

## Addendum to DC1010 – Conductor Optimization

The following errors have been noted in the contents of DC1010 – Conductor Optimization Report:

### 1. Units of Electric Field Intensity

An error has been identified in Table 3.7 on page 3-2. In this table, electric field strength units are labeled incorrectly as kV/cm. The units should be reported as kV/m. This correction also applies to all subsequent discussions of the electric field intensities produced by HVdc lines.


### 2. Calculation of Electric Field Strength

An error has been identified in the formula used to calculate the electric field strength produced by a bipolar HVdc transmission line in Table 3.7 on page 3-2. The formula is incorrect as does not match the material presented in the EPRI Transmission Reference book. The formula should be listed as:

$$E = \frac{2VH}{\ln\left(\frac{2H}{d}\right) - \ln\left(\frac{\sqrt{4H^2 + P^2}}{P}\right)} \left[ \frac{1}{H^2 + (X - P/2)^2} - \frac{1}{H^2 + (X + P/2)^2} \right]$$

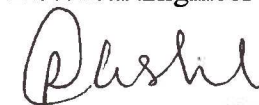
As a result of this error, all calculations in the report relating to electric field strength are incorrect. For example, the electric field strength at the edge of the right of way for a +/-450kV HVdc system would produce an electric field strength of approximately +/-1.80 kV/m as opposed to +/-1.59 kV/m indicated in the report..

Addendum Issued By:

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Robert Collett, P. Eng.  
Electrical Engineer

Addendum Accepted By:

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Raj Kaushik, P. Eng.  
Electrical Lead