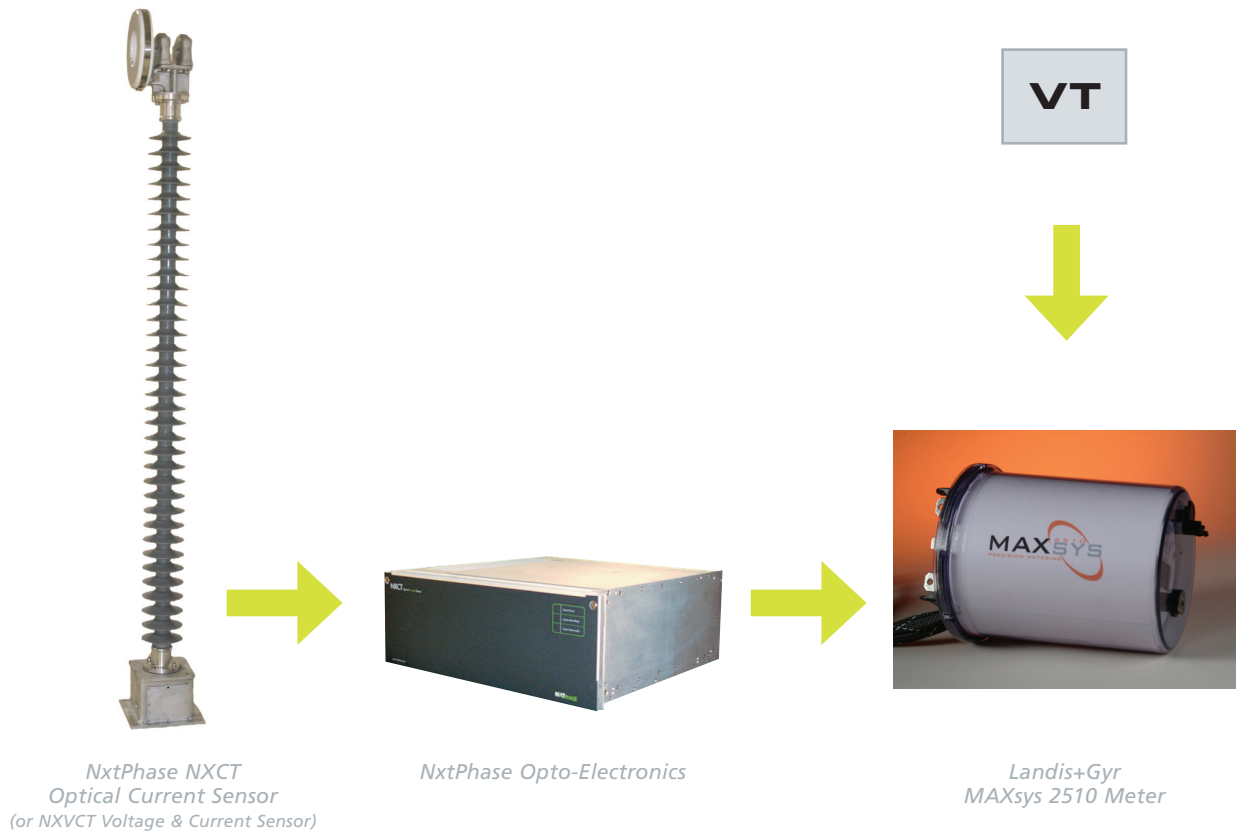




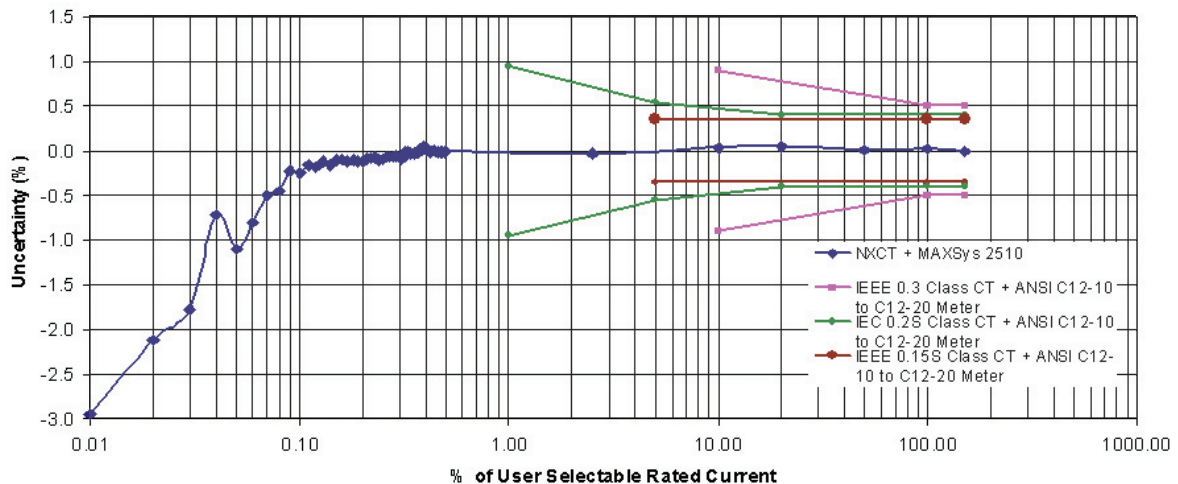
Unprecedented Metering System Accuracy



A metering system's performance depends on both the accuracy of CTs and the accuracy of meters. The NxtPhase NXCT or NXVCT, used in combination with the MAXsys 2510 metering system, exceeds the industry's most stringent revenue-metering accuracy standards. Using proprietary NxtPhase dither technology (patent pending), NxtPhase current sensors, used in conjunction with the MAXsys 2510 meter, extend the range of a conventional metering system by more than a factor of five. The result is a solution that yields measurements with unprecedented accuracy and stability over a dynamic range, extending from <math><0.1\%</math> to 150% of a user-selectable rated current.

The chart below compares the accuracy of the NXCT + MAXsys 2510 metering system with industry standards (IEC Class 0.2S, IEEE Class 0.15S and IEEE Class 0.3). These results clearly demonstrate superior metering system performance, using the MAXsys 2510 meter with the NXCT.

NXCT + MAXsys 2510 Revenue Metering System Performance



Meter Interface

NxtPhase opto-electronics convert the optical CT signal to digital data and then convert that data to a three-phase analog signal for direct connection to the MAXsys 2510 meter. Three-phase voltage is measured directly by the meter from the substation VT. As load grows, current ratings may be upgraded, and the turns ratio may be changed without replacing the optical CT or affecting bus connections.

Utilities may also choose the NXVCT optical sensor, which integrates both current and voltage sensing in a single column.

System Performance

Sensor-to-meter interface	1 A _{rms} nominal; 2.5 VA burden at power factor 0.9
System dynamic range	From <0.1% to 150% of user-selectable rated current
Selectable rated current range	100 A to 4000 A, selectable in software
System (meter + CT) uncertainty	<0.3%
Input power requirements	70 to 150 V _{dc} ; Typical power 66W
System alarms	Data invalid; Maintenance required

NXCT Electrical Performance

Thermal current	4000 A
Overload factor	2.0
Short-time thermal current	63 kA _{rms} for 1 s
Voltage class	Up to 500 kV