

UNITED ASSOCIATION

The United Association of Journeymen and Apprentices of the Plumbing and Pipefitting Industry of the United States and Canada or "UA" as it is commonly known is a multi-craft union whose training department has dedicated itself to Green education within the mechanical trades of their membership, which include the pipe trades and heating, ventilation, air conditioning and refrigeration technicians.

The "UA" along with its employer partners, the Mechanical Contractors Association of America (MCAA), the Mechanical Service Contractors of America (MSCA), and the National Association of Plumbing-Heating-Cooling Contractors have developed a mobile Green training laboratory designed to supplement their 300 plus training facilities and aid in creating a greater awareness of Green Mechanical Technologies.

www.ua.org



The U.S. Department of Energy hosts a website designed to educate consumers and industry. Energy statistics, forecasts, product standards, corporate training, energy incentive programs are just a few of the topics profiled.

Please visit www.energy.gov to learn more about how each one of us through awareness and discipline can contribute to a "Greener" World.

MID-MICHIGAN AREA PLUMBING AND MECHANICAL CONTRACTORS:

A/C MECHANICAL • **ADRIAN MECHANICAL** • **ANDERSON AIR CONDITIONING** • **APPLEGATE** • APCOM • ATI GROUP • BAM HEATING • BOSCH MECHANICAL • CASCADE REFRIGERATION • DUNBAR MECHANICAL • **EIFERT, T.H.** • ELITE PLBG & HTG • FHC • FM SYLVAN • GOYETTE MECHANICAL • **GREEN, JOHN E.** • **GRINDALL & WHITE** • **GUNTROPE PLBG & HTG** • H2O COMPLIANCE • **HUNTER PRELL** • INDUSTRIAL PIPING • KEBLER PLBG & HTG • LANG PLUMBING • MALL CITY MECHANICAL • MAPLE CITY PLBG & HTG • MICHAEL MCNAMARA • MLF ENTERPRISES • METRO INDUSTRIAL PIPING • MJR • MONROE PLBG & HTG • MORGAN MECHANICAL • **MYERS PLBG & HTG** • NATIONAL PIPING • N B PROCESSING, INC. • NELSON TRANE • NORTH STAR REFRIG & COOLING • **PAUL BENDEL CO.** • PHOENIX REFRIGERATION • POWER PROCESS PIPING • PRIME MECHANICAL • PRO SERVICES • REFRIGERATION ENGINEER • SCHECK MECHANICAL • **SHAW WINKLER** • SIEMENS BUILDING • SHAMBAUGH & SONS • STAFFORD-SMITH, INC. • SUMMIT CONTRACTORS • UNIVERSAL PIPING • WESTSIDE MECHANICAL • W. SOULE CO. • WHITE REFRIGERATION • **WILLIAM E WALTER** • WKC PLBG & HTG • WM. NORTH CO. • WYERS PLUMBING • YORK INTERNATIONAL

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517-485-7990 • 517-485-4129 (FAX)
WWW.MID-MICHIGANMCA.ORG

UA LOCAL 333, Plumbers and Pipefitters
www.ua333.org

MID-MICHIGAN AREA ELECTRICAL CONTRACTORS:

EDT • RO-LYN ELECTRIC • H&R ELECTRIC • SL BECKER ELECTRIC • DELTA ELECTRIC • CENTENNIAL ELECTRIC • FD HAYES ELECTRIC • RM ELECTRIC • SUPERIOR ELECTRIC • SUMMIT ELECTRIC • SPARTAN ELECTRIC • LUTZ ELECTRIC • HATZEL & BUELER • MORRIS ELECTRIC • SWAN ELECTRIC • ALTERNATIVE ELECTRIC

VOICE/DATA/VIDEO/SOUND/TELECOMMUNICATIONS:

GCC COMMUNICATIONS • ICOMM • SOUND ENGINEERING • FD HAYES • SUPERIOR ELECTRIC

RESIDENTIAL ELECTRICAL CONTRACTORS:

WIREWOKS ELECTRICAL SVCS. • H&R ELECTRIC • SL BECKER ELECTRIC • SPARTAN ELECTRIC • FD HAYES • RO-LYNN ELECTRIC

IBEW LOCAL 665
www.local665.com

NATIONAL ELECTRICAL CONTRACTORS ASSOCIATION
www.necanet.org

BUILDING A GREENER TOMORROW



A collaborative initiative sponsored by members of the mechanical service, construction and plumbing industries to promote environmental stewardship of building technologies through education and training.



MOBILE CLASSROOM OF SUSTAINABLE TECHNOLOGIES



Trainers and simulators profiled are:

Fuel Cell Technologies
Wind Power Generation
Solar Heating System
Grey Water Toilet Flushing System
Anaerobic Treatment Process
Infiltration Demonstrator
Geothermal System Trainer
Residential Pressure Assist Trainer
Biological Water Treatment Trainer
Geothermal Heat Pump Trainer



WHY GREEN?

The word "Green" has become the celebrated word when purchasing of products, services, construction of buildings and daily life disciplines. The objective of going Green begins with an explanation of our carbon footprint. Everything each one of us does produces carbon. Our body's, just as a power generation plant or gas appliance produces carbon in the form of carbon dioxide. Carbon dioxide is considered a greenhouse gas linked to global climate change. Two masses on the earth have the role of absorbing carbon: water and vegetation. The more carbon we exhaust through the generation of energy, the less water and vegetation can maintain the balance.

Because of this, we have to consider energy used to produce, transport and implement all goods in our daily lives and strive to lessen each of our carbon footprints.

Two words are used to explain Green goals for energy: **renewable** and **sustainable**.

Renewable means a repeatable form of energy such as ethanol. Ethanol is produced from vegetation or biomass. Production of such biomass uses solar energy and the hydrologic cycle to produce agricultural plants. The fuel production then involves a distillation process. Other fuels such as fossil fuels and wood are carbon based.

Sustainable energy such as wind, tidal, nuclear, geothermal or solar contributes no carbon. Sustainable energy is kinetic energy harnessed that has no impact on the environment and will not be threatened by depletion.

Green in the Mechanical Industry means more efficient appliances to operate heating and air equipment. Also, sustainable and renewable sources of heating and cooling for transfer to comfort climate and industrial process systems.

Water purification and distribution are necessities in our daily lives. These processes contribute to significant amounts of the energy used everyday. Refined water recycling and purification methods have been developed and are available for use in our daily regimens.



THE GREEN MECHANICAL COUNCIL

Is a non-profit affiliation of Mechanical Industry Professionals, Manufacturers, Labor Unions, Contractor Organizations, Educators, and Consultants focused on energy efficient mechanical systems for the consumer. "Virtually everyone is a stakeholder in energy efficiency."

Please visit www.greenmech.org for more information and tune into Green Radio at www.alternativeenergy.com, broadcasted daily.

"The benefits of employing Green mechanical practices are enormous. They include obvious cost savings, energy independence, new technological developments, and expanded economic opportunities, while protecting the environment."
- Green Mechanical Council



The US Green Building Council (USGBC)

Has established LEED, Leadership in Energy and Environmental Design. The LEED status is an assessment or rating system for the design construction and operation of high performance buildings.

Buildings built under these standards are considered sustainable with low energy usage and low environmental impact.

In addition, LEED Certification of a building may mean tax, utility and monetary incentives for building owners depending on location.

Visit www.usgbc.org for more information.