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# RE

RURAL ELECTRIC MAGAZINE

ALSO INSIDE

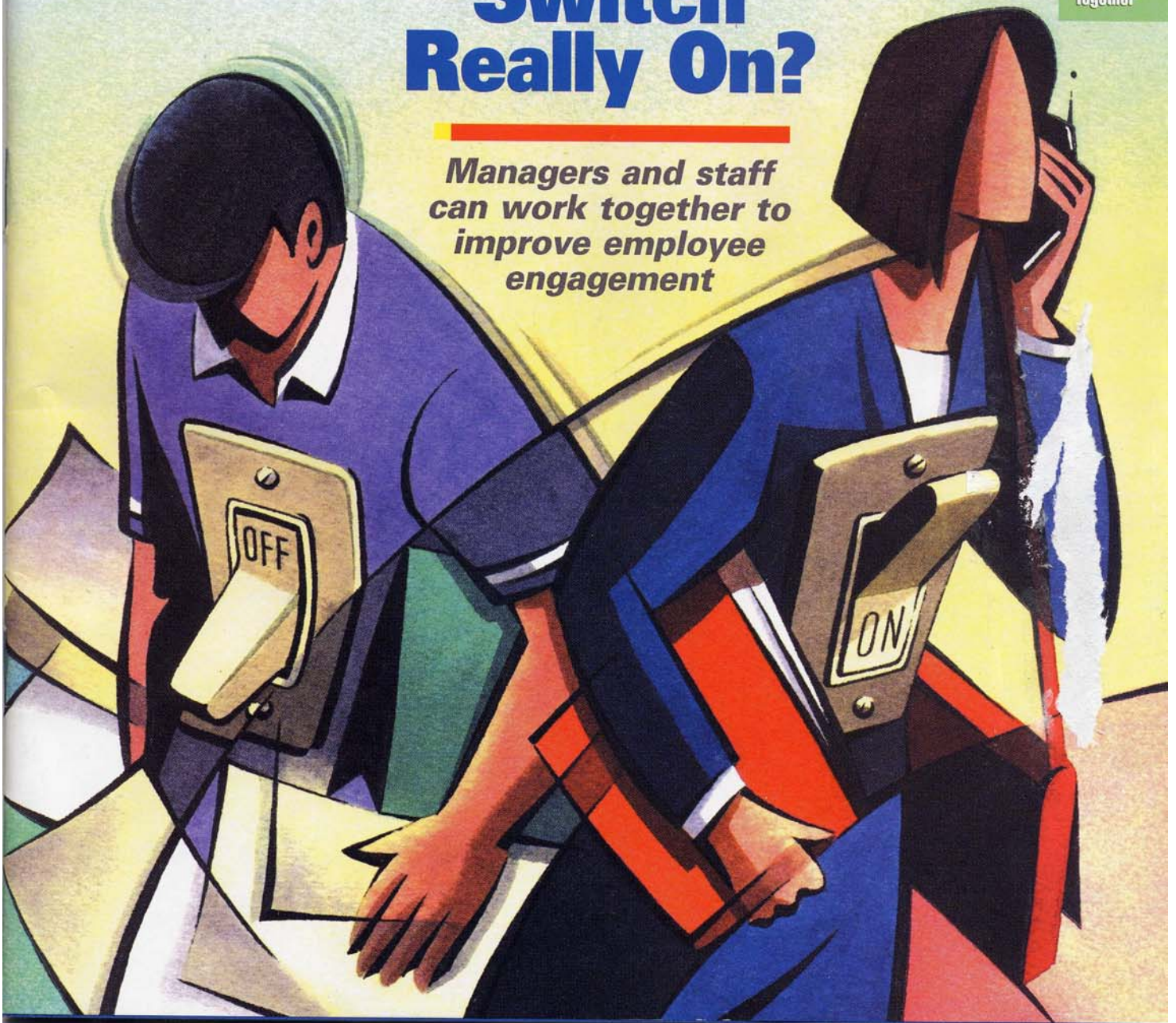
A VERMONT  
CO-OP SOLVES  
ITS FINANCIAL  
PROBLEMS  
AND WINS  
BACK THE  
LOYALTY OF  
ITS MEMBERS  
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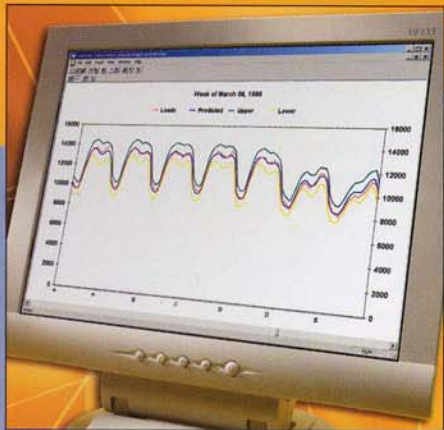
CONNECTIONS

NRECA  
Associate  
Members  
and Co-ops  
Working  
Together

## Is Your Switch Really On?

*Managers and staff  
can work together to  
improve employee  
engagement*





## WEB-BASED SCADA FOR ALL 13 SUBS

**S**avvy operations managers know the value of real-time monitoring and alarm systems for remote substations. But the purchase and upkeep costs for the hardware and software those systems require have kept them beyond the reach of many co-ops.

St. Croix Electric Cooperative in Hammond, Wis., for example, wanted a SCADA system, but had trouble finding the staff and budget for it. The co-op wanted a system capable of monitoring phase amps, regulator voltages and other key operating points at its 13 substations. In addition, it sought Web-based access to let authorized staffers review system data from the office, their homes or the field without special hardware or software. It got what it wanted in an outsourced Internet SCADA system called "iSCADA" from M2M Data Corp.

"The decision was simple," says Jim Murray, St. Croix Electric's engineering services director. "With a service provider, we could get something going now. iSCADA offered the maximum functionality for the most affordable cost, and M2M backed the package with service level guarantees."

The system went online at the first substation last year. St. Croix Electric installed an M2M iGateway onsite to monitor recloser status, breaker status and transformer condition.

Murray was impressed with how quickly the Internet SCADA system was up and running. "When I got back to the office, the data was already on St. Croix Electric's iSCADA Web site."

iGateways push the data to M2M's managed data center, which serves as the iSCADA master. From there, instantaneous alarms are reported via cell phone text messages and e-mail. St. Croix Electric per-

Name	Functions	Sample Time	Voltage	Current	KW	FVA	Power Factor	Freq	THD
Trout Brook	<Select>	10/22/2003 4:49 PM	7136.69	59.97	719.39	715.38	1.00	59.97	0.06
Woodville	<Select>	10/22/2003 4:49 PM	7149.78	59.96	707.25	701.25	1.00	60.01	0.22
Deerpark	<Select>	10/22/2003 4:49 PM	7106.63	59.96	700.59	700.29	1.00	59.95	0.28
Roberts	<Select>	10/22/2003 4:49 PM	7183.99	60.05	713.65	713.88	1.00	59.99	0.40
Troy	<Select>	10/22/2003 4:49 PM	7152.27	59.96	711.15	701.25	1.00	59.95	0.05
Houlton	<Select>	10/22/2003 4:49 PM	7194.65	59.95	705.46	705.43	1.00	59.99	0.08
Glenwood	<Select>	10/22/2003 4:49 PM	7180.49	59.99	706.01	707.12	1.00	59.96	0.15
Cylon	<Select>	10/22/2003 4:49 PM	7131.54	59.96	700.13	701.10	1.00	59.97	0.24
Glenmont	<Select>	10/22/2003 4:49 PM	7169.57	59.98	698.56	699.34	1.00	60.21	0.16
CanCreek	<Select>	10/22/2003 4:49 PM	7135.45	60.01	701.33	700.64	1.00	59.95	0.07
Martel	<Select>	10/22/2003 4:49 PM	7106.06	59.96	709.67	709.78	1.00	59.99	0.06
Hatchville	<Select>	10/22/2003 4:49 PM	7177.17	59.98	685.40	688.76	1.00	59.95	0.22
Warren	<Select>	10/22/2003 4:49 PM	7105.55	59.95	719.55	717.45	1.00	59.99	0.25

sonnel access the substation operations from a Web browser, where they can track historical performance or pinpoint the location, magnitude and duration of a real-time event.

With the first substation, St. Croix Electric has already improved response times, reduced outage periods and saved trips to the field. "We see these types of technologies playing a more and more important role in providing reliable, uninterrupted service to our customers," says Mark Pendergast, the co-op's chief executive officer. "And we love the fact M2M was there and stood behind every aspect of our service agreement and more, including during the installation and initial checkout."

The co-op plans to put the rest of its substations into the iSCADA system within the next year.

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