

1    Q.    **Re: 2012 Capital Projects Overview**

2            On page 9 of the 2012 Capital Projects Overview it is stated that the three units at  
3            the Holyrood Thermal Generating station "...have now reached or exceeded their  
4            generally accepted service life of 30 years". What does Hydro rely on to support  
5            this statement?

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8    A.    "Generally accepted service life of 30 years" was the standard wording that Ontario  
9            Hydro and many other utilities in North America would put into their specifications  
10           for fossil fuel facilities in the 1960's and 1970's. It was generally accepted as  
11           representing a good compromise between initial up-front cost and economic  
12           lifetime cost. Many facilities have lasted 60 years with reinvestment appropriate to  
13           their role. The timeframe of 30 years has been generally accepted as the industry  
14           standard based on Hydro's interactions and conversations with many utilities over  
15           the last 40 plus years.

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17           Prior to 1970, it was common to retire thermal plants at 30 years of age because:

- 18           1.        Base loaded plants would have accumulated 250,000 hours which would  
19                   have consumed the creep life in materials available to that time. Modern  
20                   materials last somewhat longer, particularly with life extension efforts.
- 21           2.        The cost of retiring a thermal plant prior to 1970 was low. Post 1970,  
22                   environmental remediation requirements have increased these costs  
23                   enormously, making it financially attractive to extend the life of existing  
24                   plants.
- 25           3.        Advances in turbine and generator design were resulting in significant  
26                   improvements in unit heat rates. Today, improvements are incrementally  
27                   small.