

**SUNCOR'S RESPONSES TO NATHAN AND CAROLINE
SPARLING'S LETTER COMMENTS DATED DECEMBER 5, 2014**

1 **Question No. 1**

2 Will a continuous trench be required? Will you consider sensitive soil areas with the
3 directional boring required?

4 A continuous trench will be utilized in the Town of Plympton-Wyoming ("Town") streets
5 and highways where there are no obstructions. In areas where there is an obstruction,
6 such as a residential driveway or a municipal drain, a directional drill will be used to
7 avoid impacts to such obstruction.

8 Suncor is unclear about what is meant by "sensitive soil areas", however, if sensitive soil
9 areas refers to prime agricultural lands, this application relates to the location of Suncor's
10 distribution facilities within the Town's streets and highways, as opposed to within prime
11 agricultural lands.

12 **Question No. 2**

13 Will soil thermal conditions be modified? If thermal properties aren't measured the heat
14 generated can cause the soil to dry out and as wind turbines operate almost continuously
15 this causes the feeder cable to frequently run at maximum capacity. Distribution or low
16 voltage cables have shown that they contribute to the drying out of the soil if they are
17 continuously under full load.

18 The thermal characteristics of the soil have been tested and the collection system design
19 accounts for native soil with no engineered backfill requirements.

20 **Question No. 3**

21 Will the thermal backfill used be laboratory evaluated? Soil backfill is an important
22 consideration. The effects of poorly installed thermal backfills and soils may not be
23 evident for numerous years until cable loads increase and temperatures rise above
24 allowable levels the result being evident in cable failures. Over the years utilities have
25 used many undesirable thermal backfills because of ease of installation and availability.
26 Badly compacted trench fill is a significant problem, not only is the thermal rho (thermal
27 resistivity) of uncompacted soil quite a bit higher but loose soil dries with more ease
28 which increases the possibility of thermal runaway. Our farm in question is made up of
29 clay soil. Clay soils in particular can crack on drying which results in the development of
30 air gaps around the cables. It is important that this does not occur as it leads to potential
31 "hot spots" along the cable route.

32 As outlined above in the response to Question No. 2, the thermal characteristics of the
33 soil have been tested and the collection system design accounts for native soil with no
34 engineered backfill requirements.

35 **Question No. 4**

36 Will underground lines be well marked? We as farm operators may have to dig for
37 tile/drain issues and will need to be aware of these locations.

38 The installation of the distribution infrastructure will be done in accordance with ESA
39 Safety requirements including the installation of a continuous buried warning tape that is
40 installed between the underground cables and grade as well as locating devices that allow
41 precision locating of the infrastructure without ground disturbance. In addition, above
42 ground markers indicating the installation location of directionally drilled/bored cables
43 will be installed.

44 **Question No. 5**

45 Will easement agreements require compensation for property owners for disruption in
46 their property use or for property damage caused by repairs to the underground cables?
47 Although our personal residence is not located in the property in question several of our
48 neighbours operate businesses which these distribution facilities will run directly by.
49 Driveways, fences, landscaping and yards may be torn up or damaged. It could easily
50 affect us during planting/spraying/harvest times when we need ease of access to our
51 property. Also if tile on our land is damaged will we be compensated?

52 The installation of the distribution infrastructure within the Town's streets and highways
53 will be done within the property limits of the Town. Easements with adjacent property
54 owners will not be required. Suncor has committed to installing the infrastructure via
55 directional drilling to avoid impacts to existing driveways. Any damage to adjacent
56 properties will be remedied by Suncor in a timely manner. Access to the properties
57 adjacent to where Suncor is working will be maintained.

58 **Question No. 6**

59 Will future repairs heed us from ease of access to our property, especially during peak
60 times of farming? Buried hydro lines make them more susceptible to damage from
61 floods and can limit how quickly they can be fixed. It is difficult to find fault in these
62 situations and apparently it can take days or weeks to fix. Extensive flooding can also
63 short out transformers which can't be safely restored until the flood waters recede,
64 therefore homes and businesses can be impacted for extensive lengths of time. Lines are
65 also prone to insulation deterioration due to the loading cycles the lines undergo during
66 their life time.

67 It is Suncor's intent to minimize any potential impacts, including access to adjacent
68 properties, during maintenance activities. Any damage to adjacent properties will be
69 remedied by Suncor in a timely manner.

70 The collection system has been designed for underground installation and will be fully
71 tested before the project begins operation. Any faults within the collection system will be
72 isolated and it is Suncor's experience that remedying any faults will occur in a timely
73 manner.