

**UNDERTAKING J12.11**

**Undertaking**

At E2-T1-S1, p. 4 it is stated that Pickering Extended Operations will require an incremental 637 Planned Outage Days? Please provide a breakdown of the 637 days by year and by PNGS unit? Please also provide a summary of the work that will be executed during each outage.

**Response**

The 637 incremental planned unit outage days for Pickering Extended Operations are shown by year and by generating unit in the chart below.

Pickering will be undertaking these incremental planned outage days in 2017-2020 to ensure Pickering units are fit for service until 2022/2024. The incremental planned outage scope during each outage is expected to address maintenance and inspection of pressure tubes, steam generators, feeders, 'balance of plant' components, fuel channel work (including fueling machine maintenance) as well spacer location and relocation work, additional steam generator water-lancing and feeder replacements.

**Chart 1: Incremental Planned Outage Days by Pickering Unit\***

| Unit No.     | 2016     | 2017      | 2018       | 2019       | 2020       | Total<br>2016-<br>2020 |
|--------------|----------|-----------|------------|------------|------------|------------------------|
| P1           | 0        | 49        | -26        | 10         | 0          | 33                     |
| P4           | 0        | -14       | 9          | -20        | 84         | 59                     |
| P5           | 0        | 3         | 0          | 73         | 0          | 76                     |
| P6           | 0        | 38        | 0          | 76         | 0          | 113                    |
| P7           | 0        | 0         | 99         | 0          | 127        | 225                    |
| P8           | 0        | 0         | 20         | 0          | 111        | 131                    |
| <b>Total</b> | <b>0</b> | <b>76</b> | <b>102</b> | <b>138</b> | <b>321</b> | <b>637</b>             |

\* In certain years, on Units 1 and 4, there is a reduction in the number of outage days compared to the 2020 end-of-life scenario. This was caused by a re-optimization of the planned outages to enable the 2022/2024 end-of-life scenario.