4.3.2 Investment Plan

In order to better manage asset replacement activities, three programs of work are defined. Required funding for the test years 2015 to 2019, along with spending levels for the bridge and historical years are provided in Table 5 for each of these programs.

Table 5
Asset Replacement
($ Million)

Description	Historical Years				Bridge Year	Test Years				
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Pole Replacements	53.6	54.7	55.5	73.9	82.5	88.7	95.1	105.0	115.2	125.8
Lines PCB Equipment Replacements	1.7	0.8	1.0	1.1	0.0	1.9	5.0	10.6	10.8	11.1
Line Projects	25.0	26.9	37.2	30.3	36.8	52.1	58.6	62.4	66.3	67.5
Total	**80.3**	**82.4**	**93.7**	**105.4**	**119.3**	**142.7**	**158.7**	**178.0**	**192.3**	**204.4**

Pole Replacements

The pole replacement program involves replacing poles that are at their end of life. In order to manage this population, an asset risk assessment is undertaken as outlined in Exhibit A, Tab 17, Schedule 7. Presently, approximately 11% of the pole population exceeds its expected service life, as documented in Exhibit D1, Tab 2, Schedule 1. Hydro One Distribution has been mitigating the risk of failure by selectively targeting replacement of end of life poles. Over the next several years, an increasing number of poles are expected to reach the end of their service life. A corresponding increase in the pole replacement rate is required to prevent the pole population from reaching an unmanageable state. An ageing pole population increases the likelihood of failures on the distribution system, as the structural integrity of a distribution line is largely dependent on its pole supports.

The following table provides details regarding the number of poles replaced due to end of life within the last five years:

Table 2:
Pole Replacement

	Actuals					Targets					
Year	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Number of Poles Replaced	**7,485**	**7,518**	**7,282**	**7,452**	**10,720**	**11.000**	**11,600**	**12,200**	**13,200**	**14,200**	**15,200**

The proposed metric for assessing Hydro One's performance with regards to pole replacements is:

- Poles replaced per year, targets for which are shown in Table 2.

Given the current age and condition of the poles, Hydro One expects to replace between 11,000 and 15,000 poles per year during the 5 year plan.

PCB Line Equipment (Sustaining Capital)

Table 3:

PCB Line Equipment

This is a new measure therefore only forecast targets of pole top transformers with PCB oil to be replaced are shown.

Year	2014	2015	2016	2017	2018	2019
Number of pole top Transformers with PCB oil to be replaced	**0**	**400**	**1,000**	**2,200**	**2,200**	**2,200**