST-0110-002-B	Fluorescent 20	SHARED OR NO POLE	1	55.48	42.06	-24
2	FLU0050-ST-0110-002-S	Fluorescent 20	SHARED OR NO POLE	1	62.49	55.96	-10
2	FLU0060-ST-0010-002-B	Fluorescent Twin 20	SHARED OR NO POLE	1	62.39	47.51	-24
2	FLU0060-ST-0010-002-S	Fluorescent Twin 20	SHARED OR NO POLE	1	68.81	60.94	-11
2	FLU0060-ST-0740-002-B	Fluorescent Twin 20	SHARED OR NO POLE	2	62.39	47.51	-24
2	FLU0060-ST-0740-002-S	Fluorescent Twin 20	SHARED OR NO POLE	2	68.81	60.94	-11
2	FLU0070-ST-0010-002-B	Fluorescent 3x20	SHARED OR NO POLE	1	69.29	52.97	-24
2	FLU0070-ST-0010-002-S	Fluorescent 3x20	SHARED OR NO POLE	1	75.12	65.93	-12
2	FLU0080-ST-0010-002-B	Fluorescent 4x20	SHARED OR NO POLE	1	76.20	58.42	-23
2	FLU0080-ST-0010-002-S	Fluorescent 4x20	SHARED OR NO POLE	1	81.43	70.91	-13
2	FLU0100-ST-0010-002-B	Fluorescent 26	SHARED OR NO POLE	1	55.48	42.06	-24
2	FLU0100-ST-0010-002-S	Fluorescent 26	SHARED OR NO POLE	1	62.49	55.96	-10
2	FLU0110-ST-0010-002-B	Fluorescent 2x26	SHARED OR NO POLE	1	62.39	47.51	-24
2	FLU0110-ST-0010-002-S	Fluorescent 2x26	SHARED OR NO POLE	1	68.81	60.94	-11
2	FLU0130-ST-0010-002-B	Fluorescent 40	SHARED OR NO POLE	1	54.01	40.90	-24
2	FLU0130-ST-0010-002-S	Fluorescent 40	SHARED OR NO POLE	1	61.30	55.01	-10
2	FLU0130-ST-0110-002-B	Fluorescent 40	SHARED OR NO POLE	1	54.01	40.90	-24
2	FLU0130-ST-0110-002-S	Fluorescent 40	SHARED OR NO POLE	1	61.30	55.01	-10
2	FLU0130-ST-0740-002-B	Fluorescent 40	SHARED OR NO POLE	2	54.01	40.90	-24
2	FLU0130-ST-0740-002-S	Fluorescent 40	SHARED OR NO POLE	2	61.30	55.01	-10
2	FLU0130-ST-0810-002-B	Fluorescent 40	WOOD POLE	1	64.85	51.37	-21
2	FLU0130-ST-0810-002-S	Fluorescent 40	WOOD POLE	1	72.13	65.48	-9
2	FLU0130-ST-0820-002-B	Fluorescent 40	SHARED OR NO POLE	3	54.01	40.90	-24

2	FLU0130-ST-0820-002-S	Fluorescent 40	SHARED OR NO POLE	3	61.30	55.01	-10
2	FLU0130-ST-0990-002-B	Fluorescent 40	STEEL POLE	1	64.03	50.56	-21
2	FLU0130-ST-0990-002-S	Fluorescent 40	STEEL POLE	1	71.31	64.67	-9
2	FLU0140-ST-0010-002-B	Fluorescent 2x40	SHARED OR NO POLE	1	59.46	45.20	-24
2	FLU0140-ST-0010-002-S	Fluorescent 2x40	SHARED OR NO POLE	1	66.44	59.07	-11
2	FLU0150-ST-0010-002-B	Fluorescent 3x40	SHARED OR NO POLE	1	64.91	49.50	-24
2	FLU0150-ST-0010-002-S	Fluorescent 3x40	SHARED OR NO POLE	1	71.58	63.13	-12
2	FLU0150-ST-0810-002-B	Fluorescent 3x40	WOOD POLE	1	75.74	59.97	-21
2	FLU0150-ST-0810-002-S	Fluorescent 3x40	WOOD POLE	1	82.42	73.60	-11
2	FLU0160-ST-0010-002-B	Fluorescent 4x40	SHARED OR NO POLE	1	70.36	53.80	-24
2	FLU0160-ST-0010-002-S	Fluorescent 4x40	SHARED OR NO POLE	1	76.72	67.19	-12
2	FLU0160-ST-0810-002-B	Fluorescent 4x40	WOOD POLE	1	81.19	64.27	-21
2	FLU0160-ST-0810-002-S	Fluorescent 4x40	WOOD POLE	1	87.56	77.66	-11
2	FLU0160-ST-0990-002-B	Fluorescent 4x40	STEEL POLE	1	80.37	63.46	-21
2	FLU0160-ST-0990-002-S	Fluorescent 4x40	STEEL POLE	1	86.73	76.85	-11
2	FLU0170-ST-0010-002-B	Fluorescent 6x40	SHARED OR NO POLE	1	81.25	62.41	-23
2	FLU0170-ST-0010-002-S	Fluorescent 6x40	SHARED OR NO POLE	1	87.00	75.31	-13
2	FLU0190-ST-0010-002-B	Fluorescent 2x58	SHARED OR NO POLE	1	59.46	45.20	-24
2	FLU0190-ST-0010-002-S	Fluorescent 2x58	SHARED OR NO POLE	1	66.44	59.07	-11
2	FLU0200-ST-0010-002-B	Fluorescent 4x58	SHARED OR NO POLE	1	70.36	53.80	-24
2	FLU0200-ST-0010-002-S	Fluorescent 4x58	SHARED OR NO POLE	1	76.72	67.19	-12
2	FLU0240-ST-0010-002-B	Fluorescent 80	SHARED OR NO POLE	1	54.01	40.90	-24
2	FLU0240-ST-0010-002-S	Fluorescent 80	SHARED OR NO POLE	1	61.30	55.01	-10
2	FLU0240-ST-0990-002-B	Fluorescent 80	STEEL POLE	1	64.03	50.56	-21
2	FLU0240-ST-0990-002-S	Fluorescent 80	STEEL POLE	1	71.31	64.67	-9
2	FLU0240-ST-1000-002-B	Fluorescent 80	STEEL POLE	2	64.03	50.56	-21
2	FLU0240-ST-1000-002-S	Fluorescent 80	STEEL POLE	2	71.31	64.67	-9
2	FLU0240-ST-1260-002-B	Fluorescent 80	WOOD POLE	2	64.85	51.37	-21
2	FLU0240-ST-1260-002-S	Fluorescent 80	WOOD POLE	2	72.13	65.48	-9
2	FLU0250-ST-0010-002-B	Fluorescent 2x80	SHARED OR NO POLE	1	59.46	45.20	-24
2	FLU0250-ST-0010-002-S	Fluorescent 2x80	SHARED OR NO POLE	1	66.44	59.07	-11



2	FLU0260-ST-0010-002-B	Fluorescent 3x80	SHARED OR NO POLE	1	64.91	49.50	-24
2	FLU0260-ST-0010-002-S	Fluorescent 3x80	SHARED OR NO POLE	1	71.58	63.13	-12
2	FLU0270-ST-0010-002-B	Fluorescent 4x80	SHARED OR NO POLE	1	70.36	53.80	-24
2	FLU0270-ST-0010-002-S	Fluorescent 4x80	SHARED OR NO POLE	1	76.72	67.19	-12
2	FLU0300-ST-0010-002-B	Fluorescent 2x125	SHARED OR NO POLE	1	59.46	45.20	-24
2	FLU0300-ST-0010-002-S	Fluorescent 2x125	SHARED OR NO POLE	1	66.44	59.07	-11
2	FLU0350-ST-1620-002-B	Compact Fluorescent 1x42	SHARED OR NO POLE	1	62.13	45.99	-26
2	FLU0350-ST-1620-002-S	Compact Fluorescent 1x42	SHARED OR NO POLE	1	56.42	50.07	-11
2	FLU0350-ST-1630-002-B	Compact Fluorescent 1x42	SHARED OR NO POLE	2	62.13	45.99	-26
2	FLU0350-ST-1630-002-S	Compact Fluorescent 1x42	SHARED OR NO POLE	2	56.42	50.07	-11
2	FLU0350-ST-1640-002-B	Compact Fluorescent 1x42	SHARED OR NO POLE	3	62.13	45.99	-26
2	FLU0350-ST-1640-002-S	Compact Fluorescent 1x42	SHARED OR NO POLE	3	56.42	50.07	-11
2	FLU0350-ST-1650-002-B	Compact Fluorescent 1x42	SHARED OR NO POLE	4	62.13	45.99	-26
2	FLU0350-ST-1650-002-S	Compact Fluorescent 1x42	SHARED OR NO POLE	4	56.42	50.07	-11
2	FLU0350-ST-1660-002-B	Compact Fluorescent 1x42	WOOD POLE	1	72.96	56.46	-23
2	FLU0350-ST-1660-002-S	Compact Fluorescent 1x42	WOOD POLE	1	67.25	60.54	-10
2	FLU0350-ST-1670-002-B	Compact Fluorescent 1x42	WOOD POLE	2	72.96	56.46	-23
2	FLU0350-ST-1670-002-S	Compact Fluorescent 1x42	WOOD POLE	2	67.25	60.54	-10
2	FLU0350-ST-1680-002-B	Compact Fluorescent 1x42	WOOD POLE	3	72.96	56.46	-23
2	FLU0350-ST-1680-002-S	Compact Fluorescent 1x42	WOOD POLE	3	67.25	60.54	-10
2	FLU0350-ST-1690-002-B	Compact Fluorescent 1x42	WOOD POLE	4	72.96	56.46	-23
2	FLU0350-ST-1690-002-S	Compact Fluorescent 1x42	WOOD POLE	4	67.25	60.54	-10
2	FLU0350-ST-1700-002-B	Compact Fluorescent 1x42	STEEL POLE	1	72.14	55.65	-23
2	FLU0350-ST-1700-002-S	Compact Fluorescent 1x42	STEEL POLE	1	66.43	59.72	-10
2	FLU0350-ST-1710-002-B	Compact Fluorescent 1x42	STEEL POLE	2	72.14	55.65	-23
2	FLU0350-ST-1710-002-S	Compact Fluorescent 1x42	STEEL POLE	2	66.43	59.72	-10
2	FLU0350-ST-1720-002-B	Compact Fluorescent 1x42	STEEL POLE	3	72.14	55.65	-23
2	FLU0350-ST-1720-002-S	Compact Fluorescent 1x42	STEEL POLE	3	66.43	59.72	-10
2	FLU0350-ST-1730-002-B	Compact Fluorescent 1x42	STEEL POLE	4	72.14	55.65	-23
2	FLU0350-ST-1730-002-S	Compact Fluorescent 1x42	STEEL POLE	4	66.43	59.72	-10
2	FLU0360-ST-1740-002-B	T5 2x14W	SHARED OR NO POLE	1	63.98	47.45	-26

2	FLU0360-ST-1740-002-S	T5 2x14W	SHARED OR NO POLE	1	54.19	48.31	-11
2	FLU0360-ST-1750-002-B	T5 2x14W	SHARED OR NO POLE	2	63.98	47.45	-26
2	FLU0360-ST-1750-002-S	T5 2x14W	SHARED OR NO POLE	2	54.19	48.31	-11
2	FLU0360-ST-1760-002-B	T5 2x14W	SHARED OR NO POLE	3	63.98	47.45	-26
2	FLU0360-ST-1760-002-S	T5 2x14W	SHARED OR NO POLE	3	54.19	48.31	-11
2	FLU0360-ST-1770-002-B	T5 2x14W	SHARED OR NO POLE	4	63.98	47.45	-26
2	FLU0360-ST-1770-002-S	T5 2x14W	SHARED OR NO POLE	4	54.19	48.31	-11
2	FLU0360-ST-1780-002-B	T5 2x14W	WOOD POLE	1	74.81	57.92	-23
2	FLU0360-ST-1780-002-S	T5 2x14W	WOOD POLE	1	65.03	58.78	-10
2	FLU0360-ST-1790-002-B	T5 2x14W	WOOD POLE	2	74.81	57.92	-23
2	FLU0360-ST-1790-002-S	T5 2x14W	WOOD POLE	2	65.03	58.78	-10
2	FLU0360-ST-1800-002-B	T5 2x14W	WOOD POLE	3	74.81	57.92	-23
2	FLU0360-ST-1800-002-S	T5 2x14W	WOOD POLE	3	65.03	58.78	-10
2	FLU0360-ST-1810-002-B	T5 2x14W	WOOD POLE	4	74.81	57.92	-23
2	FLU0360-ST-1810-002-S	T5 2x14W	WOOD POLE	4	65.03	58.78	-10
2	FLU0360-ST-1820-002-B	T5 2x14W	STEEL POLE	1	73.99	57.11	-23
2	FLU0360-ST-1820-002-S	T5 2x14W	STEEL POLE	1	64.21	57.97	-10
2	FLU0360-ST-1830-002-B	T5 2x14W	STEEL POLE	2	73.99	57.11	-23
2	FLU0360-ST-1830-002-S	T5 2x14W	STEEL POLE	2	73.99	57.97	-22
2	FLU0360-ST-1840-002-B	T5 2x14W	STEEL POLE	3	73.99	57.11	-23
2	FLU0360-ST-1840-002-S	T5 2x14W	STEEL POLE	3	73.99	57.97	-22
2	FLU0360-ST-1850-002-B	T5 2x14W	STEEL POLE	4	73.99	57.11	-23
2	FLU0360-ST-1850-002-S	T5 2x14W	STEEL POLE	4	73.99	57.97	-22
2	FLU0370-ST-1860-002-B	T5 2x24W	SHARED OR NO POLE	1	74.18	55.51	-25
2	FLU0370-ST-1860-002-S	T5 2x24W	SHARED OR NO POLE	1	74.18	53.77	-28
2	FLU0370-ST-1870-002-B	T5 2x24W	SHARED OR NO POLE	2	74.18	55.51	-25
2	FLU0370-ST-1870-002-S	T5 2x24W	SHARED OR NO POLE	2	74.18	53.77	-28
2	FLU0370-ST-1880-002-B	T5 2x24W	SHARED OR NO POLE	3	74.18	55.51	-25
2	FLU0370-ST-1880-002-S	T5 2x24W	SHARED OR NO POLE	3	74.18	53.77	-28
2	FLU0370-ST-1900-002-B	T5 2x24W	WOOD POLE	1	85.02	65.98	-22
2	FLU0370-ST-1900-002-S	T5 2x24W	WOOD POLE	1	85.02	64.23	-24

2	FLU0370-ST-1910-002-B	T5 2x24W	WOOD POLE	2	85.02	65.98	-22
2	FLU0370-ST-1910-002-S	T5 2x24W	WOOD POLE	2	85.02	64.23	-24
2	FLU0370-ST-1920-002-B	T5 2x24W	WOOD POLE	3	85.02	65.98	-22
2	FLU0370-ST-1920-002-S	T5 2x24W	WOOD POLE	3	85.02	64.23	-24
2	FLU0370-ST-1930-002-B	T5 2x24W	WOOD POLE	4	85.02	65.98	-22
2	FLU0370-ST-1930-002-S	T5 2x24W	WOOD POLE	4	85.02	64.23	-24
2	FLU0370-ST-1940-002-B	T5 2x24W	STEEL POLE	1	84.19	65.17	-23
2	FLU0370-ST-1940-002-S	T5 2x24W	STEEL POLE	1	84.19	63.42	-25
2	FLU0370-ST-1950-002-B	T5 2x24W	STEEL POLE	2	84.19	65.17	-23
2	FLU0370-ST-1950-002-S	T5 2x24W	STEEL POLE	2	84.19	63.42	-25
2	FLU0370-ST-1960-002-B	T5 2x24W	STEEL POLE	3	84.19	65.17	-23
2	FLU0370-ST-1960-002-S	T5 2x24W	STEEL POLE	3	84.19	63.42	-25
2	FLU0370-ST-1970-002-B	T5 2x24W	STEEL POLE	4	84.19	65.17	-23
2	FLU0370-ST-1970-002-S	T5 2x24W	STEEL POLE	4	84.19	63.42	-25
2	HPS0010-ST-0040-002-B	High Pressure Sodium 50	SHARED OR NO POLE	1	52.75	38.65	-27
2	HPS0010-ST-0040-002-S	High Pressure Sodium 50	SHARED OR NO POLE	1	48.14	41.87	-13
2	HPS0010-ST-0090-002-B	High Pressure Sodium 50	SHARED OR NO POLE	1	52.75	38.65	-27
2	HPS0010-ST-0090-002-S	High Pressure Sodium 50	SHARED OR NO POLE	1	48.14	41.87	-13
2	HPS0010-ST-0350-002-B	High Pressure Sodium 50	WOOD POLE	1	63.58	49.12	-23
2	HPS0010-ST-0350-002-S	High Pressure Sodium 50	WOOD POLE	1	58.97	52.34	-11
2	HPS0010-ST-0360-002-B	High Pressure Sodium 50	STEEL POLE	1	62.76	48.31	-23
2	HPS0010-ST-0360-002-S	High Pressure Sodium 50	STEEL POLE	1	58.15	51.53	-11
2	HPS0010-TA-0090-002-B	High Pressure Sodium 50	SHARED OR NO POLE	1	39.09	29.13	-25
2	HPS0010-TA-0090-002-S	High Pressure Sodium 50	SHARED OR NO POLE	1	37.00	31.61	-15
2	HPS0010-TA-0170-002-B	High Pressure Sodium 50	STEEL POLE	1	49.10	38.79	-21
2	HPS0010-TA-0170-002-S	High Pressure Sodium 50	STEEL POLE	1	47.01	41.26	-12
2	HPS0020-ST-0040-002-B	High Pressure Sodium 70	SHARED OR NO POLE	1	52.61	38.54	-27
2	HPS0020-ST-0040-002-S	High Pressure Sodium 70	SHARED OR NO POLE	1	48.63	42.26	-13
2	HPS0020-ST-0170-002-B	High Pressure Sodium 70	STEEL POLE	1	62.62	48.20	-23
2	HPS0020-ST-0170-002-S	High Pressure Sodium 70	STEEL POLE	1	58.65	51.92	-11
2	HPS0020-ST-0350-002-B	High Pressure Sodium 70	WOOD POLE	1	63.44	49.01	-23

2	HPS0020-ST-0350-002-S	High Pressure Sodium 70	WOOD POLE	1	59.47	52.73	-11
2	HPS0020-ST-0360-002-B	High Pressure Sodium 70	STEEL POLE	1	62.62	48.20	-23
2	HPS0020-ST-0360-002-S	High Pressure Sodium 70	STEEL POLE	1	58.65	51.92	-11
2	HPS0020-ST-0730-002-B	High Pressure Sodium 70	STEEL POLE	2	62.62	48.20	-23
2	HPS0020-ST-0730-002-S	High Pressure Sodium 70	STEEL POLE	2	58.65	51.92	-11
2	HPS0020-ST-0750-002-B	High Pressure Sodium 70	SHARED OR NO POLE	3	52.61	38.54	-27
2	HPS0020-ST-0750-002-S	High Pressure Sodium 70	SHARED OR NO POLE	3	48.63	42.26	-13
2	HPS0020-ST-0880-002-B	High Pressure Sodium 70	STEEL POLE	4	62.62	48.20	-23
2	HPS0020-ST-0880-002-S	High Pressure Sodium 70	STEEL POLE	4	58.65	51.92	-11
2	HPS0020-ST-0890-002-B	High Pressure Sodium 70	SHARED OR NO POLE	2	52.61	38.54	-27
2	HPS0020-ST-0890-002-S	High Pressure Sodium 70	SHARED OR NO POLE	2	48.63	42.26	-13
2	HPS0020-ST-0910-002-B	High Pressure Sodium 70	WOOD POLE	2	63.44	49.01	-23
2	HPS0020-ST-0910-002-S	High Pressure Sodium 70	WOOD POLE	2	59.47	52.73	-11
2	HPS0020-TA-0090-002-B	High Pressure Sodium 70	SHARED OR NO POLE	1	44.78	33.63	-25
2	HPS0020-TA-0090-002-S	High Pressure Sodium 70	SHARED OR NO POLE	1	42.43	35.90	-15
2	HPS0020-TA-0140-002-B	High Pressure Sodium 70	WOOD POLE	1	55.62	44.10	-21
2	HPS0020-TA-0140-002-S	High Pressure Sodium 70	WOOD POLE	1	53.27	46.37	-13
2	HPS0020-TA-0170-002-B	High Pressure Sodium 70	STEEL POLE	1	54.79	43.29	-21
2	HPS0020-TA-0170-002-S	High Pressure Sodium 70	STEEL POLE	1	52.44	45.55	-13
2	HPS0070-ST-0040-002-B	High Pressure Sodium 100	SHARED OR NO POLE	1	52.61	38.54	-27
2	HPS0070-ST-0040-002-S	High Pressure Sodium 100	SHARED OR NO POLE	1	48.63	42.26	-13
2	HPS0070-ST-0360-002-B	High Pressure Sodium 100	STEEL POLE	1	62.62	48.20	-23
2	HPS0070-ST-0360-002-S	High Pressure Sodium 100	STEEL POLE	1	58.65	51.92	-11
2	HPS0080-ST-0360-002-B	High Pressure Sodium 120	STEEL POLE	1	68.23	52.63	-23
2	HPS0080-ST-0360-002-S	High Pressure Sodium 120	STEEL POLE	1	62.27	54.78	-12
2	HPS0090-ST-0050-002-B	High Pressure Sodium 150	SHARED OR NO POLE	1	65.21	48.23	-26
2	HPS0090-ST-0050-002-S	High Pressure Sodium 150	SHARED OR NO POLE	1	54.91	48.39	-12
2	HPS0090-ST-0220-002-B	High Pressure Sodium 150	WOOD POLE	1	76.04	58.70	-23
2	HPS0090-ST-0220-002-S	High Pressure Sodium 150	WOOD POLE	1	65.75	58.86	-10
2	HPS0090-ST-0310-002-B	High Pressure Sodium 150	STEEL POLE	1	75.22	57.89	-23
2	HPS0090-ST-0310-002-S	High Pressure Sodium 150	STEEL POLE	1	64.93	58.05	-11

2	HPS0090-ST-0690-002-B	High Pressure Sodium 150	STEEL POLE	2	75.22	57.89	-23
2	HPS0090-ST-0690-002-S	High Pressure Sodium 150	STEEL POLE	2	64.93	58.05	-11
2	HPS0090-ST-0710-002-B	High Pressure Sodium 150	STEEL POLE	3	75.22	57.89	-23
2	HPS0090-ST-0710-002-S	High Pressure Sodium 150	STEEL POLE	3	64.93	58.05	-11
2	HPS0090-ST-0720-002-B	High Pressure Sodium 150	STEEL POLE	4	75.22	57.89	-23
2	HPS0090-ST-0720-002-S	High Pressure Sodium 150	STEEL POLE	4	64.93	58.05	-11
2	HPS0090-ST-0980-002-B	High Pressure Sodium 150	WOOD POLE	2	76.04	58.70	-23
2	HPS0090-ST-0980-002-S	High Pressure Sodium 150	WOOD POLE	2	65.75	58.86	-10
2	HPS0090-ST-1010-002-B	High Pressure Sodium 150	SHARED OR NO POLE	2	65.21	48.23	-26
2	HPS0090-ST-1010-002-S	High Pressure Sodium 150	SHARED OR NO POLE	2	54.91	48.39	-12
2	HPS0090-ST-1360-002-B	High Pressure Sodium 150	R/BOUT COLUMN	3	75.22	57.89	-23
2	HPS0090-ST-1360-002-S	High Pressure Sodium 150	R/BOUT COLUMN	3	64.93	58.05	-11
2	HPS0090-TA-0050-002-B	High Pressure Sodium 150	SHARED OR NO POLE	1	55.17	41.68	-24
2	HPS0090-TA-0050-002-S	High Pressure Sodium 150	SHARED OR NO POLE	1	46.26	39.62	-14
2	HPS0100-ST-0060-002-B	High Pressure Sodium 220	SHARED OR NO POLE	1	67.66	50.29	-26
2	HPS0100-ST-0060-002-S	High Pressure Sodium 220	SHARED OR NO POLE	1	56.20	49.41	-12
2	HPS0100-ST-0230-002-B	High Pressure Sodium 220	WOOD POLE	1	78.50	60.76	-23
2	HPS0100-ST-0230-002-S	High Pressure Sodium 220	WOOD POLE	1	67.03	59.88	-11
2	HPS0100-ST-0320-002-B	High Pressure Sodium 220	STEEL POLE	1	77.67	59.95	-23
2	HPS0100-ST-0320-002-S	High Pressure Sodium 220	STEEL POLE	1	66.21	59.07	-11
2	HPS0100-ST-0390-002-B	High Pressure Sodium 220	STEEL POLE	2	77.67	59.95	-23
2	HPS0100-ST-0390-002-S	High Pressure Sodium 220	STEEL POLE	2	66.21	59.07	-11
2	HPS0110-ST-0060-002-B	High Pressure Sodium 250	SHARED OR NO POLE	1	66.61	49.34	-26
2	HPS0110-ST-0060-002-S	High Pressure Sodium 250	SHARED OR NO POLE	1	56.20	49.41	-12
2	HPS0110-ST-0230-002-B	High Pressure Sodium 250	WOOD POLE	1	77.45	59.81	-23
2	HPS0110-ST-0230-002-S	High Pressure Sodium 250	WOOD POLE	1	67.03	59.88	-11
2	HPS0110-ST-0320-002-B	High Pressure Sodium 250	STEEL POLE	1	76.62	59.00	-23
2	HPS0110-ST-0320-002-S	High Pressure Sodium 250	STEEL POLE	1	66.21	59.07	-11
2	HPS0110-ST-0390-002-B	High Pressure Sodium 250	STEEL POLE	2	76.62	59.00	-23
2	HPS0110-ST-0390-002-S	High Pressure Sodium 250	STEEL POLE	2	66.21	59.07	-11
2	HPS0110-ST-0430-002-B	High Pressure Sodium 250	STEEL POLE	3	76.62	59.00	-23

2	HPS0110-ST-0430-002-S	High Pressure Sodium 250	STEEL POLE	3	66.21	59.07	-11
2	HPS0110-ST-0470-002-B	High Pressure Sodium 250	STEEL POLE	4	76.62	59.00	-23
2	HPS0110-ST-0470-002-S	High Pressure Sodium 250	STEEL POLE	4	66.21	59.07	-11
2	HPS0110-ST-0550-002-B	High Pressure Sodium 250	R/BOUT COLUMN	3	76.62	59.00	-23
2	HPS0110-ST-0550-002-S	High Pressure Sodium 250	R/BOUT COLUMN	3	66.21	59.07	-11
2	HPS0110-ST-0590-002-B	High Pressure Sodium 250	R/BOUT COLUMN	4	76.62	59.00	-23
2	HPS0110-ST-0590-002-S	High Pressure Sodium 250	R/BOUT COLUMN	4	66.21	59.07	-11
2	HPS0110-ST-0610-002-B	High Pressure Sodium 250	SHARED OR NO POLE	1	66.61	49.34	-26
2	HPS0110-ST-0610-002-S	High Pressure Sodium 250	SHARED OR NO POLE	1	56.20	49.41	-12
2	HPS0110-ST-0650-002-B	High Pressure Sodium 250	SHARED OR NO POLE	2	66.61	49.34	-26
2	HPS0110-ST-0650-002-S	High Pressure Sodium 250	SHARED OR NO POLE	2	56.20	49.41	-12
2	HPS0110-ST-0760-002-B	High Pressure Sodium 250	WOOD POLE	2	77.45	59.81	-23
2	HPS0110-ST-0760-002-S	High Pressure Sodium 250	WOOD POLE	2	67.03	59.88	-11
2	HPS0110-ST-0930-002-B	High Pressure Sodium 250	WOOD POLE	3	77.45	59.81	-23
2	HPS0110-ST-0930-002-S	High Pressure Sodium 250	WOOD POLE	3	67.03	59.88	-11
2	HPS0110-ST-0960-002-B	High Pressure Sodium 250	SHARED OR NO POLE	2	66.61	49.34	-26
2	HPS0110-ST-0960-002-S	High Pressure Sodium 250	SHARED OR NO POLE	2	56.20	49.41	-12
2	HPS0110-ST-0970-002-B	High Pressure Sodium 250	SHARED OR NO POLE	4	66.61	49.34	-26
2	HPS0110-ST-0970-002-S	High Pressure Sodium 250	SHARED OR NO POLE	4	56.20	49.41	-12
2	HPS0110-ST-1070-002-B	High Pressure Sodium 250	WOOD POLE	1	77.45	59.81	-23
2	HPS0110-ST-1070-002-S	High Pressure Sodium 250	WOOD POLE	1	67.03	59.88	-11
2	HPS0110-ST-1120-002-B	High Pressure Sodium 250	STEEL POLE	1	76.62	59.00	-23
2	HPS0110-ST-1120-002-S	High Pressure Sodium 250	STEEL POLE	1	66.21	59.07	-11
2	HPS0110-ST-1330-002-B	High Pressure Sodium 250	STEEL POLE	1	76.62	59.00	-23
2	HPS0110-ST-1330-002-S	High Pressure Sodium 250	STEEL POLE	1	66.21	59.07	-11
2	HPS0110-ST-1340-002-B	High Pressure Sodium 250	STEEL POLE	2	76.62	59.00	-23
2	HPS0110-ST-1340-002-S	High Pressure Sodium 250	STEEL POLE	2	66.21	59.07	-11
2	HPS0110-ST-1380-002-B	High Pressure Sodium 250	R/BOUT COLUMN	3	76.62	59.00	-23
2	HPS0110-ST-1380-002-S	High Pressure Sodium 250	R/BOUT COLUMN	3	66.21	59.07	-11
2	HPS0110-ST-1450-002-B	High Pressure Sodium 250	R/BOUT COLUMN	4	76.62	59.00	-23
2	HPS0110-ST-1450-002-S	High Pressure Sodium 250	R/BOUT COLUMN	4	66.21	59.07	-11

2	HPS0110-TA-0060-002-B	High Pressure Sodium 250	SHARED OR NO POLE	1	50.70	38.03	-25
2	HPS0110-TA-0060-002-S	High Pressure Sodium 250	SHARED OR NO POLE	1	42.70	36.81	-14
2	HPS0110-TA-0320-002-B	High Pressure Sodium 250	STEEL POLE	1	60.71	47.69	-21
2	HPS0110-TA-0320-002-S	High Pressure Sodium 250	STEEL POLE	1	52.71	46.47	-12
2	HPS0110-TA-0590-002-B	High Pressure Sodium 250	R/BOUT COLUMN	4	60.71	47.69	-21
2	HPS0110-TA-0590-002-S	High Pressure Sodium 250	R/BOUT COLUMN	4	52.71	46.47	-12
2	HPS0110-TA-1120-002-B	High Pressure Sodium 250	STEEL POLE	1	60.71	47.69	-21
2	HPS0110-TA-1120-002-S	High Pressure Sodium 250	STEEL POLE	1	52.71	46.47	-12
2	HPS0120-ST-0860-002-B	High Pressure Sodium 2x250	R/BOUT COLUMN	3	97.44	75.43	-23
2	HPS0120-ST-0860-002-S	High Pressure Sodium 2x250	R/BOUT COLUMN	3	80.34	70.22	-13
2	HPS0120-ST-0870-002-B	High Pressure Sodium 2x250	R/BOUT COLUMN	4	97.44	75.43	-23
2	HPS0120-ST-0870-002-S	High Pressure Sodium 2x250	R/BOUT COLUMN	4	80.34	70.22	-13
2	HPS0140-ST-0070-002-B	High Pressure Sodium 310 (Retrofit)	SHARED OR NO POLE	1	66.61	49.34	-26
2	HPS0140-ST-0070-002-S	High Pressure Sodium 310 (Retrofit)	SHARED OR NO POLE	1	56.20	49.41	-12
2	HPS0140-ST-0240-002-B	High Pressure Sodium 310 (Retrofit)	WOOD POLE	1	77.45	59.81	-23
2	HPS0140-ST-0240-002-S	High Pressure Sodium 310 (Retrofit)	WOOD POLE	1	67.03	59.88	-11
2	HPS0140-ST-0330-002-B	High Pressure Sodium 310 (Retrofit)	STEEL POLE	1	76.62	59.00	-23
2	HPS0140-ST-0330-002-S	High Pressure Sodium 310 (Retrofit)	STEEL POLE	1	66.21	59.07	-11
2	HPS0140-ST-0400-002-B	High Pressure Sodium 310 (Retrofit)	STEEL POLE	2	76.62	59.00	-23
2	HPS0140-ST-0400-002-S	High Pressure Sodium 310 (Retrofit)	STEEL POLE	2	66.21	59.07	-11
2	HPS0160-ST-0070-002-B	High Pressure Sodium 360	SHARED OR NO POLE	1	71.89	53.50	-26
2	HPS0160-ST-0070-002-S	High Pressure Sodium 360	SHARED OR NO POLE	1	59.86	52.30	-13
2	HPS0160-ST-0240-002-B	High Pressure Sodium 360	WOOD POLE	1	82.72	63.97	-23
2	HPS0160-ST-0240-002-S	High Pressure Sodium 360	WOOD POLE	1	70.69	62.77	-11
2	HPS0160-ST-0330-002-B	High Pressure Sodium 360	STEEL POLE	1	81.90	63.16	-23
2	HPS0160-ST-0330-002-S	High Pressure Sodium 360	STEEL POLE	1	81.90	61.96	-24
2	HPS0170-ST-0070-002-B	High Pressure Sodium 400	SHARED OR NO POLE	1	71.89	53.50	-26
2	HPS0170-ST-0070-002-S	High Pressure Sodium 400	SHARED OR NO POLE	1	71.89	52.30	-27
2	HPS0170-ST-0240-002-B	High Pressure Sodium 400	WOOD POLE	1	82.72	63.97	-23
2	HPS0170-ST-0240-002-S	High Pressure Sodium 400	WOOD POLE	1	82.72	62.77	-24
2	HPS0170-ST-0270-002-B	High Pressure Sodium 400	R/BOUT COLUMN	3	81.90	63.16	-23

2	HPS0170-ST-0270-002-S	High Pressure Sodium 400	R/BOUT COLUMN	3	81.90	61.96	-24
2	HPS0170-ST-0330-002-B	High Pressure Sodium 400	STEEL POLE	1	81.90	63.16	-23
2	HPS0170-ST-0330-002-S	High Pressure Sodium 400	STEEL POLE	1	81.90	61.96	-24
2	HPS0170-ST-0400-002-B	High Pressure Sodium 400	STEEL POLE	2	81.90	63.16	-23
2	HPS0170-ST-0400-002-S	High Pressure Sodium 400	STEEL POLE	2	81.90	61.96	-24
2	HPS0170-ST-0440-002-B	High Pressure Sodium 400	STEEL POLE	3	81.90	63.16	-23
2	HPS0170-ST-0440-002-S	High Pressure Sodium 400	STEEL POLE	3	81.90	61.96	-24
2	HPS0170-ST-0480-002-B	High Pressure Sodium 400	STEEL POLE	4	81.90	63.16	-23
2	HPS0170-ST-0480-002-S	High Pressure Sodium 400	STEEL POLE	4	81.90	61.96	-24
2	HPS0170-ST-0560-002-B	High Pressure Sodium 400	R/BOUT COLUMN	3	81.90	63.16	-23
2	HPS0170-ST-0560-002-S	High Pressure Sodium 400	R/BOUT COLUMN	3	81.90	61.96	-24
2	HPS0170-ST-0600-002-B	High Pressure Sodium 400	R/BOUT COLUMN	4	81.90	63.16	-23
2	HPS0170-ST-0600-002-S	High Pressure Sodium 400	R/BOUT COLUMN	4	81.90	61.96	-24
2	HPS0170-ST-0620-002-B	High Pressure Sodium 400	SHARED OR NO POLE	1	71.89	53.50	-26
2	HPS0170-ST-0620-002-S	High Pressure Sodium 400	SHARED OR NO POLE	1	71.89	52.30	-27
2	HPS0170-ST-0660-002-B	High Pressure Sodium 400	SHARED OR NO POLE	2	71.89	53.50	-26
2	HPS0170-ST-0660-002-S	High Pressure Sodium 400	SHARED OR NO POLE	2	71.89	52.30	-27
2	HPS0170-ST-0770-002-B	High Pressure Sodium 400	WOOD POLE	2	82.72	63.97	-23
2	HPS0170-ST-0770-002-S	High Pressure Sodium 400	WOOD POLE	2	82.72	62.77	-24
2	HPS0170-ST-0900-002-B	High Pressure Sodium 400	WOOD POLE	2	82.72	63.97	-23
2	HPS0170-ST-0900-002-S	High Pressure Sodium 400	WOOD POLE	2	82.72	62.77	-24
2	HPS0170-ST-1030-002-B	High Pressure Sodium 400	SHARED OR NO POLE	2	71.89	53.50	-26
2	HPS0170-ST-1030-002-S	High Pressure Sodium 400	SHARED OR NO POLE	2	71.89	52.30	-27
2	HPS0170-ST-1100-002-B	High Pressure Sodium 400	WOOD POLE	1	82.72	63.97	-23
2	HPS0170-ST-1100-002-S	High Pressure Sodium 400	WOOD POLE	1	82.72	62.77	-24
2	HPS0170-ST-1170-002-B	High Pressure Sodium 400	STEEL POLE	1	81.90	63.16	-23
2	HPS0170-ST-1170-002-S	High Pressure Sodium 400	STEEL POLE	1	81.90	61.96	-24
2	HPS0180-ST-0870-002-B	High Pressure Sodium 2x400	R/BOUT COLUMN	4	107.99	83.76	-22
2	HPS0180-ST-0870-002-S	High Pressure Sodium 2x400	R/BOUT COLUMN	4	107.99	76.00	-30
2	HPS0250-ST-0120-002-B	High Pressure Sodium 1000	SHARED OR NO POLE	1	206.01	159.41	-23
2	HPS0250-ST-0120-002-S	High Pressure Sodium 1000	SHARED OR NO POLE	1	206.01	114.69	-44



2	HPS0250-ST-1050-002-B	High Pressure Sodium 1000	R/BOUT COLUMN	4	216.02	169.07	-22
2	HPS0250-ST-1050-002-S	High Pressure Sodium 1000	R/BOUT COLUMN	4	216.02	124.35	-42
2	INC0010-ST-0010-002-B	Incandescent 30	SHARED OR NO POLE	1	83.51	68.41	-18
2	INC0010-ST-0010-002-S	Incandescent 30	SHARED OR NO POLE	1	83.51	71.73	-14
2	INC0020-ST-0010-002-B	Incandescent 40	SHARED OR NO POLE	1	83.51	68.41	-18
2	INC0020-ST-0010-002-S	Incandescent 40	SHARED OR NO POLE	1	83.51	71.73	-14
2	INC0020-ST-0830-002-B	Incandescent 40	SHARED OR NO POLE	4	83.51	68.41	-18
2	INC0020-ST-0830-002-S	Incandescent 40	SHARED OR NO POLE	4	83.51	71.73	-14
2	INC0030-ST-0010-002-B	Incandescent 60	SHARED OR NO POLE	1	83.51	68.41	-18
2	INC0030-ST-0010-002-S	Incandescent 60	SHARED OR NO POLE	1	83.51	71.73	-14
2	INC0040-ST-0010-002-B	Incandescent 75	SHARED OR NO POLE	1	83.51	68.41	-18
2	INC0040-ST-0010-002-S	Incandescent 75	SHARED OR NO POLE	1	83.51	71.73	-14
2	INC0050-ST-0010-002-B	Incandescent 100	SHARED OR NO POLE	1	83.51	68.41	-18
2	INC0050-ST-0010-002-S	Incandescent 100	SHARED OR NO POLE	1	83.51	71.73	-14
2	INC0050-ST-0110-002-B	Incandescent 100	SHARED OR NO POLE	1	83.51	68.41	-18
2	INC0050-ST-0110-002-S	Incandescent 100	SHARED OR NO POLE	1	83.51	71.73	-14
2	INC0070-ST-0740-002-B	Incandescent 130	SHARED OR NO POLE	2	83.51	68.41	-18
2	INC0070-ST-0740-002-S	Incandescent 130	SHARED OR NO POLE	2	83.51	71.73	-14
2	INC0080-ST-0010-002-B	Incandescent 150	SHARED OR NO POLE	1	89.55	72.72	-19
2	INC0080-ST-0010-002-S	Incandescent 150	SHARED OR NO POLE	1	89.55	71.73	-20
2	INC0080-ST-0110-002-B	Incandescent 150	SHARED OR NO POLE	1	89.55	72.72	-19
2	INC0080-ST-0110-002-S	Incandescent 150	SHARED OR NO POLE	1	89.55	71.73	-20
2	INC0090-ST-0010-002-B	Incandescent 200	SHARED OR NO POLE	1	89.55	72.72	-19
2	INC0090-ST-0010-002-S	Incandescent 200	SHARED OR NO POLE	1	89.55	71.73	-20
2	INC0100-ST-0010-002-B	Incandescent 300	SHARED OR NO POLE	1	89.55	72.72	-19
2	INC0100-ST-0010-002-S	Incandescent 300	SHARED OR NO POLE	1	89.55	71.73	-20
2	INC0110-ST-0010-002-B	Incandescent 500	SHARED OR NO POLE	1	89.55	72.72	-19
2	INC0110-ST-0010-002-S	Incandescent 500	SHARED OR NO POLE	1	89.55	71.73	-20
2	INC0140-ST-0680-002-B	Incandescent 1000	SHARED OR NO POLE	2	89.55	72.72	-19
2	INC0140-ST-0680-002-S	Incandescent 1000	SHARED OR NO POLE	2	89.55	71.73	-20
2	INC0140-ST-0900-002-B	Incandescent 1000	WOOD POLE	2	100.38	83.19	-17

2	INC0140-ST-0900-002-S	Incandescent 1000	WOOD POLE	2	100.38	82.20	-18
2	INC0140-ST-1130-002-B	Incandescent 1000	STEEL POLE	2	99.56	82.38	-17
2	INC0140-ST-1130-002-S	Incandescent 1000	STEEL POLE	2	99.56	81.39	-18
2	INC0160-ST-0640-002-B	Incandescent 1500	SHARED OR NO POLE	1	89.55	72.72	-19
2	INC0160-ST-0640-002-S	Incandescent 1500	SHARED OR NO POLE	1	89.55	71.73	-20
2	INC0160-ST-1170-002-B	Incandescent 1500	STEEL POLE	1	99.56	82.38	-17
2	INC0160-ST-1170-002-S	Incandescent 1500	STEEL POLE	1	99.56	81.39	-18
2	LPS0010-ST-0350-002-B	Low Pressure Sodium 18	WOOD POLE	1	80.42	62.38	-22
2	LPS0010-ST-0350-002-S	Low Pressure Sodium 18	WOOD POLE	1	80.42	70.67	-12
2	LPS0020-ST-0040-002-B	Low Pressure Sodium 35	SHARED OR NO POLE	1	69.58	51.91	-25
2	LPS0020-ST-0040-002-S	Low Pressure Sodium 35	SHARED OR NO POLE	1	69.58	60.21	-13
2	LPS0030-ST-0040-002-B	Low Pressure Sodium 55	SHARED OR NO POLE	1	69.58	51.91	-25
2	LPS0030-ST-0040-002-S	Low Pressure Sodium 55	SHARED OR NO POLE	1	69.58	60.21	-13
2	LPS0040-ST-0050-002-B	Low Pressure Sodium 90/100	SHARED OR NO POLE	1	72.27	54.03	-25
2	LPS0040-ST-0050-002-S	Low Pressure Sodium 90/100	SHARED OR NO POLE	1	72.27	61.75	-15
2	LPS0050-ST-0060-002-B	Low Pressure Sodium 135	SHARED OR NO POLE	1	75.54	56.61	-25
2	LPS0050-ST-0060-002-S	Low Pressure Sodium 135	SHARED OR NO POLE	1	75.54	61.09	-19
2	LPS0050-ST-0230-002-B	Low Pressure Sodium 135	WOOD POLE	1	86.37	67.08	-22
2	LPS0050-ST-0230-002-S	Low Pressure Sodium 135	WOOD POLE	1	86.37	71.55	-17
2	LPS0060-ST-0060-002-B	Low Pressure Sodium 150	SHARED OR NO POLE	1	82.47	61.81	-25
2	LPS0060-ST-0060-002-S	Low Pressure Sodium 150	SHARED OR NO POLE	1	82.47	68.47	-17
2	LPS0060-ST-0230-002-B	Low Pressure Sodium 150	WOOD POLE	1	93.30	72.28	-23
2	LPS0060-ST-0230-002-S	Low Pressure Sodium 150	WOOD POLE	1	93.30	78.94	-15
2	LPS0060-ST-0320-002-B	Low Pressure Sodium 150	STEEL POLE	1	92.48	71.47	-23
2	LPS0060-ST-0320-002-S	Low Pressure Sodium 150	STEEL POLE	1	92.48	78.12	-16
2	LPS0090-ST-0070-002-B	Low Pressure Sodium 310	SHARED OR NO POLE	1	82.47	61.81	-25
2	LPS0090-ST-0070-002-S	Low Pressure Sodium 310	SHARED OR NO POLE	1	82.47	68.47	-17
2	MHR0010-ST-0040-002-B	Metal Hallide (Reactor Control Gear) 70	SHARED OR NO POLE	1	80.72	60.71	-25
2	MHR0010-ST-0040-002-S	Metal Hallide (Reactor Control Gear) 70	SHARED OR NO POLE	1	80.72	70.02	-13
2	MHR0010-ST-0360-002-B	Metal Hallide (Reactor Control Gear) 70	STEEL POLE	1	90.73	70.36	-22
2	MHR0010-ST-0360-002-S	Metal Hallide (Reactor Control Gear) 70	STEEL POLE	1	90.73	79.67	-12

2	MHR0030-ST-0050-002-B	Metal Hallide (Reactor Control Gear) 150	SHARED OR NO POLE	1	87.65	65.90	-25
2	MHR0030-ST-0050-002-S	Metal Hallide (Reactor Control Gear) 150	SHARED OR NO POLE	1	87.65	77.20	-12
2	MHR0030-ST-0310-002-B	Metal Hallide (Reactor Control Gear) 150	STEEL POLE	1	97.66	75.56	-23
2	MHR0030-ST-0310-002-S	Metal Hallide (Reactor Control Gear) 150	STEEL POLE	1	97.66	86.86	-11
2	MHR0060-ST-0060-002-B	Metal Hallide (Reactor Control Gear) 250	SHARED OR NO POLE	1	87.65	65.90	-25
2	MHR0060-ST-0060-002-S	Metal Hallide (Reactor Control Gear) 250	SHARED OR NO POLE	1	87.65	77.20	-12
2	MHR0060-ST-0320-002-B	Metal Hallide (Reactor Control Gear) 250	STEEL POLE	1	97.66	75.56	-23
2	MHR0060-ST-0320-002-S	Metal Hallide (Reactor Control Gear) 250	STEEL POLE	1	97.66	86.86	-11
2	MHR0060-ST-0390-002-B	Metal Hallide (Reactor Control Gear) 250	STEEL POLE	2	97.66	75.56	-23
2	MHR0060-ST-0390-002-S	Metal Hallide (Reactor Control Gear) 250	STEEL POLE	2	97.66	86.86	-11
2	MHR0060-ST-0430-002-B	Metal Hallide (Reactor Control Gear) 250	STEEL POLE	3	97.66	75.56	-23
2	MHR0060-ST-0430-002-S	Metal Hallide (Reactor Control Gear) 250	STEEL POLE	3	97.66	86.86	-11
2	MHR0060-ST-0610-002-B	Metal Hallide (Reactor Control Gear) 250	SHARED OR NO POLE	1	87.65	65.90	-25
2	MHR0060-ST-0610-002-S	Metal Hallide (Reactor Control Gear) 250	SHARED OR NO POLE	1	87.65	77.20	-12
2	MHR0060-ST-0960-002-B	Metal Hallide (Reactor Control Gear) 250	SHARED OR NO POLE	2	87.65	65.90	-25
2	MHR0060-ST-0960-002-S	Metal Hallide (Reactor Control Gear) 250	SHARED OR NO POLE	2	87.65	77.20	-12
2	MHR0060-ST-1120-002-B	Metal Hallide (Reactor Control Gear) 250	STEEL POLE	1	97.66	75.56	-23
2	MHR0060-ST-1120-002-S	Metal Hallide (Reactor Control Gear) 250	STEEL POLE	1	97.66	86.86	-11
2	MHR0060-ST-1270-002-B	Metal Hallide (Reactor Control Gear) 250	STEEL POLE	1	97.66	75.56	-23
2	MHR0060-ST-1270-002-S	Metal Hallide (Reactor Control Gear) 250	STEEL POLE	1	97.66	86.86	-11
2	MHR0060-ST-1280-002-B	Metal Hallide (Reactor Control Gear) 250	STEEL POLE	2	97.66	75.56	-23
2	MHR0060-ST-1280-002-S	Metal Hallide (Reactor Control Gear) 250	STEEL POLE	2	97.66	86.86	-11
2	MHR0060-ST-1290-002-B	Metal Hallide (Reactor Control Gear) 250	STEEL POLE	4	97.66	75.56	-23
2	MHR0060-ST-1290-002-S	Metal Hallide (Reactor Control Gear) 250	STEEL POLE	4	97.66	86.86	-11
2	MHR0070-ST-0070-002-B	Metal Hallide (Reactor Control Gear) 400	SHARED OR NO POLE	1	92.10	69.42	-25
2	MHR0070-ST-0070-002-S	Metal Hallide (Reactor Control Gear) 400	SHARED OR NO POLE	1	92.10	80.21	-13
2	MHR0070-ST-0640-002-B	Metal Hallide (Reactor Control Gear) 400	SHARED OR NO POLE	1	92.10	69.42	-25
2	MHR0070-ST-0640-002-S	Metal Hallide (Reactor Control Gear) 400	SHARED OR NO POLE	1	92.10	80.21	-13
2	MHR0070-ST-0680-002-B	Metal Hallide (Reactor Control Gear) 400	SHARED OR NO POLE	2	92.10	69.42	-25
2	MHR0070-ST-0680-002-S	Metal Hallide (Reactor Control Gear) 400	SHARED OR NO POLE	2	92.10	80.21	-13
2	MHR0070-ST-1100-002-B	Metal Hallide (Reactor Control Gear) 400	WOOD POLE	1	102.94	79.89	-22

2	MHR0070-ST-1100-002-S	Metal Hallide (Reactor Control Gear) 400	WOOD POLE	1	102.94	90.68	-12
2	MHR0100-ST-0120-002-B	Metal Hallide (Reactor Control Gear) 1000	SHARED OR NO POLE	1	204.90	158.49	-23
2	MHR0100-ST-0120-002-S	Metal Hallide (Reactor Control Gear) 1000	SHARED OR NO POLE	1	204.90	151.11	-26
2	MVA0010-ST-0010-002-B	Mercury Vapour 50	SHARED OR NO POLE	1	48.43	35.39	-27
2	MVA0010-ST-0010-002-S	Mercury Vapour 50	SHARED OR NO POLE	1	48.43	42.23	-13
2	MVA0010-ST-0810-002-B	Mercury Vapour 50	WOOD POLE	1	59.26	45.86	-23
2	MVA0010-ST-0810-002-S	Mercury Vapour 50	WOOD POLE	1	59.26	52.70	-11
2	MVA0010-ST-0990-002-B	Mercury Vapour 50	STEEL POLE	1	58.44	45.05	-23
2	MVA0010-ST-0990-002-S	Mercury Vapour 50	STEEL POLE	1	58.44	51.89	-11
2	MVA0020-ST-0010-002-B	Mercury Vapour 80	SHARED OR NO POLE	1	48.76	35.65	-27
2	MVA0020-ST-0010-002-S	Mercury Vapour 80	SHARED OR NO POLE	1	48.76	42.59	-13
2	MVA0020-ST-0110-002-B	Mercury Vapour 80	SHARED OR NO POLE	1	48.76	35.65	-27
2	MVA0020-ST-0110-002-S	Mercury Vapour 80	SHARED OR NO POLE	1	48.76	42.59	-13
2	MVA0020-ST-0740-002-B	Mercury Vapour 80	SHARED OR NO POLE	2	48.76	35.65	-27
2	MVA0020-ST-0740-002-S	Mercury Vapour 80	SHARED OR NO POLE	2	48.76	42.59	-13
2	MVA0020-ST-0810-002-B	Mercury Vapour 80	WOOD POLE	1	59.60	46.12	-23
2	MVA0020-ST-0810-002-S	Mercury Vapour 80	WOOD POLE	1	59.60	53.06	-11
2	MVA0020-ST-0990-002-B	Mercury Vapour 80	STEEL POLE	1	58.78	45.31	-23
2	MVA0020-ST-0990-002-S	Mercury Vapour 80	STEEL POLE	1	58.78	52.25	-11
2	MVA0020-ST-1000-002-B	Mercury Vapour 80	STEEL POLE	2	58.78	45.31	-23
2	MVA0020-ST-1000-002-S	Mercury Vapour 80	STEEL POLE	2	58.78	52.25	-11
2	MVA0020-ST-1260-002-B	Mercury Vapour 80	WOOD POLE	2	59.60	46.12	-23
2	MVA0020-ST-1260-002-S	Mercury Vapour 80	WOOD POLE	2	59.60	53.06	-11
2	MVA0080-ST-0010-002-B	Mercury Vapour 125	SHARED OR NO POLE	1	49.24	36.03	-27
2	MVA0080-ST-0010-002-S	Mercury Vapour 125	SHARED OR NO POLE	1	49.24	42.41	-14
2	MVA0080-ST-0810-002-B	Mercury Vapour 125	WOOD POLE	1	60.08	46.50	-23
2	MVA0080-ST-0810-002-S	Mercury Vapour 125	WOOD POLE	1	60.08	52.88	-12
2	MVA0080-ST-0990-002-B	Mercury Vapour 125	STEEL POLE	1	59.25	45.69	-23
2	MVA0080-ST-0990-002-S	Mercury Vapour 125	STEEL POLE	1	59.25	52.07	-12
2	MVA0120-ST-0010-002-B	Mercury Vapour 160	SHARED OR NO POLE	1	56.47	41.53	-26
2	MVA0120-ST-0010-002-S	Mercury Vapour 160	SHARED OR NO POLE	1	56.47	46.26	-18

2	MVA0120-ST-0740-002-B	Mercury Vapour 160	SHARED OR NO POLE	2	56.47	41.53	-26
2	MVA0120-ST-0740-002-S	Mercury Vapour 160	SHARED OR NO POLE	2	56.47	46.26	-18
2	MVA0120-ST-1000-002-B	Mercury Vapour 160	STEEL POLE	2	66.48	51.18	-23
2	MVA0120-ST-1000-002-S	Mercury Vapour 160	STEEL POLE	2	66.48	55.92	-16
2	MVA0190-ST-0020-002-B	Mercury Vapour 250	SHARED OR NO POLE	1	62.59	46.36	-26
2	MVA0190-ST-0020-002-S	Mercury Vapour 250	SHARED OR NO POLE	1	62.59	49.81	-20
2	MVA0190-ST-0200-002-B	Mercury Vapour 250	WOOD POLE	1	73.43	56.83	-23
2	MVA0190-ST-0200-002-S	Mercury Vapour 250	WOOD POLE	1	73.43	60.27	-18
2	MVA0190-ST-0290-002-B	Mercury Vapour 250	STEEL POLE	1	72.60	56.02	-23
2	MVA0190-ST-0290-002-S	Mercury Vapour 250	STEEL POLE	1	72.60	59.46	-18
2	MVA0190-ST-0370-002-B	Mercury Vapour 250	STEEL POLE	2	72.60	56.02	-23
2	MVA0190-ST-0370-002-S	Mercury Vapour 250	STEEL POLE	2	72.60	59.46	-18
2	MVA0220-ST-0030-002-B	Mercury Vapour 400	SHARED OR NO POLE	1	80.82	60.75	-25
2	MVA0220-ST-0030-002-S	Mercury Vapour 400	SHARED OR NO POLE	1	80.82	60.40	-25
2	MVA0220-ST-0210-002-B	Mercury Vapour 400	WOOD POLE	1	91.65	71.22	-22
2	MVA0220-ST-0210-002-S	Mercury Vapour 400	WOOD POLE	1	91.65	70.87	-23
2	MVA0220-ST-0300-002-B	Mercury Vapour 400	STEEL POLE	1	90.83	70.41	-22
2	MVA0220-ST-0300-002-S	Mercury Vapour 400	STEEL POLE	1	90.83	70.06	-23
2	MVA0220-ST-0380-002-B	Mercury Vapour 400	STEEL POLE	2	90.83	70.41	-22
2	MVA0220-ST-0380-002-S	Mercury Vapour 400	STEEL POLE	2	90.83	70.06	-23
2	MVA0220-ST-0420-002-B	Mercury Vapour 400	STEEL POLE	3	90.83	70.41	-22
2	MVA0220-ST-0420-002-S	Mercury Vapour 400	STEEL POLE	3	90.83	70.06	-23
2	MVA0220-ST-0460-002-B	Mercury Vapour 400	STEEL POLE	4	90.83	70.41	-22
2	MVA0220-ST-0460-002-S	Mercury Vapour 400	STEEL POLE	4	90.83	70.06	-23
2	MVA0220-ST-0540-002-B	Mercury Vapour 400	R/BOUT COLUMN	3	90.83	70.41	-22
2	MVA0220-ST-0540-002-S	Mercury Vapour 400	R/BOUT COLUMN	3	79.52	70.06	-12
2	MVA0220-ST-0580-002-B	Mercury Vapour 400	R/BOUT COLUMN	4	90.83	70.41	-22
2	MVA0220-ST-0580-002-S	Mercury Vapour 400	R/BOUT COLUMN	4	79.52	70.06	-12
2	MVA0220-ST-0950-002-B	Mercury Vapour 400	SHARED OR NO POLE	2	80.82	60.75	-25
2	MVA0220-ST-0950-002-S	Mercury Vapour 400	SHARED OR NO POLE	2	69.51	60.40	-13
2	MVA0260-ST-0190-002-B	Mercury Vapour 700	SHARED OR NO POLE	1	73.65	55.09	-25

2	MVA0260-ST-0190-002-S	Mercury Vapour 700	SHARED OR NO POLE	1	64.12	56.15	-12
2	MVA0260-ST-0250-002-B	Mercury Vapour 700	WOOD POLE	1	84.48	65.55	-22
2	MVA0260-ST-0250-002-S	Mercury Vapour 700	WOOD POLE	1	74.96	66.62	-11
2	MVA0260-ST-0340-002-B	Mercury Vapour 700	STEEL POLE	1	83.66	64.74	-23
2	MVA0260-ST-0340-002-S	Mercury Vapour 700	STEEL POLE	1	74.14	65.81	-11
2	MVA0290-ST-0120-002-B	Mercury Vapour 1000	SHARED OR NO POLE	1	122.30	93.50	-24
2	MVA0290-ST-0120-002-S	Mercury Vapour 1000	SHARED OR NO POLE	1	93.68	79.49	-15

Tariff class	Tariff description	Description	Dedicated pole	Number of lights	CE proposed January 2009	AER March 2009	% Change
3	FLU0350-ST-1620-003-B	Compact Fluorescent 1x42	SHARED OR NO POLE	1	155.35	118.65	-24
3	FLU0350-ST-1620-003-S	Compact Fluorescent 1x42	SHARED OR NO POLE	1	149.65	122.72	-18
3	FLU0350-ST-1630-003-B	Compact Fluorescent 1x42	SHARED OR NO POLE	2	189.66	145.60	-23
3	FLU0350-ST-1630-003-S	Compact Fluorescent 1x42	SHARED OR NO POLE	2	183.95	149.68	-19
3	FLU0350-ST-1640-003-B	Compact Fluorescent 1x42	SHARED OR NO POLE	3	223.97	172.56	-23
3	FLU0350-ST-1640-003-S	Compact Fluorescent 1x42	SHARED OR NO POLE	3	218.26	176.64	-19
3	FLU0350-ST-1650-003-B	Compact Fluorescent 1x42	SHARED OR NO POLE	4	258.28	199.52	-23
3	FLU0350-ST-1650-003-S	Compact Fluorescent 1x42	SHARED OR NO POLE	4	252.57	203.59	-19
3	FLU0350-ST-1660-003-B	Compact Fluorescent 1x42	WOOD POLE	1	313.79	241.97	-23
3	FLU0350-ST-1660-003-S	Compact Fluorescent 1x42	WOOD POLE	1	308.08	246.05	-20
3	FLU0350-ST-1670-003-B	Compact Fluorescent 1x42	WOOD POLE	2	348.10	268.93	-23
3	FLU0350-ST-1670-003-S	Compact Fluorescent 1x42	WOOD POLE	2	342.39	273.01	-20
3	FLU0350-ST-1680-003-B	Compact Fluorescent 1x42	WOOD POLE	3	382.40	295.89	-23
3	FLU0350-ST-1680-003-S	Compact Fluorescent 1x42	WOOD POLE	3	376.70	299.96	-20
3	FLU0350-ST-1690-003-B	Compact Fluorescent 1x42	WOOD POLE	4	416.71	322.84	-23
3	FLU0350-ST-1690-003-S	Compact Fluorescent 1x42	WOOD POLE	4	411.01	326.92	-20
3	FLU0350-ST-1700-003-B	Compact Fluorescent 1x42	STEEL POLE	1	430.98	327.21	-24
3	FLU0350-ST-1700-003-S	Compact Fluorescent 1x42	STEEL POLE	1	425.27	331.29	-22
3	FLU0350-ST-1710-003-B	Compact Fluorescent 1x42	STEEL POLE	2	465.29	354.17	-24
3	FLU0350-ST-1710-003-S	Compact Fluorescent 1x42	STEEL POLE	2	459.58	358.24	-22

3	FLU0350-ST-1720-003-B	Compact Fluorescent 1x42	STEEL POLE	3	499.60	381.12	-24
3	FLU0350-ST-1720-003-S	Compact Fluorescent 1x42	STEEL POLE	3	493.89	385.20	-22
3	FLU0350-ST-1730-003-B	Compact Fluorescent 1x42	STEEL POLE	4	533.91	408.08	-24
3	FLU0350-ST-1730-003-S	Compact Fluorescent 1x42	STEEL POLE	4	528.20	412.16	-22
3	FLU0360-ST-1740-003-B	T5 2x14W	SHARED OR NO POLE	1	173.87	132.60	-24
3	FLU0360-ST-1740-003-S	T5 2x14W	SHARED OR NO POLE	1	164.09	133.46	-19
3	FLU0360-ST-1750-003-B	T5 2x14W	SHARED OR NO POLE	2	224.85	172.05	-23
3	FLU0360-ST-1750-003-S	T5 2x14W	SHARED OR NO POLE	2	215.06	172.91	-20
3	FLU0360-ST-1760-003-B	T5 2x14W	SHARED OR NO POLE	3	275.83	211.50	-23
3	FLU0360-ST-1760-003-S	T5 2x14W	SHARED OR NO POLE	3	266.04	212.35	-20
3	FLU0360-ST-1770-003-B	T5 2x14W	SHARED OR NO POLE	4	326.80	250.95	-23
3	FLU0360-ST-1770-003-S	T5 2x14W	SHARED OR NO POLE	4	317.02	251.80	-21
3	FLU0360-ST-1780-003-B	T5 2x14W	WOOD POLE	1	332.31	255.93	-23
3	FLU0360-ST-1780-003-S	T5 2x14W	WOOD POLE	1	322.52	256.78	-20
3	FLU0360-ST-1790-003-B	T5 2x14W	WOOD POLE	2	383.29	295.38	-23
3	FLU0360-ST-1790-003-S	T5 2x14W	WOOD POLE	2	373.50	296.23	-21
3	FLU0360-ST-1800-003-B	T5 2x14W	WOOD POLE	3	434.26	334.82	-23
3	FLU0360-ST-1800-003-S	T5 2x14W	WOOD POLE	3	424.48	335.68	-21
3	FLU0360-ST-1810-003-B	T5 2x14W	WOOD POLE	4	485.24	374.27	-23
3	FLU0360-ST-1810-003-S	T5 2x14W	WOOD POLE	4	475.45	375.13	-21
3	FLU0360-ST-1820-003-B	T5 2x14W	STEEL POLE	1	449.50	341.17	-24
3	FLU0360-ST-1820-003-S	T5 2x14W	STEEL POLE	1	439.72	342.02	-22
3	FLU0360-ST-1830-003-B	T5 2x14W	STEEL POLE	2	500.48	380.61	-24
3	FLU0360-ST-1830-003-S	T5 2x14W	STEEL POLE	2	490.69	381.47	-22
3	FLU0360-ST-1840-003-B	T5 2x14W	STEEL POLE	3	551.45	420.06	-24
3	FLU0360-ST-1840-003-S	T5 2x14W	STEEL POLE	3	541.67	420.92	-22
3	FLU0360-ST-1850-003-B	T5 2x14W	STEEL POLE	4	602.43	459.51	-24
3	FLU0360-ST-1850-003-S	T5 2x14W	STEEL POLE	4	592.65	460.37	-22
3	FLU0370-ST-1860-003-B	T5 2x24W	SHARED OR NO POLE	1	190.29	145.31	-24
3	FLU0370-ST-1860-003-S	T5 2x24W	SHARED OR NO POLE	1	177.21	143.57	-19
3	FLU0370-ST-1870-003-B	T5 2x24W	SHARED OR NO POLE	2	247.48	189.42	-23
3	FLU0370-ST-1870-003-S	T5 2x24W	SHARED OR NO POLE	2	234.40	187.67	-20

3	FLU0370-ST-1880-003-B	T5 2x24W	SHARED OR NO POLE	3	304.67	233.52	-23
3	FLU0370-ST-1880-003-S	T5 2x24W	SHARED OR NO POLE	3	291.59	231.78	-21
3	FLU0370-ST-1890-003-B	T5 2x24W	SHARED OR NO POLE	4	361.86	277.63	-23
3	FLU0370-ST-1890-003-S	T5 2x24W	SHARED OR NO POLE	4	348.78	275.89	-21
3	FLU0370-ST-1910-003-B	T5 2x24W	WOOD POLE	2	405.91	312.74	-23
3	FLU0370-ST-1910-003-S	T5 2x24W	WOOD POLE	2	392.84	311.00	-21
3	FLU0370-ST-1920-003-B	T5 2x24W	WOOD POLE	3	463.10	356.85	-23
3	FLU0370-ST-1920-003-S	T5 2x24W	WOOD POLE	3	450.03	355.11	-21
3	FLU0370-ST-1930-003-B	T5 2x24W	WOOD POLE	4	520.29	400.96	-23
3	FLU0370-ST-1930-003-S	T5 2x24W	WOOD POLE	4	507.22	399.21	-21
3	FLU0370-ST-1940-003-B	T5 2x24W	STEEL POLE	1	465.92	353.88	-24
3	FLU0370-ST-1940-003-S	T5 2x24W	STEEL POLE	1	452.84	352.13	-22
3	FLU0370-ST-1950-003-B	T5 2x24W	STEEL POLE	2	523.11	397.98	-24
3	FLU0370-ST-1950-003-S	T5 2x24W	STEEL POLE	2	510.03	396.24	-22
3	FLU0370-ST-1960-003-B	T5 2x24W	STEEL POLE	3	580.30	442.09	-24
3	FLU0370-ST-1960-003-S	T5 2x24W	STEEL POLE	3	567.22	440.34	-22
3	FLU0370-ST-1970-003-B	T5 2x24W	STEEL POLE	4	637.49	486.19	-24
3	FLU0370-ST-1970-003-S	T5 2x24W	STEEL POLE	4	624.41	484.45	-22
3	HPS0020-ST-0040-003-B	High Pressure Sodium 70	SHARED OR NO POLE	1	142.77	108.90	-24
3	HPS0020-ST-0040-003-S	High Pressure Sodium 70	SHARED OR NO POLE	1	138.80	112.62	-19
3	HPS0020-ST-0350-003-B	High Pressure Sodium 70	WOOD POLE	1	301.20	232.23	-23
3	HPS0020-ST-0350-003-S	High Pressure Sodium 70	WOOD POLE	1	297.23	235.95	-21
3	HPS0020-ST-0360-003-B	High Pressure Sodium 70	STEEL POLE	1	418.40	317.47	-24
3	HPS0020-ST-0360-003-S	High Pressure Sodium 70	STEEL POLE	1	414.42	321.19	-22
3	HPS0020-ST-0730-003-B	High Pressure Sodium 70	STEEL POLE	2	449.64	342.13	-24
3	HPS0020-ST-0730-003-S	High Pressure Sodium 70	STEEL POLE	2	445.67	345.85	-22
3	HPS0020-ST-0890-003-B	High Pressure Sodium 70	SHARED OR NO POLE	2	174.01	133.56	-23
3	HPS0020-ST-0890-003-S	High Pressure Sodium 70	SHARED OR NO POLE	2	170.04	137.28	-19
3	HPS0020-ST-0910-003-B	High Pressure Sodium 70	WOOD POLE	2	332.45	256.89	-23
3	HPS0020-ST-0910-003-S	High Pressure Sodium 70	WOOD POLE	2	328.48	260.61	-21
3	HPS0020-TA-0090-003-B	High Pressure Sodium 70	SHARED OR NO POLE	1	139.44	107.36	-23
3	HPS0020-TA-0090-003-S	High Pressure Sodium 70	SHARED OR NO POLE	1	137.09	109.63	-20



3	HPS0020-TA-0140-003-B	High Pressure Sodium 70	WOOD POLE	1	297.88	230.68	-23
3	HPS0020-TA-0140-003-S	High Pressure Sodium 70	WOOD POLE	1	295.53	232.95	-21
3	HPS0020-TA-0170-003-B	High Pressure Sodium 70	STEEL POLE	1	415.07	315.92	-24
3	HPS0020-TA-0170-003-S	High Pressure Sodium 70	STEEL POLE	1	412.72	318.19	-23
3	HPS0090-ST-0050-003-B	High Pressure Sodium 150	SHARED OR NO POLE	1	211.75	160.85	-24
3	HPS0090-ST-0050-003-S	High Pressure Sodium 150	SHARED OR NO POLE	1	201.46	161.01	-20
3	HPS0090-ST-0220-003-B	High Pressure Sodium 150	WOOD POLE	1	370.19	284.17	-23
3	HPS0090-ST-0220-003-S	High Pressure Sodium 150	WOOD POLE	1	359.90	284.34	-21
3	HPS0090-ST-0310-003-B	High Pressure Sodium 150	STEEL POLE	1	450.64	341.87	-24
3	HPS0090-ST-0310-003-S	High Pressure Sodium 150	STEEL POLE	1	440.35	342.04	-22
3	HPS0090-ST-0690-003-B	High Pressure Sodium 150	STEEL POLE	2	501.52	381.25	-24
3	HPS0090-ST-0690-003-S	High Pressure Sodium 150	STEEL POLE	2	491.23	381.42	-22
3	HPS0090-ST-0720-003-B	High Pressure Sodium 150	STEEL POLE	4	603.30	460.02	-24
3	HPS0090-ST-0720-003-S	High Pressure Sodium 150	STEEL POLE	4	593.00	460.18	-22
3	HPS0090-ST-1010-003-B	High Pressure Sodium 150	SHARED OR NO POLE	2	262.64	200.23	-24
3	HPS0090-ST-1010-003-S	High Pressure Sodium 150	SHARED OR NO POLE	2	252.35	200.39	-21
3	HPS0090-TA-0050-003-B	High Pressure Sodium 150	SHARED OR NO POLE	1	201.72	154.30	-24
3	HPS0090-TA-0050-003-S	High Pressure Sodium 150	SHARED OR NO POLE	1	192.80	152.24	-21
3	HPS0090-TA-0220-003-B	High Pressure Sodium 150	WOOD POLE	1	360.16	277.62	-23
3	HPS0090-TA-0220-003-S	High Pressure Sodium 150	WOOD POLE	1	351.24	275.56	-22
3	HPS0090-TA-0310-003-B	High Pressure Sodium 150	STEEL POLE	1	440.60	335.33	-24
3	HPS0090-TA-0310-003-S	High Pressure Sodium 150	STEEL POLE	1	431.69	333.27	-23
3	HPS0110-ST-0060-003-B	High Pressure Sodium 250	SHARED OR NO POLE	1	213.69	162.36	-24
3	HPS0110-ST-0060-003-S	High Pressure Sodium 250	SHARED OR NO POLE	1	203.28	162.43	-20
3	HPS0110-ST-0230-003-B	High Pressure Sodium 250	WOOD POLE	1	372.13	285.68	-23
3	HPS0110-ST-0230-003-S	High Pressure Sodium 250	WOOD POLE	1	361.72	285.75	-21
3	HPS0110-ST-0320-003-B	High Pressure Sodium 250	STEEL POLE	1	452.58	343.38	-24
3	HPS0110-ST-0320-003-S	High Pressure Sodium 250	STEEL POLE	1	442.17	343.46	-22
3	HPS0110-ST-0390-003-B	High Pressure Sodium 250	STEEL POLE	2	504.00	383.17	-24
3	HPS0110-ST-0390-003-S	High Pressure Sodium 250	STEEL POLE	2	493.59	383.24	-22
3	HPS0110-ST-0470-003-B	High Pressure Sodium 250	STEEL POLE	4	606.84	462.73	-24
3	HPS0110-ST-0470-003-S	High Pressure Sodium 250	STEEL POLE	4	596.43	462.80	-22

3	HPS0110-ST-0550-003-B	High Pressure Sodium 250	R/BOUT COLUMN	3	760.18	579.33	-24
3	HPS0110-ST-0550-003-S	High Pressure Sodium 250	R/BOUT COLUMN	3	749.77	579.40	-23
3	HPS0110-ST-0590-003-B	High Pressure Sodium 250	R/BOUT COLUMN	4	811.60	619.12	-24
3	HPS0110-ST-0590-003-S	High Pressure Sodium 250	R/BOUT COLUMN	4	801.19	619.19	-23
3	HPS0110-ST-0610-003-B	High Pressure Sodium 250	SHARED OR NO POLE	1	234.86	178.22	-24
3	HPS0110-ST-0610-003-S	High Pressure Sodium 250	SHARED OR NO POLE	1	224.45	178.29	-21
3	HPS0110-ST-0760-003-B	High Pressure Sodium 250	WOOD POLE	2	423.55	325.46	-23
3	HPS0110-ST-0760-003-S	High Pressure Sodium 250	WOOD POLE	2	413.14	325.54	-21
3	HPS0110-ST-0960-003-B	High Pressure Sodium 250	SHARED OR NO POLE	2	265.11	202.14	-24
3	HPS0110-ST-0960-003-S	High Pressure Sodium 250	SHARED OR NO POLE	2	254.70	202.21	-21
3	HPS0110-ST-1070-003-B	High Pressure Sodium 250	WOOD POLE	1	393.29	301.55	-23
3	HPS0110-ST-1070-003-S	High Pressure Sodium 250	WOOD POLE	1	382.88	301.62	-21
3	HPS0110-ST-1120-003-B	High Pressure Sodium 250	STEEL POLE	1	473.74	359.25	-24
3	HPS0110-ST-1120-003-S	High Pressure Sodium 250	STEEL POLE	1	463.33	359.32	-22
3	HPS0110-ST-1160-003-B	High Pressure Sodium 250	WOOD POLE	2	465.88	357.19	-23
3	HPS0110-ST-1160-003-S	High Pressure Sodium 250	WOOD POLE	2	455.47	357.26	-22
3	HPS0110-TA-0060-003-B	High Pressure Sodium 250	SHARED OR NO POLE	1	197.78	151.05	-24
3	HPS0110-TA-0060-003-S	High Pressure Sodium 250	SHARED OR NO POLE	1	189.78	149.83	-21
3	HPS0110-TA-0230-003-B	High Pressure Sodium 250	WOOD POLE	1	356.22	274.37	-23
3	HPS0110-TA-0230-003-S	High Pressure Sodium 250	WOOD POLE	1	348.21	273.16	-22
3	HPS0110-TA-0320-003-B	High Pressure Sodium 250	STEEL POLE	1	436.67	332.07	-24
3	HPS0110-TA-0320-003-S	High Pressure Sodium 250	STEEL POLE	1	428.66	330.86	-23
3	HPS0110-TA-0470-003-B	High Pressure Sodium 250	STEEL POLE	4	590.93	451.42	-24
3	HPS0110-TA-0470-003-S	High Pressure Sodium 250	STEEL POLE	4	582.93	450.20	-23
3	HPS0110-TA-0590-003-B	High Pressure Sodium 250	R/BOUT COLUMN	4	795.69	607.81	-24
3	HPS0110-TA-0590-003-S	High Pressure Sodium 250	R/BOUT COLUMN	4	787.68	606.59	-23
3	HPS0110-TA-0960-003-B	High Pressure Sodium 250	SHARED OR NO POLE	2	249.20	190.83	-23
3	HPS0110-TA-0960-003-S	High Pressure Sodium 250	SHARED OR NO POLE	2	241.20	189.61	-21
3	HPS0170-ST-0070-003-B	High Pressure Sodium 400	SHARED OR NO POLE	1	234.16	177.91	-24
3	HPS0170-ST-0070-003-S	High Pressure Sodium 400	SHARED OR NO POLE	1	222.14	176.71	-20
3	HPS0170-ST-0240-003-B	High Pressure Sodium 400	WOOD POLE	1	392.60	301.24	-23
3	HPS0170-ST-0240-003-S	High Pressure Sodium 400	WOOD POLE	1	380.57	300.03	-21

3	HPS0170-ST-0330-003-B	High Pressure Sodium 400	STEEL POLE	1	473.05	358.94	-24
3	HPS0170-ST-0330-003-S	High Pressure Sodium 400	STEEL POLE	1	461.02	357.73	-22
3	HPS0170-ST-0400-003-B	High Pressure Sodium 400	STEEL POLE	2	539.67	410.11	-24
3	HPS0170-ST-0400-003-S	High Pressure Sodium 400	STEEL POLE	2	527.64	408.91	-23
3	HPS0170-ST-0440-003-B	High Pressure Sodium 400	STEEL POLE	3	606.29	461.28	-24
3	HPS0170-ST-0440-003-S	High Pressure Sodium 400	STEEL POLE	3	594.26	460.08	-23
3	HPS0170-ST-0620-003-B	High Pressure Sodium 400	SHARED OR NO POLE	1	228.63	173.76	-24
3	HPS0170-ST-0620-003-S	High Pressure Sodium 400	SHARED OR NO POLE	1	216.60	172.56	-20
3	HPS0170-ST-1030-003-B	High Pressure Sodium 400	SHARED OR NO POLE	2	300.78	229.08	-24
3	HPS0170-ST-1030-003-S	High Pressure Sodium 400	SHARED OR NO POLE	2	288.76	227.88	-21
3	HPS0170-ST-1100-003-B	High Pressure Sodium 400	WOOD POLE	1	408.62	313.24	-23
3	HPS0170-ST-1100-003-S	High Pressure Sodium 400	WOOD POLE	1	396.59	312.04	-21
3	HPS0170-ST-1130-003-B	High Pressure Sodium 400	STEEL POLE	2	571.70	434.12	-24
3	HPS0170-ST-1130-003-S	High Pressure Sodium 400	STEEL POLE	2	559.68	432.92	-23
3	HPS0170-ST-1170-003-B	High Pressure Sodium 400	STEEL POLE	1	489.07	370.94	-24
3	HPS0170-ST-1170-003-S	High Pressure Sodium 400	STEEL POLE	1	477.04	369.74	-22
3	HPS0170-ST-1250-003-B	High Pressure Sodium 400	WOOD POLE	3	573.89	439.59	-23
3	HPS0170-ST-1250-003-S	High Pressure Sodium 400	WOOD POLE	3	561.86	438.39	-22
3	HPS0170-TA-0070-003-B	High Pressure Sodium 400	SHARED OR NO POLE	1	221.83	169.42	-24
3	HPS0170-TA-0070-003-S	High Pressure Sodium 400	SHARED OR NO POLE	1	211.44	166.32	-21
3	MHR0060-ST-0320-003-B	Metal Hallide (Reactor Control Gear) 250	STEEL POLE	1	473.62	359.95	-24
3	MHR0060-ST-0320-003-S	Metal Hallide (Reactor Control Gear) 250	STEEL POLE	1	474.91	371.24	-22
3	MHR0060-ST-0610-003-B	Metal Hallide (Reactor Control Gear) 250	SHARED OR NO POLE	1	255.90	194.78	-24
3	MHR0060-ST-0610-003-S	Metal Hallide (Reactor Control Gear) 250	SHARED OR NO POLE	1	257.19	206.08	-20
3	MHR0070-ST-0070-003-B	Metal Hallide (Reactor Control Gear) 400	SHARED OR NO POLE	1	254.38	193.83	-24
3	MHR0070-ST-0070-003-S	Metal Hallide (Reactor Control Gear) 400	SHARED OR NO POLE	1	255.04	204.62	-20
3	MHR0070-ST-0620-003-B	Metal Hallide (Reactor Control Gear) 400	SHARED OR NO POLE	1	248.84	189.67	-24
3	MHR0070-ST-0620-003-S	Metal Hallide (Reactor Control Gear) 400	SHARED OR NO POLE	1	249.50	200.47	-20
3	MHR0070-ST-0640-003-B	Metal Hallide (Reactor Control Gear) 400	SHARED OR NO POLE	1	248.84	189.67	-24
3	MHR0070-ST-0640-003-S	Metal Hallide (Reactor Control Gear) 400	SHARED OR NO POLE	1	249.50	200.47	-20
3	MHR0070-ST-1100-003-B	Metal Hallide (Reactor Control Gear) 400	WOOD POLE	1	428.83	329.16	-23
3	MHR0070-ST-1100-003-S	Metal Hallide (Reactor Control Gear) 400	WOOD POLE	1	429.49	339.95	-21

3	MVA0020-ST-0010-003-B	Mercury Vapour 80	SHARED OR NO POLE	1	133.80	102.18	-24
3	MVA0020-ST-0010-003-S	Mercury Vapour 80	SHARED OR NO POLE	1	133.63	109.12	-18
3	MVA0020-ST-0740-003-B	Mercury Vapour 80	SHARED OR NO POLE	2	159.93	123.00	-23
3	MVA0020-ST-0740-003-S	Mercury Vapour 80	SHARED OR NO POLE	2	159.75	129.94	-19
3	MVA0020-ST-0810-003-B	Mercury Vapour 80	WOOD POLE	1	292.24	225.50	-23
3	MVA0020-ST-0810-003-S	Mercury Vapour 80	WOOD POLE	1	292.07	232.44	-20
3	MVA0020-ST-0990-003-B	Mercury Vapour 80	STEEL POLE	1	409.43	310.74	-24
3	MVA0020-ST-0990-003-S	Mercury Vapour 80	STEEL POLE	1	409.26	317.68	-22
3	MVA0190-ST-0020-003-B	Mercury Vapour 250	SHARED OR NO POLE	1	211.18	160.51	-24
3	MVA0190-ST-0020-003-S	Mercury Vapour 250	SHARED OR NO POLE	1	204.68	163.96	-20
3	MVA0190-ST-0200-003-B	Mercury Vapour 250	WOOD POLE	1	369.62	283.83	-23
3	MVA0190-ST-0200-003-S	Mercury Vapour 250	WOOD POLE	1	363.12	287.28	-21
3	MVA0190-ST-0290-003-B	Mercury Vapour 250	STEEL POLE	1	450.07	341.54	-24
3	MVA0190-ST-0290-003-S	Mercury Vapour 250	STEEL POLE	1	443.57	344.98	-22
3	MVA0190-ST-0370-003-B	Mercury Vapour 250	STEEL POLE	2	503.00	382.45	-24
3	MVA0190-ST-0370-003-S	Mercury Vapour 250	STEEL POLE	2	496.50	385.90	-22
3	MVA0190-ST-0940-003-B	Mercury Vapour 250	SHARED OR NO POLE	2	264.12	201.42	-24
4	FLU0350-ST-1620-004-B	Compact Fluorescent 1x42	SHARED OR NO POLE	1	62.13	45.99	-26
4	FLU0350-ST-1620-004-S	Compact Fluorescent 1x42	SHARED OR NO POLE	1	56.42	50.07	-11
4	FLU0350-ST-1630-004-B	Compact Fluorescent 1x42	SHARED OR NO POLE	2	62.13	45.99	-26
4	FLU0350-ST-1630-004-S	Compact Fluorescent 1x42	SHARED OR NO POLE	2	56.42	50.07	-11
4	FLU0350-ST-1640-004-B	Compact Fluorescent 1x42	SHARED OR NO POLE	3	62.13	45.99	-26
4	FLU0350-ST-1640-004-S	Compact Fluorescent 1x42	SHARED OR NO POLE	3	56.42	50.07	-11
4	FLU0350-ST-1650-004-B	Compact Fluorescent 1x42	SHARED OR NO POLE	4	62.13	45.99	-26
4	FLU0350-ST-1650-004-S	Compact Fluorescent 1x42	SHARED OR NO POLE	4	56.42	50.07	-11
4	FLU0350-ST-1660-004-B	Compact Fluorescent 1x42	WOOD POLE	1	72.96	56.46	-23
4	FLU0350-ST-1660-004-S	Compact Fluorescent 1x42	WOOD POLE	1	67.25	60.54	-10
4	FLU0350-ST-1670-004-B	Compact Fluorescent 1x42	WOOD POLE	2	72.96	56.46	-23
4	FLU0350-ST-1670-004-S	Compact Fluorescent 1x42	WOOD POLE	2	67.25	60.54	-10
4	FLU0350-ST-1680-004-B	Compact Fluorescent 1x42	WOOD POLE	3	72.96	56.46	-23
4	FLU0350-ST-1680-004-S	Compact Fluorescent 1x42	WOOD POLE	3	67.25	60.54	-10
4	FLU0350-ST-1690-004-B	Compact Fluorescent 1x42	WOOD POLE	4	72.96	56.46	-23

4	FLU0350-ST-1690-004-S	Compact Fluorescent 1x42	WOOD POLE	4	67.25	60.54	-10
4	FLU0350-ST-1700-004-B	Compact Fluorescent 1x42	STEEL POLE	1	72.14	55.65	-23
4	FLU0350-ST-1700-004-S	Compact Fluorescent 1x42	STEEL POLE	1	66.43	59.72	-10
4	FLU0350-ST-1710-004-B	Compact Fluorescent 1x42	STEEL POLE	2	72.14	55.65	-23
4	FLU0350-ST-1710-004-S	Compact Fluorescent 1x42	STEEL POLE	2	66.43	59.72	-10
4	FLU0350-ST-1720-004-B	Compact Fluorescent 1x42	STEEL POLE	3	72.14	55.65	-23
4	FLU0350-ST-1720-004-S	Compact Fluorescent 1x42	STEEL POLE	3	66.43	59.72	-10
4	FLU0350-ST-1730-004-B	Compact Fluorescent 1x42	STEEL POLE	4	72.14	55.65	-23
4	FLU0350-ST-1730-004-S	Compact Fluorescent 1x42	STEEL POLE	4	66.43	59.72	-10
4	FLU0360-ST-1740-004-B	T5 2x14W	SHARED OR NO POLE	1	63.98	47.45	-26
4	FLU0360-ST-1740-004-S	T5 2x14W	SHARED OR NO POLE	1	54.19	48.31	-11
4	FLU0360-ST-1750-004-B	T5 2x14W	SHARED OR NO POLE	2	63.98	47.45	-26
4	FLU0360-ST-1750-004-S	T5 2x14W	SHARED OR NO POLE	2	54.19	48.31	-11
4	FLU0360-ST-1760-004-B	T5 2x14W	SHARED OR NO POLE	3	63.98	47.45	-26
4	FLU0360-ST-1760-004-S	T5 2x14W	SHARED OR NO POLE	3	54.19	48.31	-11
4	FLU0360-ST-1770-004-B	T5 2x14W	SHARED OR NO POLE	4	63.98	47.45	-26
4	FLU0360-ST-1770-004-S	T5 2x14W	SHARED OR NO POLE	4	54.19	48.31	-11
4	FLU0360-ST-1780-004-B	T5 2x14W	WOOD POLE	1	74.81	57.92	-23
4	FLU0360-ST-1780-004-S	T5 2x14W	WOOD POLE	1	65.03	58.78	-10
4	FLU0360-ST-1790-004-B	T5 2x14W	WOOD POLE	2	74.81	57.92	-23
4	FLU0360-ST-1790-004-S	T5 2x14W	WOOD POLE	2	65.03	58.78	-10
4	FLU0360-ST-1800-004-B	T5 2x14W	WOOD POLE	3	74.81	57.92	-23
4	FLU0360-ST-1800-004-S	T5 2x14W	WOOD POLE	3	65.03	58.78	-10
4	FLU0360-ST-1810-004-B	T5 2x14W	WOOD POLE	4	74.81	57.92	-23
4	FLU0360-ST-1810-004-S	T5 2x14W	WOOD POLE	4	65.03	58.78	-10
4	FLU0360-ST-1820-004-B	T5 2x14W	STEEL POLE	1	73.99	57.11	-23
4	FLU0360-ST-1820-004-S	T5 2x14W	STEEL POLE	1	64.21	57.97	-10
4	FLU0360-ST-1830-004-B	T5 2x14W	STEEL POLE	2	73.99	57.11	-23
4	FLU0360-ST-1830-004-S	T5 2x14W	STEEL POLE	2	64.21	57.97	-10
4	FLU0360-ST-1840-004-B	T5 2x14W	STEEL POLE	3	73.99	57.11	-23
4	FLU0360-ST-1840-004-S	T5 2x14W	STEEL POLE	3	64.21	57.97	-10
4	FLU0360-ST-1850-004-B	T5 2x14W	STEEL POLE	4	73.99	57.11	-23

4	FLU0360-ST-1850-004-S	T5 2x14W	STEEL POLE	4	64.21	57.97	-10
4	FLU0370-ST-1860-004-B	T5 2x24W	SHARED OR NO POLE	1	74.18	55.51	-25
4	FLU0370-ST-1860-004-S	T5 2x24W	SHARED OR NO POLE	1	61.10	53.77	-12
4	FLU0370-ST-1870-004-B	T5 2x24W	SHARED OR NO POLE	2	74.18	55.51	-25
4	FLU0370-ST-1870-004-S	T5 2x24W	SHARED OR NO POLE	2	61.10	53.77	-12
4	FLU0370-ST-1880-004-B	T5 2x24W	SHARED OR NO POLE	3	74.18	55.51	-25
4	FLU0370-ST-1880-004-S	T5 2x24W	SHARED OR NO POLE	3	61.10	53.77	-12
4	FLU0370-ST-1900-004-B	T5 2x24W	WOOD POLE	1	85.02	65.98	-22
4	FLU0370-ST-1900-004-S	T5 2x24W	WOOD POLE	1	71.94	64.23	-11
4	FLU0370-ST-1910-004-B	T5 2x24W	WOOD POLE	2	85.02	65.98	-22
4	FLU0370-ST-1910-004-S	T5 2x24W	WOOD POLE	2	71.94	64.23	-11
4	FLU0370-ST-1920-004-B	T5 2x24W	WOOD POLE	3	85.02	65.98	-22
4	FLU0370-ST-1920-004-S	T5 2x24W	WOOD POLE	3	71.94	64.23	-11
4	FLU0370-ST-1930-004-B	T5 2x24W	WOOD POLE	4	85.02	65.98	-22
4	FLU0370-ST-1930-004-S	T5 2x24W	WOOD POLE	4	71.94	64.23	-11
4	FLU0370-ST-1940-004-B	T5 2x24W	STEEL POLE	1	84.19	65.17	-23
4	FLU0370-ST-1940-004-S	T5 2x24W	STEEL POLE	1	71.11	63.42	-11
4	FLU0370-ST-1950-004-B	T5 2x24W	STEEL POLE	2	84.19	65.17	-23
4	FLU0370-ST-1950-004-S	T5 2x24W	STEEL POLE	2	71.11	63.42	-11
4	FLU0370-ST-1960-004-B	T5 2x24W	STEEL POLE	3	84.19	65.17	-23
4	FLU0370-ST-1960-004-S	T5 2x24W	STEEL POLE	3	71.11	63.42	-11
4	FLU0370-ST-1970-004-B	T5 2x24W	STEEL POLE	4	84.19	65.17	-23
4	FLU0370-ST-1970-004-S	T5 2x24W	STEEL POLE	4	71.11	63.42	-11
4	HPS0020-ST-0040-004-B	High Pressure Sodium 70	SHARED OR NO POLE	1	52.61	38.54	-27
4	HPS0020-ST-0040-004-S	High Pressure Sodium 70	SHARED OR NO POLE	1	48.63	42.26	-13
4	HPS0020-ST-0170-004-B	High Pressure Sodium 70	STEEL POLE	1	62.62	48.20	-23
4	HPS0020-ST-0170-004-S	High Pressure Sodium 70	STEEL POLE	1	58.65	51.92	-11
4	HPS0020-ST-0350-004-B	High Pressure Sodium 70	WOOD POLE	1	63.44	49.01	-23
4	HPS0020-ST-0350-004-S	High Pressure Sodium 70	WOOD POLE	1	59.47	52.73	-11
4	HPS0020-ST-0360-004-B	High Pressure Sodium 70	STEEL POLE	1	62.62	48.20	-23
4	HPS0020-ST-0360-004-S	High Pressure Sodium 70	STEEL POLE	1	58.65	51.92	-11
4	HPS0020-ST-0730-004-B	High Pressure Sodium 70	STEEL POLE	2	62.62	48.20	-23

4	HPS0020-ST-0730-004-S	High Pressure Sodium 70	STEEL POLE	2	58.65	51.92	-11
4	HPS0020-ST-0750-004-B	High Pressure Sodium 70	SHARED OR NO POLE	3	52.61	38.54	-27
4	HPS0020-ST-0750-004-S	High Pressure Sodium 70	SHARED OR NO POLE	3	48.63	42.26	-13
4	HPS0020-ST-0880-004-B	High Pressure Sodium 70	STEEL POLE	4	62.62	48.20	-23
4	HPS0020-ST-0880-004-S	High Pressure Sodium 70	STEEL POLE	4	58.65	51.92	-11
4	HPS0020-ST-0890-004-B	High Pressure Sodium 70	SHARED OR NO POLE	2	52.61	38.54	-27
4	HPS0020-ST-0890-004-S	High Pressure Sodium 70	SHARED OR NO POLE	2	48.63	42.26	-13
4	HPS0020-ST-0910-004-B	High Pressure Sodium 70	WOOD POLE	2	63.44	49.01	-23
4	HPS0020-ST-0910-004-S	High Pressure Sodium 70	WOOD POLE	2	59.47	52.73	-11
4	HPS0020-TA-0090-004-B	High Pressure Sodium 70	SHARED OR NO POLE	1	44.78	33.63	-25
4	HPS0020-TA-0090-004-S	High Pressure Sodium 70	SHARED OR NO POLE	1	42.43	35.90	-15
4	HPS0020-TA-0140-004-B	High Pressure Sodium 70	WOOD POLE	1	55.62	44.10	-21
4	HPS0020-TA-0140-004-S	High Pressure Sodium 70	WOOD POLE	1	53.27	46.37	-13
4	HPS0020-TA-0170-004-B	High Pressure Sodium 70	STEEL POLE	1	54.79	43.29	-21
4	HPS0020-TA-0170-004-S	High Pressure Sodium 70	STEEL POLE	1	52.44	45.55	-13
4	HPS0090-ST-0050-004-B	High Pressure Sodium 150	SHARED OR NO POLE	1	65.21	48.23	-26
4	HPS0090-ST-0050-004-S	High Pressure Sodium 150	SHARED OR NO POLE	1	54.91	48.39	-12
4	HPS0090-ST-0220-004-B	High Pressure Sodium 150	WOOD POLE	1	76.04	58.70	-23
4	HPS0090-ST-0220-004-S	High Pressure Sodium 150	WOOD POLE	1	65.75	58.86	-10
4	HPS0090-ST-0310-004-B	High Pressure Sodium 150	STEEL POLE	1	75.22	57.89	-23
4	HPS0090-ST-0310-004-S	High Pressure Sodium 150	STEEL POLE	1	64.93	58.05	-11
4	HPS0090-ST-0690-004-B	High Pressure Sodium 150	STEEL POLE	2	75.22	57.89	-23
4	HPS0090-ST-0690-004-S	High Pressure Sodium 150	STEEL POLE	2	64.93	58.05	-11
4	HPS0090-ST-0710-004-B	High Pressure Sodium 150	STEEL POLE	3	75.22	57.89	-23
4	HPS0090-ST-0710-004-S	High Pressure Sodium 150	STEEL POLE	3	64.93	58.05	-11
4	HPS0090-ST-0720-004-B	High Pressure Sodium 150	STEEL POLE	4	75.22	57.89	-23
4	HPS0090-ST-0720-004-S	High Pressure Sodium 150	STEEL POLE	4	64.93	58.05	-11
4	HPS0090-ST-0980-004-B	High Pressure Sodium 150	WOOD POLE	2	76.04	58.70	-23
4	HPS0090-ST-0980-004-S	High Pressure Sodium 150	WOOD POLE	2	65.75	58.86	-10
4	HPS0090-ST-1010-004-B	High Pressure Sodium 150	SHARED OR NO POLE	2	65.21	48.23	-26
4	HPS0090-ST-1010-004-S	High Pressure Sodium 150	SHARED OR NO POLE	2	54.91	48.39	-12
4	HPS0090-ST-1360-004-B	High Pressure Sodium 150	R/BOUT COLUMN	3	75.22	57.89	-23

4	HPS0090-ST-1360-004-S	High Pressure Sodium 150	R/BOUT COLUMN	3	64.93	58.05	-11
4	HPS0090-TA-0050-004-B	High Pressure Sodium 150	SHARED OR NO POLE	1	55.17	41.68	-24
4	HPS0090-TA-0050-004-S	High Pressure Sodium 150	SHARED OR NO POLE	1	46.26	39.62	-14
4	HPS0110-ST-0060-004-B	High Pressure Sodium 250	SHARED OR NO POLE	1	66.61	49.34	-26
4	HPS0110-ST-0060-004-S	High Pressure Sodium 250	SHARED OR NO POLE	1	56.20	49.41	-12
4	HPS0110-ST-0230-004-B	High Pressure Sodium 250	WOOD POLE	1	77.45	59.81	-23
4	HPS0110-ST-0230-004-S	High Pressure Sodium 250	WOOD POLE	1	67.03	59.88	-11
4	HPS0110-ST-0320-004-B	High Pressure Sodium 250	STEEL POLE	1	76.62	59.00	-23
4	HPS0110-ST-0320-004-S	High Pressure Sodium 250	STEEL POLE	1	66.21	59.07	-11
4	HPS0110-ST-0390-004-B	High Pressure Sodium 250	STEEL POLE	2	76.62	59.00	-23
4	HPS0110-ST-0390-004-S	High Pressure Sodium 250	STEEL POLE	2	66.21	59.07	-11
4	HPS0110-ST-0430-004-B	High Pressure Sodium 250	STEEL POLE	3	76.62	59.00	-23
4	HPS0110-ST-0430-004-S	High Pressure Sodium 250	STEEL POLE	3	66.21	59.07	-11
4	HPS0110-ST-0470-004-B	High Pressure Sodium 250	STEEL POLE	4	76.62	59.00	-23
4	HPS0110-ST-0470-004-S	High Pressure Sodium 250	STEEL POLE	4	66.21	59.07	-11
4	HPS0110-ST-0550-004-B	High Pressure Sodium 250	R/BOUT COLUMN	3	76.62	59.00	-23
4	HPS0110-ST-0550-004-S	High Pressure Sodium 250	R/BOUT COLUMN	3	66.21	59.07	-11
4	HPS0110-ST-0590-004-B	High Pressure Sodium 250	R/BOUT COLUMN	4	76.62	59.00	-23
4	HPS0110-ST-0590-004-S	High Pressure Sodium 250	R/BOUT COLUMN	4	66.21	59.07	-11
4	HPS0110-ST-0610-004-B	High Pressure Sodium 250	SHARED OR NO POLE	1	66.61	49.34	-26
4	HPS0110-ST-0610-004-S	High Pressure Sodium 250	SHARED OR NO POLE	1	56.20	49.41	-12
4	HPS0110-ST-0650-004-B	High Pressure Sodium 250	SHARED OR NO POLE	2	66.61	49.34	-26
4	HPS0110-ST-0650-004-S	High Pressure Sodium 250	SHARED OR NO POLE	2	56.20	49.41	-12
4	HPS0110-ST-0760-004-B	High Pressure Sodium 250	WOOD POLE	2	77.45	59.81	-23
4	HPS0110-ST-0760-004-S	High Pressure Sodium 250	WOOD POLE	2	67.03	59.88	-11
4	HPS0110-ST-0930-004-B	High Pressure Sodium 250	WOOD POLE	3	77.45	59.81	-23
4	HPS0110-ST-0930-004-S	High Pressure Sodium 250	WOOD POLE	3	67.03	59.88	-11
4	HPS0110-ST-0960-004-B	High Pressure Sodium 250	SHARED OR NO POLE	2	66.61	49.34	-26
4	HPS0110-ST-0960-004-S	High Pressure Sodium 250	SHARED OR NO POLE	2	56.20	49.41	-12
4	HPS0110-ST-0970-004-B	High Pressure Sodium 250	SHARED OR NO POLE	4	66.61	49.34	-26
4	HPS0110-ST-0970-004-S	High Pressure Sodium 250	SHARED OR NO POLE	4	56.20	49.41	-12
4	HPS0110-ST-1070-004-B	High Pressure Sodium 250	WOOD POLE	1	77.45	59.81	-23



4	HPS0110-ST-1070-004-S	High Pressure Sodium 250	WOOD POLE	1	67.03	59.88	-11
4	HPS0110-ST-1120-004-B	High Pressure Sodium 250	STEEL POLE	1	76.62	59.00	-23
4	HPS0110-ST-1120-004-S	High Pressure Sodium 250	STEEL POLE	1	66.21	59.07	-11
4	HPS0110-ST-1330-004-B	High Pressure Sodium 250	STEEL POLE	1	76.62	59.00	-23
4	HPS0110-ST-1330-004-S	High Pressure Sodium 250	STEEL POLE	1	66.21	59.07	-11
4	HPS0110-ST-1340-004-B	High Pressure Sodium 250	STEEL POLE	2	76.62	59.00	-23
4	HPS0110-ST-1340-004-S	High Pressure Sodium 250	STEEL POLE	2	66.21	59.07	-11
4	HPS0110-ST-1380-004-B	High Pressure Sodium 250	R/BOUT COLUMN	3	76.62	59.00	-23
4	HPS0110-ST-1380-004-S	High Pressure Sodium 250	R/BOUT COLUMN	3	66.21	59.07	-11
4	HPS0110-ST-1450-004-B	High Pressure Sodium 250	R/BOUT COLUMN	4	76.62	59.00	-23
4	HPS0110-ST-1450-004-S	High Pressure Sodium 250	R/BOUT COLUMN	4	66.21	59.07	-11
4	HPS0110-TA-0060-004-B	High Pressure Sodium 250	SHARED OR NO POLE	1	50.70	38.03	-25
4	HPS0110-TA-0060-004-S	High Pressure Sodium 250	SHARED OR NO POLE	1	42.70	36.81	-14
4	HPS0110-TA-0320-004-B	High Pressure Sodium 250	STEEL POLE	1	60.71	47.69	-21
4	HPS0110-TA-0320-004-S	High Pressure Sodium 250	STEEL POLE	1	52.71	46.47	-12
4	HPS0110-TA-0590-004-B	High Pressure Sodium 250	R/BOUT COLUMN	4	60.71	47.69	-21
4	HPS0110-TA-0590-004-S	High Pressure Sodium 250	R/BOUT COLUMN	4	52.71	46.47	-12
4	HPS0110-TA-1120-004-B	High Pressure Sodium 250	STEEL POLE	1	60.71	47.69	-21
4	HPS0110-TA-1120-004-S	High Pressure Sodium 250	STEEL POLE	1	52.71	46.47	-12
4	HPS0170-ST-0070-004-B	High Pressure Sodium 400	SHARED OR NO POLE	1	71.89	53.50	-26
4	HPS0170-ST-0070-004-S	High Pressure Sodium 400	SHARED OR NO POLE	1	59.86	52.30	-13
4	HPS0170-ST-0240-004-B	High Pressure Sodium 400	WOOD POLE	1	82.72	63.97	-23
4	HPS0170-ST-0240-004-S	High Pressure Sodium 400	WOOD POLE	1	70.69	62.77	-11
4	HPS0170-ST-0270-004-B	High Pressure Sodium 400	R/BOUT COLUMN	3	81.90	63.16	-23
4	HPS0170-ST-0270-004-S	High Pressure Sodium 400	R/BOUT COLUMN	3	69.87	61.96	-11
4	HPS0170-ST-0330-004-B	High Pressure Sodium 400	STEEL POLE	1	81.90	63.16	-23
4	HPS0170-ST-0330-004-S	High Pressure Sodium 400	STEEL POLE	1	69.87	61.96	-11
4	HPS0170-ST-0400-004-B	High Pressure Sodium 400	STEEL POLE	2	81.90	63.16	-23
4	HPS0170-ST-0400-004-S	High Pressure Sodium 400	STEEL POLE	2	69.87	61.96	-11
4	HPS0170-ST-0440-004-B	High Pressure Sodium 400	STEEL POLE	3	81.90	63.16	-23
4	HPS0170-ST-0440-004-S	High Pressure Sodium 400	STEEL POLE	3	69.87	61.96	-11
4	HPS0170-ST-0480-004-B	High Pressure Sodium 400	STEEL POLE	4	81.90	63.16	-23

4	HPS0170-ST-0480-004-S	High Pressure Sodium 400	STEEL POLE	4	69.87	61.96	-11
4	HPS0170-ST-0560-004-B	High Pressure Sodium 400	R/BOUT COLUMN	3	81.90	63.16	-23
4	HPS0170-ST-0560-004-S	High Pressure Sodium 400	R/BOUT COLUMN	3	69.87	61.96	-11
4	HPS0170-ST-0600-004-B	High Pressure Sodium 400	R/BOUT COLUMN	4	81.90	63.16	-23
4	HPS0170-ST-0600-004-S	High Pressure Sodium 400	R/BOUT COLUMN	4	69.87	61.96	-11
4	HPS0170-ST-0620-004-B	High Pressure Sodium 400	SHARED OR NO POLE	1	71.89	53.50	-26
4	HPS0170-ST-0620-004-S	High Pressure Sodium 400	SHARED OR NO POLE	1	59.86	52.30	-13
4	HPS0170-ST-0660-004-B	High Pressure Sodium 400	SHARED OR NO POLE	2	71.89	53.50	-26
4	HPS0170-ST-0660-004-S	High Pressure Sodium 400	SHARED OR NO POLE	2	59.86	52.30	-13
4	HPS0170-ST-0770-004-B	High Pressure Sodium 400	WOOD POLE	2	82.72	63.97	-23
4	HPS0170-ST-0770-004-S	High Pressure Sodium 400	WOOD POLE	2	70.69	62.77	-11
4	HPS0170-ST-0900-004-B	High Pressure Sodium 400	WOOD POLE	2	82.72	63.97	-23
4	HPS0170-ST-0900-004-S	High Pressure Sodium 400	WOOD POLE	2	70.69	62.77	-11
4	HPS0170-ST-1030-004-B	High Pressure Sodium 400	SHARED OR NO POLE	2	71.89	53.50	-26
4	HPS0170-ST-1030-004-S	High Pressure Sodium 400	SHARED OR NO POLE	2	59.86	52.30	-13
4	HPS0170-ST-1100-004-B	High Pressure Sodium 400	WOOD POLE	1	82.72	63.97	-23
4	HPS0170-ST-1100-004-S	High Pressure Sodium 400	WOOD POLE	1	70.69	62.77	-11
4	HPS0170-ST-1170-004-B	High Pressure Sodium 400	STEEL POLE	1	81.90	63.16	-23
4	HPS0170-ST-1170-004-S	High Pressure Sodium 400	STEEL POLE	1	69.87	61.96	-11
4	MHR0060-ST-0060-004-B	Metal Hallide (Reactor Control Gear) 250	SHARED OR NO POLE	1	87.65	65.90	-25
4	MHR0060-ST-0060-004-S	Metal Hallide (Reactor Control Gear) 250	SHARED OR NO POLE	1	88.94	77.20	-13
4	MHR0060-ST-0320-004-B	Metal Hallide (Reactor Control Gear) 250	STEEL POLE	1	97.66	75.56	-23
4	MHR0060-ST-0320-004-S	Metal Hallide (Reactor Control Gear) 250	STEEL POLE	1	98.95	86.86	-12
4	MHR0060-ST-0390-004-B	Metal Hallide (Reactor Control Gear) 250	STEEL POLE	2	97.66	75.56	-23
4	MHR0060-ST-0390-004-S	Metal Hallide (Reactor Control Gear) 250	STEEL POLE	2	98.95	86.86	-12
4	MHR0060-ST-0430-004-B	Metal Hallide (Reactor Control Gear) 250	STEEL POLE	3	97.66	75.56	-23
4	MHR0060-ST-0430-004-S	Metal Hallide (Reactor Control Gear) 250	STEEL POLE	3	98.95	86.86	-12
4	MHR0060-ST-0610-004-B	Metal Hallide (Reactor Control Gear) 250	SHARED OR NO POLE	1	87.65	65.90	-25
4	MHR0060-ST-0610-004-S	Metal Hallide (Reactor Control Gear) 250	SHARED OR NO POLE	1	88.94	77.20	-13
4	MHR0060-ST-0960-004-B	Metal Hallide (Reactor Control Gear) 250	SHARED OR NO POLE	2	87.65	65.90	-25
4	MHR0060-ST-0960-004-S	Metal Hallide (Reactor Control Gear) 250	SHARED OR NO POLE	2	88.94	77.20	-13
4	MHR0060-ST-1120-004-B	Metal Hallide (Reactor Control Gear) 250	STEEL POLE	1	97.66	75.56	-23

4	MHR0060-ST-1120-004-S	Metal Hallide (Reactor Control Gear) 250	STEEL POLE	1	98.95	86.86	-12
4	MHR0060-ST-1270-004-B	Metal Hallide (Reactor Control Gear) 250	STEEL POLE	1	97.66	75.56	-23
4	MHR0060-ST-1270-004-S	Metal Hallide (Reactor Control Gear) 250	STEEL POLE	1	98.95	86.86	-12
4	MHR0060-ST-1280-004-B	Metal Hallide (Reactor Control Gear) 250	STEEL POLE	2	97.66	75.56	-23
4	MHR0060-ST-1280-004-S	Metal Hallide (Reactor Control Gear) 250	STEEL POLE	2	98.95	86.86	-12
4	MHR0060-ST-1290-004-B	Metal Hallide (Reactor Control Gear) 250	STEEL POLE	4	97.66	75.56	-23
4	MHR0060-ST-1290-004-S	Metal Hallide (Reactor Control Gear) 250	STEEL POLE	4	98.95	86.86	-12
4	MHR0070-ST-0070-004-B	Metal Hallide (Reactor Control Gear) 400	SHARED OR NO POLE	1	92.10	69.42	-25
4	MHR0070-ST-0070-004-S	Metal Hallide (Reactor Control Gear) 400	SHARED OR NO POLE	1	92.76	80.21	-14
4	MHR0070-ST-0640-004-B	Metal Hallide (Reactor Control Gear) 400	SHARED OR NO POLE	1	92.10	69.42	-25
4	MHR0070-ST-0640-004-S	Metal Hallide (Reactor Control Gear) 400	SHARED OR NO POLE	1	92.76	80.21	-14
4	MHR0070-ST-0680-004-B	Metal Hallide (Reactor Control Gear) 400	SHARED OR NO POLE	2	92.10	69.42	-25
4	MHR0070-ST-0680-004-S	Metal Hallide (Reactor Control Gear) 400	SHARED OR NO POLE	2	92.76	80.21	-14
4	MHR0070-ST-1100-004-B	Metal Hallide (Reactor Control Gear) 400	WOOD POLE	1	102.94	79.89	-22
4	MHR0070-ST-1100-004-S	Metal Hallide (Reactor Control Gear) 400	WOOD POLE	1	103.60	90.68	-12
4	MVA0020-ST-0010-004-B	Mercury Vapour 80	SHARED OR NO POLE	1	48.76	35.65	-27
4	MVA0020-ST-0010-004-S	Mercury Vapour 80	SHARED OR NO POLE	1	48.59	42.59	-12
4	MVA0020-ST-0110-004-B	Mercury Vapour 80	SHARED OR NO POLE	1	48.76	35.65	-27
4	MVA0020-ST-0110-004-S	Mercury Vapour 80	SHARED OR NO POLE	1	48.59	42.59	-12
4	MVA0020-ST-0740-004-B	Mercury Vapour 80	SHARED OR NO POLE	2	48.76	35.65	-27
4	MVA0020-ST-0740-004-S	Mercury Vapour 80	SHARED OR NO POLE	2	48.59	42.59	-12
4	MVA0020-ST-0810-004-B	Mercury Vapour 80	WOOD POLE	1	59.60	46.12	-23
4	MVA0020-ST-0810-004-S	Mercury Vapour 80	WOOD POLE	1	59.43	53.06	-11
4	MVA0020-ST-0990-004-B	Mercury Vapour 80	STEEL POLE	1	58.78	45.31	-23
4	MVA0020-ST-0990-004-S	Mercury Vapour 80	STEEL POLE	1	58.60	52.25	-11
4	MVA0020-ST-1000-004-B	Mercury Vapour 80	STEEL POLE	2	58.78	45.31	-23
4	MVA0020-ST-1000-004-S	Mercury Vapour 80	STEEL POLE	2	58.60	52.25	-11
4	MVA0020-ST-1260-004-B	Mercury Vapour 80	WOOD POLE	2	59.60	46.12	-23
4	MVA0020-ST-1260-004-S	Mercury Vapour 80	WOOD POLE	2	59.43	53.06	-11
4	MVA0190-ST-0020-004-B	Mercury Vapour 250	SHARED OR NO POLE	1	62.59	46.36	-26
4	MVA0190-ST-0020-004-S	Mercury Vapour 250	SHARED OR NO POLE	1	56.09	49.81	-11
4	MVA0190-ST-0200-004-B	Mercury Vapour 250	WOOD POLE	1	73.43	56.83	-23

4	MVA0190-ST-0200-004-S	Mercury Vapour 250	WOOD POLE	1	66.92	60.27	-10
4	MVA0190-ST-0290-004-B	Mercury Vapour 250	STEEL POLE	1	72.60	56.02	-23
4	MVA0190-ST-0290-004-S	Mercury Vapour 250	STEEL POLE	1	66.10	59.46	-10
4	MVA0190-ST-0370-004-B	Mercury Vapour 250	STEEL POLE	2	72.60	56.02	-23
4	MVA0190-ST-0370-004-S	Mercury Vapour 250	STEEL POLE	2	66.10	59.46	-10

## Appendix B: EnergyAustralia schedule of fixed prices 2009–10

Tariff charges 2009-10 (\$ p.a)		Tariff 1			Tariff 2		
		EA proposed January 2009	AER March 2009	Change	EA proposed January 2009	AER March 2009	% Change
0.5	Bracket	23.64	17.39	-26%	0.00	0.00	-
0.6	Bracket	23.64	17.39	-26%	0.00	0.00	-
1	Bracket	22.79	16.77	-26%	0.00	0.00	-
1.2	Bracket	22.79	16.77	-26%	0.00	0.00	-
1.5	Bracket	76.11	56.00	-26%	0.00	0.00	-
2	Bracket	28.12	20.69	-26%	0.00	0.00	-
2.5	Bracket	44.37	32.65	-26%	0.00	0.00	-
3	Bracket	60.36	44.42	-26%	0.00	0.00	-
3.5	Bracket	62.79	46.20	-26%	0.00	0.00	-
4	Bracket	62.79	46.20	-26%	0.00	0.00	-
4.5	Bracket	69.57	51.19	-26%	0.00	0.00	-
5	Bracket	67.39	49.59	-26%	0.00	0.00	-
6	Bracket	86.78	63.85	-26%	0.00	0.00	-
6.5	Bracket	86.78	63.85	-26%	0.00	0.00	-
7	Bracket	86.78	63.85	-26%	0.00	0.00	-
8	Bracket	86.78	63.85	-26%	0.00	0.00	-
1*40W TF	Luminaire	12.06	8.87	-26%	0.00	0.00	-
1*80W TF	Luminaire	9.76	7.18	-26%	0.00	0.00	-
1000W MBF	Luminaire	32.90	24.20	-26%	0.00	0.00	-
1000W SON	Luminaire	167.99	123.60	-26%	0.00	0.00	-
1000W SON Floodlight	Luminaire	88.64	65.22	-26%	0.00	0.00	-
1000W/1500W MBI Floodlight	Luminaire	127.94	94.14	-26%	0.00	0.00	-

100W MBI	Luminaire	28.66	21.09	-26%	0.00	0.00	-
100W MBI Floodlight	Luminaire	32.90	24.20	-26%	0.00	0.00	-
100W SON	Luminaire	24.94	18.35	-26%	0.00	0.00	-
100W SON Floodlight	Luminaire	57.43	42.25	-26%	0.00	0.00	-
100W SON -PLAIN	Luminaire	24.94	18.35	-26%	0.00	0.00	-
125W MBF	Luminaire	13.91	10.24	-26%	0.00	0.00	-
125W MBF - Bourke Hill	Luminaire	86.33	63.52	-26%	0.00	0.00	-
125W MBF - Hyde Park	Luminaire	61.41	45.18	-26%	0.00	0.00	-
125W MBF - Nostalgia	Luminaire	88.43	65.07	-26%	0.00	0.00	-
125W MBF - Parkville	Luminaire	112.67	82.90	-26%	0.00	0.00	-
125W MBF Bollard	Luminaire	52.08	38.32	-26%	0.00	0.00	-
125W MBF -PLAIN	Luminaire	13.91	10.24	-26%	0.00	0.00	-
125w/250w MBF Floodlight	Luminaire	30.06	22.12	-26%	0.00	0.00	-
135W SOX	Luminaire	35.72	26.28	-26%	0.00	0.00	-
150W SON	Luminaire	24.20	17.80	-26%	0.00	0.00	-
150W SON - Hyde Park	Luminaire	61.41	45.18	-26%	0.00	0.00	-
150W SON - Parkville	Luminaire	125.38	92.25	-26%	0.00	0.00	-
150W SON - Parkway 1	Luminaire	42.99	31.63	-26%	0.00	0.00	-
150W SON Floodlight	Luminaire	57.43	42.25	-26%	0.00	0.00	-
150W SON GEC 'Boston 3'	Luminaire	112.67	82.90	-26%	0.00	0.00	-
150W/250W MBI Floodlight	Luminaire	76.05	55.96	-26%	0.00	0.00	-
180W SOX	Luminaire	42.14	31.01	-26%	0.00	0.00	-
2*14W TF - T5 Pierlite Mk 3	Luminaire	27.19	20.01	-26%	0.00	0.00	-
2*175W MBF - Parkway 2	Luminaire	141.82	104.35	-26%	0.00	0.00	-
2*20W TF	Luminaire	11.96	8.80	-26%	0.00	0.00	-
2*250W SON Floodlight	Luminaire	67.83	49.91	-26%	0.00	0.00	-
2*26W TF Macquarie Dec. Ball	Luminaire	112.78	82.98	-26%	0.00	0.00	-
2*400W MBF - Parkway 2	Luminaire	141.82	104.35	-26%	0.00	0.00	-
2*400W MBI Floodlight	Luminaire	144.26	106.14	-26%	0.00	0.00	-
2*400W SON Floodlight	Luminaire	157.36	115.78	-26%	0.00	0.00	-

2*40W TF	Luminaire	27.49	20.23	-26%	0.00	0.00	-
2*70W SON - Bourke Hill	Luminaire	159.33	117.23	-26%	0.00	0.00	-
2*80W MBF - Bourke Hill	Luminaire	71.48	52.59	-26%	0.00	0.00	-
250W MBF	Luminaire	23.24	17.10	-26%	0.00	0.00	-
250W MBF - Parkville	Luminaire	116.13	85.44	-26%	0.00	0.00	-
250W MBF - Parkway 1	Luminaire	42.99	31.63	-26%	0.00	0.00	-
250W MBI - Smartpole	Luminaire	3.61	2.66	-26%	0.00	0.00	-
250W SON	Luminaire	22.78	16.76	-26%	0.00	0.00	-
250W SON - Parkville	Luminaire	137.19	100.94	-26%	0.00	0.00	-
250W SON - Parkway 1	Luminaire	42.99	31.63	-26%	0.00	0.00	-
250W SON Floodlight	Luminaire	51.30	37.74	-26%	0.00	0.00	-
250W SON GEC 'Boston 3'	Luminaire	115.23	84.78	-26%	0.00	0.00	-
2nd Light non-TRL	Support	0.00	0.00	-	0.00	0.00	-
2nd Light TRL	Support	0.00	0.00	-	0.00	0.00	-
2x14W TF - T5 Pierlight	Luminaire	17.47	12.85	-26%	0.00	0.00	-
3*400W MBF - Parkway 3	Luminaire	141.82	104.35	-26%	0.00	0.00	-
4*1000W MBF	Luminaire	120.75	88.85	-26%	0.00	0.00	-
4*1000W SON	Lamp	67.02	49.32	-26%	0.00	0.00	-
4*20W TF	Luminaire	53.08	39.06	-26%	0.00	0.00	-
4*20W TF - WAVERLEY	Luminaire	53.08	39.06	-26%	0.00	0.00	-
4*250W SON	Luminaire	79.14	58.23	-26%	0.00	0.00	-
4*40W TF	Luminaire	66.03	48.58	-26%	0.00	0.00	-
4*40W TF - WAVERLEY	Luminaire	60.16	44.27	-26%	0.00	0.00	-
4*600W SON	Luminaire	132.05	97.16	-26%	0.00	0.00	-
400W MBF	Luminaire	31.27	23.01	-26%	0.00	0.00	-
400W MBF - B2229	Luminaire	31.48	23.16	-26%	0.00	0.00	-
400W MBF - Parkway 1	Luminaire	67.83	49.91	-26%	0.00	0.00	-
400W MBF Floodlight	Luminaire	76.82	56.53	-26%	0.00	0.00	-
400W MBI - Smartpole	Luminaire	3.61	2.66	-26%	0.00	0.00	-
400W MBI Floodlight	Luminaire	52.42	38.57	-26%	0.00	0.00	-

400W SON	Luminaire	31.32	23.05	-26%	0.00	0.00	-
400W SON - Parkway 1	Luminaire	42.99	31.63	-26%	0.00	0.00	-
400W SON Floodlight	Luminaire	62.11	45.70	-26%	0.00	0.00	-
42W MBF Sylvania Sub Eco CFL	Luminaire	22.71	16.71	-26%	0.00	0.00	-
500W MBI Floodlight	Luminaire	72.46	53.31	-26%	0.00	0.00	-
50W MBF	Luminaire	12.11	8.91	-26%	0.00	0.00	-
50W MBF - PLAIN	Luminaire	12.11	8.91	-26%	0.00	0.00	-
50W MBF - Bourke Hill	Luminaire	71.48	52.59	-26%	0.00	0.00	-
50W MBF - Nostalgia	Luminaire	70.01	51.51	-26%	0.00	0.00	-
50W MBF Bollard	Luminaire	39.05	28.74	-26%	0.00	0.00	-
50W SON	Luminaire	11.74	8.64	-26%	0.00	0.00	-
50W SON - Nostalgia	Luminaire	27.86	20.50	-26%	0.00	0.00	-
700W MBF	Luminaire	35.48	26.11	-26%	0.00	0.00	-
700W MBF Floodlight	Luminaire	72.46	53.31	-26%	0.00	0.00	-
70W MBI	Luminaire	20.17	14.84	-26%	0.00	0.00	-
70W MBI - Macquarie Dec. Ball	Luminaire	128.59	94.61	-26%	0.00	0.00	-
70W SON	Luminaire	11.86	8.73	-26%	0.00	0.00	-
70W SON - Bourke Hill	Luminaire	81.95	60.30	-26%	0.00	0.00	-
70W SON - GEC Boston 2	Luminaire	98.74	72.65	-26%	0.00	0.00	-
70W SON - Nostalgia	Luminaire	75.28	55.39	-26%	0.00	0.00	-
70W SON - Regal/Flinders Enc	Luminaire	146.30	107.65	-26%	0.00	0.00	-
70W SON Bollard	Luminaire	53.44	39.32	-26%	0.00	0.00	-
70W SON Floodlight	Luminaire	22.34	16.44	-26%	0.00	0.00	-
70W SON -PLAIN	Luminaire	11.86	8.73	-26%	0.00	0.00	-
750W MBI Floodlight	Luminaire	72.46	53.31	-26%	0.00	0.00	-
80W MBF	Luminaire	11.33	8.34	-26%	0.00	0.00	-
80W MBF - PLAIN	Luminaire	11.33	8.34	-26%	0.00	0.00	-
80W MBF - Bega+Curve Bracket	Luminaire	127.55	93.85	-26%	0.00	0.00	-
80W MBF - Bourke Hill	Luminaire	50.74	37.34	-26%	0.00	0.00	-
80W MBF - GEC Boston 2	Luminaire	98.74	72.65	-26%	0.00	0.00	-



80w MBF - Nostalgia	Luminaire	70.01	51.51	-26%	0.00	0.00	-
80W MBF - Regal/Flinders Enc	Luminaire	140.53	103.40	-26%	0.00	0.00	-
80W MBF - Sylvania Suburban	Luminaire	11.50	8.46	-26%	0.00	0.00	-
80W MBF Bollard	Luminaire	39.05	28.74	-26%	0.00	0.00	-
80W MBF TOORAK	Luminaire	62.39	45.91	-26%	0.00	0.00	-
90W SOX	Luminaire	54.99	40.46	-26%	0.00	0.00	-
Bollard	Support	144.86	106.59	-26%	0.00	0.00	-
C4	Bracket	109.56	80.61	-26%	0.00	0.00	-
Column 10.5m-13.5m	Support	282.58	207.92	-26%	0.00	0.00	-
Column 14m-15m	Support	259.74	191.11	-26%	0.00	0.00	-
Column 2.5m-3.5m	Support	227.51	167.40	-26%	0.00	0.00	-
Column 4-6.5m Orion Water Pipe	Support	246.90	181.66	-26%	0.00	0.00	-
Column 4m-6.5m	Support	278.16	204.67	-26%	0.00	0.00	-
Column 7m-10m	Support	270.47	199.00	-26%	0.00	0.00	-
Decorative Column	Support	298.28	219.47	-26%	0.00	0.00	-
Dedicated Support & Conductor	Support	241.32	177.56	-26%	0.00	0.00	-
Hyde Park Standard	Support	371.22	273.14	-26%	0.00	0.00	-
INC1*100	Lamp	220.72	181.35	-18%	220.54	181.21	-18
INC1*1000	Lamp	338.88	277.22	-18%	333.52	273.28	-18
INC1*1440	Lamp	216.57	177.97	-18%	216.57	177.97	-18
INC1*150	Lamp	223.41	183.53	-18%	223.11	183.31	-18
INC1*200	Lamp	225.62	185.32	-18%	225.22	185.03	-18
INC1*2880	Lamp	216.57	177.97	-18%	216.57	177.97	-18
INC1*300	Lamp	250.81	205.76	-18%	249.31	204.66	-18
INC1*40	Lamp	220.83	181.43	-18%	220.64	181.30	-18
INC1*500	Lamp	289.95	237.51	-18%	286.74	235.15	-18
INC1*60	Lamp	220.72	181.35	-18%	220.54	181.21	-18
INC1*75	Lamp	220.72	181.35	-18%	220.54	181.21	-18
INC3*100	Lamp	229.03	188.09	-18%	228.49	187.69	-18
Incandescent	Luminaire	5.66	4.16	-26%	0.00	0.00	-

Macquarie Standard	Support	232.60	171.14	-26%	0.00	0.00	-
Mast 15.5m-30m	Support	272.59	200.56	-26%	0.00	0.00	-
Mast 23m	Support	272.59	200.56	-26%	0.00	0.00	-
Mast 25m	Support	272.59	200.56	-26%	0.00	0.00	-
MBF1*100	Lamp	43.50	35.89	-17%	42.98	35.51	-17
MBF1*1000	Lamp	94.38	77.41	-18%	87.05	72.02	-17
MBF1*125	Lamp	43.50	35.89	-17%	42.98	35.51	-17
MBF1*250	Lamp	45.26	37.33	-18%	44.51	36.78	-17
MBF1*400	Lamp	65.36	53.82	-18%	64.51	53.19	-18
MBF1*42	Lamp	43.80	40.75	-7%	43.24	40.34	-7
MBF1*50	Lamp	33.86	27.99	-17%	33.59	27.79	-17
MBF1*500	Lamp	117.32	96.18	-18%	110.36	91.05	-17
MBF1*700	Lamp	92.11	75.62	-18%	88.11	72.68	-18
MBF1*80	Lamp	27.43	22.71	-17%	27.18	22.53	-17
MBF1*800	Lamp	117.32	96.18	-18%	110.36	91.05	-17
MBF1*880	Lamp	117.32	96.18	-18%	110.36	91.05	-17
MBF2*125	Lamp	42.11	34.75	-17%	41.78	34.51	-17
MBF2*160	Lamp	39.63	32.72	-17%	39.63	32.72	-17
MBF2*175	Lamp	118.78	97.32	-18%	108.18	89.52	-17
MBF2*80	Lamp	29.59	24.48	-17%	29.04	24.07	-17
MBF3*160	Lamp	39.63	32.72	-17%	39.63	32.72	-17
MBF3*250	Lamp	56.55	46.54	-18%	54.28	44.88	-17
MBF3*400	Lamp	79.81	65.59	-18%	77.26	63.71	-18
MBF3*80	Lamp	30.88	25.53	-17%	30.14	24.98	-17
MBF4*1000	Lamp	426.56	348.51	-18%	374.75	310.39	-17
MBF4*80	Lamp	32.59	26.94	-17%	31.60	26.21	-17
MBF6*125	Lamp	54.52	44.88	-18%	52.52	43.41	-17
MBF6*160	Lamp	44.26	36.53	-17%	44.26	36.53	-17
MBF7*80	Lamp	37.76	31.15	-17%	36.02	29.88	-17
MBF9*160	Lamp	44.26	36.53	-17%	44.26	36.53	-17

MBI1*100	Lamp	89.64	73.63	-18%	86.57	71.37	-18
MBI1*1000	Lamp	173.90	142.32	-18%	161.20	132.97	-18
MBI1*150	Lamp	143.23	117.31	-18%	134.03	110.55	-18
MBI1*1500	Lamp	137.70	112.80	-18%	129.14	106.50	-18
MBI1*250	Lamp	87.07	71.54	-18%	84.29	69.49	-18
MBI1*3745	Lamp	62.77	51.73	-18%	62.77	51.73	-18
MBI1*400	Lamp	75.25	61.85	-18%	72.28	59.67	-17
MBI1*500	Lamp	117.28	96.16	-18%	111.05	91.58	-18
MBI1*70	Lamp	64.16	52.74	-18%	61.12	50.51	-17
MBI1*750	Lamp	154.19	126.23	-18%	141.49	116.88	-17
MBI2*400	Lamp	99.30	81.46	-18%	93.37	77.10	-17
MBI4*150	Lamp	51.19	42.23	-18%	51.19	42.23	-18
NIL	Bracket	0.00	0.00	-	0.00	0.00	-
O/U	Connection	88.18	85.64	-3%	78.56	78.56	0
OH	Connection	0.00	0.00	-	0.00	0.00	-
OH2	Connection	0.00	0.00	-	0.00	0.00	-
OHS	Connection	0.00	0.00	-	0.00	0.00	-
Orion Double Arm	Bracket	58.87	43.32	-26%	0.00	0.00	-
Polo 10.5m decorative 2m outre	Bracket	101.07	74.36	-26%	0.00	0.00	-
Polo 4.5m decorative 1.2m outr	Bracket	101.07	74.36	-26%	0.00	0.00	-
Private	Support	0.00	0.00	-	0.00	0.00	-
Rocks Standard	Support	216.66	159.41	-26%	0.00	0.00	-
Smartpole A	Support	0.00	0.00	-	0.00	0.00	-
Smartpole Ab	Support	0.00	0.00	-	0.00	0.00	-
Smartpole B	Support	0.00	0.00	-	0.00	0.00	-
Smartpole C	Support	0.00	0.00	-	0.00	0.00	-
Smartpole Double	Support	0.00	0.00	-	0.00	0.00	-
Smartpole Single Long	Support	0.00	0.00	-	0.00	0.00	-
Smartpole Single Short	Support	0.00	0.00	-	0.00	0.00	-
SON1*100	Lamp	69.39	57.07	-18%	67.15	55.41	-17

SON1*1000	Lamp	109.54	89.81	-18%	102.34	84.51	-17
SON1*120	Lamp	62.08	51.10	-18%	60.74	50.11	-17
SON1*150	Lamp	63.71	52.44	-18%	62.17	51.31	-17
SON1*220	Lamp	78.84	64.77	-18%	75.43	62.27	-17
SON1*250	Lamp	61.91	50.96	-18%	60.59	49.99	-17
SON1*310	Lamp	77.24	63.47	-18%	74.03	61.10	-17
SON1*360	Lamp	51.19	42.23	-18%	51.19	42.23	-18
SON1*400	Lamp	62.69	51.60	-18%	61.27	50.55	-17
SON1*50	Lamp	50.45	41.56	-18%	49.11	40.57	-17
SON1*70	Lamp	55.57	45.74	-18%	54.02	44.60	-17
SON2*250	Lamp	77.93	64.05	-18%	75.29	62.11	-18
SON2*400	Lamp	82.20	67.56	-18%	79.37	65.47	-18
SON2*70	Lamp	70.41	57.85	-18%	67.32	55.58	-17
SON3*70	Lamp	83.53	68.55	-18%	78.90	65.15	-17
SON4*1000	Lamp	302.57	247.21	-18%	273.79	226.04	-17
SON4*250	Lamp	103.02	84.52	-18%	97.73	80.63	-18
SON4*600	Lamp	195.05	159.54	-18%	178.93	147.68	-17
SON4*70	Lamp	96.64	79.24	-18%	90.46	74.70	-17
SON8*70	Lamp	149.11	122.01	-18%	136.76	112.92	-17
SOX1*135	Lamp	78.14	64.24	-18%	75.79	62.51	-18
SOX1*150	Lamp	78.14	64.24	-18%	75.79	62.51	-18
SOX1*180	Lamp	189.07	154.67	-18%	173.66	143.33	-17
SOX1*90	Lamp	67.64	55.61	-18%	65.31	53.90	-17
Suspended A	Support	246.90	181.66	-26%	0.00	0.00	-
SUSPENDED B	Bracket	62.61	46.06	-26%	0.00	0.00	-
T1	Bracket	35.94	26.44	-26%	0.00	0.00	-
T2	Bracket	66.67	49.05	-26%	0.00	0.00	-
T2A	Bracket	66.67	49.05	-26%	0.00	0.00	-
T3	Bracket	67.39	49.59	-26%	0.00	0.00	-
T3A	Bracket	67.39	49.59	-26%	0.00	0.00	-

T4	Bracket	65.21	47.98	-26%	0.00	0.00	-
T5	Bracket	65.21	47.98	-26%	0.00	0.00	-
T6	Bracket	86.78	63.85	-26%	0.00	0.00	-
T7	Bracket	80.60	59.30	-26%	0.00	0.00	-
TF1*16	Lamp	85.74	70.58	-18%	85.74	70.58	-18
TF1*176	Lamp	120.63	99.22	-18%	120.63	99.22	-18
TF1*20	Lamp	86.78	71.43	-18%	86.69	71.37	-18
TF1*236	Lamp	120.63	99.22	-18%	120.63	99.22	-18
TF1*26	Lamp	86.88	71.51	-18%	86.79	71.44	-18
TF1*40	Lamp	86.97	71.58	-18%	86.87	71.50	-18
TF1*80	Lamp	87.96	72.38	-18%	87.77	72.25	-18
TF2*14 T5	Lamp	57.30	54.12	-6%	56.49	53.53	-5
TF2*20	Lamp	80.73	78.68	-3%	80.56	78.55	-2
TF2*26	Lamp	88.00	72.43	-18%	87.81	72.29	-18
TF2*40	Lamp	88.20	72.59	-18%	87.99	72.44	-18
TF2*58	Lamp	85.74	70.58	-18%	85.74	70.58	-18
TF2*80	Lamp	90.19	74.20	-18%	89.82	73.92	-18
TF3*20	Lamp	88.85	73.12	-18%	88.59	72.93	-18
TF3*40	Lamp	89.43	73.59	-18%	89.12	73.36	-18
TF3*80	Lamp	92.41	76.00	-18%	91.85	75.59	-18
TF4*20	Lamp	89.89	73.96	-18%	89.54	73.70	-18
TF4*40	Lamp	90.67	74.59	-18%	90.26	74.29	-18
TF4*80	Lamp	94.62	77.81	-18%	93.88	77.27	-18
TF5*58	Lamp	85.74	70.58	-18%	85.74	70.58	-18
TF5*65	Lamp	85.74	70.58	-18%	85.74	70.58	-18
TF5*80	Lamp	96.85	79.62	-18%	95.92	78.93	-18
TF6*20	Lamp	91.97	75.65	-18%	91.45	75.27	-18
TF6*36	Lamp	93.13	76.59	-18%	92.51	76.13	-18
TF6*80	Lamp	99.07	81.43	-18%	97.95	80.61	-18
TH Floodlight	Luminaire	139.50	102.64	-26%	0.00	0.00	-

TH1*1000	Lamp	63.83	52.52	-18%	61.96	51.14	-17
TH1*1500	Lamp	60.80	50.05	-18%	59.31	48.95	-17
TH1*400	Lamp	71.95	59.14	-18%	69.06	57.02	-17
TH1*500	Lamp	55.28	45.55	-18%	54.48	44.96	-17
TH1*750	Lamp	64.90	53.39	-18%	62.89	51.92	-17
UG2	Connection	0.00	0.00	-	0.00	0.00	-
UGOrDA	Connection	48.90	46.36	-5%	39.28	39.28	0
UGR1	Connection	85.36	81.84	-4%	72.02	72.02	0
UGR2	Connection	35.81	33.26	-7%	26.19	26.19	0
UGS	Connection	9.62	7.08	-26%	0.00	0.00	-
UG-SP	Connection	0.00	0.00	-	0.00	0.00	-
Unknown	Support	0.00	0.00	-	0.00	0.00	-
Wall	Support	0.00	0.00	-	0.00	0.00	-
Wood Pole non-TRL	Support	0.00	0.00	-	0.00	0.00	-
Wood Pole TRL	Support	0.00	0.00	-	0.00	0.00	-

Tariff charges 2009-10 (\$ p.a)		Tariff 3			Tariff 4		
		EA proposed January 2009	AER March 2009	Change	EA proposed January 2009	AER March 2009	% Change
0.5	Bracket	24.40	24.46	0	0.00	0.00	-
0.6	Bracket	24.40	24.46	0	0.00	0.00	-
1	Bracket	23.53	23.59	0	0.00	0.00	-
1.2	Bracket	23.53	23.59	0	0.00	0.00	-
1.5	Bracket	78.57	78.22	0	0.00	0.00	-
2	Bracket	29.03	29.05	0	0.00	0.00	-
2.5	Bracket	45.80	29.05	-37	0.00	0.00	-
3	Bracket	62.32	45.44	-27	0.00	0.00	-

3.5	Bracket	64.82	47.92	-26	0.00	0.00	-
4	Bracket	64.82	47.92	-26	0.00	0.00	-
4.5	Bracket	71.82	54.88	-24	0.00	0.00	-
5	Bracket	69.57	52.64	-24	0.00	0.00	-
6	Bracket	89.59	72.51	-19	0.00	0.00	-
6.5	Bracket	89.59	72.51	-19	0.00	0.00	-
7	Bracket	89.59	72.51	-19	0.00	0.00	-
8	Bracket	89.59	72.51	-19	0.00	0.00	-
1*40W TF	Luminaire	12.45	12.38	-1	0.00	0.00	-
1*80W TF	Luminaire	10.08	10.03	0	0.00	0.00	-
1000W MBF	Luminaire	33.96	31.88	-6	0.00	0.00	-
1000W SON	Luminaire	173.42	170.29	-2	0.00	0.00	-
1000W SON Floodlight	Luminaire	91.51	89.00	-3	0.00	0.00	-
1000W/1500W MBI Floodlight	Luminaire	132.08	129.26	-2	0.00	0.00	-
100W MBI	Luminaire	29.58	27.54	-7	0.00	0.00	-
100W MBI Floodlight	Luminaire	33.96	31.88	-6	0.00	0.00	-
100W SON	Luminaire	25.74	23.73	-8	0.00	0.00	-
100W SON Floodlight	Luminaire	59.29	57.02	-4	0.00	0.00	-
100W SON -PLAIN	Luminaire	25.74	23.73	-8	0.00	0.00	-
125W MBF	Luminaire	14.36	12.43	-13	0.00	0.00	-
125W MBF - Bourke Hill	Luminaire	89.12	86.63	-3	0.00	0.00	-
125W MBF - Hyde Park	Luminaire	63.40	61.10	-4	0.00	0.00	-
125W MBF - Nostalgia	Luminaire	91.29	88.78	-3	0.00	0.00	-
125W MBF - Parkville	Luminaire	116.31	113.61	-2	0.00	0.00	-
125W MBF Bollard	Luminaire	53.76	51.54	-4	0.00	0.00	-
125W MBF -PLAIN	Luminaire	14.36	12.43	-13	0.00	0.00	-
125w/250w MBF Floodlight	Luminaire	31.04	28.98	-7	0.00	0.00	-
135W SOX	Luminaire	36.88	34.78	-6	0.00	0.00	-
150W SON	Luminaire	24.98	22.97	-8	0.00	0.00	-
150W SON - Hyde Park	Luminaire	63.40	61.10	-4	0.00	0.00	-

150W SON - Parkville	Luminaire	129.43	126.63	-2	0.00	0.00	-
150W SON - Parkway 1	Luminaire	44.38	42.23	-5	0.00	0.00	-
150W SON Floodlight	Luminaire	59.29	57.02	-4	0.00	0.00	-
150W SON GEC 'Boston 3'	Luminaire	116.31	113.61	-2	0.00	0.00	-
150W/250W MBI Floodlight	Luminaire	78.51	76.10	-3	0.00	0.00	-
180W SOX	Luminaire	43.51	41.36	-5	0.00	0.00	-
2*14W TF - T5 Pierlite Mk 3	Luminaire	28.07	27.89	-1	0.00	0.00	-
2*175W MBF - Parkway 2	Luminaire	146.40	143.48	-2	0.00	0.00	-
2*20W TF	Luminaire	12.35	12.28	-1	0.00	0.00	-
2*250W SON Floodlight	Luminaire	70.03	67.68	-3	0.00	0.00	-
2*26W TF Macquarie Dec. Ball	Luminaire	116.43	115.58	-1	0.00	0.00	-
2*400W MBF - Parkway 2	Luminaire	146.40	143.48	-2	0.00	0.00	-
2*400W MBI Floodlight	Luminaire	148.92	145.98	-2	0.00	0.00	-
2*400W SON Floodlight	Luminaire	162.45	159.40	-2	0.00	0.00	-
2*40W TF	Luminaire	28.38	28.20	-1	0.00	0.00	-
2*70W SON - Bourke Hill	Luminaire	164.48	163.27	-1	0.00	0.00	-
2*80W MBF - Bourke Hill	Luminaire	73.79	73.26	-1	0.00	0.00	-
250W MBF	Luminaire	23.99	21.99	-8	0.00	0.00	-
250W MBF - Parkville	Luminaire	119.88	117.16	-2	0.00	0.00	-
250W MBF - Parkway 1	Luminaire	44.38	42.23	-5	0.00	0.00	-
250W MBI - Smartpole	Luminaire	3.73	1.88	-50	0.00	0.00	-
250W SON	Luminaire	23.52	21.52	-9	0.00	0.00	-
250W SON - Parkville	Luminaire	141.63	138.74	-2	0.00	0.00	-
250W SON - Parkway 1	Luminaire	44.38	42.23	-5	0.00	0.00	-
250W SON Floodlight	Luminaire	52.96	50.74	-4	0.00	0.00	-
250W SON GEC 'Boston 3'	Luminaire	118.95	116.24	-2	0.00	0.00	-
2nd Light non-TRL	Support	0.00	0.00	-	0.00	0.00	-
2nd Light TRL	Support	0.00	0.00	-	0.00	0.00	-
2x14W TF - T5 Pierlight	Luminaire	18.03	17.92	-1	0.00	0.00	-
3*400W MBF - Parkway 3	Luminaire	146.40	143.48	-2	0.00	0.00	-



4*1000W MBF	Luminaire	124.66	121.90	-2	0.00	0.00	-
4*1000W SON	Lamp	69.19	52.27	-24	0.00	0.00	-
4*20W TF	Luminaire	54.80	54.41	-1	0.00	0.00	-
4*20W TF - WAVERLEY	Luminaire	54.80	54.41	-1	0.00	0.00	-
4*250W SON	Luminaire	81.70	79.26	-3	0.00	0.00	-
4*40W TF	Luminaire	68.16	67.68	-1	0.00	0.00	-
4*40W TF - WAVERLEY	Luminaire	62.11	61.67	-1	0.00	0.00	-
4*600W SON	Luminaire	136.33	133.48	-2	0.00	0.00	-
400W MBF	Luminaire	32.28	30.21	-6	0.00	0.00	-
400W MBF - B2229	Luminaire	32.50	30.43	-6	0.00	0.00	-
400W MBF - Parkway 1	Luminaire	70.03	67.68	-3	0.00	0.00	-
400W MBF Floodlight	Luminaire	79.31	76.89	-3	0.00	0.00	-
400W MBI - Smartpole	Luminaire	3.73	1.88	-50	0.00	0.00	-
400W MBI Floodlight	Luminaire	54.12	51.88	-4	0.00	0.00	-
400W SON	Luminaire	32.34	30.27	-6	0.00	0.00	-
400W SON - Parkway 1	Luminaire	44.38	42.23	-5	0.00	0.00	-
400W SON Floodlight	Luminaire	64.12	61.81	-4	0.00	0.00	-
42W MBF Sylvania Sub Eco CFL	Luminaire	23.44	23.29	-1	0.00	0.00	-
500W MBI Floodlight	Luminaire	74.80	72.41	-3	0.00	0.00	-
50W MBF	Luminaire	12.50	12.43	-1	0.00	0.00	-
50W MBF - PLAIN	Luminaire	12.50	12.43	-1	0.00	0.00	-
50W MBF - Bourke Hill	Luminaire	73.79	73.26	-1	0.00	0.00	-
50W MBF - Nostalgia	Luminaire	72.27	71.76	-1	0.00	0.00	-
50W MBF Bollard	Luminaire	40.32	40.04	-1	0.00	0.00	-
50W SON	Luminaire	12.12	12.06	-1	0.00	0.00	-
50W SON - Nostalgia	Luminaire	28.76	28.57	-1	0.00	0.00	-
700W MBF	Luminaire	36.63	34.53	-6	0.00	0.00	-
700W MBF Floodlight	Luminaire	74.80	72.41	-3	0.00	0.00	-
70W MBI	Luminaire	20.82	20.69	-1	0.00	0.00	-
70W MBI - Macquarie Dec. Ball	Luminaire	132.75	129.92	-2	0.00	0.00	-

70W SON	Luminaire	12.25	12.18	-1	0.00	0.00	-
70W SON - Bourke Hill	Luminaire	84.61	83.99	-1	0.00	0.00	-
70W SON - GEC Boston 2	Luminaire	101.94	101.20	-1	0.00	0.00	-
70W SON - Nostalgia	Luminaire	77.71	77.15	-1	0.00	0.00	-
70W SON - Regal/Flinders Enc	Luminaire	151.04	149.93	-1	0.00	0.00	-
70W SON Bollard	Luminaire	55.17	54.78	-1	0.00	0.00	-
70W SON Floodlight	Luminaire	23.06	22.91	-1	0.00	0.00	-
70W SON -PLAIN	Luminaire	12.25	12.18	-1	0.00	0.00	-
750W MBI Floodlight	Luminaire	74.80	72.41	-3	0.00	0.00	-
80W MBF	Luminaire	11.70	11.64	-1	0.00	0.00	-
80W MBF - PLAIN	Luminaire	11.70	11.64	-1	0.00	0.00	-
80W MBF - Bega+Curve Bracket	Luminaire	131.68	130.71	-1	0.00	0.00	-
80W MBF - Bourke Hill	Luminaire	52.38	52.02	-1	0.00	0.00	-
80W MBF - GEC Boston 2	Luminaire	101.94	101.20	-1	0.00	0.00	-
80w MBF - Nostalgia	Luminaire	72.27	71.76	-1	0.00	0.00	-
80W MBF - Regal/Flinders Enc	Luminaire	145.07	144.00	-1	0.00	0.00	-
80W MBF - Sylvania Suburban	Luminaire	11.87	11.81	-1	0.00	0.00	-
80W MBF Bollard	Luminaire	40.32	40.04	-1	0.00	0.00	-
80W MBF TOORAK	Luminaire	64.41	63.95	-1	0.00	0.00	-
90W SOX	Luminaire	56.77	54.52	-4	0.00	0.00	-
Bollard	Support	124.91	123.61	-1	0.00	0.00	-
C4	Bracket	113.10	95.85	-15	0.00	0.00	-
Column 10.5m-13.5m	Support	243.66	241.13	-1	0.00	0.00	-
Column 14m-15m	Support	223.96	221.64	-1	0.00	0.00	-
Column 2.5m-3.5m	Support	196.17	194.14	-1	0.00	0.00	-
Column 4-6.5m Orion Water Pipe	Support	212.89	210.68	-1	0.00	0.00	-
Column 4m-6.5m	Support	239.84	237.36	-1	0.00	0.00	-
Column 7m-10m	Support	233.21	230.79	-1	0.00	0.00	-
Decorative Column	Support	257.19	254.52	-1	0.00	0.00	-
Dedicated Support & Conductor	Support	249.13	247.25	-1	0.00	0.00	-

Hyde Park Standard	Support	320.08	316.77	-1	0.00	0.00	-
INC1*100	Lamp	220.54	181.21	-18	220.54	181.21	-18
INC1*1000	Lamp	333.52	273.28	-18	333.52	273.28	-18
INC1*1440	Lamp	216.57	177.97	-18	216.57	177.97	-18
INC1*150	Lamp	223.11	183.31	-18	223.11	183.31	-18
INC1*200	Lamp	225.22	185.03	-18	225.22	185.03	-18
INC1*2880	Lamp	216.57	177.97	-18	216.57	177.97	-18
INC1*300	Lamp	249.31	204.66	-18	249.31	204.66	-18
INC1*40	Lamp	220.64	181.30	-18	220.64	181.30	-18
INC1*500	Lamp	286.74	235.15	-18	286.74	235.15	-18
INC1*60	Lamp	220.54	181.21	-18	220.54	181.21	-18
INC1*75	Lamp	220.54	181.21	-18	220.54	181.21	-18
INC3*100	Lamp	228.49	187.69	-18	228.49	187.69	-18
Incandescent	Luminaire	5.84	5.82	0	0.00	0.00	-
Macquarie Standard	Support	200.56	198.48	-1	0.00	0.00	-
Mast 15.5m-30m	Support	235.04	232.60	-1	0.00	0.00	-
Mast 23m	Support	235.04	232.60	-1	0.00	0.00	-
Mast 25m	Support	235.04	232.60	-1	0.00	0.00	-
MBF1*100	Lamp	42.98	35.51	-17	42.98	35.51	-17
MBF1*1000	Lamp	87.05	72.02	-17	87.05	72.02	-17
MBF1*125	Lamp	42.98	35.51	-17	42.98	35.51	-17
MBF1*250	Lamp	44.51	36.78	-17	44.51	36.78	-17
MBF1*400	Lamp	64.51	53.19	-18	64.51	53.19	-18
MBF1*42	Lamp	43.24	40.34	-7	43.24	40.34	-7
MBF1*50	Lamp	33.59	27.79	-17	33.59	27.79	-17
MBF1*500	Lamp	110.36	91.05	-17	110.36	91.05	-17
MBF1*700	Lamp	88.11	72.68	-18	88.11	72.68	-18
MBF1*80	Lamp	27.18	22.53	-17	27.18	22.53	-17
MBF1*800	Lamp	110.36	91.05	-17	110.36	91.05	-17
MBF1*880	Lamp	110.36	91.05	-17	110.36	91.05	-17

MBF2*125	Lamp	41.78	34.51	-17	41.78	34.51	-17
MBF2*160	Lamp	39.63	32.72	-17	39.63	32.72	-17
MBF2*175	Lamp	108.18	89.52	-17	108.18	89.52	-17
MBF2*80	Lamp	29.04	24.07	-17	29.04	24.07	-17
MBF3*160	Lamp	39.63	32.72	-17	39.63	32.72	-17
MBF3*250	Lamp	54.28	44.88	-17	54.28	44.88	-17
MBF3*400	Lamp	77.26	63.71	-18	77.26	63.71	-18
MBF3*80	Lamp	30.14	24.98	-17	30.14	24.98	-17
MBF4*1000	Lamp	374.75	310.39	-17	374.75	310.39	-17
MBF4*80	Lamp	31.60	26.21	-17	31.60	26.21	-17
MBF6*125	Lamp	52.52	43.41	-17	52.52	43.41	-17
MBF6*160	Lamp	44.26	36.53	-17	44.26	36.53	-17
MBF7*80	Lamp	36.02	29.88	-17	36.02	29.88	-17
MBF9*160	Lamp	44.26	36.53	-17	44.26	36.53	-17
MBI1*100	Lamp	86.57	71.37	-18	86.57	71.37	-18
MBI1*1000	Lamp	161.20	132.97	-18	161.20	132.97	-18
MBI1*150	Lamp	134.03	110.55	-18	134.03	110.55	-18
MBI1*1500	Lamp	129.14	106.50	-18	129.14	106.50	-18
MBI1*250	Lamp	84.29	69.49	-18	84.29	69.49	-18
MBI1*3745	Lamp	62.77	51.73	-18	62.77	51.73	-18
MBI1*400	Lamp	72.28	59.67	-17	72.28	59.67	-17
MBI1*500	Lamp	111.05	91.58	-18	111.05	91.58	-18
MBI1*70	Lamp	61.12	50.51	-17	61.12	50.51	-17
MBI1*750	Lamp	141.49	116.88	-17	141.49	116.88	-17
MBI2*400	Lamp	93.37	77.10	-17	93.37	77.10	-17
MBI4*150	Lamp	51.19	42.23	-18	51.19	42.23	-18
NIL	Bracket	0.00	0.00	-	0.00	0.00	-
O/U	Connection	88.49	88.42	0	78.56	78.56	0
OH	Connection	0.00	0.00	-	0.00	0.00	-
OH2	Connection	0.00	0.00	-	0.00	0.00	-

OHS	Connection	0.00	0.00	-	0.00	0.00	-
Orion Double Arm	Bracket	60.78	60.56	0	0.00	0.00	-
Polo 10.5m decorative 2m outre	Bracket	104.34	103.79	-1	0.00	0.00	-
Polo 4.5m decorative 1.2m outr	Bracket	104.34	103.79	-1	0.00	0.00	-
Private	Support	0.00	0.00		0.00	0.00	-
Rocks Standard	Support	186.81	184.88	-1	0.00	0.00	-
Smartpole A	Support	0.00	0.00	-	0.00	0.00	-
Smartpole Ab	Support	0.00	0.00	-	0.00	0.00	-
Smartpole B	Support	0.00	0.00	-	0.00	0.00	-
Smartpole C	Support	0.00	0.00	-	0.00	0.00	-
Smartpole Double	Support	0.00	0.00	-	0.00	0.00	-
Smartpole Single Long	Support	0.00	0.00	-	0.00	0.00	-
Smartpole Single Short	Support	0.00	0.00	-	0.00	0.00	-
SON1*100	Lamp	67.15	55.41	-17	67.15	55.41	-17
SON1*1000	Lamp	102.34	84.51	-17	102.34	84.51	-17
SON1*120	Lamp	60.74	50.11	-17	60.74	50.11	-17
SON1*150	Lamp	62.17	51.31	-17	62.17	51.31	-17
SON1*220	Lamp	75.43	62.27	-17	75.43	62.27	-17
SON1*250	Lamp	60.59	49.99	-17	60.59	49.99	-17
SON1*310	Lamp	74.03	61.10	-17	74.03	61.10	-17
SON1*360	Lamp	51.19	42.23	-18	51.19	42.23	-18
SON1*400	Lamp	61.27	50.55	-17	61.27	50.55	-17
SON1*50	Lamp	49.11	40.57	-17	49.11	40.57	-17
SON1*70	Lamp	54.02	44.60	-17	54.02	44.60	-17
SON2*250	Lamp	75.29	62.11	-18	75.29	62.11	-18
SON2*400	Lamp	79.37	65.47	-18	79.37	65.47	-18
SON2*70	Lamp	67.32	55.58	-17	67.32	55.58	-17
SON3*70	Lamp	78.90	65.15	-17	78.90	65.15	-17
SON4*1000	Lamp	273.79	226.04	-17	273.79	226.04	-17
SON4*250	Lamp	97.73	80.63	-18	97.73	80.63	-18

SON4*600	Lamp	178.93	147.68	-17	178.93	147.68	-17
SON4*70	Lamp	90.46	74.70	-17	90.46	74.70	-17
SON8*70	Lamp	136.76	112.92	-17	136.76	112.92	-17
SOX1*135	Lamp	75.79	62.51	-18	75.79	62.51	-18
SOX1*150	Lamp	75.79	62.51	-18	75.79	62.51	-18
SOX1*180	Lamp	173.66	143.33	-17	173.66	143.33	-17
SOX1*90	Lamp	65.31	53.90	-17	65.31	53.90	-17
Suspended A	Support	212.89	210.68	-1	0.00	0.00	-
SUSPENDED B	Bracket	64.63	64.14	-1	0.00	0.00	-
T1	Bracket	37.10	37.06	0	0.00	0.00	-
T2	Bracket	68.82	51.90	-25	0.00	0.00	-
T2A	Bracket	68.82	51.90	-25	0.00	0.00	-
T3	Bracket	69.57	52.64	-24	0.00	0.00	-
T3A	Bracket	69.57	52.64	-24	0.00	0.00	-
T4	Bracket	67.32	50.41	-25	0.00	0.00	-
T5	Bracket	67.32	50.41	-25	0.00	0.00	-
T6	Bracket	89.59	72.51	-19	0.00	0.00	-
T7	Bracket	83.21	66.17	-20	0.00	0.00	-
TF1*16	Lamp	85.74	70.58	-18	85.74	70.58	-18
TF1*176	Lamp	120.63	99.22	-18	120.63	99.22	-18
TF1*20	Lamp	86.69	71.37	-18	86.69	71.37	-18
TF1*236	Lamp	120.63	99.22	-18	120.63	99.22	-18
TF1*26	Lamp	86.79	71.44	-18	86.79	71.44	-18
TF1*40	Lamp	86.87	71.50	-18	86.87	71.50	-18
TF1*80	Lamp	87.77	72.25	-18	87.77	72.25	-18
TF2*14 T5	Lamp	56.49	53.53	-5	56.49	53.53	-5
TF2*20	Lamp	80.56	78.55	-2	80.56	78.55	-2
TF2*26	Lamp	87.81	72.29	-18	87.81	72.29	-18
TF2*40	Lamp	87.99	72.44	-18	87.99	72.44	-18
TF2*58	Lamp	85.74	70.58	-18	85.74	70.58	-18

TF2*80	Lamp	89.82	73.92	-18	89.82	73.92	-18
TF3*20	Lamp	88.59	72.93	-18	88.59	72.93	-18
TF3*40	Lamp	89.12	73.36	-18	89.12	73.36	-18
TF3*80	Lamp	91.85	75.59	-18	91.85	75.59	-18
TF4*20	Lamp	89.54	73.70	-18	89.54	73.70	-18
TF4*40	Lamp	90.26	74.29	-18	90.26	74.29	-18
TF4*80	Lamp	93.88	77.27	-18	93.88	77.27	-18
TF5*58	Lamp	85.74	70.58	-18	85.74	70.58	-18
TF5*65	Lamp	85.74	70.58	-18	85.74	70.58	-18
TF5*80	Lamp	95.92	78.93	-18	95.92	78.93	-18
TF6*20	Lamp	91.45	75.27	-18	91.45	75.27	-18
TF6*36	Lamp	92.51	76.13	-18	92.51	76.13	-18
TF6*80	Lamp	97.95	80.61	-18	97.95	80.61	-18
TH Floodlight	Luminaire	144.02	141.11	-2	0.00	0.00	-
TH1*1000	Lamp	61.96	51.14	-17	61.96	51.14	-17
TH1*1500	Lamp	59.31	48.95	-17	59.31	48.95	-17
TH1*400	Lamp	69.06	57.02	-17	69.06	57.02	-17
TH1*500	Lamp	54.48	44.96	-17	54.48	44.96	-17
TH1*750	Lamp	62.89	51.92	-17	62.89	51.92	-17
UG2	Connection	0.00	0.00	-	0.00	0.00	-
UGOrDA	Connection	49.21	49.14	0	39.28	39.28	0
UGR1	Connection	85.80	85.69	0	72.02	72.02	0
UGR2	Connection	36.12	36.04	0	26.19	26.19	0
UGS	Connection	9.93	9.85	-1	0.00	0.00	-
UG-SP	Connection	0.00	0.00	-	0.00	0.00	-
Unknown	Support	0.00	0.00	-	0.00	0.00	-
Wall	Support	0.00	0.00	-	0.00	0.00	-
Wood Pole non-TRL	Support	0.00	0.00	-	0.00	0.00	-
Wood Pole TRL	Support	0.00	0.00	-	0.00	0.00	-

## Appendix C: Integral Energy schedule of fixed prices 2009–10

Customer charges 2009-10 (\$ p.a)	Tariff Code	IE proposed January 2009	AER revised March 2009	% Change
<b>FLUORESCENT</b>				
218	1	64.31	62.73	-2
220	1	171.72	165.69	-4
112	1	152.25	147.58	-3
68	1	152.25	147.58	-3
69	1	264.10	259.21	-2
13	1	41.49	41.28	-1
14	1	44.84	44.62	0
15	1	118.29	117.93	0
221	1	152.25	147.58	-3
219	1	44.84	44.62	0
195	1	148.30	143.63	-3
70	1	148.30	143.63	-3
63	1	77.87	77.59	0
85	1	149.29	144.62	-3
18	1	40.89	40.67	-1
19	1	41.87	41.66	-1
20	1	116.46	116.11	0
223	1	148.30	143.63	-3
222	1	40.89	40.67	-1
<b>INCANDESCENT</b>				
1	1	41.16	40.95	-1
144	1	147.84	143.17	-3
3	1	40.42	40.21	-1
8	1	40.42	40.21	-1
9	1	64.55	63.56	-2
129	1	18.74	17.91	-4
12	1	18.74	17.91	-4
<b>MERCURY</b>				
185	1	159.63	154.52	-3
177	1	52.22	51.56	-1
104	1	159.63	154.52	-3
149	1	159.63	154.52	-3
188	1	159.63	154.52	-3
147	1	89.20	88.47	-1
186	1	89.20	88.47	-1
93	1	52.22	51.56	-1
187	1	89.20	88.47	-1
97	1	159.63	154.52	-3
131	1	159.63	154.52	-3
94	1	52.22	51.56	-1



158	1	52.22	51.56	-1
98	1	275.57	263.57	-4
132	1	275.57	263.57	-4
49	1	275.57	263.57	-4
100	1	332.70	319.99	-4
30	1	75.87	74.32	-2
95	1	75.87	74.32	-2
114	1	75.87	74.32	-2
99	1	279.45	267.31	-4
121	1	279.45	267.31	-4
122	1	279.45	267.31	-4
101	1	340.47	327.45	-4
60	1	401.48	387.60	-3
31	1	79.76	78.05	-2
96	1	79.76	78.05	-2
115	1	79.76	78.05	-2
178	1	79.76	78.05	-2
<b>METAL HALIDE</b>				
217	1	184.92	179.59	-3
216	1	77.50	76.63	-1
215	1	279.08	267.37	-4
199	1	79.39	78.12	-2
213	1	285.93	274.20	-4
214	1	353.43	341.24	-3
198	1	86.24	84.95	-2
211	1	293.61	281.78	-4
212	1	368.79	356.41	-3
197	1	93.92	92.53	-1
196	1	119.56	117.98	-1
<b>HIGH PRESSURE SODIUM</b>				
182	1	80.66	78.98	-2
183	1	280.35	268.23	-4
184	1	80.66	78.98	-2
167	1	280.35	268.23	-4
168	1	280.35	268.23	-4
169	1	80.66	78.98	-2
162	1	280.35	268.23	-4
163	1	280.35	268.23	-4
150	1	80.66	78.98	-2
157	1	80.66	78.98	-2
171	1	280.35	268.23	-4
173	1	280.35	268.23	-4
193	1	280.35	268.23	-4
194	1	280.35	268.23	-4
143	1	280.35	268.23	-4
142	1	80.66	78.98	-2
170	1	80.66	78.98	-2
55	1	289.98	277.82	-4
119	1	289.98	277.82	-4
154	1	289.98	277.82	-4
141	1	289.98	277.82	-4

103	1	361.53	348.48	-4
38	1	90.29	88.57	-2
134	1	90.29	88.57	-2
140	1	90.29	88.57	-2
56	1	289.98	277.82	-4
146	1	361.53	348.48	-4
24	1	90.29	88.57	-2
39	1	90.29	88.57	-2
45	1	295.57	283.22	-4
57	1	295.57	283.22	-4
123	1	295.57	283.22	-4
190	1	295.57	283.22	-4
102	1	372.70	359.28	-4
159	1	372.70	359.28	-4
151	1	449.83	435.34	-3
153	1	449.83	435.34	-3
152	1	526.97	511.40	-3
25	1	95.87	93.97	-2
40	1	95.87	93.97	-2
130	1	95.87	93.97	-2
136	1	173.01	170.03	-2
135	1	375.43	359.40	-4
43	1	332.73	322.39	-3
88	1	332.73	322.39	-3
145	1	332.73	322.39	-3
<b>LOW PRESSURE SODIUM</b>				
33	1	80.66	78.98	-2
52	1	280.35	268.23	-4
34	1	80.66	78.98	-2
53	1	280.35	268.23	-4
35	1	80.66	78.98	-2
54	1	280.35	268.23	-4
36	1	80.66	78.98	-2
<b>SUPPORT ONLY</b>				
MINB1	1	3.10	2.96	-4
MAJB1	1	18.74	17.91	-4
MINC1	1	110.51	105.91	-4
MAJC1	1	218.43	207.16	-5
<b>FLUORESCENT</b>				
413	2	77.76	77.61	0
415	2	40.77	40.69	0
302	2	38.40	38.32	0
414	2	78.73	78.57	0
416	2	41.74	41.66	0
303	2	74.77	74.63	0
398	2	263.72	263.21	0
399	2	263.72	263.21	0
305	2	37.79	37.72	0
306	2	38.78	38.70	0
422	2	74.77	74.63	0
421	2	37.79	37.72	0

<b>INCANDESCENT</b>				
395	2	111.64	111.42	0
<b>MERCURY</b>				
307	2	75.41	75.26	0
308	2	38.42	38.35	0
309	2	75.41	75.26	0
310	2	75.41	75.26	0
311	2	75.41	75.26	0
312	2	75.41	75.26	0
313	2	75.41	75.26	0
314	2	75.41	75.26	0
315	2	38.42	38.35	0
316	2	75.41	75.26	0
401	2	75.41	75.26	0
317	2	75.41	75.26	0
318	2	38.42	38.35	0
320	2	78.77	78.62	0
321	2	78.77	78.62	0
323	2	41.79	41.71	0
326	2	79.10	78.95	0
329	2	42.11	42.03	0
330	2	42.11	42.03	0
<b>METAL HALIDE</b>				
412	2	89.08	88.90	0
411	2	52.09	51.99	0
410	2	85.34	85.17	0
400	2	85.34	85.17	0
365	2	48.35	48.26	0
402	2	91.84	91.66	0
403	2	146.69	146.41	0
366	2	54.85	54.75	0
404	2	96.59	96.40	0
405	2	156.19	155.88	0
396	2	59.60	59.49	0
397	2	79.78	79.62	0
<b>HIGH PRESSURE SODIUM</b>				
335	2	45.68	45.59	0
336	2	82.67	82.50	0
337	2	45.68	45.59	0
380	2	82.67	82.50	0
381	2	45.68	45.59	0
338	2	82.67	82.50	0
339	2	82.67	82.50	0
340	2	82.67	82.50	0
341	2	45.68	45.59	0
343	2	91.83	91.66	0
344	2	91.83	91.66	0
345	2	91.83	91.66	0
350	2	146.68	146.40	0
347	2	54.85	54.74	0
348	2	54.85	54.74	0

349	2	54.85	54.74	0
352	2	93.55	93.37	0
353	2	93.55	93.37	0
354	2	93.55	93.37	0
358	2	150.12	149.83	0
360	2	150.12	149.83	0
355	2	56.57	56.46	0
357	2	56.57	56.46	0
356	2	56.57	56.46	0
361	2	113.14	112.9166	0
<b>SUPPORT ONLY</b>				
MINC2	2	36.98	36.91239	0
MAJC2	2	36.98	36.91239	0

Tariff charges 2009-10 (\$ p.a)		Tariff 3			
		IE proposed January 2009	IE revised February 2009	AER March 2009	% Change
		2009-10	2009-10	2009-10	IE revised vs AER
<b>Luminaires</b>					
<b>Minor Road - Standard</b>					
F2x14	2 x 14W Energy Efficient Fluorescent	64.45	86.55	\$85.62	-1
F2x24	2 x 24W Energy Efficient Fluorescent	67.03	89.14	\$88.18	-1
CFL42	1 x 42W Compact Fluorescent	62.14	84.25	\$83.48	-1
M50	50W Mercury	51.11	73.22	\$72.54	-1
M80	80W Mercury	48.11	70.22	\$69.86	-1
S70	70W Sodium	63.65	85.76	\$85.07	-1
S100	100W Sodium	62.16	84.27	\$83.69	-1
MH100	100W Metal Halide	62.99	85.09	\$84.51	-1
<b>Major Road - Standard</b>					
S150	150W Sodium	66.54	89.60	\$88.68	-1
MH150	150W Metal Halide	71.28	94.33	\$93.42	-1
S250	250W Sodium	78.09	101.14	\$93.01	-8
MH250	250W Metal Halide	78.32	101.37	\$100.48	-1
S400	400W Sodium	80.12	103.17	\$102.28	-1
<b>Minor Road - Fully Cut Off (Low Glare)</b>					
M80	80W Mercury	53.84	75.95	\$75.20	-1
<b>Major Road - Fully Cut Off (Low Glare)</b>					
S150	150W Sodium	75.20	98.25	\$97.13	-1
MH150	150W Metal Halide	79.93	102.98	\$101.87	-1
S250	250W Sodium (inc. PCB)	72.94	95.99	\$87.98	-8
S250	250W Sodium (w/o PCB)	89.22	112.27	\$103.87	-7
MH250	250W Metal Halide	89.44	112.50	\$111.34	-1

S400	400W Sodium	87.61	110.66	\$109.59	-1
MH400	400W Metal Halide	90.57	113.63	\$112.56	-1
<b>Post Top - Standard</b>					
M80	80W Mercury	62.48	84.58	\$83.63	-1
Floodlight					
S250	250W Sodium	104.59	127.64	\$118.89	-7
MH250	250W Metal Halide	104.82	127.87	\$126.36	-1
S400	400W Sodium	109.25	132.30	\$130.72	-1
MH400	400W Metal Halide	112.21	135.26	\$133.69	-1
<b>Brackets</b>					
Bracket - Minor		30.63	8.53	\$8.33	-2
Bracket - Major		74.67	51.62	\$50.41	-2
<b>Outreach</b>					
Outreach - Minor		32.86	10.76	\$10.51	-2
Outreach - Major		44.52	21.47	\$20.97	-2
<b>Pole (Wood)</b>					
Pole (Wood) - Minor		177.46	177.46	\$173.65	-2
Pole (Wood) - Major		192.31	192.31	\$188.01	-2
<b>Column (Steel)</b>					
Column (Steel) - Minor		237.25	237.25	\$230.68	-3
Column (Steel) - Major		535.37	535.37	\$518.83	-3

Tariff charges 2009-10 (\$ p.a)		Tariff 4			
		IE proposed January 2009	IE revised February 2009	AER March 2009	Change
		2009-10	2009-10	2009-10	IE revised vs AER
<b>Luminaires</b>					
<b>Minor Road - Standard</b>					
F2x14	2 x 14W Energy Efficient Fluorescent	48.60	54.85	\$55.01	0
F2x24	2 x 24W Energy Efficient Fluorescent	50.46	56.71	\$56.87	0
CFL42	1 x 42W Compact Fluorescent	51.10	57.35	\$57.51	0
M50	50W Mercury	43.10	49.35	\$49.49	0
M80	80W Mercury	42.09	48.34	\$48.56	0
S70	70W Sodium	54.54	60.79	\$60.96	0
S100	100W Sodium	56.15	62.40	\$62.57	0
MH100	100W Metal Halide	56.97	63.22	\$63.39	0
<b>Major Road - Standard</b>					
S150	150W Sodium	51.62	57.87	\$58.03	0
MH150	150W Metal Halide	56.35	62.60	\$62.77	0
S250	250W Sodium	62.97	69.49	\$62.44	-10
MH250	250W Metal Halide	63.20	69.72	\$69.91	0
S400	400W Sodium	64.89	71.41	\$71.61	0
<b>Minor Road - Fully Cut Off (Low Glare)</b>					
M80	80W Mercury	43.71	49.97	\$50.11	0
<b>Major Road - Fully Cut Off (Low Glare)</b>					
S150	150W Sodium	54.06	60.32	\$60.49	0
MH150	150W Metal Halide	58.79	65.05	\$65.23	0
S250	250W Sodium (inc. PCB)	61.52	68.03	\$60.98	-10
S250	250W Sodium (w/o PCB)	66.12	72.64	\$65.60	-10
MH250	250W Metal Halide	66.35	72.87	\$73.07	0
S400	400W Sodium	67.01	73.53	\$73.73	0

MH400	400W Metal Halide	69.97	76.49	\$76.70	0
<b>Post Top - Standard</b>					
M80	80W Mercury	46.16	52.41	\$52.56	0
Floodlight					
S250	250W Sodium	70.47	76.99	\$69.97	-9
MH250	250W Metal Halide	70.69	77.21	\$77.44	0
S400	400W Sodium	73.13	79.64	\$79.88	0
MH400	400W Metal Halide	76.09	82.61	\$82.85	0
<b>Brackets</b>					
Bracket - Minor		8.66	2.41	\$2.42	0
Bracket - Major		21.12	14.60	\$14.66	0
<b>Outreach</b>					
Outreach - Minor		9.29	3.04	\$3.06	0
Outreach - Major		12.59	6.07	\$6.10	0
<b>Pole (Wood)</b>					
Pole (Wood) - Minor		97.79	97.79	\$97.79	0
Pole (Wood) - Major		97.79	97.79	\$97.79	0
<b>Column (Steel)</b>					
Column (Steel) - Minor		112.27	112.27	112.69	0
Column (Steel) - Major		223.46	223.46	224.36	0



## Appendix D: Comparison of total charges

### Country Energy

Customer bills (\$ nominal p.a)^	Change from current charges (2008–09) to Country Energy proposed charges (2009–10) %	Change from current charges (2008–09) to AER revised charges (2009–10) %
ARMIDALE DUMARESQ COUNCIL	-27	-41
BALLINA SHIRE COUNCIL	-24	-39
BALONNE SHIRE COUNCIL	-19	-34
BALRANALD SHIRE COUNCIL	7	-5
BATHURST REGIONAL COUNCIL	7	-11
BEGA VALLEY SHIRE COUNCIL	-12	-35
BELLINGEN SHIRE COUNCIL	-23	-37
BERRIGAN SHIRE COUNCIL	-22	-43
BLAND SHIRE COUNCIL	-17	-37
BLAYNEY SHIRE COUNCIL	-22	-36
BOGAN SHIRE COUNCIL	-11	-34
BOMBALA SHIRE COUNCIL	-20	-41
BOOROWA COUNCIL	-20	-41
BOURKE SHIRE COUNCIL	-16	-31
BREWARRINA SHIRE COUNCIL	-41	-52
BROKEN HILL CITY COUNCIL	-26	-45
BYRON SHIRE COUNCIL	-18	-33
CABONNE SHIRE COUNCIL	-22	-36
CARRATHOOL SHIRE COUNCIL	-20	-40
CENTRAL DARLING SHIRE COUNCIL	-27	-46
CITY OF ALBURY	-21	-41
CITY OF WAGGA WAGGA	-23	-43
CLARENCE VALLEY COUNCIL	-23	-38
COBAR SHIRE COUNCIL	-1	-26
COFFS HARBOUR CITY COUNCIL	-10	-24
CONARGO SHIRE COUNCIL	-19	-40
COOLAMON SHIRE COUNCIL	-22	-41
COOMA-MONARO COUNCIL	-18	-39
COONAMBLE SHIRE COUNCIL	-11	-33
COOTAMUNDRA SHIRE COUNCIL	-20	-40
COROWA SHIRE COUNCIL	-22	-42
COWRA SHIRE COUNCIL	-16	-31
DENILQUIN MUNICIPAL COUNCIL	-20	-41
DEPARTMENT OF TRANSPORT QLD	7	7

DEPT OF LAND AND WATER CONSERV.	-20	-40
DUBBO CITY COUNCIL	-9	-31
DUNGOG SHIRE COUNCIL	7	-6
EAST GIPPSLAND SHIRE COUNCIL	-3	-29
EUROBODALLA SHIRE	-19	-40
FORBES SHIRE COUNCIL	-9	-25
GILGANDRA SHIRE COUNCIL	-3	-27
GLEN INNES SEVERN SHIRE COUNCIL	-10	-25
GLOUCESTER SHIRE COUNCIL	7	-10
GOONDIWINDI SHIRE COUNCIL	-10	-25
GOULBURN MULWAREE COUNCIL	-21	-41
GREAT LAKES	7	7
GREATER HUME SHIRE COUNCIL	-16	-37
GREATER TAREE	7	3
GRIFFITH CITY COUNCIL	-24	-43
GUNDAGAI SHIRE COUNCIL	-22	-42
GUNNEDAH SHIRE COUNCIL	-9	-26
GUYRA SHIRE COUNCIL	-9	-24
GWYDIR SHIRE COUNCIL	-18	-33
HARDEN SHIRE COUNCIL	7	-7
HASTINGS COUNCIL	7	2
HAY SHIRE COUNCIL	-21	-41
INGLEWOOD SHIRE COUNCIL	-27	-41
INVERELL SHIRE COUNCIL	-18	-33
JERILDERIE SHIRE COUNCIL	-28	-47
JUNEE SHIRE COUNCIL	-17	-37
KEMPSEY SHIRE COUNCIL	3	-14
KYOGLE SHIRE COUNCIL	-23	-37
LACHLAN SHIRE COUNCIL	-15	-31
LEETON SHIRE COUNCIL	-25	-44
LISMORE CITY COUNCIL	-18	-33
LIVERPOOL PLAINS SHIRE COUNCIL	7	-13
LOCKHART SHIRE COUNCIL	-11	-33
MID-WESTERN REGIONAL COUNCIL	-22	-42
MOREE PLAINS SHIRE COUNCIL	-11	-27
MURRAY SHIRE COUNCIL	-20	-40
MURRUMBIDGEE SHIRE COUNCIL	-21	-41
NAMBUCCA SHIRE COUNCIL	-25	-39
NARRABRI SHIRE COUNCIL	-21	-36
NARRANDERA SHIRE COUNCIL	-20	-40
NARROMINE SHIRE COUNCIL	-9	-32
OBERON COUNCIL	-6	-26
ORANGE CITY COUNCIL	-21	-34
PALARANG COUNCIL	-21	-41

PARKES SHIRE COUNCIL	-5	-21
QUEANBEYAN CITY COUNCIL	-23	-43
RICHMOND VALLEY COUNCIL	-19	-34
ROADS AND TRAFFIC AUTHORITY	-32	-47
ROADS AND TRAFFIC AUTHORITY(COLONGOLOOK)	-35	-52
SHOALHAVEN CITY COUNCIL	-20	-42
SNOWY RIVER SHIRE COUNCIL	-21	-41
STANTHORPE SHIRE COUNCIL	-19	-34
STATE RAIL AUTHORITY	-31	-47
TAMWORTH REGIONAL COUNCIL	7	-12
TEMORA SHIRE COUNCIL	-25	-44
TENTERFIELD SHIRE COUNCIL	-26	-41
TUMBARUMBA SHIRE COUNCIL	-18	-38
TUMUT SHIRE COUNCIL	-20	-40
TWEED SHIRE COUNCIL	-25	-39
UPPER HUNTER SHIRE COUNCIL	2	-23
UPPER LACHLAN COUNCIL	-19	-40
URALLA SHIRE COUNCIL	-28	-42
URANA SHIRE COUNCIL	-18	-39
WAGGAMBA SHIRE COUNCIL	-21	-37
WAKOOL SHIRE COUNCIL	-18	-39
WALCHA SHIRE COUNCIL	-28	-42
WALGETT SHIRE COUNCIL	-16	-31
WARREN SHIRE COUNCIL	-3	-27
WARRUMBUNGLA SHIRE COUNCIL	-18	-39
WEDDIN SHIRE COUNCIL	-10	-26
WELLINGTON SHIRE COUNCIL	-22	-42
WENTWORTH SHIRE COUNCIL	0	-25
YASS VALLEY COUNCIL	-20	-41
YOUNG SHIRE COUNCIL	-20	-40
<b>Average percentage change</b>	<b>-16</b>	<b>-33</b>

^ Total bills include rebate.

Note: If non council organisations are removed, the total average percentage change from 2008–09 to AER revised 2009–10 is estimated to remain at –33 per cent.

# EnergyAustralia

Customer bills (\$ nominal p.a)	Change from current charges (2008-09) to EnergyAustralia proposed charges (2009-10) %	Change from current charges (2008-09) to AER revised charges (2009-10) %
ASHFIELD MUNICIPAL COUNCIL	33	-6
AUBURN BAPTIST CHURCH	-5	-9
AUBURN MUNICIPAL COUNCIL	6	-7
AVONDALE GOLF CLUB	-	-
BANKSTOWN CITY COUNCIL	15	-6
BANKSTOWN TROTting & REC CLUB	96	-2
BAULKHAM HILLS COUNCIL	6	-7
BOTANY MUNICIPAL COUNCIL	18	-6
BURWOOD MUNICIPAL COUNCIL	5	-8
CANTERBURY MUNICIPAL COUNCIL	7	-7
CENTENNIAL PARK & MOORE PARK	25	-7
CESSNOCK CITY COUNCIL	11	-7
CITYWEST DEVELOPMENT CORPN	15	-9
COM ASSN 23-29 SHEP.DR CHRY	29	-8
COMMUNITY ASSN @ TILLEY LN	10	-2
COMMUNITY ASSN DP270051	39	-7
COMMUNITY ASSN DP270082	-7	-4
COMMUNITY ASSN DP270223	6	-3
COMMUNITY ASSN DP270297	6	-3
COMMUNITY ASSOC CP270144	7	-3
COMMUNITY ASSOCIATION DP270	8	-3
CONCORD MUNICIPAL COUNCIL	9	-8
DARLING HARBOUR AUTHORITY	10	-9
DEFENCE ENERGY SERVICES	1224	4
DEPT OF EDUCATION/FORT ST	-16	-11
DEPT OF TRANSPORT	44	-2
DRUMMOYNE MUNICIPAL COUNCIL	7	-8
ENERGYAUSTRALIA	22	-6
GOSFORD CITY COUNCIL 860	21	-7
HEZ NOMINEES PTY LTD	13	-1
HORNSBY SHIRE COUNCIL	14	-6
HOUSING COMMISSION NSW	-	-
HUNTERS HILL MUNICIPAL COUNCIL	9	-6
HURSTVILLE CITY COUNCIL	13	-7
INTERLINK ROAD	-	-
KOGARAH MUNICIPAL COUNCIL	12	-7

KU-RING-GAI MUNICIPAL COUNCIL	17	-6
LAKE MACQUARIE CITY COUNCIL	20	-5
LANE COVE MUNICIPAL COUNCIL	19	-6
LEICHHARDT MUNICIPAL COUNCIL	17	-6
M S B - HORNSBY	-	-
M S B - PORT OF SYDNEY	24	-7
MAITLAND CITY COUNCIL	8	-6
MANLY MUNICIPAL COUNCIL 850	24	-7
MARRICKVILLE MUNICIPAL COUNCIL	22	-6
MIRVAC LEND LEASE VILLAGE	7	-3
MONA VALE HOSPITAL	-	-
MOSMAN MUNICIPAL COUNCIL 83	12	-6
MUSWELLBROOK SHIRE COUNCIL	10	-7
N/HOOD ASSN DP 285088	48	-8
NEIGHBOURHOOD ASSN DP270207	8	-5
NEIGHBOURHOOD ASSN DP270217	2	-8
NEIGHBOURHOOD ASSN DP276638	45	-7
NEIGHBOURHOOD ASSN DP285067	71	-6
NEIGHBOURHOOD ASSN DP285096	33	-8
NEIGHBOURHOOD ASSN DP285097	26	-8
NEIGHBOURHOOD ASSN DP285177	40	-6
NEIGHBOURHOOD ASSN DP285203	76	-6
NEIGHBOURHOOD ASSN DP285210	25	-9
NEIGHBOURHOOD ASSN DP285657	-7	-8
NEIGHBOURHOOD ASSN DP285696	6	-3
NEIGHBOURHOOD ASSN DP815457	47	-7
NEIGHBOURHOOD ASSN DP840807	45	-7
NEIGHBOURHOOD ASSOC.D/P 285	10	-8
NEWCASTLE CITY COUNCIL	21	-6
N'HOOD ASSNS DP270038/28517	28	-5
NORTH SYDNEY MUNICIPAL COUNCIL	30	-6
NSW MARITIME	22	-7
OWNERS CORPORATION DP 27037	12	-1
PADSTOW BOWLING & RECREATION	106	-2
PARRAMATTA CITY COUNCIL	3	-9
PITTWATER MUNICIPAL COUNCIL	52	-6
PITTWATER RSL CLUB	2	-3
PORT STEPHENS SHIRE COUNCIL	19	-5
PRESBYTERIAN CHURCH OF AUST	349	-6
R J CAINS	-	-
RANDWICK CITY COUNCIL	9	-7
ROADS & TRAFFIC AUTHORITY	33	-6
ROCKDALE MUNICIPAL COUNCIL	15	-7
ROSELANDS BOWLING CLUB	102	-2

ROYAL NORTH SHORE HOSPITAL	182	-1
ROYAL PRINCE ALFRED HOSPITAL	50	-4
ROYAL RYDE HOMES	78	-11
RYDE HOSPITAL	147	-12
RYDE MUNICIPAL COUNCIL	14	-6
SINGLETON SHIRE COUNCIL	8	-6
STATE RAIL AUTHORITY – SOUTH	49	-5
STATE RAIL AUTHORITY-C COAST	84	-2
STATE RAIL AUTHORITY-NORTH	15	-7
STATE TRANSIT AUTHORITY	-1	-8
STRATHFIELD MUNICIPAL COUNCIL	18	-6
SUTHERLAND SHIRE COUNCIL	18	-7
SYDNEY CITY COUNCIL 411	16	-7
SYDNEY COVE DEV AUTH	-	-
UPPER HUNTER SHIRE COUNCIL	10	-7
WARRINGAH SHIRE COUNCIL 851	24	-7
WAVERLEY MUNICIPAL COUNCIL	13	-7
WILLOUGHBY CITY COUNCIL	6	-7
WOOLLAHRA MUNICIPAL COUNCIL	15	-7
WYONG SHIRE COUNCIL 861	21	-7
ZOOLOGICAL PARKS BOARD OF NSW	107	-2
<b>Average percentage change</b>	<b>43</b>	<b>-6</b>

Note: If non council organisations are removed, the total average percentage change from 2008–09 to AER revised 2009–10 is estimated at –7 per cent.

# Integral Energy

Customer bills (\$ nominal p.a)	Change from current charges (2008–09) to Integral Energy proposed charges (2009–10) %	Change from current charges (2008–09) to AER revised charges (2009–10) %
BANKSTOWN CITY COUNCIL	-37	-39
BAULKHAM HILLS SHIRE COUNCIL	26	24
BLACKTOWN CITY COUNCIL	13	11
BLUE MOUNTAINS CITY COUNCIL	1	-1
CAMPBELLTOWN CITY COUNCIL	8	6
COUNCIL OF THE CITY OF SHELLHARBOUR	6	4
EVANS SHIRE COUNCIL	58	57
FAIRFIELD CITY COUNCIL	0	-2
HAWKESBURY CITY COUNCIL	-1	-3
HMAS ALBATROSS	-11	-12
HOLROYD CITY COUNCIL	-7	-9
HORNSBY SHIRE COUNCIL	-18	-19
KIAMA MUNICIPAL COUNCIL	-4	-6
LITHGOW CITY COUNCIL	4	2
LIVERPOOL CITY COUNCIL	16	14
MID WESTERN REGIONAL COUNCIL	-9	-10
NSW MARITIME AUTHORITY	-38	-38
PARRAMATTA CITY COUNCIL	-8	-10
PENRITH CITY COUNCIL	11	9
PORT KEMBLA PORT CORPORATION	74	74
ROADS & TRAFFIC AUTHORITY	64	64
RYDE CITY COUNCIL	-28	-30
SHOALHAVEN CITY COUNCIL	0	-2
SYDNEY CATCHMENT AUTHORITY	-19	-21
THE COUNCIL OF CAMDEN	29	27
THE DEPARTMENT OF LANDS	40	40
WINGECARRIBEE SHIRE COUNCIL	3	1
WOLLONDILLY SHIRE COUNCIL	4	3
WOLLONGONG CITY COUNCIL	-3	-5
<b>Average percentage change</b>	<b>6</b>	<b>4</b>

Note: If non-council organisations are removed, the total average percentage change from 2008–09 to AER revised 2009–10 is estimated at 1 per cent.

## Glossary of public lighting terms

**Aeroscreen (cut-off) Lanterns:** Lanterns that are designed to emit no light above a horizontal line projected from the face (glass) of the lantern.

**Ballast:** device used with discharge lamps for stabilising the current in the discharge.

**Efficacy:** A measure of lamp output efficiency with units of lumen/watt.

**Fluorescent lamp:** Discharge lamp of the low-pressure mercury type in which most of the light is emitted by a layer of fluorescent material excited by the ultraviolet radiation from the discharge.

**High-pressure mercury (vapour) lamp:** mercury vapour lamp, with or without a coating of phosphor, in which during operation the partial pressure of the vapour is around 105 Pa.

**Frangible poles:** Poles designed to detach from a solid base at ground level upon impact of a motor vehicle.

**Luminaire:** Apparatus that distributes, filters or transforms the light given by a lamp or lamps and which includes all the items necessary for fixing and protecting these lamps and for connecting them to the supply circuit.

**High-pressure sodium (vapour) lamp:** Sodium vapour lamp in which the partial pressure of the vapour during operation is of the order of 104 Pa.

**HPS:** High pressure sodium lamp.

**Incandescent (electric) lamp:** Lamp in which light is produced by means of an element heated to incandescence by the passage of an electric current.

**Lamp:** Is the part of a luminaire that emits light and which may require associated control equipment to operate.

**Lantern:** A complete light fitting containing a lamp and designed to control the output of the light.

**Metal halide lamp:** Discharge lamp in which the major portion of the light is produced by the radiation from a mixture of a metallic vapour (e.g. mercury) and the products of the dissociation of halides (e.g. halides of thallium, indium or sodium).

**Metal vapour lamp:** Discharge lamp such as the 'mercury (vapour) lamp' and the 'sodium (vapour) lamp' in which the light is mainly produced in a metallic vapour.

**Photoelectric (PE) Cell:** A device that is normally incorporated in a lantern that automatically switches the lantern on at dusk and switches the lantern off at dawn.

**Reflector:** Device in which the phenomenon of reflection is used to alter the spatial distribution of the luminous flux from a source.