



**FOR IMMEDIATE RELEASE**

## **Lamb County Deploys Tantalus' Load Control for Polyphase Irrigation Pumps**

Vancouver, BC – December 16, 2009 – Tantalus Systems Corp. announces that Lamb County Electric Cooperative has contracted to expand its Tantalus Utility Network (TUNet®) for Smart Grid applications to include coordinated measurement and control of large load irrigation equipment, in addition to residential advanced metering.

Lamb County, an agricultural community located in north Texas, will use the Tantalus system to selectively curtail power on irrigation pumps when its Generation and Transmission supplier (G&T) is faced with critical energy shortages, and then validate that the curtailment has occurred. Farming is the lifeblood of the local economy and intelligent management of irrigation pumps is critical. Using TUNet, the utility will determine the aggregate load on groups of pumps in operation and then remotely curtail power to selected pumps in order to meet the urgent curtailment requirements of the G&T. Providing the flexibility to enact just enough curtailment and to select where it comes from will help Lamb County manage energy usage while minimizing any disruptions to its members.

"When peak events occur, the ability to quickly identify where load can be shed and confirm the exact amount of power shed adds precision and speed to load control activities," said the Cooperative's General Manager & CEO, Delbert Smith. Now, in just a few minutes, we can obtain accurate situational information, take decisive action and avoid a potential crisis. Plus, we have data to verify that the target load has been shed."

Previously, load control was initiated by the G&T using an independent system to shut off power to some polyphase devices on the system and did not verify that energy reduction had taken place. Unlike narrowly focused demand response applications that cannot confirm if a device is currently consuming power, the Tantalus system identifies which pumps are in use and how much power they are drawing so the utility gets a clear picture of where it can shed load, and can also validate the extent of participation.

Tantalus' intelligent addressing capability makes it possible for a utility to communicate in a coordinated fashion with meters and associated load control modules anywhere in the service area over the two-way, wireless TUNet network. Lamb County can quickly obtain both the current load of an individual pump and the sum of all pumps in a select group, and then issue a curtailment command to one or more groups for a specified amount of time. Because some large farms operate as many as 40 separate sprinkler systems, the Cooperative can assign pumps to different groups so that irrigation on a single farm is not halted entirely. Time-stamped records provide empirical proof of which meters were involved, so the utility can quantify success with its G&T and compensate members equitably for participating, depending on how many pumps were involved and how much power was curtailed.

Benefits beyond load control include visibility if an irrigation pump has been off line for an extended period of time, which may indicate equipment failure or incorrect settings. The Tantalus system may also be used by many utilities for monitoring water, gas, propane and/or steam meters.



Roll-out to all 6,600 polyphase meters and demand response participants is scheduled for completion by April 2010, in advance of the growing season. Old polyphase meters will be replaced by TUNet-enabled GE kV2c+ solid state meters. Utility staff manage curtailment events via a web-based application that communicates with polyphase meters and Tantalus Load Management Switches attached to pumps. The Coop will also complete its residential advanced metering by the end of August.

Smith added: "This solution removes the guesswork. It will enable us to react quickly and decisively in a crisis situation. Putting control in the hands of the cooperative helps ensure that load shedding is evenly distributed among participants, so no single farm is unduly disrupted."

"Lamb County is not alone in its need to strategically control load on heavy duty equipment," said Eric Murray, President & CEO of Tantalus. "Elsewhere, oil pumps and other commercial, industrial or agricultural apparatus may be ideal candidates for selective load management because of their large power consumption, potential energy savings, or operational transparency. Tantalus designed this solution to provide a cost-effective, easy-to-use and completely trackable demand response application that operates over a single communications network alongside other advanced metering and distribution automation applications. We're proud to be working with Lamb County on this next generation load control technology as well as on their larger Smart Grid initiative."

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#### **About Tantalus**

Tantalus provides two-way, real-time data communications networks to monitor and control electric, gas and water utilities. TUNet® – the Tantalus Utility Network – is an end-to-end WAN/LAN/HAN communications system that operates with both RF and IP-based networks including FTTH, Fiber, WiFi, WiMAX and GPRS/cellular, either individually or in combination. TUNet's patented and patents pending technologies are purpose built for the Smart Grid. The Tantalus network unites a utility's applications, making advanced metering, outage management, power quality monitoring, load control, and distribution automation cost-effective and practical throughout both urban and rural service areas. For more information, please visit [www.tantalus.com](http://www.tantalus.com).

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