CONFIDENTIAL

TOWN OF WALKERVILLE

Item No: 16.1.1

File No: 14.37.4.1

Date: 16 January 2017

Attachment: A, B & C

Meeting: Council

Title: LGA Public Lighting Business Case

Responsible Manager: General Manager, Heather Barclay

Author: Manager Assets & Infrastructure, Joshua Bowen

Key Focus Area 2: Sustainable and resilient future, based on sensitive and sensible approaches to planning, heritage, economic development and the public realm.

Type of Report: **Decision Required**

Pursuant to Section 83(5) of the Local Government Act 1999, the Chief Executive Officer indicates that the matter contained in this report may, if the Council so determines, be considered in confidence pursuant to Section 90(2) of the Local Government Act 1999 on the basis that the information contained in the attached report is information of the nature specified in subsections 90(3)(d) of the Act being:

(d) commercial information of a confidential nature (not being a trade secret) the disclosure of which;

(i) could reasonably be expected to prejudice the commercial position of the person who supplied the information, or to confer a commercial advantage on a third party; and,

(ii) would, on balance, be contrary to the public interest;

The said information relates to the LGA's Business Case for Public Lighting

Recommendation (Public)

That pursuant to Section 90(2) of the Local Government Act 1999 Council order that the public be excluded, with the exception of the Administration being the Chief Executive Officer, Kiki Magro, General Manager, Heather Barclay, Manager Assets and Infrastructure, Joshua Bowen and the Protocol, Compliance & Governance Officer, Deb Bria, from being present at the meeting on the basis that the matter contained in this report is information of the nature specified in subsections 90(3)(d) of the Act being:

(d) commercial information of a confidential nature (not being a trade secret) the disclosure of which;

(i) could reasonably be expected to prejudice the commercial position of the person who supplied the information, or to confer a commercial advantage on a third party; and,

(ii) would, on balance, be contrary to the public interest;

The said information relates to the LGA's Business Case for Public Lighting

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Recommendation (Confidential)

1. That Council supports, “in principle”, the LGA’s proposed business case for provision of public lighting services subject to further analysis and validation of ownership transition costs and access costs, and the assumptions used in the business case;

2. That Administration advises the LGA that Council does not have a position on the delivery model for the provision of public lighting services until the matters in 1 above are determined;

3. That Council agrees to cease any current and future negotiations regarding LED street lighting or other arrangements with SAPN until the outcomes are determined from the LGA proposed business case for provision of public lighting services.

Recommendation (Public)

That the Council, having considered the said information or matter in confidence under Part 3 of Chapter 6 of the Local Government Act 1999, orders, pursuant to Section 91(7) of the Local Government Act 1999, that the report titled “LGA Public Lighting Business Case” and Minutes dated 16 January 2017, and any other documentation relative to the report be retained in confidence, until this matter has been finalised excepting that the Council authorises the release of relevant documentation to parties to enact the resolution and that this order be reviewed every 12 months by the Chief Executive Officer; and,

That Council resolves to end its confidential deliberations pursuant to Section 90(2) of the Local Government Act 1999 Council and re-admit the public.

Summary

The LGA has developed a business case for an alternative public lighting service model for Council’s consideration (summary contained in Attachment A & B).

The purpose of this report is to seek Council’s position as it relates to the proposed business case for provision of public lighting services in the Local Government.

Background

Members may be aware that the Metropolitan Local Government Group (MLGG) has supported the development of a business case for an alternative public lighting service model for the local government sector, which is expected to deliver greater efficiencies for councils and communities.

The business case has been completed (refer package of information contained in Attachment C).The LGA has now contacted individual Councils seeking their respective position on the alternative model, being suggested, viz; the establishment of a local government public lighting subsidiary. The LGA is also seeking feedback on the preferred model for establishment (subsidiary or otherwise).

Discussion/Issues for Consideration

The business case and proposal is quite detailed and highlights the complexities of public lighting provisions in South Australia. The proposed alternative public lighting service model indicates significant savings may be realised for Councils in the order of 25-30%.

Whilst the business case is positive and highlights the benefits of the model, Administration is of the view that further analysis is required of the base assumptions to ensure the benefits are true and accurate.

South Australian Power Networks (SAPN) have not been party to sharing their financials as it relates to the value of the existing asset base and ownership transition costs, access charges and other associated fees. As such, the Administration’s position is that there are potential risks for significant

increases in these charges in future, should the Local Government Sector as a whole proceed with the proposed model.

Whilst the proposal elaborates on operating and maintenance of public lighting services, Administration is concerned that this section of the proposal is understated and the actually financial impact and resources required to maintain public lighting to an acceptable level of service is more complex than currently detailed.

Options for Consideration

Option 1

1. That Council supports, “in principle”, the LGA’s proposed business case for provision of public lighting services subject to further analysis and validation of ownership transition costs and access costs, and the assumptions used in the business case;

2. That Administration advises the LGA that Council does not have a position on the delivery model for the provision of public lighting services until the matters in 1. above are determined.

3. That Council agrees to cease any current and future negotiations regarding LED street lighting or other arrangements with SAPN until the outcomes are determined from the LGA proposed business case for provision of public lighting services.

Option 2

Council resolves to not provide “in principle” support to the LGA’s proposed business case for provision of public lighting services and to continue with existing public lighting services, but look towards opportunities for led replacement.

Analysis of Options

Option 1

The LGA’s business case is comprehensive and there is merit in providing support to ensure the LGA can continue its development and seek a better deal for the Local Government sector.

The provision of public lighting services is complex and Administration believes that the assumptions require further analysis and validation to ensure their accuracy, before decisions can be made.

Moreover, the risks associated for the Local Government Sector taking ownership over public lighting infrastructure is significant, and should not be underestimated - it could be argued that it’s a service that Local Government should not be taking responsibility for. With that in mind, it’s important to fully appreciate the financial and technical complexities before entering into any form of ownership and service provision.

Option 2

SAPN have recently updated their tariff structure, recognising changes in technology and an aging asset base.

This has reduced the ongoing operating costs to Council and it can be reasonable to expect that these costs will remain constant in future.

SAPN have also adopted a strategy of replacing any outdated lights with LED’s during routine maintenance operations, so in effect there is a slow natural progression to LED public lighting which does not attract upfront capital outlay from Council.

SAPN offers an avenue for bulk LED replacement programs which are financed and implemented through SAPN at a cost to the respective Council, however this does not allow for negotiations on tariff structures and choice of LED's is limited to those offered by SAPN.

Financial Implications

Option 1

Should Council resolve Option 1, there is no immediate financial implications. Further reports would be presented to Council as updated information is provided to Administration.

The LGA's business case has provided a financial analysis that has indicated potential savings in the order of 25%-30% compared to the current service provisions. Administration believes the true savings will not be known until validation of the assumptions used in the analysis is completed.

Option 2

Should Council resolve Option 2, there is no immediate financial implication nor will be any significant change into the future. Council has no control over the tariffs set by SAPN, however Council may choose to investigate bulk LED replacements which would see an initial capital expense. This expense would be somewhat offset but the reduction in electricity usage and a changeover to the appropriate LED tariff structure.

Community Implications

Option 1

The LGA Business Case indicates a reduction in operating costs whilst delivering the same level of service currently provided by SAPN. It remains unclear what further charges SAPN may apply should the LGA's Business Case be successful.

The provision of public lighting services and LED replacement would provide a greater level of service to the community at a saving to Council. Administration believes that further analysis is required to ensure that a Council owned subsidiary can deliver the stated cost savings and level of service provision.

Option 2

Council may be seen poorly within the community should it decide to not proceed with in principle support. Notwithstanding there is no expected change in costs or current level of service.
Option 2 does not afford Council a strong position to negotiate tariff structure and or bulk LED replacements.

Governance Implications

Option 1

Council's position of "in principle" support allows the LGA to continue with its current plans whilst not compromising Councils current arrangements with SAPN.

The LGA's Business Case highlights the complexities of providing public lighting services. A Local Government run subsidiary would need to be operated by technically competent staff to ensure compliance with the myriad of standards and expected levels of service provision.

Option 2

SAPN are the incumbent public lighting service provider. They are appropriately staffed and have the technical expertise to manage public lighting services. There is minimal risk of non-compliance borne

on Council and it solely the responsibility of SAPN to ensure compliance with the relevant standards and service provisions.

Preferred Option & Reasoning

Option 1

By providing in principle support, it allows the LGA to continue their work on the Provision of Public Lighting services and provides a stronger united position for negotiations with SAPN.

Attachment/s

Attachment A	Letter to the CEO – Public Lighting business case assessment and next steps
Attachment B	Public Lighting Services Business Case – confidential summary
Attachment C	Public Lighting - Business Case

Local Government Association of South Australia

In reply please quote our reference: ECM 645396 DH/DB

5 December 2016

Ms Kiki Magro
Chief Executive Officer
Corporation of the Town of Walkerville
PO Box 55
WALKERVILLE SA 5081
Via email: kmagro@walkerville.sa.gov.au

Dear Ms Magro

Public Lighting business case assessment and next steps – Confidential

As you are aware, the LGA has completed a business case for the provision of alternative public lighting services. We are now seeking your feedback on the findings of this report.

The business case compares the risks of different public lighting service models and estimates the lifecycle costs of operating new LED lights using the lowest risk option. Each model is assessed against the following objectives:

- decrease the cost of public lighting to councils;
- achieve satisfactory public lighting service levels;
- provide technology choice in respect of public lighting infrastructure; and
- secure potential revenue from public lighting infrastructure.

The business case finds that the option most likely to achieve these objectives is a local government subsidiary (either through a regional subsidiary under the *Local Government Act 1999* or a subsidiary of the LGA) with ownership of the public lighting infrastructure and with outsourced operations and maintenance (O&M).

I am pleased to provide you with a copy of the Business Case and supporting information for your consideration. Please note that this information is provided on a strictly confidential basis as the LGA Board has resolved that the release of the business case and other supporting documents could prejudice the LGA's strategic or negotiation position.

Financial modelling within the business case indicates councils could collectively achieve savings of around 30-35% (which would mean $120 million to $170 million) over a twenty year period, when compared to the current offer put on the table by SAPN.

The indications of the savings that might be achieved by your council are between $504,332 and $747,368.

Given the long term savings that are projected for member councils, the LGA Board recommends that councils resolve to consider the information presented in the business case prior to making any individual council decisions regarding LED lighting or any other arrangements with SAPN.

The Board also requested that the Secretariat further progress negotiations with SAPN on an appropriate public lighting facilities access agreement and separately liaise with the state government to achieve a legislated right of access to public lighting infrastructure.

Discussions have commenced with SAPN on the terms and conditions under which a local government public lighting facilities access agreement might operate. SAPN has advised they will provide a draft proposal in early December 2016.

…/2

The process for legislated right of local government access to public lighting infrastructure is currently being considered by the Crown Solicitor and the best path forward will be discussed at the Premier's State/Local Government Forum on 16 December 2016.

These actions are being undertaken to provide the pathway for local government to eventually own its own public lighting infrastructure, which would be managed by the proposed local government public lighting subsidiary. This is subject to a strong level of support from LGA members for this alternative public lighting service to be pursued.

I look forward to receiving your council's feedback and position on the establishment of a local government public lighting subsidiary, including the preferred mechanism to establish the subsidiary- a regional subsidiary under the *Local Government Act 1999* or a subsidiary (private company) of the LGA.

The enclosed feedback form has been prepared to assist council with formulating a response. Feedback is invited by 20 January 2017.

Also enclosed is the following suite of documents which provide relevant information to assist council considerations:

- Public Lighting Business case – Wallmans Lawyers/JAC Comrie (November 2016)
- Public lighting contestability: Legislative proposal Wallmans Lawyers (August 2016)
- LGA Business case and further considerations - confidential summary
- Public Lighting service delivery- comparison of corporate models
- LGA key milestones and time frames to achieve establishment of a local government public lighting subsidiary.

Separate to the public lighting business case, the LGA is also still committed to pursuing recovery of the overcharge of public lighting costs imposed by SAPN on councils and communities between 2010-15. We are currently formulating an offer to put to SAPN in order to close the negotiation period and seek a determination from the Australian Energy Regulator. A further update will be provided at the conclusion of negotiations.

LGA Director Infrastructure, David Hitchcock is available to answer any questions that you have about the business case on 82242052 or email david.hitchcock@lga.sa.gov.au

Yours sincerely

Matt Pinnegar
Chief Executive Officer

Telephone: (08) 8224 2022

Email: matt.pinnegar@lga.sa.gov.au

Attach: ECM 645564 Council feedback response form - to be submitted to the LGA by 20 January 2017.
ECM 645534 Public lighting contestability: Legislative proposal – Wallmans Lawyers (August 2016)
ECM 645444 Public lighting Business case – Wallmans Lawyers/JAC Comrie (November 2016)
ECM 645469 LGA Business case and further considerations- confidential summary
ECM 645592 Public lighting service delivery- comparison of corporate models
ECM 645590 LGA key milestones and time frames of a local government public lighting subsidiary

Local Government Association of South Australia

The voice of local government.

Public Lighting Services Business Case – confidential summary

With the support of the Metropolitan Local Government Group (MLGG) – The LGA has been working on a business case for an alternative public lighting service model for the local government sector, which would deliver greater efficiencies for councils and communities.

The business case (JAC Comrie Pty Ltd and Wallmans Lawyers) has now been completed and includes options for the provision of an alternative service delivery of public lighting services, which would deliver the following objectives:

- decrease the cost of public lighting to councils;
- achieve satisfactory public lighting service levels;
- provide technology choice in respect of public lighting infrastructure; and
- secure potential revenue from public lighting infrastructure.

What we now know, from the business case is that through owning and running our street lighting as a sector, councils could achieve savings of around 30-35%, or $130m to $170m, over a twenty year period, when compared to the current offer put on the table by SAPN.

The opinion of the business case is the preferred model for a public lighting service is ownership by the local government sector either through a regional subsidiary under the *Local Government Act 1999* or a subsidiary of the LGA with outsourced operation of the public lighting assets

Given the more complex governance arrangements of regional subsidiaries under the *Local Government Act* and the potential challenges for all constituent councils to agree to decision making and resourcing structures, it is considered that a commercial entity owned by the LGA may be a viable consideration in order to expedite transition to LEDs and removal of monopoly of services by SAPN.

With regard to current interest in LED changeovers the LGA Board has recommended that councils effect resolutions to consider the information presented in the business case prior to making any individual council decisions regarding LED lighting or any other arrangements with SAPN.

Background

A six step approach has been undertaken to develop the business case, as summarised below.

1. Defining the objectives (as above).
2. Identification of options for service delivery models: The Business Case includes consideration of three options for future service delivery:
    a. *LGA /Local Government owned and operated (LGA/Local Government ownership performing all functions);*
    b. *LGA/Local Government owned third party operated (LGA/Local Government ownership with third party service provision contract); and*
    c. *Third party owned and operated (PPP or current SAPN arrangement).*
3. Risk assessment of service delivery options. Each option assessed to compare risks associated with their operation.
4. Selection of preferred alternative service delivery option. The business case rates each of the above options for its ability to deliver local government's public lighting service objectives.
5. Financial analysis. The business case compares the life cycle costs (operating and capital) of SAPN public lighting services against the preferred alternative service delivery option (Local Government owned, third party operated).
6. Implementation. The process for establishing a company to own public lighting assets and provide public lighting services is to be contemplated and evaluated in the business case.

Conclusions

The conclusions reached on the basis of the investigations undertaken to inform the business case to date include the following:

- the achievement of the LGA's objectives for public lighting is unlikely where local government does not own the public lighting infrastructure;
- the option most likely to achieve the objectives is a local government subsidiary with ownership of the public lighting infrastructure and with outsourced operations and maintenance (O&M);
- notwithstanding the uncertainty of future cost assumptions in respect of either continued service provision by SAPN or by a separate public lighting services entity, it is likely that the cost of state-wide provision of LED street lighting would be noticeably lower (estimated savings of about 30%-35%, or $130m to $170m over 20 years) if provided through a local government entity rather than through SAPN; and
- The risk and financial analysis has been undertaken on the assumption that access to SAPN's infrastructure will be provided and the existing public lighting assets have been acquired by public lighting customers.

Resourcing

The level of resourcing required undertaking roles and managing the day to day operations of the Subsidiary needs to be determined.

The business case is based on the Local Government subsidiary providing the same services that the SAPN Lighting department currently delivers. This would require the equivalent of 13 FTE employees.

LGA to pursue an infrastructure access agreement with SAPN

In order to facilitate the provision of public lighting services on SAPN infrastructure such as stobie poles, an access agreement would need to either be negotiated or mandated through legislation. Both of these options are being progressed simultaneously in case either fails.

Recent statements by the SAPN CEO indicate they are willing to negotiate a commercial access arrangement for public lighting customers to do this. Cleary such access will have a commercial fee.

LGA staff have commenced discussion with SAPN on what terms and conditions a local government access agreement might entail. SAPN have advised they will provide a draft proposal in early December 2016. This proposal will then form the basis of working toward a suitable agreement document.

LGA to pursue legislated right of access to public lighting infrastructure

Earlier this year, following discussions at the Premier's State/Local Government Forum, Wallmans Lawyers were commissioned by the LGA to develop a proposal for legislation to support the transition of public lighting services from SAPN to councils. The report focused on: the ownership of public lighting infrastructure; the right to attach public lighting infrastructure to stobie poles; and technical and safety issues.

The report concluded that either the Electricity Act or the Local Government Act could be amended to allow unfettered access and facilitate acquisition of the existing public lighting infrastructure. As such, there is no reason why the public lighting services entity could not perform all of the current functions of SAPN's lighting department.

DPTI is also interested in a partnership approach to achieve access to SAPN poles and will endeavour to provide Crown advice on which is the most appropriate Act to use (Electricity Act or the Local Government Act) in time for the December 2016 Premier's State/Local Government Forum.

Passage of legislation through Parliament is dependent on the support of the State Government and the Parliament.

Next Steps

The development of a draft business case and preliminary conclusions is a significant milestone in this project. Having briefed the LGA Board, the Secretariat is now undertaking consultation with councils;

- by offering confidential briefing sessions (metropolitan and regional locations) on the business case and asking for feedback on the recommendations;
- written correspondence to all council Mayors and CEOs advising of the business case findings and seeking feedback on the recommended options and suggested action plan timeframes; and
- recommending that councils effect resolutions to consider the information presented in the business case prior to making any individual council decisions regarding LED lighting or any other arrangements with SAPN.

Following consultation with and feedback from councils, the LGA will bring a further report to the Board (expected to be in January 2017) with final recommendations for establishing a public lighting service.

Local Government Association of South Australia

Public Lighting

Business Case

November 2016

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Executive summary

Context

SA Power Networks (**SAPN**) currently provides public lighting services to councils and the State. Predominately, this is for street lighting. The provision by SAPN of these services is a consequence of the public lighting assets which existed at the time of the privatisation of the South Australian electricity sector in 1999 vesting in ETSA Utilities (ie SAPN's predecessor).

The Local Government Association of South Australia (**LGA**) on behalf of councils has undertaken protracted negotiations with SAPN in respect of the cost of public lighting services offered by SAPN. These negotiations have reached an impasse.

As a consequence of this, the LGA is investigating options for the provision of public lighting services which would:

- decrease the cost of public lighting to councils;
- achieve satisfactory public lighting service levels;
- provide technology choice in respect of public lighting infrastructure; and
- secure potential revenue from public lighting infrastructure.

Purpose of the business case

This business case assesses options for the achievement of the objectives set out above.

Options within three broad alternative mechanisms for the provision of public lighting are considered in this report. These mechanisms are:

- local government owned and operated public lighting infrastructure;
- local government owned, but third party operated public lighting infrastructure; and
- third party owned and operated public lighting infrastructure.

Application of methodology

The methodology adopted for this business case and the outcomes of its application are summarised below. The analysis has been undertaken on the assumption that access to SAPN's infrastructure will be provided and existing public lighting assets have been acquired by public lighting customers. The analysis is subject to other assumptions which are set out in the report.

Step 1: Objectives

The objectives against which options are assessed are:

- decreasing the cost of public lighting to councils;
- achieving satisfactory public lighting service levels;
- providing technology choice in respect of public lighting infrastructure; and
- securing potential revenue from public lighting infrastructure.

Step 2: Identify options

The three broad alternative mechanisms for the provision of public lighting and credible options for delivery within these broad alternatives have been identified.

Mechanism	Options
Local government owned and operated public lighting infrastructure	Council owner-operator Wholly-owned subsidiary owner-operator LG Subsidiary owner-operator
Local government owned, but third party operated public lighting infrastructure	SAPN CLER and Energy Only Operating and maintenance (**O&M**) agreement Alliance contract
Third party owned and operated public lighting infrastructure	SAPN SLUOS Public Private Partnership (**PPP**)

Step 3: Risk assessment

Risk is uncertainty as to the future. Not all risk is negative. However, there are a range of negative risks which if realised could compromise the achievement of the objectives. Each of the credible options has been assessed to compare the susceptibility and impact of these negative risks on the options.

Negative risk has been conceptualised broadly to include:

- commercial risk (including in respect of financing, pricing and contracting risks);
- operational risk;
- regulatory risk (including compliance risk);
- implementation risk;
- legal risk (including potential liability); and
- political/reputational risk.

The outcome of this analysis informed the options which were assessed at Stage 4.

Step 4: Selection of preferred alternative option

The analysis above identifies preferred options within each of the broad service provision mechanisms.

Mechanism	Options
Local government owned and operated public lighting infrastructure	LG Subsidiary owner-operator
Local government owned, but third party operated public lighting infrastructure	O&M agreement Alliance contract
Third party owned and operated public lighting infrastructure	Public Private Partnership (**PPP**)

Each of the options has been comparatively rated for its ability to deliver the objectives. A multi criteria analysis has been utilised for this purpose. A multi criteria analysis can be used to provide a comparative assessment of options where the assessment is qualitative, rather

than quantitative.[1] The objectives are forward looking (ie what can be achieved by local government in respect of public lighting in the future). In this context, SAPN's service provision has been assessed alongside other options for its capacity to deliver on the objectives.

The multi criteria analysis adopts a comparative rating scale of -2 to 2 on the following basis:

Rating	Descriptor
-2	Objective significantly compromised
-1	Objective slightly compromised
0	Neutral
1	Objective slightly enhanced
2	Objective significantly enhanced

The application of the multi criteria analysis resulted in a preferred alternative model being identified. The preferred model for the achievement of the objectives is ownership by the local government sector either through a regional subsidiary under the *Local Government Act 1999* (SA) (**LG Act**) or a subsidiary of the LGA (collectively '**LG Subsidiary**') with outsourced operation of the public lighting assets.

Step 5: Financial analysis

A financial analysis has been undertaken comparing the cost of provision of LED lighting through SAPN (applying SAPN anticipated tariffs) with a similar service for the provision of public lighting services through a LG Subsidiary with outsourced operations and maintenance of the public lighting assets.

Notwithstanding the uncertainty of future cost assumptions under both options, it is likely that the cost of State wide provision of LED streetlighting would be noticeably lower (estimated savings of about 25%) if provided through a LG Subsidiary rather than through SAPN.

Step 6: Implementation

The process for establishing a regional subsidiary to own public lighting assets and provide public lighting services is set out in the LG Act.[2] The process is well understood and has been used on many occasions to establish regional subsidiaries for commercial or regulatory purposes.

The LGA has the capacity to establish a subsidiary under the *Corporations Act 2001* (Cth).

Key issues in respect of the governance structure and the contracting structure would need to be considered in the implementation of the alternative delivery model. However, in the context of the assumptions regarding ownership of the public lighting infrastructure and

[1] Department of Treasury and Finance (Victoria), *Victorian Guide to Regulation* (December 2014), 24; Department of Treasury and Finance (Victoria) *Victorian Guide to Regulation - Toolkit 2: Cost-benefit analysis* (updated July 2014); Commissioner for Better Regulation (Victoria), *Multi Criteria Analysis: Guidance Note* (undated).
[2] Section 43 and Schedule 2, LG Act.

access to SAPN's infrastructure, there are no foreseeable barriers to implementing the alternative delivery model.

Conclusions

The conclusions reached on the basis of this business case are:

- the achievement of the LGA's objectives for public lighting is unlikely where local government does not own the public lighting infrastructure;
- assessing a range of options for their comparative ability to deliver the LGA's objectives reveals that the option most likely to achieve the objectives is LG Subsidiary ownership of the public lighting infrastructure with outsourced O&M;
- notwithstanding the uncertainty of future cost assumptions in respect of either continued service provision by SAPN or by a LG Subsidiary, it is likely that the cost of State wide provision of LED streetlighting would be noticeably lower (estimated savings of about 25%) if provided through a LG Subsidiary rather than through SAPN; and
- in the context of the assumptions regarding ownership of the public lighting infrastructure and access to SAPN's infrastructure, there are no foreseeable barriers to implementing the alternative delivery model.

Introduction

Context

SAPN currently provides public lighting services to councils and the State. Predominately, this is for street lighting. The provision by SAPN of these services is a consequence of the public lighting assets which existed at the time of the privatisation of the South Australian electricity sector in 1999 vesting in ETSA Utilities (ie SAPN's predecessor).

Three services are currently offered by SAPN to public lighting customers (**PLC**):

- Street Lighting Use of System services (**SLUOS**): SAPN owns the public lighting assets and undertakes the operation and maintenance (**O&M**) of those assets;
- Customer Lighting Equipment Rate services (**CLER**): PLC owns the public lighting assets and maintains these assets, other than the replacement of failed lamps which is undertaken by SAPN; and
- Energy Only services: PLC owns and maintains the public lighting assets (including replacing failed lamps).

SLUOS accounts for approximately 92% of lighting points providing services to councils according to data provided by SAPN to the LGA.

SAPN is currently engaging with councils in respect a transition to LED. In this context, SAPN is proposing five tariffs. CLER and Energy Only would continue to be provided on council-owned infrastructure. Three other LED tariffs are proposed for services utilising SAPN infrastructure each of which includes SAPN maintenance and elevation charges.[3] The difference between the tariffs is the funder of the infrastructure. The proposed 'SAPN' tariff has been analysed for the purpose of this business case. This tariff is for a LED service utilising infrastructure which has been funded by SAPN (rather than being funded by customers or developers).[4]

The LGA on behalf of councils has undertaken protracted negotiations with SAPN in respect of the cost of public lighting services offered by SAPN. These negotiations have reached an impasse.

As a consequence of this, the LGA is investigating options for the provision of public lighting services which would:

- decrease the cost of public lighting to councils;
- achieve satisfactory public lighting service levels;
- provide technology choice in respect of public lighting infrastructure; and
- secure potential revenue from public lighting infrastructure.

The LGA has engaged JAC Comrie Pty Ltd and Wallmans Lawyers to undertake a business case assessment in respect of alternative delivery options for public lighting services and assess the comparative ability of these options to realise these outcomes.

[3] SAPN, *Transition to LED & Smart Lighting: Presentation to SSL Councils* (27 July 2016), 4; SAPN, *Public Lighting – Transition to LED: Information Paper* (15 May 2016), 3.
[4] SAPN, *Transition to LED & Smart Lighting: Presentation to SSL Councils* (27 July 2016), 7.

Purpose of the business case

Options within three broad alternative mechanisms for the provision of public lighting are considered in this report. These mechanisms are:

- local government owned and operated public lighting infrastructure;
- local government owned, but third party operated public lighting infrastructure; and
- third party owned and operated public lighting infrastructure.

The purpose of the analysis is to assess the comparative risks of alternative service delivery models and continued service provision by SAPN to determine an option which is most likely to realise the objectives of:

- decreasing the cost of public lighting to councils;
- achieving satisfactory public lighting service levels;
- providing technology choice in respect of public lighting infrastructure; and
- securing potential revenue from public lighting infrastructure.

Methodology and assumptions

Methodology

The methodology adopted for this business case is summarised in Attachment A.

Analysis is on the basis of information provided by the LGA and our current understanding of the objectives of the local government sector with respect to public lighting services.

The comparative ability of options to deliver these objectives may change overtime and will be influenced by the resources available for implementing a preferred option.

Assumptions

The risk and financial analysis has been undertaken on the assumption that access to SAPN's infrastructure will be provided and the existing public lighting assets have been acquired by public lighting customers.

For the purposes of this business case, it is assumed that transitioning to an alternative model will deliver similar outcomes for all councils. While the analysis demonstrates that there is likely to be benefit for all participating councils, the extent of benefit may vary. Similarly, the analysis does not consider differences between councils in different localities or of differing sizes. More detailed analysis of this type may inform the implementation strategy.

Assumptions used in the financial modelling are set out in Attachment C.

Previous studies

The LGA has actively engaged in a process of analysing and understanding the changes to public lighting services available through technology innovation. In addition to seeking information and analysis on the impact of technology change, the LGA has undertaken studies to understand the potential barriers to the adoption of these technologies. These previous studies are relevant to the analysis presented in this business case. In order to understand the context in which this business case is presented, a brief outline of these previous studies is set out below.

Sustainable Public Lighting: Technical Feasibility Report[5]

In 2009 the LGA commissioned Lucid Consulting Engineers Pty Ltd (**Lucid**) to undertake a technical feasibility analysis in respect of the deployment of energy efficient public lighting. The report explored best practice high efficiency lighting systems in use throughout the world and those under development. While the cost/benefit comparisons for each possible technology presented in the report may now be out of date, the observations in the Lucid report regarding the projected benefits of substituting old technology lighting with energy efficiency lighting remain relevant. The Lucid report also discusses obstacles to the implementation of energy efficient lighting.

In addition to providing data in respect of the performance of old lighting technology, the Lucid report provides a survey of different energy efficiency technologies in respect of luminaire and electronic control gear. While technologies may have been improved or adapted since the Lucid report was published, the information provides a useful starting point for consideration of technology types.

The Lucid report indicates that a formal agreement with SAPN is required for the introduction of new technologies. This view is premised on the new technology being owned by SAPN and incorporated into its existing public lighting infrastructure. Where the assumption is that the public lighting infrastructure will be owned by the local government sector, this barrier to the adoption of new technologies is removed.

Local government transition to sustainable public lighting[6]

PR Dean Consulting was engaged in December 2010 by the LGA to prepare a discussion paper on local government transitioning to sustainable public lighting. The Dean Consulting report focuses on securing grant funding for the transition to energy efficient lighting. While the grant funding referred to in the report is no longer available, the availability of funding for a shift to energy efficient lighting should be taken into account. Again, the Dean Consulting report was premised upon the transition to energy efficient lighting occurring in respect of SAPN's lighting infrastructure. Aside from a discussion regarding energy efficient luminaires, the Dean Consulting report also refers to electronic control gear which could result in energy savings.

The Dean Consulting report does contemplate third party contracting options in respect of CLER and energy only lighting (ie where councils own the infrastructure).[7]

Barriers to Energy Efficient Street Lighting[8]

In 2011 PricewaterhouseCoopers (**PwC**) was commissioned by the South Australian Department for Transport, Energy and Infrastructure to report on regulatory barriers to improved energy efficiency of street lights. The PwC report focused on whether the regulatory framework provides city councils with a financial incentive to upgrade to energy efficient street lighting.

[5] Lucid Consulting Engineers Pty Ltd, *Sustainable Public Lighting Technical Feasibility Report* (August 2009).
[6] PR Dean Consulting, *Local Government Transition to Sustainable Public Lighting: discussion paper* (December 2010).
[7] PR Dean Consulting, *Local Government Transition to Sustainable Public Lighting: discussion paper* (December 2010) [21].
[8] PwC, *Barriers to Energy Efficient Street Lighting* (July 2011).

The PwC report is premised on an uptake of energy efficient street lighting through the retrofitting of the SAPN network.[9]

The PwC report describes the benefits of energy efficiency in terms of:

(a) economic benefit;
(b) environmental benefit;
(c) increases in energy security; and
(d) encouraging energy efficiency research and development.[10]

These benefits are still apparent within a shift from existing technology to energy efficient lighting.

The PwC analysis centres on whether city councils have a financial incentive to upgrade to energy efficient street lighting on the basis of two questions, being:

- Would councils expect to receive a benefit equal to the reduction in network and energy costs that is caused by the reduction in energy use?
- Would the additional charges that city councils bear from upgrading to energy efficient street lighting reflect the economic costs caused by that decision?[11]

PwC discusses the capacity of councils to obtain benefits from shifting to energy efficient lighting. PwC emphasises that for the costs of energy efficiency to be properly signalled to customers, the entire cost of shifting to the new technology need to be factored into decision making.[12]

For this reason, PwC indicates that the residual costs of existing public lighting assets which are superseded through the adoption of energy efficient lighting should be paid by public lighting customers.

PwC's analysis does not conceptualise alternative ownership models and is premised on costs being determined and allocated on a regulated industry basis. PwC indicates that the '*efficiency of charges for new energy efficient street lights will depend on the extent charges accurately reflect the costs incurred*'. PwC concludes that the regulatory framework provides sufficient safeguards to ensure the costs associated with energy efficient street lights reflect the efficient costs of their provision.[13] This conclusion has not been borne out given the protracted, unresolved negotiations between the LGA and SAPN.

PwC's conclusion in this respect should not be seen as precluding other frameworks for the determination of efficient costs for the shift to energy efficient lighting, but rather reflects the parameters in which PwC was asked to advise.

To the extent that the PwC report deals with a potential rule change or change to legislation to mandate an energy efficient rollout, this is not relevant to the current business case.

[9] PwC, *Barriers to Energy Efficient Street Lighting* (July 2011), 3.
[10] PwC, *Barriers to Energy Efficient Street Lighting* (July 2011), 5.
[11] PwC, *Barriers to Energy Efficient Street Lighting* (July 2011), 9.
[12] PwC, *Barriers to Energy Efficient Street Lighting* (July 2011), 9.
[13] PwC, *Barriers to Energy Efficient Street Lighting* (July 2011), 16.

Delivery of public lighting services in South Australia[14]

Wallmans Lawyers was commissioned in September 2014 to provide a report on the delivery of public lighting services in South Australia. The Wallmans Lawyers' 2014 report considered:

(a) the ownership of public lighting assets;
(b) liability for assets;
(c) technical requirements applying to the assets;
(d) the ability of councils to provide public lighting services; and
(e) charges for public lighting services.

The conclusions reached in the report are summarised in the following table.

Issue	Answer
Can councils own public lighting assets?	Yes.
Must public lighting assets be constructed, installed, operated or maintained by the DNSP?	No.
Is the DNSP is a unique position with respect to the provisions of public lighting services?	Yes. The DNSP currently owns the majority of public lighting assets. The DNSP is subject to licensing requirements and economic regulation which does not apply to a council providing public lighting services within council area. The DNSP has stobie poles to support luminaires. The relevance of this is likely to diminish overtime with the undergrounding of the distribution network and an increase in stand-alone lighting columns.
Are councils in a unique position in respect of stand-alone public lighting assets?	Yes. Stand-alone public lighting assets are generally fixtures on council owned land and, therefore, council property (unless and until vested in the DNSP).
Do newly installed public lighting assets automatically vest in the DNSP?	No.
Are councils required to engage the DNSP to provide any services in respect of council-owned public lighting assets?	No, subject to any existing contractual agreement with the DNSP.
What are councils' existing roles with respect to public lighting?	Determine adequacy of public lighting generally by reference to AS/NZS 1158. Development approval for sub-divisions. Ownership of land on which public lighting assets are located.

[14] Wallmans Lawyers, *Delivery of Public Lighting Services in South Australia* (3 September 2014).

	Ownership and maintenance of public lighting assets subject to CLER and Energy Only tariffs.
Can councils provide public lighting services in respect of public lighting assets owned by the council?	Yes, either directly or through the engagement of contractors. All services must be provided in a manner which complies with technical and safety requirements.
How will charges for public lighting services vary if council provides the public lighting through council owned assets?	Councils are not obligated to engage the DNSP to provide public lighting services in respect of council-owned public lighting assets. Councils could negotiate service charges with contractors. Councils would pay the direct costs of these services. Councils would continue to pay for the electricity used for public lighting and the DUoS charges for the conveyance of electricity through the DNSP's network.

The report concluded that there is a great deal of flexibility in South Australia with respect to the provision of public lighting services. Provided that councils comply with relevant technical and safety requirements, there are no constraints in respect of owing, constructing and maintaining public lighting assets and providing public lighting services. The report also concluded that there is no compulsion on councils to continue to engage SAPN to provide public lighting services.

The Wallmans' 2014 report included an analysis table which compared the provision of public lighting services by SAPN with the provision by a council. This analysis table is included in Part A of Attachment D to this report.

Transitioning to safe and sustainable public lighting[15]

Ironbark Sustainability was engaged in 2015 to undertake a collaborative project involving the LGA and eight councils. The Ironbark Sustainability report identified that the main barriers to transitioning to energy efficient lighting perceived by councils are:

(a) financial cost;
(b) expertise and time to deal with the complexity of street lighting; and
(c) delays and frustrations in working with external stakeholders (especially SAPN).[16]

The purpose of the Ironbark Sustainability report was to provide a preliminary business case in respect of the replacement of all street lights in South Australia to more energy efficient lighting. Ironbark Sustainability's report is premised on the majority of street lighting assets continuing to be owned and maintained by SAPN.[17]

The financial modelling provided in Ironbark Sustainability's report focuses on the anticipated costs of this transition. This purpose is distinct from the purpose of this business case which is to assess the relative merits of alternative approaches to public lighting delivery.

[15] Ironbark Sustainability, *Transitioning to Safe and Sustainable Public Lighting* (final v2a) (August 2015).
[16] Ironbark Sustainability, *Transitioning to Safe and Sustainable Public Lighting* (final v2a) (August 2015), 14.
[17] Ironbark Sustainability, *Transitioning to Safe and Sustainable Public Lighting* (final v2a) (August 2015), 35.

Public lighting contestability in South Australia: discussion paper[18]

In 2015 Wallmans Lawyers was engaged to prepare a discussion paper on public lighting contestability in South Australia. The paper considered the regulatory or legal barriers to implementing alternative models for the delivery of public lighting services in South Australia and identified potential legislative or other frameworks to give effect to these models. The three models considered were the same as the models considered in the course of this business case:

(a) council owned and operated public lighting infrastructure;
(b) council owned and third party operated public lighting infrastructure; and
(c) third party owned and operated public lighting infrastructure.

The Wallmans' Lawyers' 2015 report considered the pre-conditions to contestability and how these would be satisfied in respect of public lighting services in South Australia, potential barriers to entry for alternative public lighting service providers.

The Wallmans' 2015 report concluded that any of the delivery options were feasible frameworks for contestability. The report indicated that while legislation to support contestability would be desirable, it was not essential. A summary of options considering the barriers to contestability discussed in the report has been replicated in Part B of Attachment D.

The Wallmans' 2015 report also considered the key elements of a South Australian framework for increasing contestability in public lighting services. A table summarising these key elements is replicated in Part C of Attachment D. This analysis informs the discussion in this report in respect of implementation.

Public lighting contestability: legislative proposal[19]

In 2016 Wallmans Lawyers was commissioned to develop a proposal for legislation to support the transition of public lighting services from SAPN to councils. The report focused on:

(a) the ownership of public lighting infrastructure;
(b) the right to attach public lighting infrastructure to stobie poles; and
(c) technical and safety issues.

The purpose of the report is to provide a basis for discussions between the LGA and the State Government in respect of legislation to support a transition to an alternative supply model for public lighting services.

[18] Wallmans Lawyers, *Public Lighting Contestability in South Australia: discussion paper* (6 October 2015).
[19] Wallmans Lawyers, *Public Lighting Contestability: Legislative proposal* (26 August 2016).

Business case analysis

Overview

There are broadly three potential delivery structures for public lighting services:

- local government owned and operated public lighting infrastructure;
- local government owned, but third party operated public lighting infrastructure; and
- third party owned and operated public lighting infrastructure.

Various permutations for the delivery of public lighting services are possible within these three structures. Credible options are analysed below to determine an optimal approach for achieving the objectives of the LGA. This analysis involves an assessment of the comparative risks of each option not achieving the objectives. The methodology utilised for this analysis and summarised in Attachment A.

Step 1: Objectives

The objectives against which options are assessed are:

- decreasing the cost of public lighting to councils;
- achieving satisfactory public lighting service levels;
- providing technology choice in respect of public lighting infrastructure; and
- securing potential revenue from public lighting infrastructure.

Decreasing the cost of public lighting to councils

Ironbark Sustainability indicates that one of the three main barriers to delivering an improved street lighting system identified by councils is financial cost.[20] Regardless of the delivery model chosen for the provision of public lighting, the cost will be borne by councils for lighting of roads and other areas within council ownership or control. The quantum of these costs, however, is likely to vary depending on the model selected. This is because some costs charged by a third party owner-operator are unlikely to be charged by a local government owner-operator. For example, the $1.4 million elevation charge levied by SAPN as a component of its tariffs would be unlikely to be a component of tariffs charged to councils by a local government owner-operator.

Information published by SAPN regarding the transition to LED indicates that elevation charges will continue to be levied by SAPN.[21] In addition, annuity charges are proposed in order to fund infrastructure to be installed at the end of the economic life of the LED infrastructure.[22]

Direct service costs

Tariffs for services

There are direct costs associated with the provision of public lighting services to councils. These are the tariffs charged by SAPN and the cost of electricity. Both of these costs should diminish if councils shift to energy efficient lighting.

[20] Ironbark Sustainability, *Transitioning to Safe and Sustainable Public Lighting* (final v2a) (August 2015), 14.
[21] SAPN, *Transition to LED & Smart Lighting: Presentation to SSL Councils* (27 July 2016), 4; SAPN, *Public Lighting – Transition to LED: Information Paper* (15 May 2016), 3.
[22] SAPN, *Public Lighting – Transition to LED: Information Paper* (15 May 2016), 2.

SAPN has published tariffs for 2016/17.[23] Extrapolation of these tariffs by utilising SAPN's post-tax revenue model calculations has been undertaken to estimate the tariffs which councils could reasonably expect if SAPN continues to provide public lighting services. The results of this analysis are set out Attachment C.

Arrangements for the purchase of electricity are managed on a whole of sector basis by LGA Procurement. To achieve savings through a shift to energy efficient lighting, these purchasing arrangements will need to be consistent with councils reducing their demand for electricity.

The direct costs of public lighting services will fall on councils regardless of the method of service delivery adopted. Similarly, the direct costs of transitioning public lighting from existing technologies to energy efficient technologies will also be borne by councils either as an upfront purchase cost or as a capital component of the tariffs over time. Direct cost cannot, therefore, be avoided, but should be assessed to determine whether the tariffs likely to be set under an alternative service delivery model are more cost-reflective than the tariffs likely to be charged by SAPN.

Operating costs

Operating costs will need to be met by councils regardless of the delivery model selected. operating costs will be either the direct operating costs incurred by councils or the costs of a third party which are passed on to councils as a component of tariffs.

Capital costs: new and replaced infrastructure

Capital costs are currently the most significant component of the tariffs calculated by SAPN. Any model for the delivery of public lighting infrastructure will involve future capital costs being met either directly or indirectly (ie as a component of tariffs) by councils.

One aspect of the capital costs associated with the transition to energy efficient lighting will be the upgrading of assets to meet the current requirements of *AS/NZS 1158 Public lighting for roads and public spaces* and AS/NZS IEC 60598.2.3, *Luminaires—Particular requirements—Luminaires for road and street lighting* (**Standards**). Where upgrade work is undertaken to public lighting, the updated requirements of Standards are to be met. Consequently, upgrade costs may be incurred in respect of current assets.[24] Again these are costs which if not met directly by councils will, regardless of the future deliver model, be passed through as a component of tariffs.

Indirect service costs

There are also indirect costs to councils in respect of public lighting services generated through the regulated processes for reviewing and negotiating tariffs. The LGA has sought the review of tariffs and undertaken negotiations on behalf of councils since 2000.

Systems of light-handed regulation through price oversight have applied to SAPN's tariffs since privatisation. For the period from privatisation to 30 June 2010, the South Australian Independent Industry Regulator (**SAIIR**) and its successor the Essential Service Commission of South Australia (**ESCOSA**) regulated the prices that SAPN could charge for public lighting

[23] SAPN, *Fees for Provision of Public Lighting 2016/17 (Excerpt from Network Tariff & Negotiated Services Manual No.18)*, (1 July 2016).
[24] PR Dean Consulting, *Local Government Transition to Sustainable Public Lighting: discussion paper* (December 2010), [16].

services in accordance with the Electricity Pricing Order issued by the Treasurer on 11 October 1999 pursuant to the *Electricity Act 1996*.

In 2010, the Australian Energy Regulator (**AER**) was vested with responsibility for regulating SAPN in accordance with the National Electricity Rules. Public lighting services provided by electricity distributors are regulated under the National Electricity Rules. For this purpose, these services are classified as 'negotiated distribution services'.

The National Electricity Rules requires that the price charged by SAPN for the provision of public lighting services should be determined through negotiations between the public lighting customers and SAPN within the National Electricity Rules framework. The National Electricity Rules requires that the negotiated prices need to be based on the costs incurred by SAPN in providing the public lighting services. The allocation of SAPN's direct and indirect costs to the provision of public lighting services is to be done in accordance with a cost allocation methodology approved by the AER.

Although the National Electricity Rules sets out a framework which is binding on SAPN, the negotiations on the price to be charged by SAPN for its services have been protracted and have not yet resulted in service or price benefits for councils. While the negotiated distribution services framework under the National Electricity Rules in theory provides for a genuine negotiation of efficient prices with SAPN,[25] this has not been the outcome of the application of this framework in practice. The resourcing costs with respect to being tied to a regulated negotiation process should be included in any assessment of the costs of public lighting services.

Other types of indirect cost may be incurred in the context of alterative service delivery models. For example, there could be transaction costs in respect of managing the relationship with a service provider engaged to operate and maintain the public lighting infrastructure.

Costs of adopting an alternative model

Establishment costs

A transition to an alternative delivery model for public lighting services will generate costs for the local government sector. Depending on the options selected these costs could include the costs of establishing a LG Subsidiary, the costs of tendering for an alternative third party provider and the costs of tendering for an O&M provider.

Capital costs: residual asset value of transferring assets

The transition to an alternative model which is premised on council ownership of public lighting infrastructure may involve a payment to SAPN in respect of the residual asset value of the transferring asset base.[26] The value of the residual asset base as at the 1 July 2016 is $33.7 million. This has been ascertained on the basis of the valuation provided by SAPN to the LGA. The AER has also published formula for the determination of residual asset value in the context of public lighting assets.[27]

[25] Part D, Chapter 6, *National Electricity Rules* (version 82); see also PwC, *Barriers to Energy Efficient Street Lighting* (July 2011), 16-17.
[26] SAPN indicates that transition to LED may on some proposed tariffs require a payment from the customer of the residual asset value: SAPN, *Transition to LED & Smart Lighting: Presentation to SSL Councils* (27 July 2016), 16-17.
[27] AER, *EnergyAustralia distribution* determination 2009–10 to 2013–14 Alternative control (public lighting) services (13 April 2010); see also PwC, *Barriers to Energy Efficient Street Lighting* (July 2011), 19-20.

There are distinct categories of public lighting infrastructure which could be treated differently for the purposes of compensating SAPN. These categories are:

- assets acquired by SAPN on privatisation (**Initial Assets**);
- assets purchased by SAPN since privatisation (**SAPN Assets**);
- assets gifted to SAPN by developers (**Gifted Assets**).

The Initial Assets are fully depreciated. Consequently, SAPN has been fully compensated for the price paid for this infrastructure. A strong case can be made for fully depreciated assets to be transferred to councils at no cost.

The SAPN Assets have a residual value until fully depreciated. Assuming that SAPN is to be compensated for the transfer of these assets to councils, a question will arise as to the basis for valuing the assets. SAPN has indicated that it treats its public lighting assets as regulated assets. In contrast to SAPN's electricity network assets, SAPN's public lighting assets are not, however, subject to the regulatory requirements applying to the calculation and roll forward of asset value under the National Electricity Rules. There is no regulatory reason, therefore, for a transfer price for public lighting assets to be calculated on a regulated asset basis.

Regulated asset values typically provide for the recovery of the cost of an asset over the life of the asset allowing for the costs of capital, indexation and depreciation. Generally the value of regulated assets is higher than the transfer values negotiated for non-regulated assets. Regulatory asset values do not take into account the actual condition or the remaining life of assets. These are matters which could be negotiated in respect of any transfer payment. However, an accurate understanding of the condition and remaining life of the assets could only be obtained from SAPN or through an audit of the assets.

The Gifted Assets have been acquired by SAPN at no cost. There is no detriment to SAPN in transferring these assets to councils at no cost. The Gifted Assets should not be included in the residual asset base, however, this should be confirmed with SAPN prior to any transfer price being agreed.[28]

Achieving satisfactory service levels

The design and performance of public lighting on council roads and council controlled public places is regulated by councils by reference to AS 1158. Maintaining the level of service provided by public lighting at the time of its installation requires the replacement of public lighting assets which are damaged or fail and also the maintenance of luminaires.

The lack of a binding service level undertaking by SAPN has been an issue since 1998.[29] Regulators have commented on the lack of a service level agreement between SAPN and its public lighting customers.[30]

Attempts at securing a service level agreement with SAPN have been unsuccessful.

Council concerns regarding service levels include:

[28] There is a suggestion in material published by SAPN that the RAB includes Gifted Assets: *Transition to LED & Smart Lighting: Presentation to SSL Councils* (27 July 2016), 4; SAPN, *Public Lighting – Transition to LED: Information Paper* (15 May 2016), 13.
[29] LGA, *Background Paper – Service Level Agreement for Public Street Lighting* (undated).
[30] SAIIR, *Public street lighting tariffs: final report* (November 2000), 46.

- the number of light outages and the time taken to repair such outages at any given time;
- the low level of public promotion and awareness of fault reporting arrangements;
- the lack of reporting by SAPN on service provision;
- the absence of penalties on the service provider for failing to promptly repair faulty lights;
- payments being required by the service provider even when the lights are not working;
- the lack of contestability for maintenance;
- the lack of choice of light fittings, lamps and lighting standards;
- the perceived poor comparison of South Australian costs and standards for the public street lighting service with other States; and
- the disparity in target repair standards between metropolitan and country areas.[31]

SAPN indicates that it aims to repair street lights which have gone out and for which it is responsible within five business days in respect of the Adelaide metropolitan area, Whyalla, Mount Gambier, Mount Barker, Gawler, Stirling, Murray Bridge, Port Augusta, Willunga, Port Pirie and Port Lincoln and within 10 business days elsewhere from the date on which the fault comes to SAPN's attention.[32] The Guaranteed Service Level (**GSL**) scheme applies to SAPN, however, a failure to meet the service standards in relation to street lighting results in a payment to the person who first reports the outage (rather than a payment to the relevant council). The GSL payments for street lighting outages were introduced as a cost effective means of reporting outages (in comparison to SAPN street patrols).[33]

Providing technology choice

Historically the choice of public lighting infrastructure has been limited by SAPN. Information published by SAPN lists five high pressure sodium lamp types stocked by SAPN currently available for new street lighting installations.[34]

The process by which a council may request alternative public lighting infrastructure to that offered by SAPN involves an approval process.[35] Part of the evaluation process is a technical evaluation which may lead to SAPN issuing a letter of acceptance for connection to the SAPN network. Notwithstanding the issue of this acceptance, SAPN reserves its right to not select the evaluated luminaire as a supplier for commercial or other considerations.[36] In respect of the CLER tariff arrangements, SAPN indicates that notwithstanding the issue of a letter of acceptance for a luminaire to be connected to SAPN's network, SAPN will only accept luminaires which utilise SAPN's standard lamps.[37] These are the lamps previously mentioned.

Of the current options offered by SAPN, there is only one approved P category LED light and only one V category LED light.

[31] LGA, *Background Paper – Service Level Agreement for Public Street Lighting* (undated).
[32] SAPN, Who is responsible for street lighting? (September 2012); see also ESCOSA, *SA Power Networks Jurisdictional service standards for the 2015-2020 regulatory period: final decision* (May 2014), Table 4.1.
[33] ESCOSA, *SA Power Networks Jurisdictional service standards for the 2015-2020 regulatory period: final decision* (May 2014), 33.
[34] SAPN, *NICC 403: Information on SA Power Networks' public lighting tariffs* (15 September 2014), D1-SHT2, 29.
[35] SAPN, *NICC 403: Information on SA Power Networks' public lighting tariffs* (15 September 2014), Appendix E.
[36] SAPN, *NICC 403: Information on SA Power Networks' public lighting tariffs* (15 September 2014), 6.
[37] SAPN, *NICC 403: Information on SA Power Networks' public lighting tariffs* (15 September 2014), D1-SHT2, 8.

SAPN has included in its latest tariffs for public lighting services set out five new LED tariffs.[38] For each tariff SAPN provides a list of inclusions in the tariff. For example, in relation to the SAPN LED tariff which will apply where SAPN funds a luminaire upgrade or new installation, However, the terms of the service offerings are broadly stated and do not provide definitive service levels to councils. For example, SAPN indicated that maintenance will be to 'appropriate levels' without reference to objective service levels which can be enforced by councils.

Securing potential revenue from public lighting infrastructure

There is the potential for councils to secure revenue from public lighting infrastructure owned by the local government sector. The ability to secure this revenue is currently untested in the South Australian context.

Third party technology

Energy efficient lighting technology can enable the deployment of other technologies and services.[39] Councils may determine to utilise these capabilities for municipal services. Alternatively, third party service providers may have an interest in utilising council-owned public lighting infrastructure in order to support a range of smart city technologies.

These revenue streams could be independent of the provision of public lighting services or could be a component of an integrated package for the O&M of public lighting on behalf of a council owner. In the later scenario, the benefit secured by the utility from the functionality of the public lighting could offset the O&M costs to councils.

Carbon credits

The potential for local government to earn revenue through the sale of Australian Carbon Credit Units (**ACCU**) created by transitioning to energy efficient lighting should be considered.

The *Carbon Credits (Carbon Farming Initiative) Act 2011* (Cth) (**Carbon Credits Act**) enables the creation of ACCU through eligible offset projects. Periodic Emission Reduction Fund Auctions are held which enable the proponent of an eligible offset project, if they are successful in the auction, to enter into a Carbon Abatement Contract with the Commonwealth under which the Commonwealth will purchase ACCUs.

There are detailed requirements which must be satisfied in order to have a carbon reduction project accepted as an eligible project. These include that the project is subject to a methodology determination. The *Carbon Credits (Carbon Farming Initiative – Commercial and Public Lighting) Methodology Determination 2015* (**Lighting Methodology**) is a methodology determination for this purpose.

The Lighting Methodology applies to 'lighting upgrade projects'.[40] A lighting upgrade project will include a project which involves one or more lighting upgrades relating to lighting or roads or other public spaces where the lighting is used for at least 4,500 hours per annum. A lighting upgrade consists of one or more of:

[38] SAPN, *Fees for Provision of Public Lighting 2016/17 (excerpt from Network Tariff & Negotiated Services Manual No. 18)*, (1 July 2016).
[39] IPWEA, 2014. PN 11: *Towards More Sustainable Street Lighting* (July 2014). Practice Note prepared by Next Energy and Strategic Lighting Partners for the Institute of Public Works Engineering Australasia Limited (IPWEA) and the Australian Centre of Excellence for Local Government (ACELG) at the University of Technology, Sydney (UTS) (**IPWEA Practice Note**), 20.
[40] Clause 8, Lighting Methodology.

- modifying the lighting system;
- replacing the lighting system;
- supplementing the lighting system.

There must be a reasonable expectation that the upgrade will decrease the energy usage of an existing lighting systems by increasing its energy efficiency and result in eligible carbon abatement.

The Lighting Methodology prescribes matters which must be included in an application for a lighting upgrade project to be an eligible offsets project. These include information regarding the location of the lighting system, the types of baseline lams or luminaires, he types of any baseline control gear and project control gear and the nature of the upgrade. Various technical requirements must also be satisfied in respect of the replaced and replacement lamps and luminaires. The Lighting Methodology also prescribes the manner in which calculated of baseline energy and energy savings will be calculated.

Section 20C of the Carbon Credits Act provides that only a proponent of an eligible offsets project may enter into a Carbon Abatement Contract with the Commonwealth. For local government to be the proponent of an eligible project, it must be responsible for an eligible offsets project and have the legal right to carry out the project in order to participate in an auction in respect of that project. To have the legal right to carry out an eligible offsets project local government must:

- have the right to carry out the project activities on or for the sites or assets included in the project; and
- have a lawful and exclusive right to be issued all ACCU that may be created as a result of the project activities.

Aside from creating a potential revenue stream for local government, ACCU created through an eligible public lighting project could be purchased as offsets by councils in support of policies to become carbon neutral.

Step 2: Identify options

The three broad alternative mechanisms for the provision of public lighting and credible options for delivery within these broad alternatives have been identified.

Mechanism	Options
Local government owned and operated public lighting infrastructure	Council owner-operator Wholly-owned subsidiary owner-operator LG Subsidiary owner-operator
Local government owned, but third party operated public lighting infrastructure	SAPN CLER and Energy Only Operating and maintenance agreement (**O&M agreement**) Alliance contract
Third party owned and operated public lighting infrastructure	SAPN SLUOS Public Private Partnership (**PPP**)

Step 3: Risk assessment

Risk is uncertainty as to the future. Not all risk is negative. However, there are a range of negative risks which if realised could compromise the achievement of the objectives. Each of the credible options has been assessed to compare the susceptibility and impact of these negative risks on the options.

Negative risk has been conceptualised broadly to include:

- commercial risk (including in respect of financing, pricing and contracting risks);
- operational risk;
- regulatory risk (including compliance risk);
- implementation risk;
- legal risk (including potential liability); and
- political/reputational risk.

The risk assessment is set out in Attachment B. The impact of these risks on the ability of the options to realise the objectives is assessed below.

Local government owned and operated

Delivery options

Individual council

Councils may own and operate public lighting infrastructure. The O&M of public lighting by councils could be through direct engagement of employees by councils or alternatively through the outsourcing of these services to a third party provider.

Wholly-owned subsidiary

Councils may form subsidiaries pursuant to section 41 of the LG Act. Subsidiaries may only be constituted in accordance with Schedule 2 to the LG Act. Many wholly-owned subsidiaries are established in South Australia. There is a strong association between a wholly-owned subsidiary and its constituting council.

LG Subsidiaries

Councils may also form regional subsidiaries under section 42 of the LG Act in conjunction with other councils. Again, a regional subsidiary may only be constituted in accordance with Schedule 2 to the LG Act. Various regional subsidiaries have been constituted to provide commercial or utility services on behalf of councils.

The LGA is empowered by its constitution to '*do all things which are incidental or conducive to the attainment of the Objects*'.[41] The 'Objects' of the LGA include undertaking or promoting any activity which the LGA Board determines to be for the benefit and/or interest of its members and local government in South Australia.[42] The LGA is capable of holding shares in a private company established for a reason conducive to undertaking an activity for the benefit of local government in South Australia.[43]

Risk analysis

[41] Clause 9.24, *LGA Constitution* (operational 6 December 2015),
[42] Clause 8.9, *LGA Constitution* (operational 6 December 2015),
[43] Clause 1(2)(b), LG Act.

The table set out in Part A of Attachment B provides a qualitative assessment of the relative merits of the three potential local government owner-operator structures identified above.

The LG Subsidiary option is selected as the preferred option given the opportunities for economies of scope and scale and for risk mitigation. The LG Subsidiary ownership may be enhanced by the outsourcing of O&M. Options for outsourcing O&M are considered in Part B of Attachment B.

Local government owned, but third party operated

Delivery options

Status quo

Provision of public lighting services by SAPN under the CLER and Energy Only tariffs falls within this broad category of service delivery model.

O&M agreement

An option for councils or subsidiaries is the outsourcing of operating and maintenance to a third party provider. The council or subsidiary's primary responsibilities would then be:

- procuring the service provider; and
- managing an O&M agreement.

O&M agreements can be of varying scope and scale and be flexible as to term. Tendering for these services provides an opportunity for competition in the market at periodic intervals. Operating and maintenance risks would be significantly borne by the contractor under the terms of the agreement. This would be paid for by the council or subsidiary through service fees.

Traditional service provision contracts are most suited to situations where there is certainty as to the outcomes sought through the provision of the services.

Alliance contract[44]

An alliance contract is a collaborative arrangement between an infrastructure owner and non-owners to achieve a common outcome. The parties collaborate to determine the best solution to achieving the desired outcome. Alliance contracting may be most suited to projects which are complex and the form of outcome sought is not clear. Risks that may be outsourced to service providers under a traditional contracting model, may be shared by the service provider and infrastructure owner under an alliance contracting model. Similarly, rewards may be shared between the parties (although not necessarily in equal shares).

Risk analysis

Local government ownership and third party service provision is the current model for the CLER and Energy Only services offered by SAPN. An assessment of the *status quo* against potential risks is set out in Part B of Attachment B.

The assessment in Part A of Attachment B concludes the preferred ownership model would be through a LG Subsidiary given the advantages of economies of scope and scale and the

[44] Detailed guidance on alliance contracting has been published by the Commonwealth: Department of Infrastructure and Regional Development, *National Alliance Contracting Guidelines: Guide to Alliance Contracting* (September 2015).

ability to mitigate risk. This ownership model may be further enhanced by outsourcing the operation of the infrastructure.

Part B of Attachment B provides a qualitative assessment of the relative merits of two alterative options for third party service provision:

- O&M agreement
- alliance contract.

The relative advantages of these models are dependent upon the outcomes sought by the local government sector. The potential to explore both options further should not be precluded. This exploration could be undertaken through an expression of interest process inviting responses in respect of O&M services as well as transitioning to energy efficient lighting.

Third party owned and operated

Delivery options considered

Status quo

Continuing to receive SLUOS services from SAPN falls within the 'third party owned and operated model'.

PPP[45]

A public-private partnership will generally be formulated to deliver particular services. The service outcomes sought by the councils in respect of public lighting would be provided by a private sector provider who would be granted a concession to provide the services. To the extent that the service outcomes required infrastructure investment this would be the responsibility of the private sector party. For example, a concession to provide public lighting services may include service specification which would require the installation of energy efficient lighting. Often PPP provide for the resumption of the infrastructure used to provide the services by the public sector 'customer' at the end of the concession period.

PPP are particularly suited to service delivery which requires larger scale investment. The pooling of the council-owned lights across councils would achieve an economy of scope.

Risk analysis

Third party ownership and operation is the current model for the SLUOS provided by SAPN. An assessment of the *status quo* against potential risks is set out in Part C of Attachment B.

The table also provides a qualitative risk assessment of a PPP for the provision of public lighting services.

Neither option is considered optimal given the objectives. This is discussed further in Step 4.

Step 4: Selection of preferred alternative option

The analysis above identifies preferred options within each of the broad service provision mechanisms for further assessment.

[45] Detailed guidance on PPP is published by the Commonwealth Department of Infrastructure and Regional Development: Department of Infrastructure and Regional Development, *National Public Private Partnership Policy Framework: Policy Framework* (October 2015) and Department of Infrastructure and Regional Development, *National Public Private Partnership Policy Guidelines: Overview* (December 2008)

Mechanism	Options
Local government owned and operated public lighting infrastructure	LG Subsidiary owner-operator
Local government owned, but third party operated public lighting infrastructure	Operating and maintenance agreement (**O&M agreement**) Alliance contract
Third party owned and operated public lighting infrastructure	Public Private Partnership (**PPP**)

Each of the options has been comparatively rated for its ability to deliver the objectives. A multi criteria analysis has been utilised for this purpose. A multi criteria analysis can be used to provide a comparative assessment of options where the assessment is qualitative, rather than quantitative.[46] The objectives are forward looking (ie what can be achieved by local government in respect of public lighting in the future). In this context, SAPN's service provision has been assessed alongside other options for its capacity to deliver on the options.

This assessment is set out in the tables which follow and draws upon the analysis of risks to the achievement of the objectives set out in Attachment B. The nature of the objectives is described above in Step 1 of the business case methodology.

The multi criteria analysis adopts a comparative rating scale of -2 to 2 on the following basis:

Rating	Descriptor
-2	Objective significantly compromised
-1	Objective slightly compromised
0	Neutral
1	Objective slightly enhanced
2	Objective significantly enhanced

Decreasing the cost of public lighting services has effectively received a higher weighting in the analysis by providing separate ratings for direct cost, indirect cost and the cost of adopting an alternative model. Each of the other objectives is equally weighted.

Status quo (delivery by SAPN)

The ability of the *status quo* to deliver the objectives is rated in the following table.

[46] Department of Treasury and Finance (Victoria), *Victorian Guide to Regulation* (December 2014), 24; Department of Treasury and Finance (Victoria) *Victorian Guide to Regulation - Toolkit 2: Cost-benefit analysis* (updated July 2014); Commissioner for Better Regulation (Victoria), *Multi Criteria Analysis: Guidance Note* (undated).

Objectives	Risk impact	Comparative score
Decreasing cost		
Direct service cost[47]	Decreasing the tariff cost of public lighting services under the current model has been unachievable. In addition there are significant future costs risks, associated with SAPN's tariff model for LED.	-2
Indirect service cost	Challenging SAPN's tariffs has been resource intensive and costly. There are delays and frustrations in dealing with SAPN.[48]	-2
Costs of adopting an alternative model	Not applicable	0
Satisfactory service levels	Service levels are currently set unilaterally by SAPN. There are no objective service standards which can be enforced by councils.	-2
Technology choice	Technology choice is limited by SAPN. Additional choice may be able to be secured.	-1
Securing potential revenue	There is no current opportunity for councils to secure revenue from public lighting infrastructure.	-2
TOTAL		**-9**

Local government owned and operated: LG Subsidiary (direct operation)

Objectives	Risk impact	Comparative score
Decreasing cost		
Direct service costs[49]	The costs of public lighting services should be less than under the SAPN tariffs. Elevation costs, overhead costs, margin and capital costs are likely to be less if a LG Subsidiary provides services to constituent councils.	2
Indirect service costs	Indirect service costs (eg transaction costs) may be experienced. These, however, will be within the control of the LG Subsidiary and are	1

[47] In respect of maintenance costs see: Ironbark Sustainability, *Transitioning to Safe and Sustainable Public Lighting* (final v2a) (August 2015), Table 11, 36.
[48] Ironbark Sustainability, *Transitioning to Safe and Sustainable Public Lighting* (final v2a) (August 2015), 14.
[49] In respect of maintenance costs see: Ironbark Sustainability, *Transitioning to Safe and Sustainable Public Lighting* (final v2a) (August 2015), Table 11, 36.

	likely to be less than those experienced in negotiations with SAPN.	
Costs of adopting an alternative model	Implementation and overhead costs are anticipated to be manageable across constituent councils.	-1
Satisfactory service levels	Service levels could be set by the LG Subsidiary in consultation with councils. Engagement and management of appropriate staff would be required to meet this objective. Flexibility could be provided to councils for premium services paid for by increased service fees.	1
Technology choice	Technology choice would be limited by applicable standards. This should increase choice for councils.	2
Securing potential revenue	Opportunities to secure revenue from public lighting infrastructure could be explored by the LG Subsidiary.	1
TOTAL		**6**

Local government owned, but third party operated: LG Subsidiary (outsourced service provision)

Objectives	Risk impact	Comparative score
Decreasing cost	The costs of public lighting services should be less than under the SAPN tariffs. Elevation costs, overhead costs, margin and capital costs are likely to be less if a LG Subsidiary provides services to constituent councils.	
Direct service costs[50]	Indirect service costs (eg transaction costs) may be experienced. These, however, will be within the control of the LG Subsidiary and are likely to be less than those experienced in negotiations with SAPN.	1
Indirect service costs	Implementation and overhead costs are anticipated to be manageable across constituent councils.	-1
Costs of adopting an alternative model	The costs of public lighting services should be less than under the SAPN tariffs. Elevation costs, overhead costs, margin and capital costs	2

[50] In respect of maintenance costs see: Ironbark Sustainability, *Transitioning to Safe and Sustainable Public Lighting* (final v2a) (August 2015), Table 11, 36.

	are likely to be less if a LG Subsidiary provides services to constituent councils.	
Satisfactory service levels	Service levels could be set by the LG Subsidiary in consultation with councils. Third party providers of operating and maintenance services would be contractually obliged to meet these standards. Flexibility could be provided to councils for premium services paid for by increased service fees.	2
Technology choice	Technology choice would be limited by applicable standards. This should increase choice for councils.	2
Securing potential revenue	Opportunities to secure revenue from public lighting infrastructure could be explored by the LG Subsidiary.	1
TOTAL		**7**

Third party owned and operated: PPP

Objectives	Risk impact	Comparative score
Decreasing cost		
Direct service costs[51]	Direct service cost is likely to be higher under a PPP (or other) third party ownership than under a local government ownership model.	-2
Indirect service costs	Overhead costs will form part of the tariff calculation.	-1
Costs of adopting an alternative model	There will be procurement and ongoing relationship management costs for the term of the concession.	-1
Satisfactory service levels	Service levels would be set by local government and could be enforced through an appropriately drafted concession deed.	2
Technology choice	Technology choice could be greater, but could be limited by the private proponent.	1
Securing potential revenue	Revenue streams are likely to fall to the private proponent as the owner of the infrastructure during the concession period.	-2
TOTAL		**-3**

[51] In respect of maintenance costs see: Ironbark Sustainability, *Transitioning to Safe and Sustainable Public Lighting* (final v2a) (August 2015), Table 11, 36.

Comparative rating of options

The outcome of the analysis described above is that the preferred alternative model for provision of public lighting services is LG Subsidiary ownership with outsourced operation of the public lighting assets. Outsourcing could be through an O&M agreement or a form of alliance contract depending upon the outcomes sought by councils. The option of a LG Subsidiary owning and directly operating the public lighting infrastructure also rated comparatively well against the *status quo*.

Options for third party ownership and operation of public lighting infrastructure (*status quo* and PPP) rated comparatively poorly. This suggests that achieving the objectives is dependent upon local government owning the infrastructure.

Objectives	Status quo	LG Subsidiary (direct operation)	LG Subsidiary (outsourced operation)	PPP
Decreasing cost				
Direct service costs	-2	2	1	-2
Indirect service costs	-2	1	-1	-1
Costs of adopting an alternative model	0	-1	2	-1
Satisfactory service levels	-2	1	2	2
Technology choice	-1	2	2	1
Securing potential revenue	-2	1	1	-2
TOTAL	**-9**	**6**	**7**	**-3**

Step 5: Financial analysis

Purpose

A financial analysis has been undertaken comparing the cost of provision of LED lighting through SAPN (applying SAPN anticipated tariffs) with a similar service for the provision of public lighting services through a LG Subsidiary with outsourced operations and maintenance of the public lighting assets (Attachment C).

Methodology

The methodology used to calculate forecast costs associated with service provision by a LG Subsidiary are based on best available estimates of likely costs. SAPN service provision is based on commercial values.

Assumptions have necessarily been made in arriving at the estimates and these are included in Attachment C.

Summary

It is likely to cost over $100 million in capital outlays for State wide provision of LED streetlighting based on published SAPN tariffs.

SAPN charges a significantly higher variable weighted average cost of capital than local government is likely to incur. SAPN would apply this higher capital charge to any capital outlays it incurs. SAPN also includes overheads on operating activity that are likely to be higher than would necessarily be incurred by a cost-efficient dedicated purpose entity. These two factors are the key reasons why it is likely that a LG Subsidiary could provide the service at a considerably lower cost (estimated savings of about 25 - 30%) than would be charged by SAPN.

Conclusions

Notwithstanding the uncertainty of future cost assumptions under both options, it is likely that the cost of State wide provision of LED streetlighting would be noticeably lower if provided through a LG Subsidiary rather than through SAPN.

Step 6: Implementation

Establishment

Regional subsidiary

The process for establishing a regional subsidiary to own public lighting assets and provide public lighting services is set out in the LG Act.[52] The process is well understood and has been used on many occasions to establish regional subsidiaries for commercial or regulatory purposes. Councils are empowered to form regional subsidiaries, subject to obtaining the approval of the Minister for Local Government (**Minister**).[53] The proposed charter of the regional subsidiary must accompany the application to the Minister for approval.

Aside from the relevant provision of the LG Act, the regional subsidiary's charter is its key constituent document. Once approved by the Minister, the regional subsidiary has status as a body corporate and is vested with the powers, functions and duties specified in its charter. Care needs, therefore, to be taken in the drafting of the charter to ensure that it supports the intended operation of the regional subsidiary. Specific matters which must be addressed by the charter are set out in Schedule 2 to the LG Act.[54]

A key consideration in the establishment of the regional subsidiary is whether or not all councils receiving public lighting services from the subsidiary will be required to be constituent councils. Consideration will also need to be given to the funding the

[52] Section 43 and Schedule 2, LG Act.
[53] Section 43(3), LG Act.
[54] Clause 19, Schedule 2, LG Act.

establishment of the subsidiary, the attribution of service costs and overheads to councils receiving services and processes for the accession of new constituent councils or departure of constituent councils.

Resourcing for the subsidiary will also need to be determined. Usually, a regional subsidiary will have an executive officer responsible for the day-to-day management of the subsidiary. Other staffing resources would need to be determined on the basis of skill sets required to fulfil the role ultimately determined for the subsidiary. At a minimum, these resources would include a person or persons with contract management expertise. The financial analysis is based on replicating SAPN's lighting department which has thirteen full time equivalent employees.

LGA subsidiary

The LGA can establish a private company under the Corporations Act. The process of establishing a private company is neither complex nor expensive. Private companies do not require constitutions as there are 'replaceable rules' which will apply to the company in the absence of a constitution. The LGA could, however, determine that formalising the mandate of the LGA subsidiary through a constitution accessible to councils is appropriate. Other structuring considerations may require considerations (eg tax effectiveness and not-for-profit status) if this option is pursued.

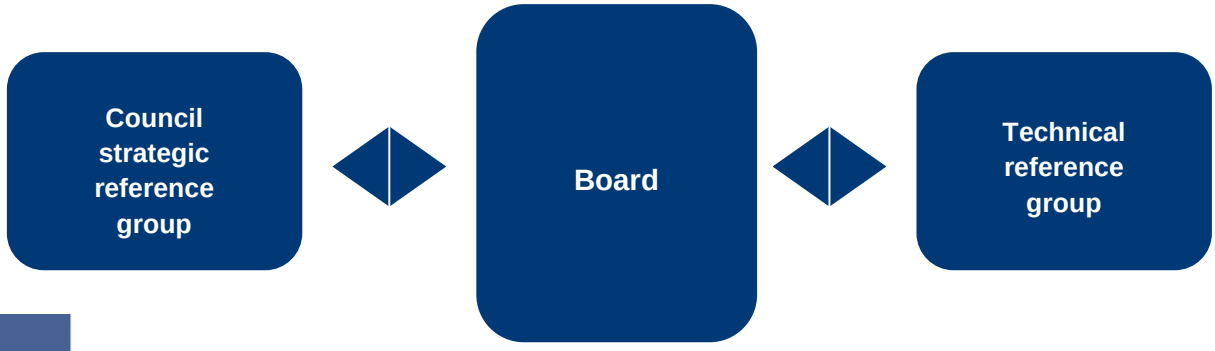
Governance structure

Regional subsidiary

Consideration should be given to the optimal governance structure for the regional subsidiary. There are some statutory requirements which will act as parameters to this governance structure. A board of management for the regional subsidiary must be appointed by the constituent councils. This board may include persons who are not council members. The composition of the board should be influenced by the mandate of the regional subsidiary. Constituent councils may, therefore, consider that a skills based board should be appointed, rather than a board directly representative of constituent councils.

The input of constituent councils to the operation of the regional subsidiary will remain important if a skills based board is appointed. The governance structure is likely to be enhanced by direct input of the constituent councils into the strategic direction of the regional subsidiary. Consideration could be given to the formation of a strategic reference group comprised of council representatives to inform the decisions of the subsidiary's board.

Constituent councils or the board of the subsidiary could also consider establishing a technical reference group to assist the board to understand the operational consequences of technical and regulatory developments in respect of public lighting.



LGA subsidiary

The formation of a private company only requires that there be a single director. Nevertheless, a private company can choose to adopt a governance model with a board to set the strategic direction for, and provide oversight of, the company.

Again, consideration could be given to establishing skills based board given the nature of the technical and commercial activities of the subsidiary. Reference groups of the type suggested above could also be a component of an LGA subsidiary governance structure.

Contracting structure

The key elements of the contracting structure for the preferred approach are:

- arrangements between the LG Subsidiary and its customer councils;
- vesting ownership of developer funded infrastructure in the LG Subsidiary;
- the O&M service arrangement; and
- arrangements for ancillary activities.

Customer supply arrangements

If a regional subsidiary is established and all councils receiving public lighting services are constituent councils, then the subsidiary's charter could make provision for the customer supply arrangements between the subsidiary and each constituent council. For example, the charter could require the subsidiary's compliance with agreed service standards revised from time to time and set out the parameters for determining charges payable to the regional subsidiary for public lighting services.

While the subsidiary must operate in a manner consistent with its charter, the charter would not place positive obligations on constituent councils with respect to their public lighting obligations. Typically, supply arrangements will place constraints on customers with respect to the protection of infrastructure, access to infrastructure on customer land and the payment of charges.

A short form supply contracts between the regional subsidiary and each council could set out service and supply obligations. Where not all councils receiving public lighting services from the subsidiary are constituent councils, a contract of this nature is warranted. If an LGA subsidiary is the public lighting service provider, then it would be prudent to put a short form supply agreement with each council in place.

Developer funded infrastructure

An additional element to the relationship between the subsidiary and the council would be the vesting of public lighting infrastructure installed by developers in subdivisions in the subsidiary. Currently, SAPN assumes ownership of most developer funded public lighting infrastructure.

The ownership of infrastructure installed on roads is regulated by section 209 of the LG Act. Section 209(3) contemplates that title to infrastructure on roads may be vested in the relevant council by agreement. Bonding agreements under section 51 of the *Development Act 1993* are an established means of transferring other types of infrastructure (eg roads, footpaths) from developers to councils. Most notably, these agreements are used for the transfer of infrastructure listed in regulation 54 of the *Development Regulations 2008*. Public lighting infrastructure is not included within this list.

An authorisation or permit issued by a council under section 209(2) permitting the construction of public lighting infrastructure on a road could also provide for the vesting of title in the infrastructure in the council. If these provisions were relied upon, then there would need to be a vesting of title in the public lighting infrastructure from the council to the LG Subsidiary. Alternatively, a permit or authorisation issued under section 209(2) could require the vesting of the infrastructure by the developer in the LG Subsidiary.

O&M arrangements

The preferred model is for the LG Subsidiary to outsource O&M. Various contracting structures are possible and will only be able to be determined once the nature of the O&M outsourcing arrangement has been settled. A basic O&M agreement could provide for the reporting and repair of outages and periodic maintenance.

A more comprehensive range of services could be provided by an O&M provider to the LG Subsidiary. These could potentially include (subject to regulatory requirements) roll out of energy efficient lighting, metering service provision and the purchase of electricity from a retailer. Alternatively, these ancillary functions may be subject to separate contractual arrangements with service providers. Some initial considerations relating to these ancillary arrangements are set out below.

Ancillary activities

Energy efficient lighting rollout

The services required in respect of a transition to energy efficient lighting include lighting design, project management and installation of energy efficient lighting. These services could be separately contracted for by the LG Subsidiary or in some respect provided in-house (depending on resourcing). Alternatively, an alliance arrangement for the O&M could be structured to incorporate the transition and a timeline for its implementation.

An entity engaged to install energy efficient lighting will need to hold appropriate safety and technical qualifications. Where the installation will occur proximate to SAPN's electricity infrastructure, a facilities access arrangement between the entity and SAPN will be required.

Metering service provision

Metering services are regulated under the National Electricity Rules. Public lighting in South Australia is currently unmetered and consumption of electricity is calculated through the application of load tables administered by the Australian Energy Market Operator. The load tables set out the energy consumption of particular luminaires.[55]

SAPN is currently the 'responsible person' under the National Electricity Rules for the public lighting unmetered loads.

There are amendments to the National Electricity Rules which will take effect from 1 December 2017 aimed at increasing competition in metering and promoting the deployment of advanced meters. The amendments will provide for a Metering Coordinator as a new category of registered participant. The Australian Energy Market Commission's determination in respect of the amendment indicates that for Type 7 meters (ie unmetered)

[55] AEMO, *National Electricity Market load tables for unmetered connection points* (2 June 2016).

the Metering Coordinator will be exclusively the local network service provider (ie SAPN).[56] Aside from unmetered connection points and transmission connection points, the Metering Coordinator can be any person.

Under the envisaged regulatory system, SAPN will be the metering coordinator for the public lighting services until such time (if any) that public lighting is metered. Metering of public lighting is a technology shift which could be assessed for its ability to provide cost savings to councils. If electricity supply to public lighting became metered in the future, there would be greater choice in respect of the metering coordinator.

The Australian Energy Regulator's determination in respect of SAPN's revenues for 2015/16-2019/20 classifies Type 7 metering services as standard control services.[57] This is in contrast to the public lighting services which are classified as negotiated distribution services. SAPN is obliged to provide standard control services on conditions of access consistent with the National Electricity Rules.[58] Material published by SAPN suggests that the costs of providing the metering services are bundled with other charges into SAPN's network use of system tariffs.[59] These tariffs are distinct from the public lighting tariffs charged by SAPN. Consequently, a shift to an alternative service delivery model for public lighting should have no impact on metering arrangements for public lighting.

Retail electricity contract

Current arrangements for the purchase of electricity for public lighting services are tendered for and negotiated on a whole of sector basis by LGA Procurement. The current arrangements are due to expire on 31 December 2016 and LGA Procurement has gone to the market for proposals to supply this electricity. The structure of the current arrangements is a head agreement entered into by LGA Procurement on behalf of councils and an individual agreement between the retailer and each council.

Revision of the structure of these arrangements may be warranted if ownership of the public lighting assets vests in the LG Subsidiary. There may be benefit in having a single contract between the LG Subsidiary and the electricity retailer with the pass through of the costs of the electricity to individual councils. This will only be able to be definitively assessed once further detail regarding the service delivery model is settled.

[56] AEMC, *Rule Determination: National Electricity Amendment (Expanding competition in metering and related services) Rule 2015* (26 November 2015), v.
[57] AER, SA Power Networks determination 2015−16 to 2019−20 – final decision (October 2015), 54.
[58] Clause 6.1.3(a), *National Electricity Rules* (version 84) (20 October 2016).
[59] SAPN, *SA Power Networks Tariff Structure Statement 2017 – 2020* (December 2015), 37.

Conclusions

The conclusions reached on the basis of this business case are:

- the achievement of the LGA's objectives for public lighting is unlikely where local government does not own the public lighting infrastructure;
- assessing a range of options for their ability to deliver the LGA's objectives reveals that the option most likely to achieve the objectives is LG Subsidiary ownership of the public lighting infrastructure with outsourced O&M;
- notwithstanding the uncertainty of future cost assumptions in respect of either continued service provision by SAPN or by a LG Subsidiary, it is likely that the cost of State wide provision of LED streetlighting would be noticeably lower (estimated savings of about 25%) if provided through a local government LG Subsidiary rather than through SAPN; and
- in the context of the assumptions regarding ownership of the public lighting infrastructure and access to SAPN's infrastructure, there are no foreseeable barriers to implementing the alternative delivery model.

Attachment A: Methodology

Step 1: Objectives

The key to evaluating the potential options is to understand the objectives of the local government sector with respect to public lighting services. These objectives are:

- decreasing the cost of public lighting to councils;
- achieving satisfactory public lighting service levels;
- having technology choice in respect of public lighting infrastructure; and
- securing potential revenue from public lighting infrastructure.

Step 2: Identify options

There are three broad alternative mechanisms for the provision of public lighting:

- local government owned and operated public lighting infrastructure;
- local government owned, but third party operated public lighting infrastructure; and
- third party owned and operated public lighting infrastructure.

Credible options for the delivery of public lighting services within these broad alternatives are identified.

Step 3: Risk assessment

A qualitative risk assessment of the *status quo* and the credible options is undertaken. A particular focus is risk to the achievement of the objectives. Risk is conceptualised broadly to include:

- commercial risk (including in respect of financing, pricing and contracting risks);
- regulatory risk (including compliance risks);
- service provision risks;
- implementation risks;
- legal risks (including potential liability); and
- political/reputational risks.

Step 4: Selection of preferred alternative option

Utilising the risk assessment, a multi criteria analysis is undertaken to compare the ability of each of the credible options to achieve the objectives. Provision of public lighting services by SAPN (ie the *status quo*) would form the base case for this assessment.

From this assessment a preferred alternative option is selected.

Step 5: Financial analysis

Financial analysis of the preferred alternative is undertaken. The financial analysis will cover life cycle costs of providing new LED lighting across South Australia over a 20 year period (split into 10 year periods) and compare the resultant tariffs of the alternative service model with SAPN's LED tariffs.

Step 6: Implementation

The process of implementing the alternative option has been identified, including determination of critical decision points.

Attachment B: Comparative risk assessment

A. Local government owned and operated models

The table below provides a qualitative assessment of the relative merits of three potential local government owner-operator structures:

- council owned and operated;
- wholly-owned subsidiary owned and operated; and
- local government sector ownership either through a regional subsidiary or subsidiary of the LGA (collectively **'LG Subsidiary**').

The Sector Ownership option is selected as the preferred option given the opportunities for economies of scope and scale and for risk mitigation. There is a choice within this option for either a regional subsidiary formed under section 43 of the LG Act or a subsidiary of the LGA constituted under the Corporations Act. The Sector Ownership option may be enhanced by the outsourcing of O&M. Option for outsourcing O&M are considered in Part B of this attachment.

	Council	Wholly-owned subsidiary	LG Subsidiary
Commercial risk	Commercial risks would be borne directly by the council. This would include the risks of employing suitable staff or outsourcing the O&M of the public lighting infrastructure. The upside of this is that council would have a measure of control over these risks which it currently does not have in respect of the *status quo*. One of the perceived benefits of the current provision of services by SAPN is that councils do not need to employ persons with the requisite expertise and qualifications to manage and maintain public lighting assets. Service provision, however, through a single 'monopoly'	A wholly-owned subsidiary of the council would bear similar commercial risks to the council. Ultimately the constituting council will bear the liabilities of its subsidiary. Under clause 14 of Schedule 2 to the LG Act, a council guarantees the liabilities of its subsidiaries. A subsidiary is subject to the direction of its constituting council. However, as a commercial subsidiary of the council is likely to operate relatively independently which may diminish council control over commercial risks. A subsidiary would have opportunities to innovate and supplement revenue. The	Local government sector ownership could take the form of either a regional subsidiary or an LGA subsidiary. The nature of the commercial risk borne by either form of LG would be the same as for a council or wholly-owned subsidiary. Any liabilities eventuating from these risks, however, would be either: • in the case of a regional subsidiary, shared across multiple constituent councils. The greater the participation of councils in the regional subsidiary, the more diluted the exposure of any particular council; or

	provider (even where council owns public lighting assets) can come at a higher cost than engagement of a service provider through a competitive process. A competitive market for the provision of these services has developed. Opportunities to innovate through the use of technology and supplement revenue would also be within the control of the councils. Councils vary greatly in size and resources. Smaller councils may be more limited in their opportunity to secure costs savings through the outsourcing of operating and maintenance functions or may be more greatly burdened by employing staff to undertaking these functions.	members of the board of a subsidiary can be chosen for particular expertise which could promote these outcomes. Again, smaller councils may be disadvantaged through this model.	• in the case of an LGA subsidiary, would be borne by the subsidiary. Economies of scale achievable through LG Subsidiary may encourage more competition for O&M contracts and result in reduced costs for councils. In respect of a regional subsidiary, proportionate liability could be determined according the size or number of lighting points each constituent council owns. This would ensure that costs were not prohibitive for smaller council participation. Provided that the cost to larger councils was less than meeting these costs unilaterally then there would also be no cost disadvantage (or subsidy from) larger councils. If ownership and service provision is through an LGA subsidiary, then a proportionate charging regime could be established.
Operating risk	Operating risk would be borne directly by the council. The cost of mitigating these risks is likely to place a greater burden on smaller councils.	Operating risks would be borne by the subsidiary. The risk could be mitigated through outsourcing arrangements. The costs of mitigating these risks are likely to place a greater burden on subsidiaries formed by smaller councils given an inability to attain economies of scale.	Operating risks would be borne by the LG Subsidiary. The risk could be mitigated through outsourcing arrangements. Outsourcing may be a more cost effective strategy for a LG Subsidiary given the economies of scale which may be able to be achieved.
Regulatory risk	Technical and safety regulation would need to be complied with either directly by council employees or through outsourcing arrangements.	Technical and safety regulation would need to be complied with either directly by subsidiary employees or via outsourcing arrangements.	Technical and safety regulation would need to be complied with either directly by employees of the LG Subsidiary or via outsourcing arrangements. Again,

			outsourcing may be more cost effective through a LG Subsidiary.
Implementation risk	Transitioning to an alternative model will create implementation risks. Coordination risks may arise in respect of public lighting infrastructure and electricity infrastructure. These should be able to be resolved through an appropriate facilities access arrangement. There are costs of implementing a new model which would need to be borne by a council. These may include payment to SAPN for the residual asset value of transferring assets. Employment of appropriately qualified staff or outsourcing the O&M of the street lighting assets is also an implementation risk.	Similar coordination risks arise for a wholly-owned subsidiary as exist for a council. In addition, a subsidiary will bear additional set up costs and operating overheads. The establishment of a subsidiary is straightforward with the governance structure specifically set out in the LG Act.	The nature of implementation risks is similar to those of a wholly-owned subsidiary. These risks may be more cost effectively managed across multiple councils through a LG Subsidiary. The governance arrangements for a regional subsidiary are in part determined by Schedule 2 to the LG Act. For the formation of a regional to occur a charter for the subsidiary must be prepared and adopted by the Minister. If there are numerous councils seeking to be constituent councils, the process of agreeing the terms of a charter may be extended. In comparison the establishment of a LGA subsidiary under the Corporations Act requires only the approval of LGA and satisfaction of the registration requirements under the Corporations Act.
Legal risk	Liabilities in public lighting assets are already borne by councils which own these assets (ie CLER and Energy Only tariff). SAPN attempts to mitigate its infrastructure liability through purported agreements with councils. Risk associated with operation could be mitigated through third party outsourcing arrangements. Contracting risks may arise in respect of third party outsourcing arrangements. Risk arises in relation to both the documenting of an agreement and the contract	Similar contracting risks to those of councils exist in respect of subsidiaries. Dedicated resources within a specifically constituted subsidiary may be available to negotiate, document and manage contracts. Liability resulting from asset ownership and operation would rest with the subsidiary. Risk associated with operation could be mitigated through third party outsourcing arrangements.	Similar contracting risks to those of councils. Again, dedicated resources within a specifically constituted LG Subsidiary may be available to negotiate, document and manage contracts. In respect of a regional subsidiary, liability resulting from asset ownership and operation would rest with the subsidiary and be guaranteed by its constituent councils. For a LGA subsidiary, liability would rest with the subsidiary.

	management. Similar risks may apply in relation to facilities access arrangements with SAPN. These risks should be able to be mitigated through appropriately drafted agreements which are actively managed. There will be transaction costs in respect of negotiating these types of arrangements.		In both cases, risk associated with operation could be mitigated through third party outsourcing arrangements.
Political/reputational risk	Political /reputational risks in respect of the provision of public lighting services would rest with the council.	Political /reputational risks in respect of the provision of public lighting services would rest initially with the subsidiary. These risks may also be borne by the single constituting council.	Political /reputational risks in respect of the provision of public lighting services would rest with the LG Subsidiary. For a regional subsidiary, these risks may also be jointly borne by the constituting councils. The greater the number of councils and the more independently the regional subsidiary is perceived to operate from these councils, the more diffuse the political/reputational risks may be. In respect of an LG subsidiary, the political and reputational risks would be borne by the subsidiary and the LGA.

B. Local government owned, third party operated

Local government ownership and third party service provision is the current model for the CLER and Energy Only services offered by SAPN. An assessment of the *status quo* against potential risks is set out below.

The assessment in Part A of this attachment concludes the preferred ownership model would be through subsidiary Sector Ownership option given the advantages of economies of scope and scale and the ability to mitigate risk. This ownership model may be further enhanced by outsourcing the operation of the infrastructure. One of the three main barriers to improving streetlighting efficiency identified by councils is lack of expertise and time to deal with street lighting.[60] Outsourcing of O&M could overcome this barrier, while enabling the benefits of infrastructure ownership to be realised.

The table also provides a qualitative assessment of the relative merits of two alterative options for third party service provision:

- O&M agreement
- alliance contract.

The relative advantages of these models are dependent upon the outcomes sought by the local government sector. The potential to explore both options further should not be precluded. This exploration could be undertaken through an expression of interest process inviting responses in respect of O&M services as well as public lighting service transition.

	Status quo (SAPN – CLER and Energy Only)	O&M agreement	Alliance contract
Commercial risk	The CLER and Energy Only tariffs currently offered by SAPN are on the basis of council ownership of the public lighting infrastructure used to provide the services on these tariffs. Councils have certainty regarding the cost of these services for the current financial year only and there is little transparency as to the basis for these costs. Commercial risk will exist where councils have no effective basis for influencing or	There are a range of third party providers who could provide O&M services in South Australia provided there was demand for these services. The services currently provided by SAPN are definable. If these services were not provided by council or subsidiary employees, these services could be provided through an O&M agreement. Commercial risk would exist in relation to the selection of the service provider and the	An alliance contract may be worth considering in respect of the transition to energy efficient lighting. A collaborative approach with a private party with expertise in managing such transition and achieving environmental or other desired outcomes may provide best value to the local government sector. This could be tested through a competitive expression of interest process.

[60] Ironbark Sustainability, *Transitioning to Safe and Sustainable Public Lighting* (final v2a) (August 2015), 14.

	challenging tariffs imposed by SAPN and a competitive market does not exist or cannot be accessed. The regulatory framework applying to negotiated distribution services under the National Electricity Rules is intended to facilitate negotiations between councils and SAPN in respect of public lighting tariffs. A purpose of this form of regulation is to mimic competitive pressure on the retailer. Experience with this framework suggests that the framework is ineffective in respect of SAPN's service provision and does not sufficiently replicate a competitive market.	negotiation and management of the O&M agreement. These risks can be mitigated through the engagement of persons with relevant expertise. By sourcing services from alternative providers by competitive tender, a competitive market for these services will be fostered. This should reduce commercial risk over time.	There is commercial risk in the selection of an alliance partner and participation in an alliance. Again, these risks can be mitigated by persons with appropriate expertise. Given that the extended length of the alliance arrangement, commercial risks may arise over time. These may not be as easily dealt with as under an O&M agreement of shorter duration.
Operating risk	One of the three main barriers to improving streetlighting efficiency identified by councils is delay around lighting approvals and working with external stakeholders (particularly SAPN).[61] There is no service level agreement between SAPN and councils. This creates risks for councils as there are no objective service standards which can be enforced against SAPN.	Operating risk could be borne by service provider under an appropriately worded O&M agreement.	Operating risk could be shared under an alliance contract model (dependent on the terms of the arrangement)
Regulatory risk	Compliance with technical and safety regulation is required irrespective of the model adopted for the delivery of public lighting services. What potentially changes	Technical and safety compliance would be the responsibility of the service provider	Regulatory risk could be shared under an alliance contract model (dependent on the terms of the arrangement)

[61] Ironbark Sustainability, *Transitioning to Safe and Sustainable Public Lighting* (final v2a) (August 2015), 14.

	between the delivery models, is who these obligations fall upon. Technical and safety regulation under the Electricity Act and regulations must be complied with by any person working on or in the vicinity of electricity infrastructure. SAPN is responsible for meeting these obligations in respect of the operations and maintenance of public lighting assets. SAPN attempts to reduce its responsibility for technical and safety compliance through purported agreements with lighting designers and councils.[62]		
Implementation risk	There is no implementation risk in respect of the current services provided by SAPN. The public lighting services provided by SAPN are well-established and current tariffs are known. There is also little technical implementation risk in respect of a transition to energy efficient lighting undertaken by SAPN. SAPN is able to source energy efficient luminaires and resource the transition from existing public lighting. The cost of implementation, however, is less certain. Tariffs provided by SAPN cover only the first year of operation. Initially attractive LED tariffs may encourage councils to contract with SAPN, but then be exposed to unavoidable cost risk in the future.	Transitioning to an alternative model will create implementation risks. Coordination risks may arise in respect of public lighting infrastructure and electricity infrastructure. These should be able to resolved through an appropriate facilities access arrangement between the O&M service provider and SAPN.	Transitioning to an alternative model will create implementation risks. Coordination risks may arise in respect of public lighting infrastructure and electricity infrastructure. These should be able to resolved through an appropriate facilities access arrangement between the alliance parties and SAPN.

[62] SAPN, *NICC – Council Design and Public Lighting Agreement Document* (March 2014) and SAPN, *NICC 402 – Information on Network Public Lighting Design by an External Contractor* (February 2014).

Legal risk	There is little legal risk in the *status quo* provided that public lighting customers are prepared to accept the tariffs proposed by SAPN and the lack of service level obligations. Current experience with negotiating with SAPN indicates that challenges to either tariffs or service levels are resource intensive. Councils already bear liability risks associated with the ownership of infrastructure subject to the CLER and Energy Only tariffs. In respect of newly installed infrastructure owned by SAPN attempt is made by SAPN to reduce SAPN's legal exposure through purported agreements with lighting designers and councils.[63]	Contracting risks may arise in respect of third party outsourcing arrangements. Risk arises in relation to both the documenting of an agreement and the contract management. Similar risks may apply in relation to facilities access arrangements with SAPN. These risks should be able to be mitigated through appropriately drafted agreements which are actively managed. There will be transaction costs in respect of negotiating these types of arrangements.	Contracting risks may arise in respect of third party outsourcing arrangements. Risk arises in relation to both the documenting of an agreement and the contract management. Similar risks may apply in relation to facilities access arrangements with SAPN. These risks should be able to be mitigated through appropriately drafted agreements which are actively managed. There will be transaction costs in respect of negotiating these types of arrangements.
Political/reputational risk	Outsourcing of services to third party providers can mitigate political and reputational risks associated with the direct supply of services. Where the third party provider is a monopoly provider then customers have little choice in respect of service provision. The potential for competitive service provision in respect of public lighting services is becoming apparent in Australia. In this context, there could be considered to be political and reputational risk for public lighting customers maintaining the *status*	Political/ reputational risks are considered to be low provided an appropriate service provider is selected. The robustness of the procurement process, documentation of the O&M agreement and contract management will be pivotal. Opportunities to compete periodically for the O&M engagement will diminish these legal risks.	Political/ reputational risk may be higher under an alliance contracting model than under an O&M agreement given the shared responsibilities of the alliance parties. Again, these risks can be managed through robust procurement and contracting practices.

[63] SAPN, *NICC – Council Design and Public Lighting Agreement Document* (March 2014) and SAPN, *NICC 402 – Information on Network Public Lighting Design by an External Contractor* (February 2014).

	quo if it is assessed as not providing value, than in moving to an alternative service delivery model. In respect of political and reputational risk associated with the transition to energy efficient lighting, the costs of the transition to LED proposed by SAPN need to be assessed over the life of the relevant assets.	

C. *Third party owned and third party operated*

Third party ownership and operation is the current model for the SLUOS provided by SAPN. An assessment of the *status quo* against potential risks is set out below.

The table also provides a qualitative risk assessment of a public-private partnership (PPP) for the provision of public lighting services.

	Status quo (SAPN – SLUOS)	PPP
Commercial risk	SLUOS is provided by SAPN through infrastructure owned by SAPN. Councils have certainty regarding the price of these services for the current year only and there is little transparency as to the basis for these prices. Commercial risk will exist where councils have no effective basis for influencing or challenging tariffs imposed by SAPN and a competitive market does not exist. The regulatory framework applying to negotiated distribution services under the National Electricity Rules is intended to facilitate negotiations between councils and SAPN in respect of public lighting tariffs. A purpose of this form of regulation is to mimic competitive pressure on the retailer. Experience with this framework suggests that the framework is ineffective in respect of SAPN's service provision and does not sufficiently replicate a competitive market.	PPP can be used to outsource elements of risk in a project. The private party may (depending on the terms of the concession deed) assume commercial risk in relation to the provision of the services subject to the PPP arrangement. Elements of risk sharing may, however, also be reflected in concession deeds. Tariffs would need to factor in a margin for the private party and a rate of return on its infrastructure investment. The quantum of tariffs is likely to be influenced by the term of the concession period. A measure of pricing control may be able to be included in the concession deed, although ultimately the private sector proponent will want a return on investment commensurate with its service provision risk. Given that the extended length of the concession period commercial risks may arise over time. These may not be as easily dealt with as under an O&M agreement of shorter duration.
Operating risk	One of the three main barriers to improving streetlighting efficiency identified by councils is delays around lighting approvals and working with external stakeholders (particularly SAPN).[64] Day-to-day operating risk is borne by SAPN. The costs of meeting these risks are passed on to council through tariffs. There is no service level agreement between SAPN and councils. This creates	Service levels could be specified through the concession agreement. Active, ongoing management of the arrangement would be required.

[64] Ironbark Sustainability, *Transitioning to Safe and Sustainable Public Lighting* (final v2a) (August 2015), 14.

	risks for councils as there are no objective service standards which can be enforced against SAPN.	
Regulatory risk	Compliance with technical and safety regulation is required irrespective of the model adopted for the delivery of public lighting services. What potentially changes between the delivery models, is who these obligations fall upon. Technical and safety regulation under the Electricity Act and regulations must be complied with by any person working on or in the vicinity of electricity infrastructure. SAPN is responsible for meeting these obligations in respect of the operations and maintenance of public lighting assets. SAPN attempts to reduce its responsibility for technical and safety compliance through purported agreements with lighting designers and councils.[65]	Satisfying technical and safety requirements is likely to be the responsibility of the private sector party under the concession deed.
Implementation risk	There is no implementation risk in respect of the current services provided by SAPN. The public lighting services provided by SAPN are well-established and current tariffs are known. There is also little technical implementation risk in respect of a transition to energy efficient lighting undertaken by SAPN. SAPN is able to source energy efficient luminaires and resource the transition from existing public lighting. The cost of implementation, however, is less certain. Tariffs provided by SAPN cover only the first year of operation. Initially attractive LED tariffs may encourage councils to contract with SAPN, but then be exposed to unavoidable cost risk in the future.	PPP are based on an on-going relationship between the public and private sector parties. Implementation risks may arise if this relationship is not actively participated in by the public sector party.
Legal risk	There is little legal risk in the *status quo* provided that public lighting customers are prepared to accept the tariffs proposed by SAPN and the lack of service level obligations. Current experience with negotiating with SAPN indicates that challenges to either tariffs or service levels are resource intensive.	Legal risks can be mitigated through robust processes for the selection of a private sector proponent and the active management of the PPP arrangement. PPP arrangements are typically more complex than other service provision models and, therefore, are likely to required specialist expertise to establish and manage.

[65] SAPN, *NICC – Council Design and Public Lighting Agreement Document* (March 2014) and SAPN, *NICC 402 – Information on Network Public Lighting Design by an External Contractor* (February 2014).

	In respect of newly installed infrastructure owned by SAPN attempt is made by SAPN to reduce SAPN's legal exposure through purported agreements with lighting designers and councils.[66]	
Political/reputational risk	Outsourcing of services to third party providers can mitigate political and reputational risks associated with the direct supply of services. Where the third party provider is a monopoly provider then customers have little choice in respect of service provision. The potential for competitive service provision in respect of public lighting services is becoming apparent in Australia. In this context, there could be considered to be political and reputational risk for public lighting customers maintaining the *status quo* if it is assessed as not providing value, than in moving to an alternative service delivery model. In respect of political and reputational risk associated with the transition to energy efficient lighting, the costs of the transition to LED proposed by SAPN need to be assessed over the life of the relevant assets.	Political/ reputational risk may be higher under a PPP model given the shared responsibilities of the alliance parties. Again, these risks can be managed through robust procurement and contracting practices.

[66] SAPN, *NICC – Council Design and Public Lighting Agreement Document* (March 2014) and SAPN, *NICC 402 – Information on Network Public Lighting Design by an External Contractor* (February 2014).

Attachment C: Financial analysis – individual council tariffs

A. SAPN anticipated tariffs

The *status quo* is provision of public lighting services by SAPN. Utilising data and the building block methodology provided by SAPN, anticipated public lighting tariffs for the next twenty years have been calculated as follows:

Period	Years 1 -10 (total)	Years 11 – 20 (total)	Years 1 – 20 (total)	NPV (20 years)
Forecast costs $M	179	234	427[67]	244

B. Alternative model anticipated tariffs

The preferred alternative option for the provision of public lighting services is LG Subsidiary asset ownership with outsourced operation of the public lighting assets. The methodology used to calculate these tariffs is based on best available estimates of likely costs.

Period	Years 1 -10 (total)	Years 11 – 20 (total)	Years 1 – 20 (total)	NPV (20 years)
Forecast costs $M	130	177	307	179

Assumptions

There have necessarily been many assumptions made in arriving at the above estimates. The actual cost basis of SAPN's tariffs is not always clear. Nevertheless it appears likely after allowing for uncertainty that there would be a significant margin between the cost of both options. Key assumptions and comments on these are stated below.

1. The SAPN anticipated tariff charges are based on SAPN existing tariffs. It is possible that these tariffs could fall over time. Nevertheless, the largest share of these costs, being $255M (of $427M) is capital related. This is essentially depreciation and return on capital (interest etc)

[67] Assuming the current WACC of 6.17% is maintained. If the WACC averaged 8.5% the costs would be of the order of $478M (costs in option B would also potentially increase too in such a scenario although probably by less).

associated with the provision of LED lights (estimated cost of $110M rolled out over 4 years). They also include an existing capital base of an assumed $34M.

2. The SAPN model assumes a 6.17% weighted average cost of capital (being equity (40% @ 7.5% per annum (pa) return) and debt (60% @ 5.28% pa) and will vary over 20 years generally in accordance with movements in international interest rates (WACC was 9.76% between 2010 and 2015). By comparison for example councils can currently borrow at a fixed interest rate of 4.2% pa over 20 years. Approximately half of the total forecast savings shown in the tables above (ie $120M) are likely to be attributable over the 20 year period to a lower cost of capital. While some risk would arise with the alternative option these are unlikely to be as significant as to negate this margin.
3. LED lights are assumed to last 20 years with a 10 year guarantee against failure. Some failures will occur in years 11 to 20. Costs are likely to be relatively minor and have not been allowed for in either option. If they were included the cost difference between each option would be relatively unchanged.
4. Cash flow forecasts over the 20 year period are shown in nominal values and assume a 2.5% inflation rate.
5. Both options include forecast operations and maintenance costs. The SAPN forecasts are based on existing published SAPN tariffs. It is not possible to reliably breakdown these tariffs, but it is known that they include recovery of overheads that as a 'legacy' provider are likely to be significantly higher than for a new entity that was established specifically to provide the service. O&M costs included above for the alternative service provider are necessarily indicative estimates based on forecast admin staffing costs etc. They represent approximately 30% of total costs of this option.
6. For illustrative purposes the net present value (NPV) of forecast costs is shown for both options. A discount rate of 5% (nominal) has been used in this analysis.
7. It is difficult to be precise with forward tariffs. Necessary revenues over a period of time can be realised with different tariffs in different periods. It is estimated that the LGA SAPN equivalent tariffs would be of the order of $112.92 for V Category and $58.67 for P Category following initial widespread rollout but may not change much thereafter (based on SAPN's pricing model). It is estimated that a LGA PLC equivalent tariff of initially $28.09 (increasing about in line with inflation) for both V category and P Category LED lighting would be sufficient for a LG Subsidiary to meet all costs and cash flow needs.

Attachment D: Previous studies

A. Comparison of ability of council and DNSP to provide public lighting services

	DNSP	Council
PUBLIC LIGHTING ASSETS		
Nature of infrastructure	Distinct electrical installation connected to distribution network. Luminaire and means of support (stand-alone pole or bracket for attaching to another structure).	Distinct electrical installation connected to distribution network. Luminaire and means of support (stand-alone pole or bracket for attaching to another structure).
Ownership ability	Yes.	Yes.
Liability	Attached to ownership (unless agreement to the contrary).	Attached to ownership (unless agreement to the contrary).
Construction and installation	Yes, statutory easement and co-location with electricity infrastructure.	Yes, on council owned property.
Technical requirements	Satisfy council requirements as to lighting type. Technical and safety requirements.	Council regulates as to lighting type. Technical and safety requirements.
Connection to distribution network	DNSP is the network owner.	DNSP has a legal obligation to connect (subject to technical and safety requirements).
Operation, maintenance and repair (OMR)	Yes, on assets owned by DNSP or where DNSP is contracted to provide OMR services.	Yes, on assets owned by the council.
Public lighting services		
Provision of services	Yes.	Yes (either directly or by council engaging contractors).

Obligations of council	Dependent on type of service (SLUOS, CLER or Energy Only) provided by DNSP	Council would have entire responsibility for public lighting services if no service is provided by the DNSP (subject to any agreement with a contractor selected by council to manage the public lighting services).
Licensing/registration	Yes. Electricity Act, distribution licence, National Electricity Rules registration.	No.
Economic regulation	Yes. Negotiated services (Chapter 6, National Electricity Rules).	N/A (councils pay direct cost for public lighting services provided by councils).
Technical and safety regulation	Yes. Electricity Act and Electricity Regulations.	Yes. Electricity Act and Electricity Regulations.
Charges		
Public lighting services	Regulated by Chapter 6, National Electricity Rules.	Council incurred costs (either direct or through council engaged contractor).
Distribution use of system charges	N/A.	DUoS paid to retailer on behalf of DNSP regardless of ownership of public lighting assets.
Electricity	N/A.	Paid for within retail charges for the electricity regardless of ownership of public lighting assets.

B. Barriers to alternative models for public lighting provision

	Access to land	Infrastructure acquisition	Operating costs	Public lighting support	Regulatory barriers	Information asymmetry	Resourcing
Council owned and operated	Yes, owns road reserve	Council retain new developer funded assets Council request return of gifted assets Council negotiate transfer of DNSP funded assets (cost to councils) Consideration of legislation to facilitate the transfer of public lighting assets to councils Consideration of option for regional subsidiaries to own and manage public lighting	To be met by council regardless of supplier	Standalone columns Statutory right to connect public lighting to stobie poles (no charge)	Only technical and safety	Addressed through a public lighting audit	Specialist resourcing can be employed or subcontracted. Councils already employ asset managers
Council owned and third party operated	Yes, owns road reserve	Council retain new developer funded assets	To be met by council regardless of supplier	Standalone columns	Technical and safety, plus third party operator	Addressed through a public lighting audit	Specialist resourcing can be employed or

		Council request return of gifted assets Council or third party negotiate transfer of DNSP funded assets (cost to council or third party developing on nature of commercial deal) Consideration of legislation to facilitate the transfer of public lighting assets to councils Consideration of option for regional subsidiaries to own and manage public lighting		Statutory right to connect public lighting to stobie poles (no charge)	may (depending on identity) have additional regulatory requirements		subcontracted. Councils already employ asset managers
Third party owned and operated	Yes, council can authorise as council owns road reserve (section 222, LG Act)	Third party funded Service delivery could be structured for the vesting of the assets in councils at the end of a	To be met by council regardless of supplier	Standalone columns Statutory right to connect public lighting to stobie poles (no charge)	Technical and safety, plus third party may (depending on identity) have additional	Addressed through a public lighting audit	Specialist resourcing can be employed or subcontracted

	concession period (eg PPP model)	regulatory requirements

C. Key elements for increasing contestability in public lighting services

The key elements of a South Australian framework for increasing contestability in public lighting services are summarised in the following table. The table includes negotiated and legislative mechanisms.

In theory it would be possible to implement a contestable public lighting services market in South Australia without legislation. Legislation may, however, provide an efficient effective and certain means of dealing with some of the more difficult aspects of transitioning to a competitive market. For example, a legislative right for councils to attach public lighting infrastructure to stobie poles or to acquire existing public lighting assets from the DNSP would enable a streamlined transition.

Issue to be addressed	Mechanism
Access to land	Existing legislation: Title in land vested in accordance with the LG Act
Infrastructure acquisition	
Fully depreciated DNSP funded assets	Agreement or legislation: Transfer to councils for $nil cost
Non-fully depreciated DNSP funded assets	Agreement or legislation: Transfer to councils for written down value based on remaining life and condition
Gifted assets	Agreement or legislation: Transfer to councils at $nil
New assets	Agreement for purposes of section 209, LG Act for title to vest in councils
Tax implications	Assessment. Legislation: Ameliorate negative impact of State taxes
Operating costs	Met by councils either directly or through public lighting services tariffs
Public lighting support	
Access to stobie poles	Agreement: DNSP is likely to require payment of an attachment charge Legislation: Statutory right to attach public lights to stobie poles subject to satisfying safety and technical requirements
Safety and technical requirements	Facilities access agreement: Negotiated, but with ability for Technical Regulator to determine satisfaction with requirements
Regulatory barriers	Safety and technical requirements discussed above
Information asymmetry	Public lighting audit: To ascertain location, light type, age and condition
Resourcing	Addressed by the public lighting services provider through employees or subcontractors

Attachment E: References

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Council Feedback - Public Lighting Business case and other considerations

Reply by 20 January 2017 to danielle.bailey@lga.sa.gov.au Danielle Bailey, Administration Coordinator, Local Government Association SA

Council Name	Click here to enter text.	**Phone**	Click here to enter text.
Contact Name	Click here to enter text.	**Email**	Click here to enter text.

Council has passed resolution to consider the information presented in the LGA Public Lighting business case prior to making any individual council decisions regarding LED lighting or any other arrangements with SAPN.

Consideration

1. Does council support the LGA proposal of establishing a local government subsidiary for public lighting services

☐ Yes

☐ No

Comments

Click here to enter text.

2. If yes, in regard to the above what is council's preferred option for further progressing establishment of a subsidiary (please tick one):

☐ Regional subsidiary under the Local Government Act 1999.

☐ A subsidiary of the LGA – (private company owned by LGA).

Comments

Click here to enter text.

3. Would council have any interest in having new lights (eg residential estate) managed by a local government subsidiary?

☐ Yes

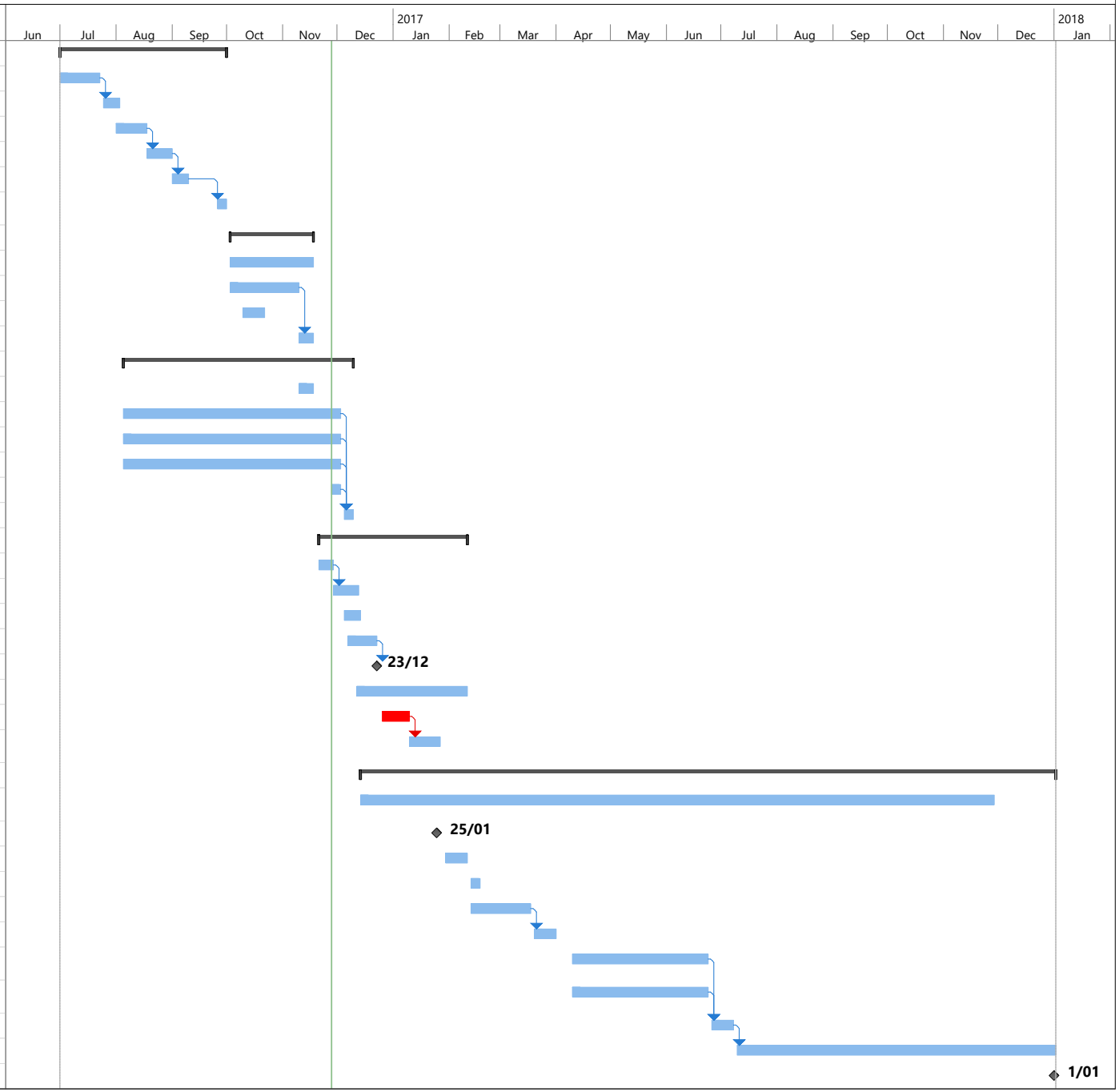
☐ No

4. Any other comments

Click here to enter text.

Business Case for a Local Government Public Lighting Services Entity - Gaant Chart

Task Name	Duration	Start	Finish
Stage 1 - Preparation	**66 days**	**Fri 1/07/16**	**Fri 30/09/16**
Project Manager Selection	16 days	Fri 1/07/16	Fri 22/07/16
Establish Business Case Scope, Dates/Milestones	7 days	Mon 25/07/16	Tue 2/08/16
Review Existing Public Lighting Documentation	13 days	Mon 1/08/16	Wed 17/08/16
Brief/Tender Potential Consultancy Options	10 days	Thu 18/08/16	Wed 31/08/16
Select and Notify Consultancy	7 days	Thu 1/09/16	Fri 9/09/16
Compile and Deliver Update Report (LGA Board, ED, MLGG)	5 days	Mon 26/09/16	Fri 30/09/16
Stage 2 - Preparing the Plan	**34 days**	**Mon 3/10/16**	**Thu 17/11/16**
Engage/Consult Preferred Consultancy	34 days	Mon 3/10/16	Thu 17/11/16
Preparation of Business Case	28 days	Mon 3/10/16	Wed 9/11/16
Establish and Document Business Plan	10 days	Mon 10/10/16	Fri 21/10/16
Compile and Deliver Update Report (LGA Board, ED)	6 days	Thu 10/11/16	Thu 17/11/16
Stage 3 - Plan Outcomes	**91 days**	**Fri 5/08/16**	**Fri 9/12/16**
Detail Business Plan to LGA Board	6 days	Thu 10/11/16	Thu 17/11/16
Engage DPTI	86 days	Fri 5/08/16	Fri 2/12/16
Engage Minister for Transport	86 days	Fri 5/08/16	Fri 2/12/16
Engage SAPN Access Agreement	86 days	Fri 5/08/16	Fri 2/12/16
Engage Councils	5 days	Mon 28/11/16	Fri 2/12/16
Deliver Update Report (LGA Board, ED)	5 days	Mon 5/12/16	Fri 9/12/16
Stage 4 - Council Support & Sign Off	**60 days**	**Mon 21/11/16**	**Fri 10/02/17**
Prepare Information Packages for Councils	6 days	Mon 21/11/16	Mon 28/11/16
Consult Councils on Business Case	10 days	Tue 29/11/16	Mon 12/12/16
Pursue Legislation with State Government	7 days	Mon 5/12/16	Tue 13/12/16
Renewal/Recruitment of Project Manager	12 days	Wed 7/12/16	Thu 22/12/16
End of AL Contract	0 days	Fri 23/12/16	Fri 23/12/16
Progress SAPN Access Negotiations	45 days	Mon 12/12/16	Fri 10/02/17
CHRISTMAS BREAK	11 days	Mon 26/12/16	Mon 9/01/17
Report Consult and Final Recommendations to LGA Board	13 days	Tue 10/01/17	Thu 26/01/17
Stage 5 - Actioning Business Plan Recommendations	**274 days**	**Wed 14/12/16**	**Mon 1/01/18**
Commence Legislated Access Process with Parliament	250 days	Wed 14/12/16	Tue 28/11/17
Decide on Entity Classification	0 days	Wed 25/01/17	Wed 25/01/17
Plan to Establish Entity and TOR	10 days	Mon 30/01/17	Fri 10/02/17
Secure and Sign SAPN Access Agreement	5 days	Mon 13/02/17	Fri 17/02/17
Resource Potential Entity Options	25 days	Mon 13/02/17	Fri 17/03/17
Define Decision Pathways for LGA Board	10 days	Mon 20/03/17	Fri 31/03/17
Funding Arrangements for Preferred Public Lighting Subsidiary	55 days	Mon 10/04/17	Fri 23/06/17
Establish Transition Plan to Public Lighting Ownership	55 days	Mon 10/04/17	Fri 23/06/17
Deliver Final Report to LGA Board	10 days	Mon 26/06/17	Fri 7/07/17
Implement Transition Plan	126 days	Mon 10/07/17	Mon 1/01/18
Complete Implementation of Transition Plan	0 days	Mon 1/01/18	Mon 1/01/18



Local Government Association of South Australia

Public lighting contestability: legislative proposal

Confidential report prepared for the Local Government Association of SA

26 August 2016

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This document has been prepared by Wallmans Lawyers

Part A: Introduction

1. Background

1.1. SA Power Networks (SAPN) provides public lighting services to the State and Councils (Public Lighting Customers). Predominately this is for street lighting.

1.2. The provision by SAPN of these services is a consequence of the public lighting assets which existed at the time of the privatisation of the South Australian electricity sector in 1999 vesting in ETSA Utilities (ie SAPN's predecessor).

1.3. For the period 1 July 2005 to 30 June 2010, the Essential Service Commission of South Australia (ESCOSA) regulated the prices that SAPN could charge for public lighting services in accordance with the Electricity Pricing Order issued by the Treasurer on 11 October 1999 pursuant to the Electricity Act 1996.

1.4. In 2010, the Australian Energy Regulator (AER) was vested with responsibility for regulating SAPN in accordance with the National Electricity Rules (NER). Public lighting services provided by electricity distributors are regulated under the NER. For this purpose, these services are classified as 'negotiated distribution services'.

1.5. The NER requires that the price charged by SAPN for the provision of public lighting services should be determined through negotiations between the Public Lighting Customers and SAPN within the NER framework. The NER requires that the negotiated prices need to be based on the costs incurred by SAPN in providing the public lighting services. The allocation of SAPN's direct and indirect costs to the provision of public lighting services is to be done in accordance with a cost allocation methodology approved by the AER.

1.6. Since 2010 the Local Government Association of South Australia (LGA), in conjunction with the Department for Planning, Transport and Infrastructure (DPTI) has been attempting to negotiate public lighting tariffs with SAPN. These negotiations have reached an impasse and have been referred to the Australian Energy Regulator (AER) for resolution. The AER proposed a facilitated negotiation process between the LGA, DPTI and SAPN which has also stalled.

1.7. As a consequence of the protracted negotiations with no satisfactory resolution, the LGA is considering alternative models for the delivery of public lighting services.

2. Purpose of this report

2.1. An option being consider by the LGA is for public lighting services to be provided by the local government sector either by councils or through a council-owned entity. Throughout this report ownership by councils is referred to for simplicity and should not be taken to suggest that other local government sector structures should be excluded from consideration.

2.2. The LGA is seeking assistance with the development of a proposal for legislation which would support the transitioning of public lighting service provision from SAPN to councils. This report outlines legislation for this purpose.

2.3. We have provided two previous reports to the LGA which set out key concepts and analysis relevant to the legislative proposal:

a) Delivery of public lighting services in South Australia (report prepared for the Local Government Association of SA) (3 September 2014) (2014 Report); and
b) Public lighting contestability in South Australia: discussion paper (confidential report prepared for the Local Government Association of SA) (6 October 2015) (2015 Report).

2.4. A copy of each of these reports is annexed to this report for reference. Only the first of these reports has been made publicly available by publication on the LGA's website.

2.5. Our previous reports indicated that contestability could be introduced into the public lighting services market without legislation. The previous reports also, however, indicated that elements of transitioning to a contestable market could be best facilitated by legislation.[1]

2.6. Legislation would need the support of the State Government. Discussion with the State will be required to determine the level of support generally and also the attitude of the State to various aspects of the legislative proposal. The focus of this report is on local government provision of street lighting on council-owned roads. Discussions between the LGA and the State on the future of street lighting will also need to consider the provision of lighting on arterial roads administered by the Commissioner for Highways.

2.7. The legislative proposal presented in this report needs to be assessed against the objectives of the local government sector in respect of public lighting and will also be informed by the business case being developed by the LGA in respect of public lighting provision.

3. Overview of proposed legislation

3.1. Public lighting assets are in essence comprised of the luminaire which contains the lamps, a means of supporting the luminaire and cabling to connect to the electricity distribution network. Typically, the means of support is either:

a) a stand-alone column; or
b) a mounting bracket which attach the luminaire to a structure (eg a building or stobie pole).

3.2. Public lighting infrastructure is physically distinct from electricity distribution infrastructure. There is no necessity, therefore, for public lighting infrastructure and electricity distribution infrastructure to be in common ownership (even where this infrastructure is co-located).

3.3. There are few barriers to councils providing public lighting service directly or through a nominee.[2] The barriers to councils providing these services relate to the ownership of public lighting infrastructure and coordination issues relating to the co-location of council owned public lighting infrastructure on

[1] 2014 Report, para 4.7; 2015 Report, para 5.1, 8.2 and 15.2.
[2] 2014 Report, part 21.

stobie poles. These matters can compromise the ability of an entity other than the electricity distributor to provide public lighting services.

3.4. For this reason, the legislative proposal presented in this report focuses on:

a) securing ownership of existing public lighting infrastructure;
b) enabling council owned public lighting infrastructure to be attached to SAPN owned electricity infrastructure; and
c) ensuring that technical and safety regulation in respect of the co-location of public lighting infrastructure and electricity network infrastructure does not become a barrier to provision of public lighting services by councils.

Part B: Rationale for legislation

4. Ownership of public lighting infrastructure

Recommended approach

4.1. Legislation to facilitate the transfer of the public lighting infrastructure to councils or a nominee of councils be enacted. The legislation could implement the asset transfer either directly or through a ministerial order, or could operate in conjunction with a negotiated transfer agreement.

4.2. Potential locations for legislation to support the transfer of public lighting infrastructure could be either the Local Government Act 1999 (SA) (LG Act) or the Electricity Act. Amendment of Part 2, Chapter 11 of the LG Act (including section 209) will be required to deal with the councils ownership of the public lighting infrastructure and the separation of ownership in respect stobie poles (electricity distribution network infrastructure) and public lighting infrastructure.

4.3. Various ownership models could be considered. One of these is the use of a regional subsidiary of constituent councils established under section 43 of the LG Act.

Rationale

4.4. Transferring the existing public lighting infrastructure currently owned by SAPN to the local government sector would be an effective and efficient means for councils to provide public lighting services. While councils could install new public lighting infrastructure in substitution for the SAPN-owned infrastructure, this is not an optimal approach. A decision by councils to not engage SAPN for public lighting services would render the existing public lighting infrastructure redundant unless councils utilised these pre-existing infrastructure.

Key considerations

Transfer mechanism

4.5. The transfer of the infrastructure could be by:

a) legislation; or
b) transfer agreement.

4.6. Legislation has been used in South Australia to transfer infrastructure from the public sector to the private sector.3 Legislation can also be used to give effect to the transfer of privately owned assets and ameliorate some consequences of the assets transfer (eg stamp duty, triggering of securities etc).

4.7. Alternatively, a commercial agreement could be reached with SAPN on the transfer of public lighting infrastructure. SAPN may be willing to negotiate such an agreement if it considers that this will be the only mechanism which will enable it to acquire some compensation for the transferred infrastructure. The issue of a transfer price is discussed below.

[3] For example, the Electricity Corporations (Restructuring and Disposal) Act 1999 (SA).

4.8. A hybrid mechanism could be adopted whereby a commercial transfer agreement is facilitated by legislation. The legislation could specify matters relevant to negotiating and giving effect to a transfer agreement. For example, legislation could provide for: For example, the Electricity Corporations (Restructuring and Disposal) Act 1999 (SA).

a) the basis for the valuation of infrastructure (see discussion below);
b) apportionment of liabilities (see discussion below);
c) a transfer date; and
d) facilitative provisions (eg relief from stamp duty, bar against the trigger of securities).

Transfer price

4.9. Compensating SAPN for the value of its sunk investment in public lighting is likely to be an issue in respect of either transfer mechanism. There are distinct categories of public lighting infrastructure which could be treated differently for the purposes of compensating SAPN. These categories are:

a) assets acquired by SAPN on privatisation (Initial Assets);
b) assets purchased by SAPN since privatisation (SAPN Assets);
c) assets gifted to SAPN by developers (Gifted Assets).

4.10. The Initial Assets are fully depreciated. Consequently, SAPN has been fully compensated for the price paid for this infrastructure. A strong case can be made for the assets to be transferred to councils at no cost.

4.11. The SAPN Assets have a residual value until fully depreciated. Assuming that SAPN is to be compensated for the transfer of these assets to councils, a question will arise as to the basis for valuing the assets. A regulatory valuation of these assets will not take into account the remaining asset life and condition of the assets. There may be benefit in specifying the valuation methodology in legislation to facilitate the negotiation of a transfer agreement.[4]

4.12. The Gifted Assets have been acquired by SAPN at no cost. There is no detriment to SAPN in transferring these assets to councils at no cost.

Liability

4.13. Liability for the public lighting infrastructure or circumstances arising from, or in connection with, the public lighting infrastructure should remain with SAPN up to the transfer date. Where liability arises after the transfer date, but in respect of circumstances which arose prior to the transfer date this liability rests with SAPN. Otherwise on and from the transfer date liability should rest with the council receiving the infrastructure.

4.14. Proceedings in respect of a public lighting asset (if any) commenced prior to the transfer date will remain with SAPN.

4.15. These matters can be given effect to either through legislation or under a commercial negotiated agreement.

[4] Legislation setting principles for compensation or processes for valuation include Division 6, Part 1, Chapter 10, Local Government Act 1993 (SA), section 25, Land Acquisition Act 1969 (SA); section 125B, Motor Vehicles Act 1959 (SA) and section 18BB, First Home and Housing Construction Grants Act 2000 (SA).

Security interests and other third party rights

4.16. Legislation facilitating the transfer of infrastructure may provide that the transfer does not trigger security or other third party interests in the infrastructure.[5] This will only be relevant if there are security or other third party interests in the public lighting infrastructure.

4.17. The existence of these interests could be discussed with SAPN in the course of negotiating a transfer agreement and warranties in favour of the council could be sought. Alternatively, legislation could ameliorate any third party impacts arising from the transfer.

Taxes

4.18. The quantum of stamp duty liabilities (if any) arising from the transfer of public lighting infrastructure to councils should be determined. If these are likely to be significant then relief should be sought from the State. Relief could be by legislative exemption or ex gratia relief granted by the State.

Asset perimeter

4.19. The delineation between electricity distribution infrastructure and public lighting infrastructure must be clear as at the time of the transfer. This is a technical delineation which may vary between types of public lighting infrastructure. We suggest that the asset perimeter form part of the description of the infrastructure to be transferred.

Ancillary materials

4.20. Warranties, licences and documentation relating to the public lighting infrastructure should be transferred to the councils at the same time as the public lighting infrastructure is transferred.

New public lighting infrastructure

4.21. Consideration should be given to the vesting of newly installed public lighting in councils. Currently, developers of sub-divisions vest new public lighting infrastructure in SAPN. The legal basis for this transfer has been the subject of speculation during the negotiations between the LGA an SAPN on public lighting tariffs.

4.22. Councils already regulate the type of lighting installed on roads and reserves which will vest in the council.[6] Further, automatic vesting of any street, road, thoroughfare, reserve or other similar open space in a council included on a plan of division lodged with the Lands Title Office for registration is already provided for by the Real Property Act 1886 (SA).[7]

4.23. Ordinarily the law of fixtures operates so as to also vest title in infrastructure affixed to the land in the council. Section 209 of the LG Act removes the law of fixtures in respect of infrastructure provided by a 'provider of public infrastructure'. Section 209 may not operate for the benefit of land developers and, therefore, it is arguable that public lighting infrastructure in new sub-

[5] For example, see section 114, Port Management Act 1995 (Vic).
[6] Section 33(1)(c)(iva), Development Act 1993 (SA).
[7] Section 223LF, Real Property Act.

divisions are vested as fixtures in councils at the time the roads and reserves vest in the council. This position could be clarified by legislation.

4.24. Bonding agreements between a sub-division developers and councils are an established means of transferring infrastructure between developers and councils.[8] These could be utilised in respect of public lighting infrastructure in sub-divisions. In this respect, the Development Act 1993 and Development Regulations 2008 may require amendment to clarify that 'electrical services' do not include public lighting services to avoid the operation of provisions relating to binding agreements between SAPN and developers.

5. Right of attachment

Recommended approach

5.1. We recommend that State government support be sought for a right in councils to attach public lighting infrastructure to stobie poles. The right of attachment should apply automatically to enable the continued attachment of public lighting infrastructure as at the date the legislation commences.

5.2. A right of attachment could be provided directly by legislation (either the LG Act or Electricity Act) or through conditions placed on a distribution licence issued under the Electricity Act. The latter approach would require amendment of section 23 of the Electricity Act.

5.3. The ability to attach replacement public lighting infrastructure, or to attach public lighting infrastructure where this has not previously been attached, to a stobie pole should be subject only to meeting safety and technical requirements. Satisfaction of the technical requirements should be determined by the Technical Regulator (see discussion at Part 6).[9] The Technical Regulator already has power to deal with the monitoring and regulation of safety and technical standards in the electricity supply industry. The 'electricity supply industry' is defined to include 'the provision, operation or maintenance of poles, equipment, fittings or wiring associated with the provision of lighting in a street or other place'.[10]

5.4. Consequential amendment of, or exemptions from, legislation which protects electricity infrastructure (eg sections 8 and 87, Electricity Act) would be required to facilitate the attachment of public lighting infrastructure to stobie poles.

Rationale

Access is a pre-condition to contestability

5.5. The following access to infrastructure is required in order to enable contestability in public lighting services:

a) connection to the electricity distribution network to enable electricity to power the lights; and
b) access to a means of support for the public lighting infrastructure.

[8] Section 51, Development Act (see also regulation 54, Development Regulations 2008 (SA)).
[9] Technical Regulator is appointed under section 7 of the Electricity Act.
[10] Section 4, Electricity Act and regulation 10, Electricity (General) Regulations 2012.

5.6. Attachment to the electricity distribution network to obtain electricity to power public lighting is already secured through obligations on SAPN under clause 4.1(a) of SAPN's distribution licence (dated 28 August 2013).

5.7. Public lighting is provided generally either by free standing columns or public lighting brackets attached to stobie poles. In South Australia stobie poles are part of the electricity distribution infrastructure owned by SAPN. The ability to attach public lighting infrastructure to stobie poles would significantly facilitate the provision of public lighting services by councils.[11]

5.8. There is currently no legally enforceable mechanism to enable a council to attach public lighting infrastructure to a stobie pole. Legally enforceable mechanisms which could potentially be available to councils are:

a) contracts negotiated with SAPN; or
b) legislation providing councils directly or through electricity distribution licences with a right to attach public lighting infrastructure to stobie poles.

5.9. In the absence of a legislated right to attach public lighting infrastructure to stobie poles, councils could seek to negotiate access with SAPN. An element of these negotiations is likely to be the elevation charge which SAPN has argued throughout the negotiations on 2010-15 tariffs are chargeable by SAPN for connection of public lighting infrastructure to stobie poles. Our view is that the payment of an ongoing elevation charge to SAPN for the attachment of public lighting infrastructure to stobie poles should be resisted. One avenue which could be explored in this respect is the ability for councils to charge SAPN a licence fee in respect of the installation of infrastructure on road reserves.[12] Such a licence fee could be used to offset the cost of any elevation charge imposed by SAPN.

5.10. If access could not be negotiated then councils would need to remove public lighting infrastructure attached to stobie poles and relocate the infrastructure to another means of elevation. This could lead to a proliferation of infrastructure in road reserves and is inefficient given the current utility of stobie poles for this purpose.

Third party access regimes

5.11. Third party access legislation has been a precondition for the introduction of competition into a variety of markets previously serviced by monopolies or for the development of markets for goods or services. The sectors impacted by third party access legislation include gas, electricity, water, sewerage, ports and rail.

5.12. Requirements for state-based third party access legislation are set out in clause 6 of the Competition Principles Agreement (11 April 1995). This clause is extracted and included in Schedule 1 of this report for reference. The purpose of clause 6 was to set parameters for state-based third party access regimes which would have the effect of displacing the general access regime set out in Part IIIA to the Competition and Consumer Act 2010 (Cth).

[11] 2014 Report, para 7.1.
[12] Section 222, Local Government Act.

5.13. Clause 6 is premised on legislation providing negotiated access. Where access cannot be negotiated then there is an ability for a regulator or arbitrator to determine the conditions of access. This is commonly referred to as a 'negotiate-arbitrate model'. The experience of protracted negotiations with SAPN in respect of public lighting tariffs suggests that a regime premised upon negotiations is likely to be an ineffective means of acquiring access to SAPN's stobie poles.

5.14. Support for third party access legislation which does not require councils to negotiate attachment with SAPN is a matter which will need to be discussed with the State. The State's attitude to this will be a pivotal element in determining the content of the legislation. If the State requires a negotiate-arbitrate model then the time limit during which agreement should be reached should be limited, the scope of the matters to be resolved through negotiation should be finite and listed in the legislation and careful consideration should be given to the arbitral mechanism to resolve disagreement between the parties on the terms of attachment.

5.15. Our view is also that the requirements of clause 6 of the CPA are unnecessarily detailed for legislation providing access to SAPN's stobie poles. Given that the public lighting infrastructure is already attached to stobie poles, the access regime could be premised on a right to maintain this attachment.

5.16. A simple attachment right (in essence similar to an easement over land) could be granted by legislation to councils for the purpose of providing public lighting services. The granting of this attachment right could be viewed as a regulatory trade off for the easements which SAPN currently holds over local government land for the purposes of its electricity network.

5.17. Section 23 of the Electricity Act sets out matters which must be included in a licence to operate the electricity distribution network. These matters include provision for access to the distribution network in respect of:

a) granting to other electricity entities a right to use or have access to the licensee's distribution network (on non-discriminatory terms) for the distribution of electricity to other entities (specifically excluding a right of support for infrastructure);[13]
b) granting to all electricity entities and customers of a class specified in the licence conditions rights to use or have access to the entity's distribution network (on non-discriminatory terms) to obtain electricity for the network;[14] and
c) requiring the licensee to comply with a scheme for other bodies to use or have access to the distribution network for telecommunications purposes (subject to requirements as to technical feasibility and preservation of visual amenity).[15]

5.18. Amendments to the distribution licence issued to SAPN supported by appropriate amendments to section 23 of the Electricity Act would be a potential mechanism for implementing a right of attachment.

[13] Sections 23(1)(h) and 23(2), Electricity Act; clause 4, SAPN Distribution Licence (11/10/1999).
[14] Section 23(1)(i), Electricity Act; clause 4, SAPN Distribution Licence (11/10/1999).
[15] Section 23(1)(j), Electricity Act; clause 14, SAPN Distribution Licence (11/10/1999).

6. *Technical and safety issues*

Recommended approach

6.1. Technical and safety regulation in respect of public lighting services is a matter for the Technical Regulator. Facilities access arrangements should be negotiated subject to oversight by the Technical Regulator. A default to a standard facilities access agreement should apply where agreement is not reached between SAPN and a local government provider of public lighting.

Rationale

Role of the Technical Regulator

6.2. The Technical Regulator is responsible for 'monitoring and regulation of safety and technical standards in the electricity supply industry'.[16] The term 'electricity supply industry' is defined to include 'the provision, operation or maintenance of poles, equipment, fittings or wiring associated with the provision of lighting in a street or other place'.[17]

Technical and safety requirements

6.3. Public lighting design and configuration is regulated. Technical and safety requirements apply regardless of who owns the public lighting infrastructure. There should be no barriers to the connection of public lighting infrastructure which meets these technical and safety requirements. [18]

6.4. Works undertaken in the vicinity of electricity infrastructure is also subject to safety and technical requirements. SAPN has a legitimate interest in ensuring that persons undertaking electrical works (including in respect of public lighting infrastructure) are appropriately qualified and comply with technical and safety requirements. However, if SAPN is the sole determiner of whether or not technical and safety requirements are, or are likely to be, satisfied then there is a risk that these requirements may be used as barriers to the provision of public lighting services by a council. For this reason, the Technical Regulator should be the determiner of compliance with technical and safety requirements.

6.5. Councils who own and operate public lighting infrastructure should be answerable to the Technical Regulator for the operation of the public lighting infrastructure and for works on that infrastructure (including in the vicinity of electricity distribution infrastructure).

Coordination of co-located infrastructure

6.6. Where infrastructure in disparate ownership is co-located there is a need to coordinate access to the infrastructure for the purposes of inspection, maintenance and repair. This coordination can be achieved through a facilities access agreement between the infrastructure owners. This is the type of agreement which is envisaged by clause 7.8.4 of the Service and Installation Rules (which makes provision for the installation of equipment to stobie poles).[19]

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[16] Section 8(a), Electricity Act.
[17] Section 4(1), Electricity Act and regulation 10(1)(a), Electricity (General) Regulations 2012.
[18] 2014 paper, Part 8 and para 9.5..
[19] SAPN, Service and Installation Rules (February, 2016).

6.7. Again, given the experience of the extended negotiations with SAPN, consideration should be given to the workability of a model which relies on reaching agreement with SAPN. One option would be for a default facilities access agreement to be prepared by SAPN and submitted to the Technical Regulator for approval. Councils and SAPN would be able to negotiate terms outside of the default contract, but in the absence of reaching agreement within a specified period the default contract would apply.

6.8. Default or standing contracts are regulatory mechanisms which have been utilised in a various scenarios to achieve regulatory outcomes. In respect of gas and electricity customers, standing contracts with electricity retailers provide a 'fallback' where alternative terms are not agreed between the customer and the retailer.[20]

6.9. A different regulatory model is utilised under the Water Industry Act 1993, whereby a regulated operator or water or sewerage infrastructure must provide a copy of its standard access agreement to a person seeking third party access to declared water or sewerage infrastructure.[21] All access agreement negotiated between an access seeker and a regulated operator must be provided to the ESCOSA.[22]

6.10. Clear delineation of responsibility for technical and safety requirements and a coordinated approach to co-located infrastructure is required. However, without a regulated fallback position for facilities access, and an independent arbiter as to whether or not technical and safety requirements are satisfied, there is a risk that council provision of public lighting services could be stymied by SAPN.

[20] Section 36AA and 36AB, Electricity Act 1996 (SA); sections 34A and 34B, Gas Act.
[21] Section 86F(d), Water Industry Act.
[22] Section 86ZO, Water Industry Act.

Part C: Content of legislation

7. Key assumptions

7.1. Part 8 of this report sets out initial drafting instructions which could be discussed with the State government.

7.2. The assumptions which underpin the initial drafting instructions are:

a) SAPN owns the public lighting infrastructure;
b) the public lighting infrastructure is not subject to security interests or other encumbrances;
c) the Technical Regulator will be amenable to being vested with functions under the legislation;
d) no charge will be levied for the attachment of public lighting infrastructure to stobie poles.

8. Initial drafting instructions

Definitions

8.1. Public lighting infrastructure should be delineated from electricity infrastructure.[23]

Transfer of public lighting infrastructure

8.2. On the transfer date, public lighting infrastructure located on a road for which a council is responsible would vest in the relevant council (or the council's nominee) either by direct operation of the legislation or ministerial order supported by legislation. The LG Act or Electricity Act would be potential locations for the transfer legislation.

8.3. Other provisions facilitating the transfer process could be included in legislation. These may include guidance as to the valuation of infrastructure for the purpose of determining a transfer price, dealing with liabilities and third party interests and providing tax relief.

8.4. Public lighting infrastructure affixed to areas transferring to the ownership of a council under section 223LF of the Real Property Act would vest in the council.

8.5. Section 209 of the LG Act be amended to provide for public lighting infrastructure (either free standing or attached to stobie poles) on council land to be the property of the council (subject to contrary agreement executed by a council). Consequential amendments to clarify the operation of the Development Act and Development Regulations in respect of bonding agreements in relation to public lighting infrastructure may also be prudent.

Safety and technical issues

8.6. The Technical Regulator be vested with responsibility under the Electricity Act for:

a) determining compliance with safety and technical requirements relating to public lighting infrastructure (to the extent (if any) that the

[23] See section 4(1), Electricity Act for definition of 'electricity infrastructure' and section 3, Electricity (Restructuring and Disposal) Act 1999.

Technical Regulator is not already vested with this function by section 8(a) of the Electricity Act);

b) receiving a draft standard facilities access agreement from SAPN prior to the transfer of public lighting infrastructure to councils;
c) consulting with the LGA (on behalf of councils) on the draft standard facilities access agreement and then determining whether to approve, approve with amendment (subject to consultation with SAPN) or reject the draft standard access agreement.

8.7. Councils and SAPN be permitted to negotiated terms and conditions of facilities access other than those contained in the standard facilities access agreement. Copies of each facilities access agreement to be provided to the Technical Regulator.

8.8. Where Councils and SAPN fail to agree the terms of a facilities access agreement within a defined period, the standard facilities access agreement will apply.

Attachment

8.9. A right of attachment be provided either directly in legislation (eg LG Act or Electricity Act) or under a distribution licence supported by an amended section 23 of the Electricity Act.

8.10. Where public lighting infrastructure has been attached to stobie poles on roads for which a council is responsible as at the date the legislation commences:

a) the relevant council has a right to continue to attach the public lighting infrastructure to the stobie pole; and
b) the public lighting infrastructure will be deemed to meet the standards of the Technical Regulator.

8.11. Where public lighting infrastructure has been attached to stobie poles on roads for which a council is responsible as at the date the legislation commences, the relevant council has a right to replace the public lighting infrastructure with alternative public lighting infrastructure provided that technical standards determined by the Technical Regulator are satisfied.

8.12. A council responsible for a road in the council area has a right to attach new public lighting infrastructure to stobie poles where public lighting infrastructure has not been attached previously, subject to compliance with technical requirements to the satisfaction of the Technical Regulator.

8.13. Any person removing public lighting infrastructure from a stobie pole without the consent of the owner of the public lighting infrastructure will commit an offence.

8.14. Consequential amendment of, or exemption from, legislation prohibiting the attachment of infrastructure to stobie poles (section 84, Electricity Act) or works in the vicinity of electricity infrastructure (section 87, Electricity Act) will be required to facilitate the attachment of public lighting infrastructure to stobie poles.

8.15. A council may delegate its powers in respect of the attachment of public lighting infrastructure owned by the council to another person. Section 44 of

the LG Act will be amended to enable delegation in this respect not to be restricted to delegation to the persons listed in section 44(2) of the LG Act.

Schedule 1: Clause 6, Competition Principles Agreement

6.

a. Subject to subclause (2), the Commonwealth will put forward legislation to establish a regime for third party access to services provided by means of significant infrastructure facilities where:
    1. it would not be economically feasible to duplicate the facility;
    2. access to the service is necessary in order to permit effective competition in a downstream or upstream market;
    3. the facility is of national significance having regard to the size of the facility, its importance to constitutional trade or commerce or its importance to the national economy; and
    4. the safe use of the facility by the person seeking access can be ensured at an economically feasible cost and, if there is a safety requirement, appropriate regulatory arrangements exist.

b. The regime to be established by Commonwealth legislation is not intended to cover a service provided by means of a facility where the State or Territory Party in whose jurisdiction the facility is situated has in place an access regime which covers the facility and conforms to the principles set out in this clause unless:
    1. the Council determines that the regime is ineffective having regard to the influence of the facility beyond the jurisdictional boundary of the State or Territory; or
    2. substantial difficulties arise from the facility being situated in more than one jurisdiction.

c. For a State or Territory access regime to conform to the principles set out in this clause, it should:
    1. apply to services provided by means of significant infrastructure facilities where:
        1. it would not be economically feasible to duplicate the facility;
        2. access to the service is necessary in order to permit effective competition in a downstream or upstream market; and
        3. the safe use of the facility by the person seeking access can be ensured at an economically feasible cost and, if there is a safety requirement, appropriate regulatory arrangements exist; and
    2. reasonably incorporate each of the principles referred to in subclause (4) and (except for an access regime for: electricity or gas that is developed in accordance with the Australian Energy Market Agreement; or the Tarcoola to Darwin railway) subclause (5).
    3. There may be a range of approaches available to a State or Territory Party to incorporate each principle. Provided the approach adopted in a State or Territory access regime represents a reasonable approach to the incorporation of a principle in subclause (4) or (5), the regime can be taken to have reasonably incorporated that principle for the purposes of paragraph (b).

d. In assessing whether a State or Territory access regime is an effective access regime under the Trade Practices Act 1974, the assessing body:

1. should, as required by the Trade Practices Act 1974, and subject to section 44DA, not consider any matters other than the relevant principles in this Agreement. Matters which should not be considered include the outcome of any arbitration, or any decision, made under the access regime; and
2. should recognise that, as provided by subsection 44DA(2) of the Trade Practices Act 1974, an access regime may contain other matters that are not inconsistent with the relevant principles in this Agreement.

e. A State or Territory access regime should incorporate the following principles:
   1. Wherever possible third party access to a service provided by means of a facility should be on the basis of terms and conditions agreed between the owner of the facility and the person seeking access.
   2. Where such agreement cannot be reached, Governments should establish a right for persons to negotiate access to a service provided by means of a facility.
   3. Any right to negotiate access should provide for an enforcement process.
   4. Any right to negotiate access should include a date after which the right would lapse unless reviewed and subsequently extended; however, existing contractual rights and obligations should not be automatically revoked.
   5. The owner of a facility that is used to provide a service should use all reasonable endeavours to accommodate the requirements of persons seeking access.
   6. Access to a service for persons seeking access need not be on exactly the same terms and conditions.
   7. Where the owner and a person seeking access cannot agree on terms and conditions for access to the service, they should be required to appoint and fund an independent body to resolve the dispute, if they have not already done so.
   8. The decisions of the dispute resolution body should bind the parties; however, rights of appeal under existing legislative provisions should be preserved.
   9. In deciding on the terms and conditions for access, the dispute resolution body should take into account:
      1. the owner's legitimate business interests and investment in the facility;
      2. the costs to the owner of providing access, including any costs of extending the facility but not costs associated with losses arising from increased competition in upstream or downstream markets;
      3. the economic value to the owner of any additional investment that the person seeking access or the owner has agreed to undertake;
      4. the interests of all persons holding contracts for use of the facility;
      5. firm and binding contractual obligations of the owner or other persons (or both) already using the facility;
      6. the operational and technical requirements necessary for the safe and reliable operation of the facility;
      7. the economically efficient operation of the facility; and
      8. the benefit to the public from having competitive markets.

10. The owner may be required to extend, or to permit extension of, the facility that is used to provide a service if necessary but this would be subject to:
    1. such extension being technically and economically feasible and consistent with the safe and reliable operation of the facility;
    2. the owner's legitimate business interests in the facility being protected; and
    3. the terms of access for the third party taking into account the costs borne by the parties for the extension and the economic benefits to the parties resulting from the extension.
11. If there has been a material change in circumstances, the parties should be able to apply for a revocation or modification of the access arrangement which was made at the conclusion of the dispute resolution process.
12. The dispute resolution body should only impede the existing right of a person to use a facility where the dispute resolution body has considered whether there is a case for compensation of that person and, if appropriate, determined such compensation.
13. The owner or user of a service shall not engage in conduct for the purpose of hindering access to that service by another person.
14. Separate accounting arrangements should be required for the elements of a business which are covered by the access regime.
15. The dispute resolution body, or relevant authority where provided for under specific legislation, should have access to financial statements and other accounting information pertaining to a service.
16. Where more than one State or Territory access regime applies to a service, those regimes should be consistent and, by means of vested jurisdiction or other cooperative legislative scheme, provide for a single process for persons to seek access to the service, a single body to resolve disputes about any aspect of access and a single forum for enforcement of access arrangements.

f. f. A State, Territory or Commonwealth access regime (except for an access regime for: electricity or gas that is developed in accordance with the Australian Energy Market Agreement; or the Tarcoola to Darwin railway) should incorporate the following principles:
    1. Objects clauses that promote the economically efficient use of, operation and investment in, significant infrastructure thereby promoting effective competition in upstream or downstream markets.
    2. Regulated access prices should be set so as to:
        1. generate expected revenue for a regulated service or services that is at least sufficient to meet the efficient costs of providing access to the regulated service or services and include a return on investment commensurate with the regulatory and commercial risks involved;
        2. allow multi-part pricing and price discrimination when it aids efficiency;
        3. not allow a vertically integrated access provider to set terms and conditions that discriminate in favour of its downstream operations, except to the extent that the cost of providing access to other operators is higher; and

4. provide incentives to reduce costs or otherwise improve productivity.

3. Where merits review of decisions is provided, the review will be limited to the information submitted to the original decision-maker except that the review body:
    1. may request new information where it considers that it would be assisted by the introduction of such information;
    2. may allow new information where it considers that it could not have reasonably been made available to the original decision-maker; and
    3. should have regard to the policies and guidelines of the original decisionmaker (if any) that are relevant to the decision under review.

Annexure: Previous reports for the LGA

- ***Delivery of public lighting services in South Australia*** ***(ECM 645527)***
- ***Public lighting contestability in South Australia: discussion paper*** ***(ECM 645526)***

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Local Government Association of South Australia

Delivery of public lighting services in South Australia

Report prepared for the Local Government Association of SA

3 September 2014

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This document has been prepared by Wallmans Lawyers

Part A: Introduction

1. Context

1.1. The majority of public lighting services in South Australia are provided by a distribution network service provider (DNSP), although some services are provided by councils. The focus of the paper is on evaluating the ability of councils to adopt an approach to public lighting which differs from that currently in place.

1.2. A council's functions under the Local Government Act 1999 include providing:

a) services and facilities that benefit its area, its ratepayers and residents and visitors to its area; and
b) infrastructure for its community and for development within its area (including infrastructure that helps to protect any part of the local or broader community from any hazard or other event, or that assists in the management of any area).

1.3. One component of the infrastructure provided by councils in discharge of these functions is public lighting along streets and in other public spaces.

1.4. Councils also have functions and powers with respect to undertaking roadwork, including the installation of street lighting.

1.5. In carrying out their functions councils are to uphold and promote adherence to specified principles including:

a) seeking to facilitate sustainable development and the protection of the environment and to ensure a proper balance within its community between economic, social, environmental and cultural considerations; and
b) ensuring the sustainability of the council's long-term financial performance and position.

2. Overview

2.1. Part A of the paper sets out the context and key concepts relevant to public lighting services in South Australia.

2.2. To determine whether or not there are constraints on council delivering public lighting to their communities under a different model this paper outlines the current regulatory arrangements for:

c) public lighting assets (Part B);
d) public lighting services (Part C); and
e) public lighting charges (Part D).

2.3. Options arising from this analysis are discussed in Part E.

2.4. A summary of the analysis provided in this paper is set out in Part F.

2.5. The electricity utilised to provide public lighting services to councils is currently unmetered. For this reason, metering regulation is not considered in this paper. Metering of public lighting is an option, however, which may be considered by councils.

3. Key concepts

3.1. Connection: To form a physical link to the distribution network.

3.2. Distribution network: The network operated by a DNSP for the conveyance of electricity from the transmission network connection point to the point at which assets are connected for the use of electricity conveyed by the network, excluding any connection assets.

3.3. DNSP: A distribution network service provider. SA Power Networks (SAPN) is the DNSP in South Australia.

3.4. Electrical installation: An 'electrical installation' is defined in the Electricity Act 1996 to mean a set of wires and associated fittings, equipment and accessories installed in a place for (among other things) the use of electricity that is supplied for consumption in the place, but excludes electricity infrastructure owned or operated by an electricity entity. This means that electrical installations are distinct from the distribution networks to which they are connected. Public lighting assets are electrical installations.

3.5. Negotiated distribution service: A service provided by a DNSP which is classified by the Australian Energy Regulator (AER) as a negotiated distribution service. In South Australia all public lightings services provided by the DNSP are negotiated distribution services.

3.6. Public lighting assets: Public lighting assets are assets which are dedicated to the function of providing lighting and are in essence comprised of the luminaire and a means of supporting the luminaire. Typically the means of support are either:

a) stand-alone columns; or
b) mounting brackets which attach the luminaire to a structure (eg a building or electricity distribution pole (stobie pole)).

3.7. Public lighting services: The provision, operation or maintenance of poles, equipment, fittings or wiring associated with the provision of lighting in a street or other place (regulation 10(1)(a), Electricity (General) Regulations 2012 (SA) (Electricity Regulations)).

3.8. Relevant regulators: There are a range of regulators relevant to public lighting services:

a) councils for lighting type suitability within their council areas;
b) the Technical Regulator for technical and safety issues in the electricity supply industry (including public lighting services);
c) the Essential Services Commission of South Australia (ESCOSA) for licensing of DNSP; and
d) the AER for economic regulation of DNSP, including determining access disputes regarding the terms and condition on which negotiated distribution services are provided by the DNSP.

3.9. Types of public lighting services currently provided by the DNSP:

a) Street Lighting Use of System services (SLUoS): the provision of public lighting assets and the operation and maintenance of those assets where the DNSP retains ownership of the assets;

b) Customer Lighting Equipment Rate services (CLER): the replacement of failed lamps in customer-owned street lights where the customer retains ownership of the assets and is responsible for all other maintenance; and
c) Energy Only services (EO): the maintenance of a database relating to street lights and recording and informing customers of streetlight faults reported to the DNSP, where customers retain ownership of the assets and are responsible for all maintenance (including replacement of failed lamps).[1]

3.10. Electricity to power public lighting is purchased by councils from a licensed electricity retailer. The electricity retailer bills the council for the electricity used for public lighting and for the charges payable to the DNSP for the conveyance of the electricity through the distributor's network (ie distribution use of system charges (DUoS)).

[1] AER, South Australia Distribution Determination 2010-11 to 2014-15: Final decision (May 2010), 283.

Part B: Public lighting assets

4. Nature of the infrastructure

4.1. Conceptually, public lighting assets are no different to any other chattel and can be owned by councils.

4.2. Public lighting assets are in essence comprised of the luminaire which contains the lamps, a means of supporting the luminaire and cabling to connect to the electricity distribution network. Typically, the means of support are either:

a) stand-alone columns; or
b) mounting brackets which attach the luminaire to a structure (eg a building or Pole).

4.3. The technology for public lighting has advanced significantly and there are a range of lighting products, including lamp, sensor and metering technologies which can be installed to provide for more energy efficient and economical public lighting. The LGA has commissioned reports into these technologies.[2]

5. Ownership ability

5.1. There are no legal constraints on the ownership of public lighting in South Australia.

5.2. On privatisation of South Australian electricity distribution network in 1999 public lighting assets vested in the DNSP.[3] The DNSP was required to provide public lighting services in accordance with regulation (including the Electricity Pricing Order).

5.3. CLER and EO tariffs were introduced soon after for public lighting services provided by the DNSP where the assets are owned by a council or the State.

5.4. There is no automatic vesting by law of the ownership of public lighting assets in the DNSP. Vesting of public lighting assets can only occur by agreement between the person who owns the assets and the DNSP.

5.5. Section 209 of the LG Act regulates the ownership of 'public infrastructure' installed in, on, across, under or over a public road by a provider of public infrastructure. By definition public lighting assets are not 'public infrastructure' for the purposes of this section, and, therefore, where the public lighting asset is a fixture of the land ownership of the asset will vest in the owner of the land. This will often be the relevant council.

5.6. Where stand-alone public lighting is constructed on council-owned land then the council will own the public lighting asset as a fixture attaching to its land.

5.7. If a council was to seek the consent of a DNSP to attach council owned public lighting assets to a stobie pole then the attachment of the asset itself would not vest ownership of the public lighting assets in the DNSP.

5.8. The DNSP has published information as to its requirements for an external contractor to undertake work on behalf of a customer for a public lighting

[2] Lucid Consulting Engineers Pty Ltd, Sustainable Public Lighting: Technical Feasibility Report (prepared for the Local Government Association of SA) (August 2009); PR Dean Consulting Local Government transition to Sustainable Public Lighting (prepared for the Local Government Association of SA) (version 2; December 2010).
[3] South Australian Independent Regulator Public Street Lighting Tariffs: Final Report (November 2000), 1.

extension that will be vested in the DNSP.[4] This information indicates that the transfer of the extension to SAPN takes place at the time that SAPN receives the certificate of electrical compliance in respect of the extension and the person commissioning the works has satisfied all of SAPN's requirements as to construction detailed in NICC-400. This process assumes an agreement to transfer the legal ownership of the public lighting assets.

6. *Liability for assets*

6.1. Liability for public lighting assets will generally attach to the owner of those assets.

6.2. This general position could be altered by legislation (however, there is no legislation to this effect currently) or by agreement between the asset owner and another person.

7. *Construction and installation*

7.1. The key issue in respect of the construction and installation of public lighting assets is access to land and to a means of support for the luminaire.

7.2. Provided that there is a proximate point of connection to the distribution network, there is no necessity for public lighting assets to be located on stobie poles owned by the DNSP.

7.3. Councils control land adjacent to roadways and other public land requiring illumination. Council can install public lighting on this land. The luminaire would need to be supported either by stand-alone column or by a bracket attached to other property owned by the council (eg a council owned building). As indicated above, where stand-alone public lighting is affixed to council land, council will be the owner of that infrastructure unless there is legislation or an agreement to the contrary.

7.4. Developers must include public lighting design as an aspect of seeking development approval for a sub-division as the type of public lighting assets will determined ownership (as non-standard luminaire will not be accepted by the DNSP) and operating and maintenance costs.[5]

7.5. NICC-400 published by the DNSP indicates that: 'Appropriate public lighting designs are dependent upon the Commissioner of Highways or councils' nomination of the roads and their subsequent approval'. Councils, therefore, have a regulatory role in the selection of appropriate public lighting within the council area. AS 1158 Lighting for roads and public spaces is used by councils to guide there determinations regarding the adequacy of street lighting.

7.6. The DNSP is able to leverage its existing ownership of stobie poles and its access to land for the purposes of installing electricity infrastructure to enable it to locate public lighting assets. The co-location of these assets historically has been logical as the luminaire is supported on pre-existing infrastructure at a point where it can be readily connected to the distribution network. With the move towards the undergrounding of the electricity distribution system, the

[4] SAPN, NICC 402 – Information on Network Public Lighting Design by an External Contractor.
[5] PR Dean Consulting Local Government transition to Sustainable Public Lighting (prepared for the Local Government Association of SA) (version 2; December 2010), 4.

advantages of pre-existing stobie poles as a means of support will diminish over time.

7.7. There are processes for the attachment of third party infrastructure to stobie poles. The consent of the DNSP would be required for a council to install its public lighting assets on a DNSP stobie pole.

7.8. Clause 7.8.4 of the Service & Installation Rules (3 September 2012) (SIR) concerns the installation of equipment on a distribution pole. Relevantly clause 7.8.4.1 indicates that equipment shall not be installed upon a distribution pole unless the equipment is installed in accordance with an agreement with the DNSP, the Code of Engineering Practice for Shared use of Poles (27 February 1996) (Poles Code) and the SIR.

8. Technical requirements

8.1. Public lighting design and configuration is regulated. In addition to the technical and safety requirements which apply to public lighting assets regardless of ownership, the DNSP publishes requirements for assets which are to vest in the DNSP. Technical and safety requirements for public lighting infrastructure

8.2. An outline of the technical and safety framework applying under the Electricity Regulations in respect of connection of public lighting assets to the distribution network and the responsibilities of the owners of electrical installations is set out below. These requirements apply regardless of the ownership of the public lighting assets. The prescribed technical and safety requirements are not described in detail in this paper.

8.3. Section 59(1) of the Electricity Act requires that a person must not personally carry out the work of connecting electricity supply from a distribution network to an electrical installation unless the person is carrying out the work as an employee or contractor directly or indirectly on behalf of a DNSP (or other prescribed person) or the electricity entity that operates the network has specifically authorised the person to carry out the work. Practically, this means that the consent of the DNSP is required in order for a person to carry out the work of connecting public lighting assets to the distribution network.

8.4. A person who owns or operates electricity infrastructure or an electrical installation must take reasonable steps to ensure that the infrastructure or installation complies with, and is operated in accordance with, technical and safety requirements imposed by the regulations and that the infrastructure or installation is safe and safely operated.

8.5. Various provisions in Part 6 of the Electricity Act provide that a certificate of compliance may be issued under that Part which can be relied upon in respect of compliance with various technical and safety issues. The issuing of certificates of compliance is governed by the Electricity Regulations. The certificate must be issued by a registered electrical worker and certify that the electrical installation complies with any applicable requirements set out in AS/NZS 3000 and any Australian Standard or Australian/New Zealand standard called up by AS/NZS 3000.

Requirements of the DNSP

8.6. Where public lighting assets are to vest in the DNSP, NICC-402 (published by the DNSP) sets out information on network public lighting design by external contractors. Fundamental requirements for lighting design are:

a) compliance with the requirements of AS/NZS 1158;
b) the ability for the design to be constructed by the DNSP using the DNSP's standards and conventions and applicable Australian Standards (including AS 3000); and
c) compliance with all relevant Acts, codes and standards which the DNSP needs to satisfy.

8.7. TS101 Public Lighting Standard for Overhead and Undergrounded Networks: Technical Standard (11 June 2014) has been published by the DNSP to provide guidance on the public lighting standards for overhead and underground networks where the assets are either new or an upgraded installation that will be a component of the DNSP's distribution network.

8.8. TS101 indicates that the 'Responsibility for the provision of street lighting and road reserves in South Australia is normally controlled by local councils' or DPTI. Designs for public lighting are to be lodged with the appropriate responsible authority for review and a written agreement must be granted prior to the commencement of any public lighting works associated with electricity reticulation. The DNSP requires any public lighting installation or change to be accompanied by the Council Design and Public Lighting Agreement document (NICC-451).

8.9. Under TS101 where a lighting installation is to be vested in the DNSP the electrical contractor must be appropriately accredited to undertake the construction to the DNSP's specification.

8.10. A different standard applies in respect of CLER, energy only or metered supply where the constructor must satisfy AS/NZS 3000. For CLER or energy only scheme the installation must be isolated from any the DNSP public lighting installation. Energisation of lights for a CLER, energy only or metered connections require a site visit by the DNSP

9. Connection

9.1. The DNSP has regulatory obligations under its distribution licence to enable other electricity entities and customers to obtain electricity from the distribution network. In addition, there is a process for the formalisation of connection agreements under Chapter 5 of the National Electricity Rules (NER) which can be accessed in some circumstances to secure a connection so as to receive electricity via the distribution network.

9.2. These obligations to connect are subject to the electrical installation to be connected satisfying technical and safety requirements. Technical and safety requirements under Part 6 of the Electricity Act and Part 10 of the Electricity Regulations apply to electrical installations (including public lighting assets).

9.3. The DNSP publishes the SIR which sets out the requirements for the connection of a customer's electrical installation to the distribution network.

9.4. The system regulating the national grid (ie the transmission and distribution network operating in the National Electricity Market jurisdictions) is premised on connections being made to enable the supply of electricity to end users. Connections are to be made to the distribution network where these are consistent with the technical and safety requirements for the relevant electrical installation and the safe and secure operation of the distribution network.

9.5. Where a council commissions public lighting assets which are consistent with technical and safety requirements and the safe and secure operation of the distribution network there should be no barrier to the connection of those assets to the distribution network.

Part C: Public lighting services

10. Provision of public lighting services

10.1. Public lighting services can be provided by any person who complies with relevant regulatory requirements. The regulatory requirements differ between the DNSP and other persons (including councils). In summary:

a) the DNSP is subject to licensing requirements, obligations to connect to the distribution network, economic regulation and technical and safety requirements;
b) other persons (including councils) must comply with technical and safety requirements.

10.2. The DNSP currently provides SLUoS, CLER and EO services to councils. There is no requirement that councils receive any public lighting service from the DNSP.

10.3. The DNSP is obligated to provide distribution network services to convey electricity to customers. The service of supplying electricity to public lighting assets is conceptually different to public lighting services. The DNSP is remunerated for the supply of electricity through regulated DUoS charges which are collected on behalf of the DNSP by the electricity retailer when the council pays the retailer for the electricity used by the public lighting assets in its council area.

10.4. Where a council owns the public lighting assets it is not required to take any public lighting service from the DNSP. The EO service provides a DNSP maintained database of reported public lighting faults. Councils may consider that they are able to maintained this database in respect of council owned assets and do not require this service.

11. The obligations of public lighting customers

11.1. The obligations of public lighting customers will depend upon the service to be provided by the DNSP. In respect of all public lighting, councils, as the relevant authorities, have the role of approving the lighting to be installed on roads (other than State roads) and public places.

11.2. In respect of SLUoS services, the public lighting assets are owned by the DNSP. In this circumstance, the only responsibility of the public lighting customer is to pay the relevant tariffs.

11.3. In respect of CLER services, the public lighting customer will be responsible for all maintenance of the public lighting assets except for the replacement of failed lamps which is undertaken by the DNSP.

11.4. In respect of EO services, the maintenance of the public lighting assets are the responsibility of the customer (including replacement of failed lamps) and the DNSP's only responsibility is to maintain a database relating to street lights and record and inform customers of street light faults.

11.5. Where no services are taken from the DNSP, then the public lighting customer has the entire responsibility for providing the public lighting services.

12. Electricity Act and Electricity Regulations

12.1. The 'electricity supply industry' is regulated in South Australia by the Electricity Act and Electricity Regulations. The 'electricity supply industry' includes the provision, operation or maintenance of poles, equipment, fittings or wiring associated with the provision of lighting in a street or other place'. Licensing

12.2. No licence under the Electricity Act is required for the provision, operation or maintenance of poles, equipment, fittings or wiring associated with the provision of lighting in a street or other place.

12.3. A DNSP must hold a distribution licence issued by ESCOSA under section 23 of the Electricity Act in order to operate its distribution network. Obligation to connect and provide distribution services

12.4. A DNSP is required by its distribution licence to provide access to its distribution network to enable the other electricity entities and customers to obtain electricity from the distribution network, unless the DNSP is permitted to refuse access under the NER or the Electricity Distribution Code.

Technical and safety regulation

12.5. The Technical Regulator regulates technical and safety issue relating to the connection of public lighting assets to the distribution network under provisions of the Electricity Act and Electricity Regulations. These requirements are briefly outlined in part 8 above.

13. Essential Services Commission Act

13.1. The 'electricity supply industry' is a regulated industry for the purposes of the Essential Services Commission Act 2002 (SA). This means that ESCOSA may apply its regulatory powers under the ESC Act to public lighting services.

14. National Electricity Law and National Electricity Rules

Negotiated distribution services framework

14.1. DNSPs are required to comply with the National Electricity Law (NEL) and NER. The NEL and NER do not apply to councils providing public lighting services using their own assets.

14.2. Public lighting services provided by the DNSP in South Australia are categorised as 'negotiated services' for the purposes of economic regulation under the NER. The terms and conditions on which the DNSP provides public lighting services to customers are subject to negotiations between the DNSP and the customers. The negotiations must be in accordance with the requirements of Chapter 6 of the NER.

14.3. Where the terms and conditions on which a negotiated service cannot be agreed between the DNSP and the customer the AER may be requested to determine the matter under Chapter 10 of the NEL.

Connection to the distribution network

14.4. Chapter 5 of the NEL sets out the procedure for connection to a distribution network. A 'connection agreement' for the purposes of Chapter 5 is:

An agreement between a Network Service Provider and a Registered Participant or other person by which the Registered Participant or other person is connected to the Network Service Provider's transmission or distribution network and/or receives transmission services or distribution services.

14.5. A 'distribution service' is a service provided by means of, or in connection with, a distribution system. The provision of electricity via the distribution system to power public lighting is a distribution service.

14.6. The process for making a connection application set out in the NER can be utilised by registered National Electricity Market (NEM) participants or person intending to be registered NEM participants. There are categories of registered NEM participants which would be open to councils on the basis of being first-tier or second tier customers under the NER.

Part D: Charges

15. Types of relevant charges

15.1. There are three main types of charges relevant to the provision of public lighting. These are charges for:

a) public lighting services;
b) the conveyance of electricity to the public lighting assets; and
c) the electricity.

16. Charges for public lighting services

16.1. Public lighting services in South Australia are negotiated services for the purposes of the NER where a DNSP provides the service. Part D of Chapter 6 of the NER sets out a framework for the negotiation of prices for negotiated distribution services. In determining the prices for public lighting services, NER 6.7.1 relevantly:

a) requires prices to be based on the 'cost incurred' by the DNSP determined in accordance with the DNSP's Cost Allocation Methodology;
b) imposes a 'floor' (the avoidable cost of providing the service) and a 'ceiling' (the stand-alone cost of providing the service) on the price for public lighting services;
c) requires price parity between public lighting customer for the same type of public lighting services; and
d) requires the price for public lighting services to be sufficient to enable the DNSP to recover the efficient costs of complying with its regulatory obligations or requirements in respect of the provision of the public lighting services.

16.2. In the event that the DNSP and public lighting customer cannot agree on the terms on which public lighting services will be provided by the DNSP then there is recourse to the AER for the determination of an access dispute under Part 10 of the NEL.

17. Charges for the conveyance of electricity

17.1. DUoS charges are levied for the conveyance of electricity through the distribution network. DUoS is collected by the electricity retailer and remitted to the DNSP.

17.2. DUoS charges are subject to regulatory oversight by the AER under Chapter 6 of the NER as direct control services. A distribution determination by the AER sets prices or overall revenue caps for direct control services for a regulatory period (generally five years).

18. Charges for electricity

18.1. Councils will contract with an electricity retailer for the electricity consumed by public lighting in the council area.

18.2. Generally, public lighting is been unmetered. The electricity charges are, therefore, determined by reference to load tables for particular types of public lighting assets published by the Australian Energy Market Operator.[6]

18.3. With changes to public lighting and metering technology, there may be benefit for councils in moving from the unmetered supply model to metered supply. Exploring this issue is beyond the scope of this paper.

[6] AEMO, National Electricity Market Load Tables For Unmetered Connection Points (18 July 2014).

Part E: Options

19. Options need to be identified against objectives

19.1. Options are best identified against objectives. Councils objectives may relevantly relate to:

a) fulfilling statutory functions;
b) improving the quality of public lighting;
c) reducing energy consumption;
d) reducing greenhouse gas emission;
e) reducing operation and maintenance costs; and
f) encouraging competition in the provision of public lighting services.

19.2. The evaluation of various options can only occur once the objectives are ascertained.

19.3. There are various public lighting technologies that could be adopted by a council to deliver these objectives. The purpose of this paper is not to canvas these technologies, but to consider whether there are any constraints on councils adopting these technologies.

19.4. Some key issues, constraints on councils and options for alternative models are canvassed below as an aid to future consideration of options for councils.

20. Some key issues

Issue	Answer
Can councils own public lighting assets?	Yes.
Must public lighting assets be constructed, installed, operated or maintained by the DNSP?	No.
Is the DNSP is a unique position with respect to the provisions of public lighting services?	Yes. The DNSP currently owns the majority of public lighting assets. The DNSP is subject to licensing requirements and economic regulation which does not apply to a council providing public lighting services within council area. The DNSP has stobie poles to support luminaires. The relevance of this is likely to diminish overtime with the undergrounding of the distribution network and an increase in stand-alone lighting columns.
Are councils in a unique position in respect of stand-alone public lighting assets?	Yes. Stand-alone public lighting assets are generally fixtures on council owned land and, therefore, council property (unless and until vested in the DNSP).

Do newly installed public lighting assets automatically vest in the DNSP?	No.
Are councils required to engage the DNSP to provide any services in respect of council-owned public lighting assets?	No, subject to any existing contractual agreement with the DNSP.
What are councils' existing roles with respect to public lighting?	Determine adequacy of public lighting generally by reference to AS/NZS 1158. Development approval for sub-divisions. Ownership of land on which public lighting assets are located. Ownership and maintenance of public lighting assets subject to CLER and EO tariffs.
Can councils provide public lighting services in respect of public lighting assets owned by the council?	Yes, either directly or through the engagement of contractors. All services must be provided in a manner which complies with technical and safety requirements.
How will charges for public lighting services vary if council provides the public lighting through council owned assets?	Councils are not obligated to engage the DNSP to provide public lighting services in respect of council-owned public lighting assets. Councils could negotiate service charges with contractors. Councils would pay the direct costs of these services. Councils would continue to pay for the electricity used for public lighting and the DUoS charges for the conveyance of electricity through the DNSP's network.

21. There are few constraints on councils

21.1. There is a great degree of flexibility in South Australia in respect of the provision of public lighting services. There are no constraints on councils owning, constructing and maintaining public lighting assets which they own other than compliance with relevant technical and safety requirements.

21.2. Councils are already providing public lighting services in some circumstances. Subject to specific contractual obligations to the DNSP, there is no compulsion on councils to continue to engage the DNSP to provide public lighting services.

21.3. There are sunk costs in existing public lighting assets used to provide SLUoS services, but the continued use of these assets is not mandated. Alternative,

public lighting assets could be constructed and maintained by councils if there was a sufficient business case to shift from the existing SLUoS services.

21.4. The means of support for council-owned luminaires could not be stobie poles, unless the DNSP consented to this attachment. One practical consideration would, therefore, be the efficacy and desirability of stand-alone lighting. Part of this consideration may be any payment of the written down value of public lighting assets to the DNSP as compensation for the early retirement of these assets. This, however, should not be a consideration where the relevant public lighting assets are fully depreciated or have been gifted to the DNSP.

22. Options for alternative models for the delivery of public lighting services

22.1. There is a range of alternative options open to councils in respect of the delivery of public lighting services. The purpose of this paper is not to identify these exhaustively or to evaluate them.

22.2. Given the current regulatory framework options which could be evaluated include:

a) maintaining the status quo provision by the DNSP of SLUoS, CLER and EO services;
b) increased council ownership of public lighting assets and either:
    i. provision of CLER and EO services by the DNSP; or
    ii. council directly providing or contracting for the provision of public lighting services;
c) collaborations between councils in respect of public lighting ownership or public lighting services to achieve economies of scale in respect of the provision of these services

Part F: Analysis table

DNSP		Council
Public lighting assets		
Nature of infrastructure	Distinct electrical installation connected to distribution network. Luminaire and means of support (stand-alone pole or bracket for attaching to another structure).	Distinct electrical installation connected to distribution network. Luminaire and means of support (stand-alone pole or bracket for attaching to another structure).
Ownership ability	Yes.	Yes.
Liability	Attached to ownership (unless agreement to the contrary).	Attached to ownership (unless agreement to the contrary).
Construction and installation	Yes, statutory easement and co-location with electricity infrastructure.	Yes, on council owned property.
Technical requirements	Satisfy council requirements as to lighting type. Technical and safety requirements.	Council regulates as to lighting type. Technical and safety requirements.
Connection to distribution network	DNSP is the network owner.	DNSP has a legal obligation to connect (subject to technical and safety requirements).
Operation, maintenance and repair (OMR)	Yes, on assets owned by DNSP or where DNSP is contracted to provide OMR services.	Yes, on assets owned by the council.
Public lighting services		

Provision of services	Yes.	Yes (either directly or by council engaging contractors).
Obligations of council	Dependent on type of service (SLUoS, CLER or EO) provided by DNSP	Council would have entire responsibility for public lighting services if no service is provided by the DNSP (subject to any agreement with a contractor selected by Council to manage the public lighting services).
Licensing/registration	Yes. Electricity Act, distribution licence, NER registration.	No.
Obligations of council	Dependent on type of service (SLUoS, CLER or EO) provided by DNSP	Council would have entire responsibility for public lighting services if no service is provided by the DNSP (subject to any agreement with a contractor selected by Council to manage the public lighting services).
Licensing/registration	Yes. Electricity Act, distribution licence, NER registration.	No.
Economic regulation	Yes. Negotiated services (Chapter 6, NER).	N/A (Councils pay direct cost for public lighting services provided by councils).
Technical and safety regulation	Yes. Electricity Act and Electricity Regulations.	Yes. Electricity Act and Electricity Regulations.
Charges		
Public lighting services	Regulated by Chapter 6, NER.	Council incurred costs (either direct or through council engaged contractor).

Distribution use of system charges	N/A.	DUoS paid to retailer on behalf of DNSP regardless of ownership of public lighting assets.
Electricity	N/A.	Paid for within retail charges for the electricity regardless of ownership of public lighting assets.

Part G: References

Legislation

Electricity Act 1996 (SA)

Electricity (General) Regulations 2012 (SA)

Essential Services Commission Act 2002 (SA)

Local Government Act 1999 (SA)

National Electricity Law

National Electricity Rules

Technical standards

AS/NZS 1158 Lighting for roads and other public spaces

AS 3000 Electrical Installations (known as the Australian/New Zealand Wiring Rules)

SAPN, NICC-400

SAPN, NICC-402 Information on Network Public Lighting Design by an External Contractor

SAPN, NICC-451 Council Design and Public Lighting Agreement document

SAPN, TS101 Public Lighting Standard for Overhead and Undergrounded Networks: Technical Standard (11 June 2014)

SAPN, Service & Installation Rules (3 September 2012)

----- Code of Engineering Practice for Shared use of Poles' (27 February 1996)

Reports

AER, South Australia Distribution Determination 2010-11 to 2014-15: Final decision (May 2010)

Lucid Consulting Engineers Pty Ltd, Sustainable Public Lighting: Technical Feasibility Report (prepared for the Local Government Association of SA) (August 2009)

PR Dean Consulting Local Government transition to Sustainable Public Lighting (prepared for the Local Government Association of SA) (version 2; December 2010)

PriceWaterhouseCoopers Barriers to Energy Efficient Street Lighting (July 2011)

South Australian Independent Regulator Public Street Lighting Tariffs: Final Report (November 2000)

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Local Government Association of South Australia

Public lighting contestability in South Australia: discussion paper

Confidential report prepared for the Local Government Association of SA

6 October 2015

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This document has been prepared by Wallmans Lawyers

Part A: Introduction

1. Context

1.1. The majority of public lighting services in South Australia are provided by a distribution network service provider (DNSP), although some services are provided by councils.

1.2. A council's functions under the Local Government Act 1999 (LG Act) include providing:

a) services and facilities that benefit its area, its ratepayers and residents and visitors to its area; and
b) infrastructure for its community and for development within its area (including infrastructure that helps to protect any part of the local or broader community from any hazard or other event, or that assists in the management of any area).

1.3. One component of the infrastructure provided by councils in discharge of these functions is public lighting along streets and in other public spaces.

1.4. Councils also have functions and powers with respect to undertaking roadwork, including the installation of street lighting.

1.5. In carrying out their functions, councils are to uphold and promote adherence to specified principles including:

a) seeking to facilitate sustainable development and the protection of the environment and to ensure a proper balance within its community between economic, social, environmental and cultural considerations; and
b) ensuring the sustainability of the council's long-term financial performance and position.

1.6. There are currently three types of public lighting services provided by the DNSP:

a) Street Lighting Use of System services (SLUoS): SAPN owns the public lighting assets and undertakes the operation and maintenance of those assets;
b) Customer Lighting Equipment Rate services (CLER): PLC owns the public lighting assets and maintains these assets, other than the replacement of failed lamps which is undertaken by SAPN; and
c) Energy Only services (EO): PLC owns and maintains the public lighting assets (including replacing failed lamps).

1.7. Currently, public lighting services are predominantly SLUoS services which are provided by means of DNSP owned infrastructure which is often attached to the stobie poles which are part of the DNSP's distribution network. Support for luminaires via stobie poles is the historical model for the provision of public lighting services which predates the privatisation of the South Australian electricity industry. On privatisation, the existing public lighting assets were vested in the DNSP.

1.8. Councils are not required to obtain their public lighting services from the DNSP. There are no legislative barriers to councils owning public lighting infrastructure and providing public lighting services within their council areas.

1.9. In September 2014 we provided a report for the Local Government Association on the Delivery of public lighting services in South Australia (Wallmans Report). The Wallmans Report was available to Ironbark Sustainability for the purposes of compiling its Transitioning to Safe and Sustainable Public Lighting (27 August 2015) report (Ironbark Report). We refer to these reports collectively as the 'Previous Reports'.

2. *Purpose of this paper*

2.1. The focus of the paper is on implementing a contestability model for public lighting services in South Australia. In summary, models include:

a) council owned and operated public lighting infrastructure;
b) council owned and third party operated public lighting infrastructure; and
c) third party owned and operated public lighting infrastructure.

2.2. This paper:

a) considers the regulatory or legal barriers to implement these models in South Australia; and
b) identifies potential legislative or other frameworks to give effect to these models.

2.3. A purpose of this paper is to extend the analysis in the Previous Reports. Aside from the Previous Reports, the analysis set out in this report is informed by the current negotiations between the LGA and the DNSP for the purposes of determining prices for public lighting services. The State is also a party to these negotiations and shares a common interest with councils in respect of the negotiations and the framework for the delivery of public lighting services in South Australia.

2.4. The Wallmans Report concluded that there are few constraints on councils providing public lighting services directly. In summary, the barriers which exist are compliance with safety and technical regulation and access to stobie poles as an efficient means of support for public lights.

2.5. The purpose of the Ironbark Report was to identify critical pathways to transition to safe and sustainable lighting in South Australia. The Ironbark Report indicates that the main barriers to delivering an improved street lighting system are:

a) financial costs (capital and operating);
b) expertise and time to deal with the complexity of street lighting; and
c) delays and frustration in working with external stakeholders (especially the DNSP).

2.6. The Ironbark Report focuses upon the installation of LED energy efficient lighting by councils. For the reasons set out below in section 4, our view is that the transition to energy efficient lighting should be viewed in the broader

context of facilitating competition in public lighting services and leveraging off emerging technologies which can be based upon street lighting.

2.7. The barriers identified in the Previous Reports (other than engagement with the DNSP) are discussed in Part B of this paper. A move to contestability in public lighting services will diminish the influence of the DNSP in the public lighting market. For this reason, we consider that the past difficulties in engaging with the DNSP are not a barrier to the introduction of contestability in the public lighting services market. By taking a narrower view focusing in isolation on the transition to energy efficient lighting, councils may miss a unique opportunity to fundamentally reform public lighting services provision in South Australia.

3. Structure of this paper

3.1. This paper is structured as follows:

a) Part A of the paper sets out the context and key concepts relevant to contestability in public lighting services in South Australia;
b) Part B explores contestability frameworks and discusses key matters to be addressed to facilitate contestability in public lighting services, including overcoming barriers and constraints identified in the Previous Reports;
c) Part C includes an assessment of the contestability options against the key matters discussed in Part B;
d) Part D considers legislative and negotiated frameworks to give effect to contestability; and
e) Part E discusses developing a business case to assess contestability delivery options in detail.

4. Overview and conclusions

4.1. Councils in South Australia have a unique opportunity to alter the manner in which public lighting services are provided within their communities. There are particular timing imperatives which we suggest require councils to consider the options for change now, with a view to implementing change in 2016.

4.2. Potential barriers to entering the public lighting market exist, but none of these are insurmountable.

4.3. The extended negotiations with the DNSP have highlighted the difficulties of having a monopoly service provider who does not share the public policy, commercial and service delivery objectives of councils.

4.4. Given that the public lighting infrastructure vested in the DNSP is fully (or will at 30 June 2016 be fully depreciated), there is an opportunity to acquire existing public lighting infrastructure at a more affordable price. This opportunity may be lost if the DNSP invests significantly in transitioning to energy efficient lighting. A transition to energy efficient lighting by the DNSP will be either at an upfront cost or tariffrecovered costs to councils.

4.5. We suggest that if public lighting infrastructure is to be upgraded or replaced for energy efficiency then this investment should be undertaken after the local

government sector has determined the future model for public lighting services.

4.6. There is a growing commercial interest in public lighting services and ancillary uses for public lighting infrastructure. This may provide opportunities for councils to capitalise on private sector investment either through a third party directly funding and operating public lighting or by councils charging private sector companies for ancillary uses of council owned public lighting infrastructure.

4.7. We recommend that a business case be undertaken with a view to selecting a preferred model against the articulated objectives of local government with respect to public lighting. A base case for the business case can be developed from the current negotiations with the DNSP on public lighting services prices.

4.8. Once a preferred option has been determined, the steps for implementing the preferred option should be scoped. A conclusion which can be drawn from the analysis below is that transitioning to a different public lighting services model does not require legislation. Legislation could, however, play an effective role in respect of elements of the transition, including in respect of accessing stobie poles for the support of public lights.

Part B: Contestability frameworks

5. Preconditions to contestability

5.1. In theory, public lighting services are currently contestable. It is currently possible for councils or non-DNSP service providers to provide public lighting services in South Australia. However, there is a distinction between a service being theoretically contestable and a service being practically contestable. Practical contestability requires that barriers to new entrants participating in the public lighting services market be removed to enable competition between service providers to occur.

5.2. There are some interesting parallels which can be drawn between the current public lighting services market in South Australia and the introduction of contestability in the retail electricity market in South Australia. This retail market had been serviced by a monopoly service provider: the Electricity Trust of South Australia (ETSA).

5.3. Before full retail contestability could be achieved in the retail electricity sector, a number of preconditions were satisfied by altering the operational and regulatory environment in which electricity services were provided. These preconditions were:

a) functional separation of services;
b) separation of policy setting from commercial activities;
c) separation of regulatory from commercial activities; and
d) third party access to relevant infrastructure.

Functional separation

5.4. Functional separation of services occurs where an integrated service is able to be separated into its functional components. For example, the electricity services which had been provided by ETSA were split into the functional components of generation, transmission, distribution and retailing. The functional separation allowed different businesses to enter the market to provide components of the holistic electricity service provided previously by ETSA.

5.5. The functional components of generating and retailing electricity were able to be opened to contestability, whereas the transmission and distribution functional components were not due to being at that time natural monopolies (ie the wires networks were uneconomic to duplicate and could not be substituted or avoided).

5.6. The functional components of public lighting services should be considered to determine whether or not it is feasible and advantageous to separate aspects of the public lighting services in order to foster contestability. The relevant functional components are:

a) installation of public lighting infrastructure;
b) ownership of public lighting infrastructure; and
c) operation, maintenance and replacement of public lighting infrastructure.

5.7. Other functional components (ie manufacture and sale of luminaires and provision of electricity for public lighting) exist, but are not relevantly part of the services which are considered for provision by parties other than the DNSP.

Separation of regulatory activities and policy setting from commercial activities

5.8. There are currently no regulatory activities of councils with respect to public lighting infrastructure other than to specify compliance with AS 1158 where developers install lighting.

5.9. Councils do, however, regulate business activities and the alteration of council controlled roads. To the extent that this regulation could conflict with commercial activities relating to public lighting infrastructure owned or operated by councils, functional separation within a council should be considered.

5.10. Potential conflict between council policy setting and the commercial activities of council in respect of public lighting should also be taken into account.

Third party access to services provided by third party infrastructure

5.11. The following access to infrastructure is required in order to enable contestability in public lighting services:

a) connection to the electricity distribution network to enable electricity to power the lights; and
b) access to a means of support for the public lighting infrastructure.

Connection to the electricity distribution network

5.12. The DNSP has regulatory obligations under its distribution licence to enable other electricity entities and customers to obtain electricity from the distribution network. In addition, there is a process for the formalisation of connection agreements under Chapter 5 of the National Electricity Rules (NER) which can be accessed in some circumstances to secure a connection so as to receive electricity via the distribution network.

5.13. These obligations to connect are subject to the electrical installation to be connected satisfying technical and safety requirements. Technical and safety requirements under Part 6 of the Electricity Act and Part 10 of the Electricity Regulations apply to electrical installations (including public lighting assets). Regulatory barriers to contestability are discussed below in Part 6.

Support via stobie poles

5.14. Public lighting requires elevation to be effective. The means by which public lighting infrastructure is supported varies and includes standalone columns, attachment to stobie poles and attachment to other structures.

5.15. The DNSP has a natural advantage in respect of the provision of public lighting services due to its ownership of stobie poles. Stobie poles are a practical and effective means of supporting public lighting infrastructure. The DNSP is not compelled to enable other persons to attach infrastructure to its stobie poles. DNSPs do, however, permit the attachment of third party infrastructure to stobie poles for a commercial return.

5.16. Attachment of public lighting infrastructure to stobie poles is theoretically substitutable with standalone columns. Practically, such a replacement without the removal of electricity distribution infrastructure by undergrounding would proliferate road-side infrastructure with the potential to compromise road safety and amenity.

5.17. An option would be to provide a statutory right for councils to attach public lighting infrastructure to stobie poles located in road reserves, subject to meeting technical and safety requirements to the satisfaction of the Technical Regulator. We suggest that it is important that determining satisfaction with safety and technical requirements be vested in an independent regulator, rather than being left to the determination of the DNSP.

5.18. It would also be prudent for a facilities access arrangement to be agreed between a council and the DNSP to deal with coordination issues between the co-located infrastructure. In the event that a facilities access agreement could not be negotiated between the parties, the Technical Regulator could determine the terms of the agreement. An alternative approach would be for the DNSP to be required to publish a default facilities access arrangement which would apply unless the parties negotiated alternative terms.

5.19. Our view is that there should be no charge for the attachment of public lighting to stobie poles pursuant to a statutory right. We see this as a quid pro quo for the ability of the DNSP to operate its electricity distribution network from road reserves at no cost. The DNSP is likely, however, to have a contrary view.

6. Potential barriers to entry

6.1. Potential barriers to entry in respect of the public lighting services market are:

a) access to land for the installation of infrastructure;
b) infrastructure acquisition;
c) operating costs;
d) public lighting support;
e) regulatory barriers;
f) information asymmetry; and
g) resourcing.

Access to land

6.2. An issue for all utility services is access to land on which to install the utility infrastructure. This is not an issue for councils given their control over road reserves.

Infrastructure acquisition and capital costs

6.3. Financial modelling would be undertaken by any new entrant in the public lighting services market to ascertain the financial viability of installing public lighting infrastructure. Contestability models which are premised on council ownership of public lighting infrastructure will need to consider the financial implications.

6.4. Councils may be in an advantageous position with respect to the acquisition of existing and future public lighting assets in comparison with other potential providers of these services.

6.5. Set out below is a discussion regarding the acquisition of public lighting infrastructure by councils. Where this acquisition involves the transfer of assets from the DNSP to the council, the tax implications of the transfer should be considered. To the extent, if any, that these implications relate to State taxes, the impacts could be ameliorated by legislation.

DNSP-installed infrastructure

6.6. There is considerable sunk investment in existing public lighting infrastructure. Gaining access to this infrastructure may be the most cost effective means of entering the public lighting services market. Should there be a means either by negotiation or legislation for the transfer of existing public lighting assets from the DNSP to a council then the DNSP will want to secure a return for transferred assets with remaining economic life.

6.7. In the context of regulated assets, there are various means of assessing the value of assets. For the purpose of economic regulation, assets are often subject to a regulatory valuation which does not take into account the condition of the assets. Paying the written down regulatory value of assets is likely to be more expensive than purchasing at a price which recognises remaining asset life and condition.

6.8. Consideration could also be given to negotiating a departure from the written down value of the assets on the basis that the current condition of the assets (rather than remaining regulatory life) should be the key determinant of the transfer price.

6.9. Apparently some United States jurisdictions have legislated to facilitate local government buying public lighting infrastructure from power companies.[1] Legislation to this effect has not been enacted in Australia, but there is no legal barrier to this occurring. Legislation could also ameliorate the application of State taxes (eg stamp duty) to the infrastructure transfer.

6.10. Where assets are wholly depreciated, the written down value should be $nil. Given the public lighting infrastructure vested in the DNSP on privatisation is either fully depreciated or will be fully depreciated by 30 June 2016, the timing for the transfer of assets from DNSPs to councils could be advantageous.

6.11. A further timing and costing consideration is in respect of the transition to energy efficient lighting. Investment in energy efficient lighting is yet to be made on a large scale by South Australian councils. If councils wanted to resume ownership of public lighting infrastructure, the moneys allocated for investment in energy efficient lighting could be spent by councils in transforming public lighting infrastructure in council ownership, rather than being provided to the DNSP for the upgrade of the infrastructure currently utilised to provide SLUoS.

6.12. Ultimately the terms on which the DNSP would undertake an energy efficiency upgrade of the SLUoS infrastructure would be subject to negotiation

[1] See for examples http://www.syracuse.com/news/index.ssf/2015/05/some_cities_can_buy_national_grids_streetlights_cheap_but_not_syracuse.htm (accessed 24 September 2015).

between councils (or LGA) and the DNSP. There is a likelihood that the DNSP would require councils to:

a) pay the written down value of any assets which were not fully depreciated, but which became redundant through the energy efficiency transition; and
b) fund the new energy efficient infrastructure either through the SLUoS price (which would rise because fully depreciated assets would be replaced by DNSP funded assets) or by direct funding.

Gifted assets

6.13. As you are aware, there is some uncertainty as to the vesting of title in gifted public lighting assets and the chain of ownership. Gifted assets are generally installed by a developer who is likely to acquire title to those assets under section 209(2) of the LG Act. Title to gifted assets is most likely to be vested in the DNSP by the developer at the time that electricity infrastructure is acquired by the DNSP from the developer.

6.14. Consideration could be given to acquiring gifted assets from the DNSP at no cost. The DNSP has never paid for these assets, but has had the advantage of being able to utilise them to provide SLUoS. Where a council determines to no longer have the DNSP provide that service, it does not seem unreasonable to require the gifted assets to be transferred to the council.

New public lighting infrastructure

6.15. Councils may have some advantages in respect of acquiring new public lighting infrastructure. Infrastructure installed within a subdivision by a developer such as roads and footpaths typically vest in the relevant council. Public lighting installed by a developer could also vest in and be retained by the council under existing legislation.

Operating costs

6.16. The Ironbark Report identifies capital and operating costs as barriers to transitioning to an improved lighting system. Capital costs are discussed above. For the reasons outlined below, we do not consider that operating costs are a significant barrier to transitioning to a contestable public lighting market.

6.17. The costs of operating public lighting infrastructure on council roads will be funded by councils regardless of whether public lighting services are provided directly by the council or by a third party. Where service provision is by a third party, the operating expenses will be a component of the price charged for the service.

6.18. The costs of direct provision by a council will not include any mark up on the operating expenses which may occur where these services are provided by a private sector provider. Against this costs saving, a council may not be able to achieve the economies of scale of a private sector provider and, therefore, may pay more for subcontractors and replacement assets. Economies of scale could be achieved by councils 'pooling' their public lighting infrastructure on a regional basis and coordinating the operation of the public lighting network through a regional subsidiary.

6.19. Should councils own public lighting infrastructure in the future, the costs of operating that infrastructure may be able to be offset by enabling a commercial return for access to the public lighting infrastructure by private sector companies requiring a network of elevated poles to support infrastructure. Options of this type could be further explored through the business case discussed in Part E of this paper.

Public lighting support

6.20. The elevation of public lighting by stobie poles is a significant advantage which the DNSP has in providing public lighting services. There are potential safety issues with respect to the proliferation of roadside infrastructure which would be relevant to decisions to discontinue the use of stobie poles to elevate public lighting.

6.21. In some cases the road reserve will be able to support both standalone lighting columns and stobie poles. Where this is not the case, then other options (including the undergrounding of electricity distribution) could be discussed with the DNSP.

6.22. A statutory right to connect to stobie poles would also alleviate this issue (see discussion above at paragraphs 5.17 to 5.19).

Regulatory barriers

6.23. As discussed in the Wallmans Report, there are regulatory requirements which apply to a DNSP providing public lighting services which will not apply to councils providing the same services.

6.24. For some new entrants, the regulatory barriers to entry will also be more significant than they would be for councils. Compliance with regulation will be a factor in the price charged by a private sector provider of public lighting services.

Information asymmetry

6.25. New entrants into the public lighting services market face a barrier due to information asymmetry between the new entrant and the DNSP. The DNSP should:

a) know the condition of existing public lighting infrastructure; and
b) be able to identify the numbers of gifted assets, DNSP funded assets, standalone assets and assets attached to stobie poles and their locations.

6.26. This information may be relevant to market entry decisions and strategies.

6.27. The information asymmetry can be overcome by auditing the public lighting assets in an area.

Resourcing

6.28. The Ironbark Report identifies lack of expertise and time as barriers to transitioning to sustainable lighting. Our view is that these are barriers which are easily overcome in the context of increased contestability in public lighting services.

6.29. Expertise for the operation and maintenance of public lighting assets can be acquired by councils in the same way as the DNSP acquires staff and subcontractors for these roles. Compliance with technical and safety requirements necessitates that persons engaged in the maintenance and replacement of public lighting assets are appropriately qualified and experienced.

6.30. Aside from technical roles, the management of the public lighting infrastructure is likely to be similar to other asset management roles. Councils have considerable expertise in the management of their assets. This expertise already extends to the management of network assets such as roads and stormwater infrastructure. Shortfalls in staff could again be dealt with by employment or subcontracting.

Part C: Assessment of contestability options

7. Summary of options

7.1. The following table summarises an assessment of the contestability options against the potential barriers to entry discussed in Part B. Any of the options are feasible frameworks for contestability, particularly if supported by legislation providing access to infrastructure attached to stobie poles.

	Access to land	Infrastructure acquisition	Operating costs	Public lighting support	Regulatory barriers	Information asymmetry	Resourcing
Council owned and operated	Yes, owns road reserve	Council retain new developer funded assets Council request return of gifted assets Council negotiate transfer of DNSP funded assets (cost to councils) Consideration of legislation to facilitate the transfer of public lighting assets to councils Consideration of option for regional subsidiaries to own and manage public lighting	To be met by council regardless of supplier	Standalone columns Statutory right to connect public lighting to stobie poles (no charge)	Only technical and safety	Addressed through a public lighting audit	Specialist resourcing can be employed or subcontracted. Councils already employ asset managers
Council owned and third party operated	Yes, owns road reserve	Council retain new developer funded assets	To be met by council regardless of supplier	Standalone columns	Technical and safety, plus third party operator may	Addressed through a public lighting audit	Specialist resourcing can be

		Council request return of gifted assets Council or third party negotiate transfer of DNSP funded assets (cost to council or third party developing on nature of commercial deal) Consideration of legislation to facilitate the transfer of public lighting assets to councils Consideration of option for regional subsidiaries to own and manage public lighting		Statutory right to connect public lighting to stobie poles (no charge)	(depending on identity) have additional regulatory requirements		employed or subcontracted. Councils already employ asset managers
Third party owned and operated	Yes, council can authorise as council owns road reserve (section 222, LG Act)	Third party funded Service delivery could be structured for the vesting of the assets in councils at the end of a concession period (eg PPP model)	To be met by council regardless of supplier	Standalone columns Statutory right to connect public lighting to stobie poles (no charge)	Technical and safety, plus third party may (depending on identity) have additional regulatory requirements	Addressed through a public lighting audit	Specialist resourcing can be employed or subcontracted

Part D: Frameworks to facilitate contestability

8. Key elements of a South Australian framework

8.1. The key elements of a South Australian framework for increasing contestability in public lighting services are summarised in the following table. The table includes negotiated and legislative mechanisms.

8.2. In theory it would be possible to implement a contestable public lighting services market in South Australia without legislation. Legislation may, however, provide an efficient effective and certain means of dealing with some of the more difficult aspects of transitioning to a competitive market. For example, a legislative right for councils to attach public lighting infrastructure to stobie poles or to acquire existing public lighting assets from the DNSP would enable a streamlined transition.

Issue to be addressed	Mechanism
Access to land	Existing legislation: Title in land vested in accordance with the LG Act
Infrastructure acquisition	
Fully depreciated DNSP funded assets	Agreement or legislation: Transfer to councils for $nil cost
Non-fully depreciated DNSP funded assets	Agreement or legislation: Transfer to councils for written down value based on remaining life and condition
Gifted assets	Agreement or legislation: Transfer to councils at $nil
New assets	Agreement for purposes of section 209, LG Act for title to vest in councils
Tax implications	Assessment. Legislation: Ameliorate negative impact of State taxes
Operating costs	Met by councils either directly or through public lighting services tariffs
Public lighting support	
Access to stobie poles	Agreement: DNSP is likely to require payment of an attachment charge Legislation: Statutory right to attach public lights to stobie poles subject to satisfying safety and technical requirements

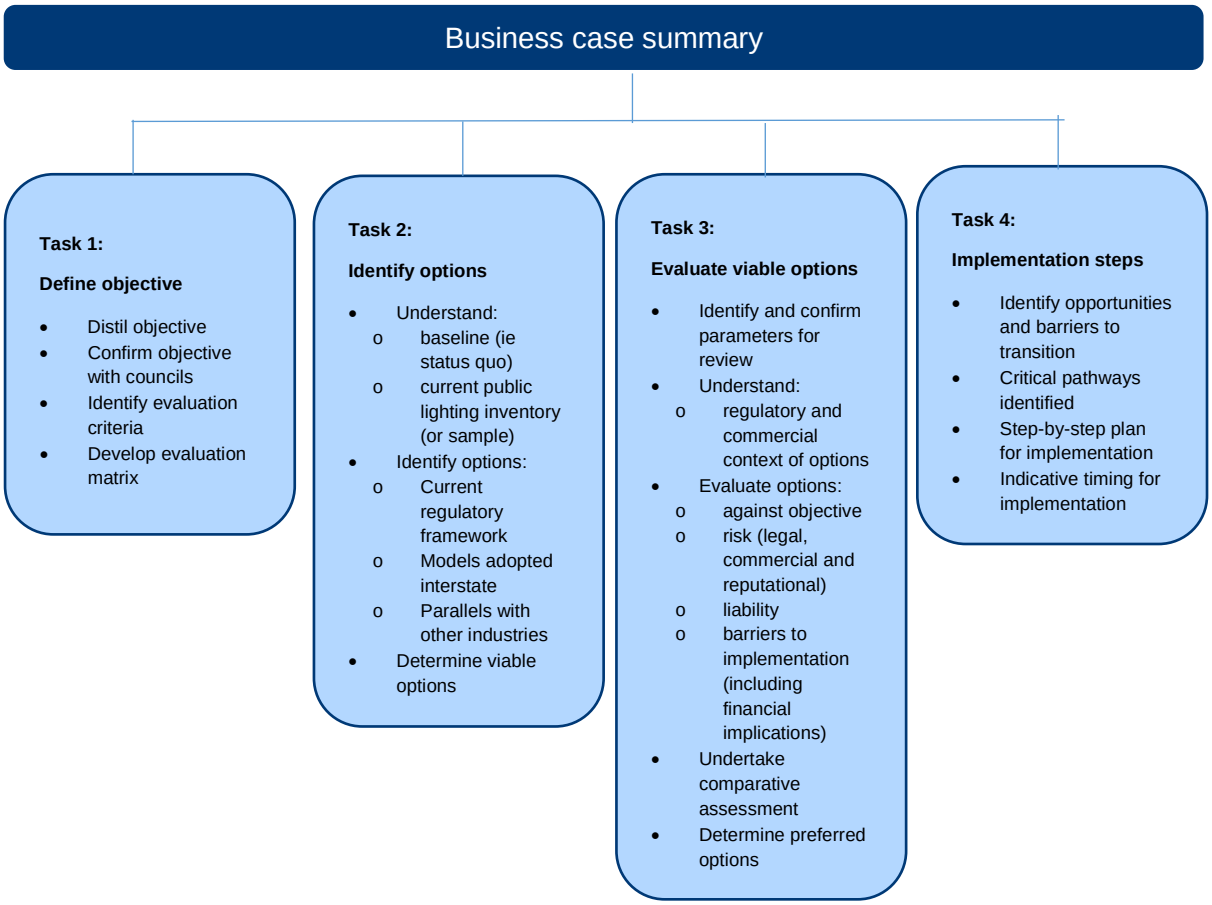
Safety and technical requirements	Facilities access agreement: Negotiated, but with ability for Technical Regulator to determine satisfaction with requirements
Regulatory barriers	Safety and technical requirements discussed above
Information asymmetry	Public lighting audit: To ascertain location, light type, age and condition
Resourcing	Addressed by the public lighting services provider through employees or subcontractors

Part E: Developing a business case

9. Next step: developing a business case

9.1. There are a variety of delivery options for increasing contestability in public lighting in South Australia. These should be explored in further detail (including forecast financial impacts) to enable an informed decision regarding the future model of public lighting services in South Australia to be determined.

9.2. Some considerations in respect of developing a business case are outlined in this Part E. The diagram below sets out an overview of a process for developing a business case summarising key considerations.



10. Objectives should inform the selected approach

10.1. The appropriate pathway for introducing contestability into the public lighting market in South Australia should be identified by evaluating the options against the objectives of the local government sector. As a first step, therefore, we suggest these objectives should be clearly articulated.

10.2. Care should be taken in formulating the objectives. For example:

a) if the objective is to increase contestability in the public lighting services market then moving from the DNSP to another private sector monopoly provider will not achieve this objective;

b) if the objective is to transition from current lighting to energy efficient lighting at least direct cost to councils then a public private partnership (PPP) with a single private sector provider may be the most effective option.

10.3. Various options for the achievement of the objective should be assessed through the business case against criteria which, if satisfied, contribute to the objective.

11. Current negotiations with DNSP can provide a baseline

11.1. A business case for altering the current manner in which public lighting services are delivered in South Australia will require a baseline. The baseline should be the status quo (ie continued delivery of these services by the DNSP).

11.2. The current negotiations with the DNSP appear to be able to deliver a baseline in respect of public lighting prices (or the method for their calculation) from 1 July 2016. This will be on the basis that the assets received by the DNSP on privatisation of the South Australian electricity industry will be fully depreciated.

11.3. The assessment of this baseline, however, should take into account the anticipated impact of transitioning to energy efficient lights with the DNSP as the service provider.

12. Functional aspects of public lighting services

12.1. The business case should consider which functional aspects of the public lighting services market are relevant to achieving the local government sector's objectives. It may be that these objectives can be achieved by facilitating competition in respect of operation, maintenance and replacement of public lighting infrastructure while having monopoly ownership (perhaps by a regional subsidiary).

13. Ownership

13.1. Who owns the public lighting infrastructure will have an impact on the costs to councils.

13.2. Where there is a third party owner, councils will pay for the cost of capital to the owner through public lighting tariffs. Councils would also forgo the opportunity to raise revenue through licensing commercial entities to utilise the public lighting network for other purposes (eg licensing a telecommunications company to utilise the lighting points for its wireless services).

13.3. Councils have the option of establishing regional subsidiaries under section 43 of the LG Act. This provides an option for the ownership of the assets which is regionalised to provide economies of scale and to have the ownership of the assets outside of individual councils.

14. Financing options should be considered

14.1. Upfront costs of financing public lighting infrastructure may be a disincentive to councils. Several funding options, including those discussed below, may be available to councils.

Service charge under the LG Act

14.2. Consideration could be given to the promulgation of regulations for the purpose of section 155(1)(c) of the LG Act to enable services charges to be levied by councils in respect of public lighting.

Public private partnerships

14.3. There are models for collaboration with the private sector which provide for the delivery of services by a private sector company with the handing over of the assets used to provide the service at the end of that company's concession period. During the concession period, services generally would be taken from the private company exclusively. Care needs to be taken, therefore, in documenting the terms of the arrangement (including service standards) prior to the contract coming into operation.

14.4. We would be pleased to discuss PPP options with you further. Further information can also be found on the Infrastructure Australia website which links copies of the National PPP Policy and Guidelines adopted by the Council of Australian Governments in 2008.

Planning, Development and Infrastructure Bill 2015

14.5. Part 13 of the Planning, Development and Infrastructure Bill sets out infrastructure frameworks. Infrastructure schemes under Part 13 may include financing arrangements. Where councils are required to contribute to the cost of the infrastructure under a financing arrangement, councils must recover the cost of their contribution by levying a charge on rateable land. Currently, Part 13 does not expressly contemplate 'public lighting' within the 'essential infrastructure'.

14.6. There are significant difficulties with Part 13 of the Bill on which we have provided detailed advice to the LGA. Given these difficulties (and the likely extended period before Part 13 or an alternative framework would take effect), we suggest that this should not be viewed as a viable funding mechanism.

15. Implementation options

15.1. Once a preferred model is selected, the business case should consider detailed requirements for implementation. In theory, a contestable public lighting market could be put in place by the local government sector without legislation. However, legislation to relieve certain barriers to entry (eg access to stobie poles) would facilitate a streamlined and timely transition which could not be stymied by the incumbent DNSP.

15.2. The desirability of facilitating legislation being enacted to support the transition to a contestability framework for public lighting services will depend upon the preferred model. The history of the negotiations with the DNSP is,

however, a relevant consideration when determining the practical viability of a framework which requires negotiated outcomes between the DNSP and the provider of the public lighting services.

The business case should also consider the practicalities of the implementation options. For example, legislation will only be an option with the support of the State government, could be susceptible to politics and may have timelines which may be inappropriate.

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Public lighting service delivery: Comparison of corporate models

The following table sets out a comparison between:

- a regional subsidiary established under section 43 of the Local Government Act 1999 (LG Act); and
- a proprietary company limited by shares established under the Corporations Act 2001 (Cth).

The comparison is provided for the purpose of assisting the LGA Board to consider the relative merits of each corporate model for the delivery of public lighting services. The comparative tax treatment of the models is not discussed below.

Regional subsidiary	LGA Subsidiary
Establishment	
Two or more councils may determine to establish a regional subsidiary under section 43 of the LG Act. A key issue with respect to the formation of a regional subsidiary to provide public lighting services is the number of constituent councils. A regional subsidiary with numerous constituent councils may be unwieldy from a governance perspective. Some councils may want 'ownership' of the subsidiary, but there may be others which do not want active involvement. The councils which are constituent councils will bear the liability of the regional subsidiary. Consideration may need to be given to other councils who receive public lighting services from the regional subsidiary indemnifying the constituent councils in respect of this liability.	The LGA may resolve to establish a subsidiary under the Corporations Act (**LGA Subsidiary**). The LGA can be the single member of the LGA Subsidiary.
The constituent councils are the 'owners' of the regional subsidiary.	The LGA as the single shareholder of a LGA Subsidiary would be the owner. Councils are precluded from holding shares or participating in the formation of a company by section 47(1), LG Act.
The conferral of corporate status on a regional subsidiary is by approval of the Minister for Local Government (Minister) at the time this approval is gazetted. The councils intending to constitute the regional subsidiary would need to jointly apply to the Minister for approval. The joint application must include a copy of the proposed charter of the regional subsidiary.	Conferral of corporate status would occur upon registration of the LGA Subsidiary with the Australian Securities and Investment Commission (ASIC). An application is made to ASIC for registration and ASIC may then issue the company with an ACN, register the company and issue a certificate stating prescribed details of the company.

	The ASIC registration process is quick and inexpensive. If a bespoke constitution is required for the LGA Subsidiary, this would be lodged with ASIC with the application for registration.
Section 43 of the LG Act identifies that a regional subsidiary can be formed to: • provide a specified service or services or to carry out a specified activity or activities; or • perform a regulatory activity and a significant and related service activity.	A LGA Subsidiary would provide a service or activity. A LGA Subsidiary would not have regulatory functions.
The powers, functions and duties of the regional subsidiary are set out in its charter.	A LGA Subsidiary would have the powers of a natural person. The constitution of the LGA Subsidiary could act as a limitation on the exercise of these powers.
A regional subsidiary may be wound up by the Minister acting at the request of the constituent councils or by the Minister on the basis that a requirement of a report into an investigation into a subsidiary under section 274 of the LG Act has not been fulfilled.	The LGA could determine to wind up its subsidiary in accordance with the processes in the Corporations Act.
Governance	
A regional subsidiary must have a charter which conforms to the requirements of Schedule 2, LG Act. The proposed charter must be provided to the Minister at the time of submitting an application for the formation of the regional subsidiary.	A LGA Subsidiary could operate under a bespoke constitution or the replaceable rules set out in the Corporations Act (or a combination of both).
A charter sets out the requirements of the constituent councils with respect to the regional subsidiary (subject to the provisions of the LG Act). The regional subsidiary must act in accordance with the charter.	The constitution of a LGA Subsidiary or the replaceable rules (or a combination of them both) acts as a contract between; • the LGA Subsidiary and its member, the LGA; and • between the LGA Subsidiary and each director and company secretary. Under the contract each person agrees to observe and perform the constitution and replaceable rules so far as they apply to that person.
The charter of a regional subsidiary must be reviewed at least every four years	There is no legal requirement for the review of the constitution of an LGA Subsidiary.
Amendment of the charter would require the agreement of the constituent councils.	Amendment of the constitution of a LGA Subsidiary would require agreement of the LGA as the sole member of the Subsidiary.
A board of management must be established in accordance with clause 20, Schedule 2, LG Act.	A single director and company secretary can be appointed for an LGA Subsidiary. Alternatively, a board of directors may be appointed. Again, a skills based board may be appropriate.

The board could be comprised of council members, council staff and/or independent members. Given the nature of public lighting services, a skills based board may be appropriate.	A person will become a director or company secretary of the LGA Subsidiary by being specified in the application for the registration of the LGA Subsidiary with ASIC and providing their consent.
The role and conduct of the board of management will be governed by the requirements of Schedule 2, LG Act and the regional subsidiary's charter.	The role and conduct of the director or directors will be governed by the requirements of the Corporations Act and the common law with respect to director's duties.
The holding of meetings will be governed by meeting requirements under the LG Act and charter of the regional subsidiary. Board meeting will be open to the public, unless this is precluded by the charter.	The holding of directors meeting will occur according to the Corporations Act. The meetings will not be open to the public.
Specific reporting requirements must be met by a regional subsidiary under Schedule 2, LG Act. Business plans, budgets and annual reports must be developed in accordance with specific provisions and timing requirements.	A LGA Subsidiary will need to meet the record keeping requirements of the Corporations Act. Unless the LGA Subsidiary is subject to a shareholder (ie LGA) direction or a ASIC direction it will not be required to prepare financial reports or directors' reports.
A regional subsidiary will be subject to joint control and direction by the constituent councils.	A LGA Subsidiary will not be subject to control and direction by councils or LGA member councils.
A regional subsidiary must have an audit committee.	A LGA Subsidiary could have an audit committee.
A regional subsidiary may be subject to investigation instigated by the Minister, if the Minister considers that there are irregularities in the management of the subsidiary, the subsidiary has acted outside of its charter or in breach of the law or there are other circumstances justifying an investigation. The constituent councils must undertake the investigation and report to the Minister. On the basis of the councils' report the Minister may require specified action to be taken in respect of the subsidiary. A failure to meet requirements of the Minister can be the basis for winding up a subsidiary.	ASIC regulates proprietary companies according to the Corporations Act. ASIC has statutory powers to investigate breaches of the Corporations Act.
Time and resource implications	
The expenses incurred in promoting and setting up a regional subsidiary would be borne by the intending constituent councils.	The expenses incurred in promoting and setting up a LGA Subsidiary are able to be paid out of the company's assets.
A joint application for ministerial approval of the formation of regional subsidiary by all prospective constituent councils is required. The process of agreeing the terms of a charter which all prospective constituent councils may be time and resource intensive.	A LGA Subsidiary can be established quickly. The ASIC registration process is structured, straightforward and inexpensive. There would be an additional timing implication if a bespoke constitution was to be developed for the LGA Subsidiary. The adoption of the constitution, however, would be

	a matter for the LGA and, therefore, does not require multiple parties to be satisfied prior to its lodgement with ASIC.
Staffing commitments would be similar between a regional subsidiary and a proprietary company given that staffing requirements would be determined by the activities of the entity rather than its governance structure.	Staffing commitments would be similar between a regional subsidiary and a proprietary company given that staffing requirements would be determined by the activities of the entity rather than its governance structure.
Ownership by the local government sector	
Liabilities of the regional subsidiary are guaranteed by the constituent councils.	Liabilities of a LGA Subsidiary are held by that corporate entity alone. This means that the liabilities of the LGA Subsidiary will not attach to the LGA or the directors of the subsidiary.
If the public lighting assets were vested in the regional subsidiary then these assets would be held by the regional subsidiary on behalf of the constituent councils.	If the public lighting assets were vested in an LGA Subsidiary, the LGA Subsidiary would own the assets.
Constituent councils for a regional subsidiary may change over time with new constituent councils joining and constituent councils leaving the regional subsidiary. This would occur in accordance with the regional subsidiary's charter and only with the approval of the Minister.	The LGA would control any future change in the membership (ownership) of the LGA Subsidiary (subject to the Corporations Act and its constitution).
Involvement of the local government sector	
The formation of a regional subsidiary to provide public lighting services would not derogate from each constituent council's ability to provide public lighting services directly. The ownership of the public lighting assets by the regional subsidiary would, however, constitute a significant disincentive to alternative service provision.	The provision of public lighting services by the LGA Subsidiary would not restrict a council from engaging an alternative service provider or directly providing the services. The ownership of the public lighting assets by the LGA Subsidiary would, however, constitute a significant disincentive to alternative service provision.
The constituent councils could have direct involvement in the governance of the regional subsidiary as the regional subsidiary would be subject to the joint control and direction of the constituent councils. It is unlikely that all councils receiving public lighting services would be constituent councils. This may create a perception of disparity between constituent councils and other councils. A stakeholder reference group could be incorporated into the governance structure to broaden the involvement of councils.	Councils would have no direct involvement in the governance of a LGA Subsidiary. Councils would have indirect influence through their membership of the LGA. Mechanisms could be included in a constitution for the LGA Subsidiary to entrench elements of local government sector involvement. These could include providing for particular representation of the board from the local government sector or requirements for periodic reporting to the sector. A stakeholder reference group could be incorporated into the governance structure to broaden the involvement of councils.
Commercial structuring	

The requirements of the State's competitive neutrality policy will apply to a regional subsidiary. This means that the regional subsidiary will need to adopt cost reflective pricing in respect of the pricing of its services. A failure to comply with competitive neutrality principles can be the subject of an investigation under the Government Business Enterprises (Competition) Act 1996.	The State's competitive neutrality policy will not apply to a LGA Subsidiary.
Execution of documents is subject to requirements under Schedule 2, LG Act.	Execution of documents can be by the sole director of the LGA Subsidiary or if there is more than one director by two directors or a director and the company secretary.
A regional subsidiary is precluded from participating in the formation of a company or acquiring shares in a company.	A LGA Subsidiary may form companies or hold shares. This may provide additional flexibility in structuring arrangements for public lighting services.
Resourcing of the regional subsidiary could be provided directly by constituent councils or be received through revenue through service delivery. External funding could be secure by the regional subsidiary, however, this would be guaranteed by the constituent councils.	Resourcing of a LGA Subsidiary would be through revenue received through service delivery or external funding.
Public lighting service contracts may be required between the regional subsidiary and the councils to which the regional subsidiary provides public lighting services, particularly where councils receiving services are not constituent councils.	Public lighting services contract would be required between the LGA Subsidiary and the councils receiving the public lighting services.