

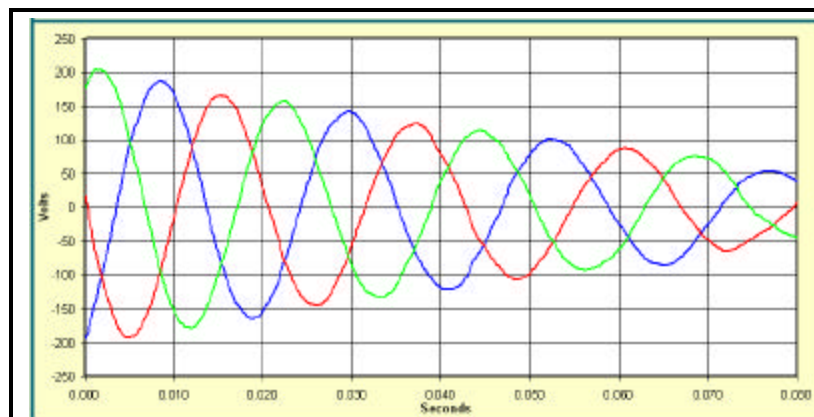
— Phase A
— Phase B
— Phase C

Waveform: Start of Event

Analysis

In the case of a utility or facility-wide power source, a small voltage transient signals the start of the power loss event. As the TEALwatch® loses power, it grabs two quick snapshots which are recorded as a **Power Loss** event.

Event	Date and Time	Type	Severity	Minimum	Maximum	Duration
4	9/17/05 14:35:15	Power Loss	Severe	0	0	1



— Phase A
— Phase B
— Phase C

Waveform: End of Event

Analysis

As the power loss continues, the frequency stays close to 60 Hz; perhaps decreasing slightly as the voltage decays. The voltage decays for a number of cycles, depending upon utility and facility loading, where the voltage source was interrupted, and what other nearby loads are powered from this source.

Event	Date and Time	Type	Severity	Minimum	Maximum	Duration
4	9/17/05 14:35:15	Power Loss	Severe	0	0	1

Technical Analysis

This is a major utility or facility-wide loss of voltage; the disturbance characteristics are dependent upon utility and facility conditions.

When the source is interrupted, rotating loads (motors) continue to turn (related to inertia) and begin to back-feed the mains, acting like generators. They feed energy back into the source, powering other loads as the motors brake.

The frequency remains close to 60Hz. The decay time depends upon where the source was interrupted, the number of rotating loads within the facility and nearby on the utility, and the overall facility and utility loading.

Due to this phenomenon, short losses of voltage rarely are experienced as drop-outs or voltage losses - but rather are seen as sags. Any actual drop-outs that are experienced are invariably caused by local problems or voltage interruption.

