

**RPPTF Working Session**  
**April 18<sup>th</sup>, 2013**  
**MISO filed Definition of “Upgrade”**

***Definition shared to advance discussion of how upgrades would be treated under a RPPTF developed Multi-Driver Approach (Action Item #10 “incremental versus non-incremental”)***

MISO Compliance Transmittal at 48 (citing MISO, FERC Electric Tariff, Attachment FF (Transmission Expansion Planning Protocol), § VIII.(8.0.0)).

**C. Upgrades to Existing Transmission Facilities.** A Transmission Owner shall have the right to develop, own and operate any upgrade to a transmission facility owned by the Transmission Owner, in accordance with this Tariff and the ISO Agreement.

**1.1 Upgrades to Existing Transmission Lines.** Upgrades to existing transmission line facilities include any expansion, replacement or modification, for any purpose, made to existing transmission line facilities that are classified as transmission plant and owned by one or more Transmission Owners, for reasons including, but not limited to:

- (a) increasing the load capability of the transmission line or an associated circuit;
- (b) increasing the nominal operating voltage of the transmission line or an associated circuit;
- (c) installing additional plant on an existing overhead or underground transmission line facility, such as, but not limited to:
  - i. plant associated with an additional circuit installed on spare structure positions;
  - ii. additional structures to increase a sag limit or for other purposes;
  - iii. a sectionalizing switch installed on an existing transmission line circuit regardless of whether or not it is installed on an existing structure; and
  - iv. any other plant additions to existing transmission line facilities.
- (d) relocating the existing transmission line, or any portion thereof, for any purpose;
- (e) replacing an entire existing transmission line facility with a new transmission line facility on the same right-of-way or on a different right-of-way if the replacement is driven by a relocation request or requirement;
- (f) replacing one or more existing components of any existing transmission line facility, such as, but not limited to:
  - i. replacing existing conductors with higher capacity conductors or better performing conductors;
  - ii. replacing single-circuit structures with multi circuit structures;
  - iii. replacing insulators rated at a specific voltage with insulators rated at a higher voltage;
  - iv. replacing aging or defective components associated with the existing transmission line;
- (g) improving the performance or characteristics of the existing transmission line for any reason;
- (h) converting an existing overhead transmission line to an underground transmission line on the same right-of-way and/or converting an existing underground transmission line to an overhead transmission on the same right-of-way;

- (i) improving land and land rights booked under the Commission's Uniform System of Accounts, Account Nos. 105, 350, and/or 380; or
- (j) any other modifications to existing transmission facilities.

**1.1.1 Combination of Upgrades and New Facilities.** If a proposed transmission project includes a combination of new transmission line sections and upgrades to existing transmission line sections, and the new transmission line sections are less than twenty (20) contiguous miles in total length, construction of the new transmission line sections will be considered a transmission upgrade for the purpose of retaining a right of first refusal. In either event, upgrades made to the existing transmission line sections will be considered transmission upgrades for the purpose of retaining a right of first refusal.

**1.2 Upgrades to Existing Substations.** Upgrades to existing substations include any expansions, replacements or modifications made, in part or in whole, to any existing substation or portion thereof that is owned by one or more Transmission Owners, and where some or all of the plant within the existing substation is classified as transmission plant. These upgrades include, but are not limited to:

- (a) replacing facilities and/or equipment within an existing substation footprint;
- (b) installing additional plant within an existing substation footprint;
- (c) modifying facilities and/or equipment within an existing substation footprint;
- (d) expanding an existing substation footprint within the existing substation site boundaries and installing additional plant within the expanded area; and
- (e) acquiring additional land adjacent to or near the existing substation in conjunction with installation of additional plant within the boundaries of this additional land, including facilities to interconnect such plant to the existing substation plant.

**1.2.1** Construction of a new substation facility at the common junction point(s) of a transmission line containing more than two terminals or along an existing two terminal transmission line, where such transmission line facilities are owned by an incumbent Transmission Owner, for the purpose of implementing: i) transmission line protection system upgrades; ii) improving operational flexibility; iii) improving customer service reliability indices (*e.g.*, reducing SAIFI, CAIDI, SAIDI, etc.); iv) increasing the load capability of the transmission line; v) improving transmission voltages and reactive power management; vi) mitigating the economic and/or reliability impact of contingencies; and vii) any other purpose other than facilitating the interconnection of a New Transmission Line Facility will be considered a transmission upgrade for the purpose of retaining a right of first refusal. Furthermore, construction of a new substation for the purpose of interconnecting two or more existing transmission circuits where all such existing transmission circuits are owned by incumbent Transmission Owner(s) will be considered a transmission upgrade for the purpose of retaining a right of first refusal. Examples of newly constructed substations that will be considered transmission upgrades for the purpose of retaining a right of first refusal include, but are not limited to, i) circuit breaker substations installed along an existing two-terminal transmission line to improve operational flexibility or customer service reliability via automatic sectionalizing; ii) series capacitor substations installed within an existing transmission line to increase load capability; iii) circuit breaker switching substations installed at the common junction point of a three-terminal line to improve loading and protection capabilities of protective relay systems; and iv) newly constructed switching

substation to interconnect two existing transmission circuits at the point where they physically cross each other where such existing transmission circuits are owned by the same Transmission Owner. Examples of new substation facilities that would not be considered transmission upgrades for the purpose of retaining a right of first refusal include, but are not limited to, i) a New Substation Facility proposed to interconnect three New Transmission Line Facilities; ii) a New Substation Facility proposed to facilitate connecting a 345 kV New Transmission Line Facility to the midpoint of an existing 345 kV transmission circuit owned by an incumbent Transmission Owner; and iii) a 765-345 kV New Substation Facility constructed to interconnect a 765 kV New Transmission Line Facility with an existing double circuit 345 kV transmission line, where such 345 kV double circuit transmission line is owned by incumbent Transmission Owner(s).