



ELECTRO INDUSTRIES, INC.
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ELECTRO-LINE

May 2011

Providing Comfort Through Efficient Energy Solutions

REDUCE YOUR CUSTOMERS' HEATING BILLS AND INCREASE YOUR PROFITS

As we come out of what seems to be one of the longest, coldest winters in recent memory, most of our thoughts turn to warm summer days with picnics, baseball and barbecues.

For the heating professional the summer cooling season means thoughts of air conditioning service calls and upgrades. This is the ideal time to be thinking about how you can offer your customers upgrades that will save them money in both the cooling and heating seasons.

High propane and fuel oil prices are still fresh in most people's minds. Many people are aware of the volatility of fossil fuel prices in contrast to the long-term stability of electricity prices. This awareness provides the perfect opportunity to discuss upgrades to electric heating options. Showing people the potential cost savings of adding a WarmFlo Select plenum heater to an air source heat pump system, operating well over ninety percent of the heating season at over 100 percent efficiency, can really help you sell that upgrade. Or maybe adding an Electro-Boiler to qualify them for money saving dual fuel programs. Showing them the potential savings of an electric heating system has never been easier. We have a number of tools available to show your customers what their potential cost savings could be.

The following chart shows electric rates and the point at which fossil fuel prices are equal.

We also have user friendly cost estimating programs on our Website. Visit www.electromn.com or contact us for a free CD with our energy cost programs. With these programs you can sit down with your customers, input fuel costs, electric rates and design information, and then display their estimated yearly cost. You can also use their previous year's energy consumption to estimate new costs using an electric system. Our latest cost program will also provide return on investment information as well, showing that an investment in a high efficiency heating system can provide unexpected dividends. Watch our upcoming training schedule for free Webinars on how to use these cost programs to give your customers an accurate, informed opinion on heating with 100% efficient electric heat.

WHEN IS ELECTRIC HEAT COMPETITIVE?

Rate (¢/kWh)	LP, Std (\$/Gal)	LP, 90+ (\$/Gal)	Fuel Oil (\$/Gal)	NG, 90+ (\$/Therm)
3.5	0.56	0.85	0.81	0.92
4.0	0.64	0.97	0.91	1.05
4.5	0.72	1.09	1.11	1.19
6.0	0.97	1.40	1.47	1.49
7.0	1.41	1.69	1.72	1.85

The kWh rate relates to one gallon, liquid fuel, at appropriate furnace type.

NORTHERN HEATPUMP



2011 AHR Expo
 January 31-February 2, 2011

We had an excellent turnout this year at the Electro Industries/Northern Heat Pump booth at the AHR show in Las Vegas. A large number of people stopped by to discuss and learn more about make-up air products, Northern Heat Pump geothermal units, boilers, and NorAire air-to-water heat pumps. Thank you to all of our sales representatives and customers who stopped by to visit us at the show! AHR 2012 is going to be held January 23-25 in Chicago, we look forward to seeing you there.



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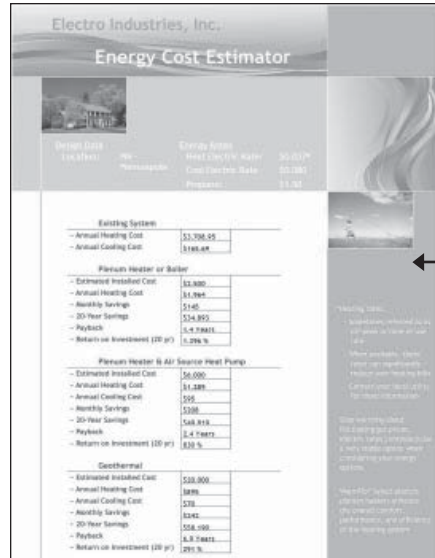
SALES UPDATES

Electro's Energy Cost Estimator

Electro's Energy Cost Estimator includes a number of key features to help you sell Electro plenum heaters and boilers. These features include a brochure style printout (shown at right) outlining on a single page the homeowner's current annual heating and cooling costs as well as what their heating costs would be with a plenum heater or electric boiler installed in their house, a plenum heater with an air source heat pump, and finally a Geothermal system. Along with these figures, the homeowner also knows how many years it takes for the new system to pay for itself (or lose) and what the monthly savings or loss will be for each type of heating system.

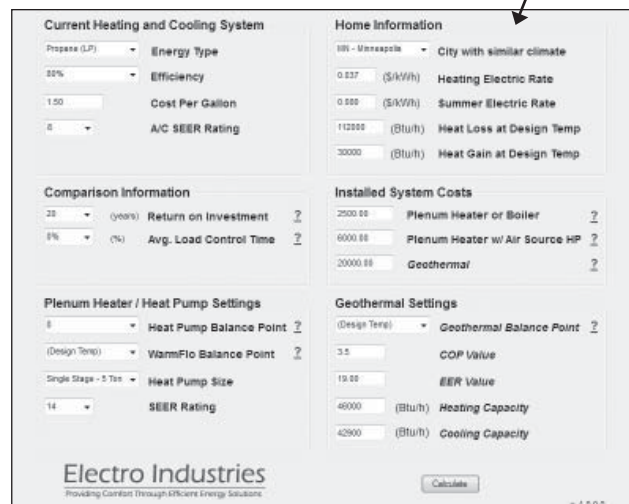
On the back end of the calculator, the contractor or salesperson has the ability to enter in very specific information about the home for which they are quoting the heating and cooling system. This information on the backside allows for a very accurate estimation that they can be confident in using as part of their sales presentation to the homeowner.

Contractors and salespeople we have shown it to are very excited to get it in their hands. One contractor stated, "I just spent \$400 on an energy program that doesn't do what your program does, and you guys are going to be handing it out for free? Awesome." We are very excited to be able to offer this calculator; it is another way to help you increase your sales. Request your copy today!



Brochure Style Printout

Screen Shot of Software



ATTENTION CONTRACTORS! Mini-Boiler Promotion

Electro Industries is offering a limited-time promotion:

RECEIVE ONE FREE MINI-BOILER FOR EVERY FIVE ELECTRO-BOILERS PURCHASED

Equipment must be purchased and paid for between June 1, 2011 and August 31, 2011 to qualify.

Visit www.electromn.com and click on Mini-Boiler promotion to download a copy of the promotion form.



The Technician's corner is intended to bring common troubleshooting scenarios to your attention. Hopefully this will assist you in all aspects of using Electro equipment, from system design to field troubleshooting.

Calls from the Field

Outdoor and Supply Sensor Troubleshooting

A common question we get is how to test our indoor and outdoor temperature sensors. The sensors we use are not thermistors, where an ohm test can be done to verify the sensor is in good working condition. The sensors we use in our equipment are digital sensors and need to be checked using a different method.

Voltage checks can be done to test the sensor for short circuit, faulty component or inductance. There is no way (using voltage) to verify sensor accuracy

Voltage checkout is as follows:

- RED to COM = 5VDC
- ST to COM = 5VDC
- OT to COM = 5VDC

If voltage is not a solid 5VDC, say for example 3.8VDC, a sensor issue may exist.

Another method available to check temperature sensors is using our WarmFlo Analyzer. It is without question the best option in sensor troubleshooting. Using the Analyzer, the sensor value (° F) is shown, can be calibrated, and will indicate if a faulty sensor exists.

WarmFlo Analyzer - WF-ANZ7

List price: \$229.00

Solid State Relay (Triac) Troubleshooting

Another common question is how to test for a failed solid state relay (SSR). To help you understand how an SSR works, think of it as a mechanical relay with a coil and normally open contact point.



All SSR's used in our equipment have 4 terminals labeled: A1, A2, L1 and T1.

A1 and A2 are the control terminals and could be considered the "coil" of the relay. L1 and T1 are the "contact" side of the relay. Therefore, if correct voltage is measured across A1 and A2 during a heat call, you should read 0 volts across L1 and T1. If you do read 240V across L1 and T1, the SSR is faulty. If

no voltage is measured across A1 and A2, you should expect to see 240V across L1 and T1. If this is not the case the SSR is shorted and is faulty.

WarmFlo Select Field Setup – ST & OT Mode

WarmFlo Select plenum heaters have been designed with a mode dial which allows the installer to choose from one of 4 modes of operation. Modes "DUAL" and "NO GAS" are for heat pump applications and modes "ST & OT" and "ST" are for non-heat pump applications.



The ST & OT mode is for a system with a plenum heater and a fossil fuel furnace without an air source heat pump. The dial indicates the installer would like to use the outdoor sensor for a function known as outdoor reset. When the outdoor sensor is active; it will also use a dial known as SW OVER. The SW OVER dial is typically for heat pump applications and thus is set (factory default is heat pump) to number 3 or 0° F. The function if the SW OVER dial while in DUAL mode is to set an outdoor temperature balance point in which heat pump operation is terminated. When in ST & OT mode, the SW OVER dial indicates the outdoor balance point in which the plenum heater is terminated and switches over to fossil fuel. This scenario is used when the plenum heater is purposely undersized for the space, i.e. limited electric service. If the plenum heater is not undersized, the SW OVER dial needs to be set to 0 or disable.

A problem can arise when the contractor has set the mode dial to ST & OT and has not adjusted the SW OVER dial correctly. When the outdoor temperature reaches 0° (factory default), the heating system will switch over to fossil fuel mode. This may be an undesirable function for the homeowner.

PHOTO CONTEST WINNER

WIN A WARMFLO® ANALYZER, CABELA'S GIFT CARD, OR MINNESOTA TWINS TICKETS!

Send us your Electro product installation photos for a chance to win a WarmFlo Analyzer, a \$100 Cabela's gift card, or 4 lower level tickets to a Twins game. Photos will be judged based on quality of installation and creativity.



WF-ANZ7
VALUED AT \$229!

Email your photos to sales@electromn.com no later than July 1, 2011. The winner will be announced in our summer newsletter.

UPCOMING TRAINING

Web Training Seminars

Electro Industries will continue to offer live Web training seminars every other Friday throughout the spring/summer. Join us as we cover a wide range of topics designed to help our customers better understand the whole range of Electro products. For more information contact Jason at jbecker@electromn.com. It's fast, it's easy and best of all, it's free!

- May 13** Plenum Heater Troubleshooting - Current Models
- May 27** How to Sell Electric Heat
- June 10** Electro Mini-Boiler Introduction
- June 24** TS Boiler Introduction - Part 1
- July 8** TS Boiler Introduction - Part 2
- July 22** Zone Controllers for TS Boilers
- August 5** Electro Industrial Boiler
- August 19** Electro-Boiler Troubleshooting
- Sept 2** Electro-Boiler - Dual Fuel Options

. . . and more! Visit www.electromn.com/schedule.htm for the complete schedule.

Also, contact Jason to include an Electro representative via live Webinar at your next sales/training meeting or for more information on personalized Webinars for your group.

RETURN SERVICE REQUESTED

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