

**You are invited to an IEEE Meeting on Thursday, April 15, 2010**

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Title: **"Energy Savings on Fans and Pumps  
Using Adjustable Frequency Drives"**

Speaker: **Jim McGeough, Western Regional Sales Manager, Eaton Corporation**

Date: April 15, 2010

Time: No-host social at 5:30 pm; Presentation at 6:15pm; Dinner at 7:15 pm;  
Presentation continues at 8:00 pm; Adjourn by 9:00 pm.

Place: Marie Callender's Restaurant - The Garden Room; 2090 Diamond Blvd in Concord  
(near the Concord Hilton Hotel). Call 925-827-4930 if you need directions.

RSVP: Please make reservations by April 14, by contacting Gregg Boltz at  
email: [gboltz@brwncald.com](mailto:gboltz@brwncald.com) or telephone: (925) 210-2571

Cost: The cost of dinner is \$20 for IEEE members; \$25 for non-members.

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**Summary:**

As the cost of energy rises, there are many ways that facilities can address the efficiency of energy consumption. AC Motor loads can typically be the largest percentage of energy consumers in a facility. AC Motors and other non-linear loads can also affect facility power-factor concerns and create excessive costs brought on by the power utility provider. Utilizing Low Voltage and Medium Voltage Adjustable Frequency Drives (AFD's) on new or existing AC Motors for fan and pump applications can provide energy savings and quick payback periods. The following topics will be discussed to help bring a better understanding on how, where, when, and why a facility would want to use AFD's for energy savings:

- The electrical and mechanical disadvantages of starting fans and pumps across the line
- Reduced-Voltage Starters will only get you part way there!
- Existing flow control techniques and restrictive devices
- How AFD's work - 101
- The pump and fan Affinity Laws
- Review some real-life HVAC applications and calculate carbon footprint and payback periods

**About the Speaker:**

**Jim McGeough** is the Western Regional Sales Manager for low-voltage and medium-voltage Adjustable Frequency Drives for Eaton Corporation. He joined Eaton Corporation in 1980 as a Drives Sales Engineer and has been applying variable-speed drives throughout the West for over 30 years. He has extensive experience with various drive applications including constant torque, variable torque, multi-motor, pumping, HVAC, regenerative, wind/solar, load-sharing, process, and discrete control. His 30-year experience with the entire Eaton product offering (including Westinghouse, Cutler-Hammer, Moeller, PowerWare, Dynamatic, IDT, Opcon, PhoenixTec, etc) enables him to provide turn-key solutions to the customer's needs. Jim is a LEED Accredited Professional and carries the LEED AP Building Design and Construction credential.

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