
Recommendation
That the report of the General Manager, Transportation & Utilities Department dated March 12, 2018, be received as information.

Topic and Purpose
The purpose of this report is to provide information on assets belonging to Saskatoon Light & Power (SL&P), such as substations, overhead and underground distribution networks and street lighting. Specific information on value, condition, asset management initiatives, and a potential funding plan are included.

Report Highlights
1. The asset management plan for SL&P shows that the majority of assets are in either good or very good condition, but there are a number of key assets in fair to very poor condition that will require increased attention.
2. There is a risk that assets could begin to deteriorate quickly past recommended condition targets based on current funding trends. If this were to happen, SL&P’s reliability may be impacted.
3. A potential funding plan has been identified with the goal of bridging the funding gap to enable the assets to reach the desired condition.

Strategic Goal
This report supports the Strategic Goal of Asset and Financial Sustainability, and the four-year priority of adopting and implementing an asset-management philosophy for the electrical utility’s assets.

Background
City Council, at its Preliminary Business Plan and Budget Deliberations meeting held November 27, 2017, received a report on the Corporate Asset Management Strategy and resolved:

“1. That the Corporate Asset Management Strategy be approved in principle; and
2. That the report be forwarded to the appropriate Standing Policy Committee to determine a plan for bringing this forward as an included item in 2019 budget deliberations.”

Report
Current Condition of Assets
The condition of assets managed by SL&P have been summarized in the report “Building A Better Electric Utility: An Asset Management Plan for Saskatoon Light & Power” (Attachment 1).
SL&P has over $702 million in assets ranging from substations, overhead/underground distribution networks and street lights among other assets. A full breakdown of current assets within the scope of the asset management plan are included below:

<table>
<thead>
<tr>
<th>Asset Class</th>
<th>Replacement Cost</th>
<th>% of Assets</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transmission</td>
<td>$19.2</td>
<td>3%</td>
</tr>
<tr>
<td>Substation</td>
<td>$202.4</td>
<td>29%</td>
</tr>
<tr>
<td>Overhead/Underground Distribution</td>
<td>$261.0</td>
<td>37%</td>
</tr>
<tr>
<td>Downtown Network System</td>
<td>$69.0</td>
<td>10%</td>
</tr>
<tr>
<td>Street Light System</td>
<td>$127.8</td>
<td>18%</td>
</tr>
<tr>
<td>Generation</td>
<td>$12.5</td>
<td>2%</td>
</tr>
<tr>
<td>Metering</td>
<td>$10.9</td>
<td>1%</td>
</tr>
<tr>
<td>TOTAL</td>
<td>$702.8</td>
<td>100%</td>
</tr>
</tbody>
</table>

*in millions

The condition of SL&P’s assets and how they are assessed varies with construction materials, components, operational environment and specific external inputs. In general, components degrade with age and time in service. More demanding environments and overload events shorten the expected life of equipment. The table below provides a summary of the general condition ratings and descriptions applied to each asset category:

<table>
<thead>
<tr>
<th>Physical Condition</th>
<th>Description &amp; Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very Good</td>
<td>Like new condition.</td>
</tr>
<tr>
<td>Good</td>
<td>Minor deficiencies noted, monitoring and minor maintenance required.</td>
</tr>
<tr>
<td>Fair</td>
<td>Signs of deterioration are evident. Some potential for failure, monitoring and planning for rehabilitation required.</td>
</tr>
<tr>
<td>Poor</td>
<td>Advanced deterioration and high potential for failure evident. Rehabilitation required.</td>
</tr>
<tr>
<td>Very Poor</td>
<td>Structure no longer capable of providing required reliability standards.</td>
</tr>
</tbody>
</table>

It is estimated that the vast majority of assets are currently in either good or very good condition, but there are a number of key assets in fair to very poor condition that will require increased attention.

A breakdown of the estimated condition of assets can be found in the attachment in table 5 on page 9.

Potential for Risk
An independent Capital Development Planning Study was conducted in 2012. The study assessed the condition of the utility’s assets, and identified the long-term capital funding requirements necessary to achieve or exceed industry reliability standards while maximizing the return on these investments.

The consultant reported that SL&P would need to respond to concerns of aging infrastructure. Due to the critical nature of electrical infrastructure, it is important to
address the condition of assets in fair to very poor condition before they deteriorate further. The report noted that SL&P spends less on capital projects than other regional utilities.

Since the results of the report were received, additional funding has been provided for capital projects. A possible risk remains that assets may begin to deteriorate past recommended condition targets unless a long-term capital funding strategy is implemented.

Reliability statistics for SL&P have compared very favourably in relation to other urban electric utilities across Canada (see attachment table 1 on page 2). The need to adjust capital provision funding levels is therefore aimed at maintaining utility performance into the future.

Potential Funding Plan
Currently SL&P invests approximately $16.1 million on an annual basis for capital rehabilitation. Based on the work completed within the independent consultant’s report and Administration’s own internal asset management analysis, it is estimated that an annual capital investment of $23.1 million is required in order to achieve desired condition targets. Based on this information, there is currently an estimated $7.0 million annual funding gap.

Due to the size of the gap, it is recognized that any potential plan to address this would need to be developed over a number of years. The goal would be to maintain the current return on investment paid to the City while increasing the investments into the capital reserve over time.

Taking into consideration anticipated future electricity rate increases, the asset management plan proposes maintaining the current return on investment rate until 2022, while directing additional funds made available due to the rate increases directly to growing the capital provision. This concept is illustrated in the chart shown in the attachment on page 13.

Beginning in 2023, the return on investment for the City would continue to grow. This strategy would have no direct impact on the property tax, although it would decrease the amount of growth revenue the civic budget receives on an annual basis from SL&P.

Financial Implications
The plan summarizes the current expenditure level, funding gaps and existing funding.

Communications Plan
The Asset Management Plan for SL&P will be communicated with the City’s overarching Corporate Asset Management Plan. Communications support will create awareness for this plan through information uploaded into a new display within the Finance pages of the City website.
Other Considerations/Implications
There are no options, public and/or stakeholder involvement, policy, environmental, privacy, or CPTED considerations or implications.

Due Date for Follow-up and/or Project Completion
Administration will report back during the 2019 Business Plan and Budget deliberations with the comprehensive Corporate Asset Management Plan with options to address the funding gaps for all asset classes previously reported. As future replacement schedules and electrical power rates can change periodically, an annual update will be provided to make any adjustments as required.

Public Notice
Public Notice pursuant to Section 3 of Policy No. C01-021, Public Notice Policy, is not required.

Attachment

Report Approval
Written by: Clae Hack, Director of Finance
Reviewed by: Trevor Bell, Director of Saskatoon Light & Power
Approved by: Angela Gardiner, Acting General Manager, Transportation & Utilities Department