

Vegetation-Related Transmission Outage Report Fourth Quarter 2007

The NERC Board of Trustees Compliance Committee has reviewed and accepted this Vegetation-Related Transmission Outage Fourth Quarter 2007 Report.

Vegetation-related transmission outages that occurred in the fourth quarter of 2007 are being reported in accordance with standard FAC-003-1.

The standard requires each outage to be categorized as one of the following:

- Category 1 — Grow-ins: Outages caused by vegetation growing into lines from vegetation inside and/or outside of the ROW.
- Category 2 — Fall-ins: Outages caused by vegetation falling into lines from inside the ROW.
- Category 3 — Fall-ins: Outages caused by vegetation falling into lines from outside the ROW.

All Category 1 and 2 outages are considered to be violations of NERC standard FAC-003-1, with corresponding levels of noncompliance defined in the standard. The reporting of these violations is handled separately as part of the NERC performance reporting process. Category 3 outages are not considered to be violations of NERC standard FAC-003-1. Table 1 is a summary of the vegetation outages that occurred in the fourth quarter by voltage class and category.

Table 1: Fourth Quarter 2007 Summary of Vegetation-Outages by Voltage Class and Outage Category

Category	RRC Designated Critical Lines <200 kV	230 kV	345 kV	500 kV	765 kV	Total
Category 1 — Grow-ins						0
Category 2 — Fall-ins		1				1
Category 3 — Fall-ins	2	3				5
Total	2	4				6

In comparison, during the fourth quarter of 2006 there were no Category 1 or Category 2 vegetation-related transmission outages. However, there were the same number of Category 3 outages at 230 kV and a much higher number of outages (14) involving designated critical lines <200 kV.

Category 2 — Fall-ins: Outages caused by vegetation falling into lines from inside the right-of-way

Western Electricity Coordinating Council

Reported one 230 kV outage from inside the right-of-way:

- The transmission owner reported a 230 kV vegetation-related outage occurred on December 1, 2007 with duration of 11 hours. A fir tree that was in the right-of-way fell due to snow and wind then contacted the line. The transmission owner is currently working with state officials to allow the transmission owner's crews access to state property to remove danger trees.

Category 3 — Fall-ins: Outages caused by vegetation falling into lines from outside the right-of-way

Western Electricity Coordinating Council

Reported three 230 kV outages from outside the right-of-way:

- The transmission owner reported a 230 kV vegetation-related outage occurred on December 2, 2007 with duration of 3 hours and 22 minutes. A snow storm with high winds brought down a fir tree that was 30 meters tall and contacted the line. The tree was in fair condition but failed at the root plate; there were some indications of root rot. The affected circuit has vegetation patrols twice a year and scheduled maintenance is up-to-date.
- The transmission owner reported a 230 kV vegetation-related outage occurred on December 3, 2007 with duration of 17 hours and 38 minutes. A storm with high winds and heavy rain was occurring at the time of the outage. Recent logging activity left the tree more exposed to the gusting wind. The following day, the transmission owner removed four additional trees that were similarly at risk from ongoing logging in area.
- The transmission owner reported a 230 kV vegetation-related outage occurred on December 27, 2007 with duration of 8 hours and 38 minutes. A tree brushing the line fell from outside the right of way due to heavy snow and wind.

Outages of RRC Designated Critical Lines <200 kV

Western Electricity Coordinating Council

Reported two <200 kV outages from outside the right-of-way:

- The transmission owner reported a <200 kV vegetation-related outage occurred on November 19, 2007 with duration of 38.36 hours. The outage was caused when a tree fell into the line.

- The transmission owner reported a <200 kV vegetation-related outage occurred on December 3, 2007 with duration of 1.82 hours. The outage was caused when a tree fell into the line.

Table 2 summarizes the number of transmission outages by voltage level, region, and category. Figure 1 illustrates the number of outages caused by vegetation growing into transmission lines from within the right-of-way that have been reported since 2004. Figure 2 provides this information by voltage class for each year.

Table 2: Summary of Vegetation-Related Transmission Outages by Region and by Outage Category for Each Quarter in 2007

Region	First Quarter			Second Quarter			Third Quarter			Fourth Quarter		
	Category 1	Category 2	Category 3	Category 1	Category 2	Category 3	Category 1	Category 2	Category 3	Category 1	Category 2	Category 3
	GROW-INS (inside/ outside ROW)	FALL-INS (inside ROW)	FALL-INS (outside ROW)	GROW-INS (inside/ outside ROW)	FALL-INS (inside ROW)	FALL-INS (outside ROW)	GROW-INS (inside/ outside ROW)	FALL-INS (inside ROW)	FALL-INS (outside ROW)	GROW-INS (inside/ outside ROW)	FALL-INS (inside ROW)	FALL-INS (outside ROW)
FRCC					1-230 kV	1-230 kV						
MRO			1 - 230 kV	1-345 kV			2-230 kV 1-345 kV					
NPCC							1-345 kV		1-230 kV			
RFC				1-230 kV 1-345 kV		1-230 kV 1-345 kV	2-230 kV 1-345 kV					
SERC				1-230 kV	1-500 kV	3-230 kV	1-230 kV		2-230 kV			
SPP				1-<200 kV								
TRE												
WECC			1-<200 kV 3 - 230 kV 1 - 500 kV				2-230 kV 1-500 kV		2-<200 kV		1-230 kV	2<200 kV 3-230 kV
Subtotal			1-<200 kV 4 - 230 kV 1 - 500 kV	1-<200 kV 2-230 kV 2-345 kV	1-230 kV 1-500 kV	5-230 kV 1-345 kV	7-230 kV 3-345 kV 1-500 kV		2-<200 kV 3-230 kV		1-230 kV	2<200 kV 3-230 kV
TOTAL	Category 1 (Grow-ins inside/outside ROW)			Category 2 (Fall-ins inside ROW)			Category 3 (Fall-ins outside ROW)					
	1-<200 kV; 9-230 kV; 5-345 kV; 1-500 kV			2-230 kV; 1-500 kV			5-<200 kV; 15-230 kV; 1-345 kV; 1-500 kV					

Figure 1: Category 1 — Grow-Ins from Within the Right-of-Way by Year and Quarter

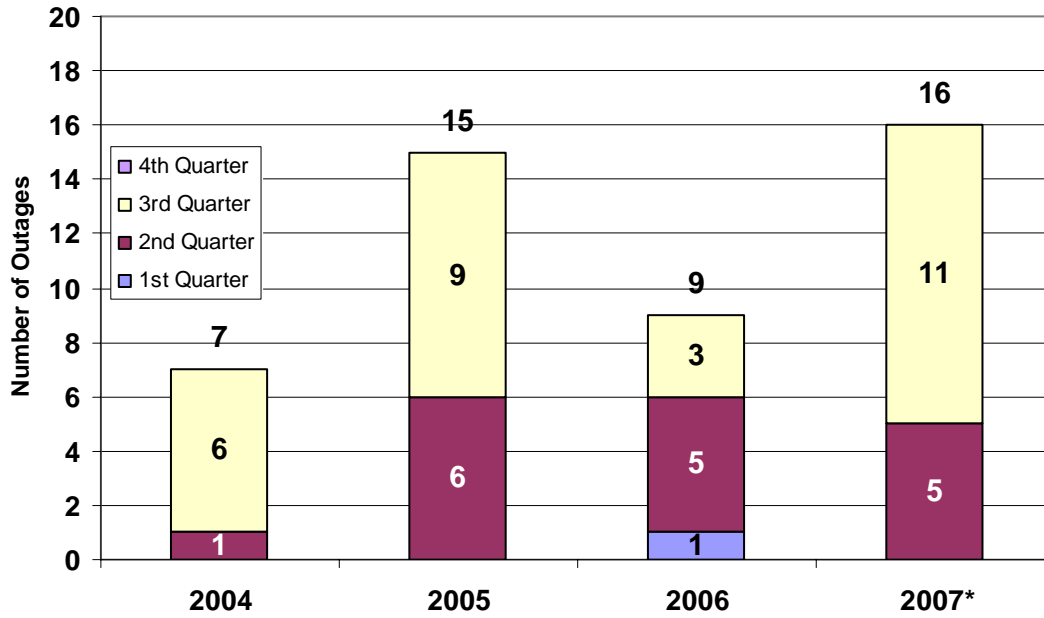
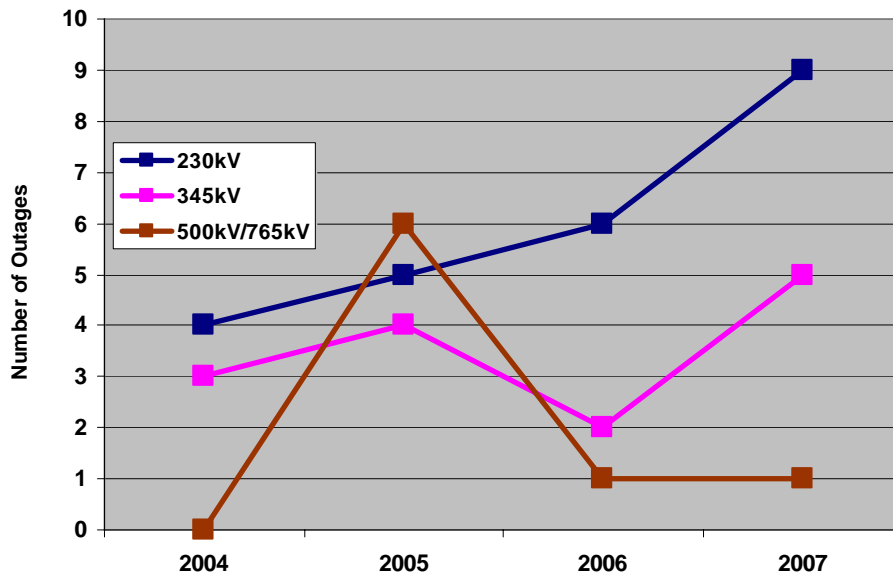


Figure 2: Grow-Ins from Within the Right-of-Way by Year and Voltage Class



* One outage of a regional designated critical line < 200kV is included for the second quarter of 2007.