

1 Q. **Reference: Volume I, 2020 Capital Projects Over \$500,000, Distribution System Upgrades, page**  
 2 **C-45, lines 14 to 15**

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 4 Through reliability performance analysis, feeders in the Bear Cove, St Anthony,  
 5 and Fleur-de-Lys areas have been identified as requiring refurbishment and  
 6 upgrading.

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 8 Please provide details of the age and condition of the infrastructure on the Bear Cove, St.  
 9 Anthony, and Fleur-de-Lys distribution feeders.

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 12 A. The age of the structures (poles) are provided in Table 1.

**Table 1: Number of Poles by Various Age Distributions**

Feeder	Age (Years)			
	1-29	30-39	40-49	50-59
Bear Cove, L6	879	465	74	225
St Anthony L3	447	296	143	214
Fleur de Lys L1	484	41	8	57
Fleur de Lys L2	63	37	1	72

13 Condition of the Infrastructure

- 14 ● **Bear Cove (L6):**
  - 15 ○ Inspections have identified that this line has 111 deteriorated poles and several
  - 16 damaged line components that should be replaced within two to three years.
  - 17 ○ The main feeder has several single- and three-phase taps that are connected to the
  - 18 primary conductor through hot line clamps. The high salt concentration and high
  - 19 winds in the area have resulted in the corrosion and deterioration of these hot line
  - 20 clamps. Failure of the primary conductor due to corroded hot line clamp has been
  - 21 an issue over the past number of years.

- 1           • **St Anthony L3:**
- 2           ○ Recent inspections have identified that this line has 51 deteriorated poles and 4
- 3           deteriorated transformers that should be replaced within two to three years.
- 4           ○ A 1.2 kilometre section of this line has deteriorated conductor that needs to be
- 5           replaced. This section has many in-line splices with evidence of conductor failure
- 6           repairs.
- 7           • **Fleur de Lys (L1):**
- 8           ○ From the pole line inspection record, this line has several deteriorated line
- 9           components: 79 poles, 34 cross arms, and 22 transformers. It has also been
- 10          identified that the existing primary conductor on many sections of this feeder is in
- 11          poor condition with multiple sleeves.
- 12          ○ Fleur de Lys is within an area subjected to severe ice and wind loading and due to
- 13          the age and condition of the poles, crossarms, and conductor the feeder is
- 14          becoming increasingly prone to damage when exposed to such events.
- 15          • **Fleur de Lys (L2):**
- 16          ○ The first 2.3 kilometre section of this feeder has #2 Aluminum substandard
- 17          conductor. This section has many long span structures that are susceptible to
- 18          conductor galloping and failure. Most of the structures of this section are located off
- 19          road and should be rerouted to roadside for better access. Recent inspections have
- 20          identified 11 deteriorated poles as well as 2 decayed and damaged cribs on this
- 21          section.
- 22          ○ Inspection has also identified 12 deteriorated poles and 3 transformers in the
- 23          community of Coachman’s Cove that should be replaced within two to three years.