

## B2H Exhibit AA Errata Sheet

Dear Reader:

Exhibit AA provides an analysis of electric and magnetic fields (EMF) for the Boardman to Hemingway Transmission Line Project (Project). This Exhibit shows the Project will be designed, constructed, and operated to ensure public health and safety with EMFs in mind.

The Applicant submitted its final Application for Site Certification on October 3, 2018. Subsequently, the Oregon Department of Energy requested certain additional information about the Project pursuant to Oregon Administrative Rule (OAR) 345-015-0190(9). This errata sheet provides the requested information—which may include corrections to the exhibit text, tables, figures, and/or proposed conditions—as it relates to Exhibit AA.

As you read this exhibit, please keep in mind that any additional information identified in this errata sheet shall prevail over the contents of the exhibit document itself.

### Summary of Additional Information Provided for Exhibit AA and Its Attachments

Page #	Section #	Description of Change(s) Made
AA-22 through AA-23	3.7	Revised text and Siting Standard Condition 1 to clarify that the minimum ground clearances apply all operating conditions.
AA-23	3.7	Revised text to describe potential measures IPC will implement at the Longhorn Station and communication stations to ensure induced currents are as low as reasonably achievable. Revised Siting Standard Condition 1 to clarify that the National Electric Safety Code applies to Longhorn Station and communication stations.
AA-33	4.0	Revised Siting Standard Condition 1 to clarify that the minimum ground clearances apply all operating conditions and that the National Electric Safety Code applies to Longhorn Station and communication stations.

## Specific Additional Information Provided for Exhibit AA

### Pages AA-22 through AA-23, Section 3.7

**Description of Additional Information:** Revised text and Siting Standard Condition 1 to recognize that the minimum ground clearances intended to ensure compliance with the 9-kV/m at 1 meter above ground level standard will be met under all operating conditions and not just normal operating conditions.

#### **Text Edits Shown in Red:**

The modeling results (Attachment AA-1) are based on certain minimum ground clearances. To ensure compliance with the AC electric field provisions of the Specific Standards for Transmission Lines, IPC proposes that the Council include the following conditions in the site certificate providing that IPC comply with the minimum ground clearances used in the modeling and that the Project otherwise meet the 9 kV/m standard: The transmission line will be designed to meet the ground clearances under all operating conditions, including maximum load conditions, maximum sag conditions, and locations where the line crosses or is adjacent to other transmission lines.

**Siting Standard Condition 1:** *During construction, the certificate holder shall take the following steps to reduce or manage human exposure to electromagnetic fields:*

...

- b. Constructing all aboveground 500 kV transmission lines with a minimum clearance of 34.5 feet from the ground ~~at normal~~under all operating conditions;*
- c. Constructing all aboveground 230 kV transmission lines with a minimum clearance of 20 feet from the ground ~~at normal~~under all operating conditions;*
- d. Constructing all aboveground 138 kV transmission lines with a minimum clearance of 20 feet from the ground ~~at normal~~under all operating conditions;*
- e. In areas where aboveground transmission line will cross an existing transmission line, constructing the transmission line at a height and separation ensuring that alternating current electric fields do not exceed 9-kV per meter at one meter above the ground surface; and*

....

### Page AA-23, Section 3.7

**Description of Additional Information:** Revised text to describe potential measures, as required by the National Electric Safety Code, Idaho Power will implement at the Longhorn Station and communication stations to ensure induced currents are as low as reasonably achievable. Revised Siting Standard Condition 1 to clarify that National Electric Safety Code applicable to Longhorn Station and communication stations.

#### **Text Edits Shown in Red:**

The National Electric Safety Code (NESC) provides industry standards for transmission line design and operation, including standards for ensuring induced currents are as low as

reasonably achievable. Those standards apply not only to the transmission line itself, but also to the Longhorn Station and communication stations, where IPC will design those facilities to include such features as grounding, bonding, shielding, and physical barriers such as fencing around the stations, as required by the NESC. IPC will also employ signage to deter trespass and employee training to eliminate or manage shock hazards that might be experienced inside the fence, as required by the NESC. Accordingly, to ensure compliance with the induced current provisions of the Specific Standards for Transmission Lines, IPC proposes that the Council include the following conditions in the site certificate providing that the Project will be constructed consistent with the 2017 version of the NESC—including the induced current provisions:

**Siting Standard Condition 1:** *During construction, the certificate holder shall take the following steps to reduce or manage human exposure to electromagnetic fields:*

...

f. *Constructing all aboveground transmission lines, the Longhorn Station, and the communication stations in accordance with the requirements of the 2017 edition of the National Electrical Safety Code.*

#### **Page AA-33, Section 4.0**

**Description of Additional Information:** Revised Siting Standard Condition 1 to recognize that the minimum ground clearances intended to ensure compliance with the 9-kV/m at 1 meter above ground level standard will be met under all operating conditions and not just normal operating conditions. Revised Siting Standard Condition 1 to clarify that National Electric Safety Code applicable to Longhorn Station and communication stations.

#### **Text Edits Shown in Red:**

**Siting Standard Condition 1:** *During construction, the certificate holder shall take the following steps to reduce or manage human exposure to electromagnetic fields:*

- a. *Constructing all aboveground transmission lines at least 200 feet from any residence or other occupied structure, measured from the centerline of the transmission line;*
- b. *Constructing all aboveground 500 kV transmission lines with a minimum clearance of 34.5 feet from the ground ~~at normal~~under all operating conditions;*
- c. *Constructing all aboveground 230 kV transmission lines with a minimum clearance of 20 feet from the ground ~~at normal~~under all operating conditions;*
- d. *Constructing all aboveground 138 kV transmission lines with a minimum clearance of 20 feet from the ground ~~at normal~~under all operating conditions;*
- e. *In areas where aboveground transmission line will cross an existing transmission line, constructing the transmission line at a height and separation ensuring that alternating current electric fields do not exceed 9-kV per meter at one meter above the ground surface; and*
- f. *Constructing all aboveground transmission lines, the Longhorn Station, and the communication stations in accordance with the requirements of the 2017 edition of the National Electrical Safety Code.*