

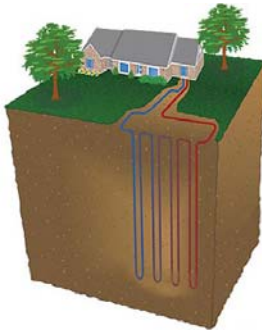


# Texas Foundation for Innovative Communities Newsletter

## Research Report on Geothermal Heat Pumps Released

The second industry research report completed as part of our Wagner-Peyser grant from the Office of the Governor and the Texas Workforce Commission was released this month. It covers geothermal heat pumps and was produced at the request of the Green Corridor Consortium of community colleges and workforce investment boards.

Geothermal heat pump (GHP) systems, also commonly referred to as geothermal heat exchangers or geoexchangers, can be used to help efficiently heat and air condition homes, businesses, and other facilities almost everywhere in the world by taking advantage of the difference in temperatures between the surface of the earth and the ground below it (or nearby water sources).



GHP is often confused with geothermal power production (geothermal energy generation), which utilizes naturally-occurring heat within the earth at select locations in the world to produce steam to drive a turbine to produce electricity. Although both have the term “geothermal” in their name and use renewable resources, GHP is not an energy generation technology, it is an energy efficiency technology that can be used ubiquitously throughout the world, especially throughout the United States, by all consumer classes.

Many businesses and occupations are involved in the GHP industry, including designers, architects, engineers, drillers, excavators, conductivity testers, heating and air conditioning contractors, electricians, plumbers, pipe fitters, mechanical contractors, sheet metal workers, manufacturers, suppliers, distributors, sales representatives, and software engineers.

In practice, many of the firms that manufacture, design, install, maintain, or sell geothermal systems often cross-train their employees in many different disciplines to facilitate and simplify the process for customers and to provide higher-quality comprehensive services that provide them a competitive advantage. Much of this training could be provided by, or at, community colleges.

In general, the skill and knowledge needed for workers in the GHP industry will require incremental training and experience to develop enhanced skills relevant to the industry, rather than training to transition workers to entirely new occupations. Important regional differences in topography, geology, climate, and the designs that are effective in each area must also be a component of any successful training. Since they differ by community, community colleges are naturally an excellent delivery vehicle for these trainings.

These findings along with others and some initial recommendations can be found in the complete report, available online at: [www.txcleanenergypark.com/supporting\\_docs.php](http://www.txcleanenergypark.com/supporting_docs.php).

## INNOVATION FOR A SUSTAINABLE FUTURE



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## Follow-up GHP Industry Survey Underway

To supplement the GHP report with additional data, we are in the process of surveying companies working in the industry in Texas. The purpose of the survey is to further quantify the findings we reported by asking additional individuals working in the industry in Texas directly about the employment trends and training needs of their companies. The results will be compiled and distributed to our stakeholders in the near future. If you would like to know if your company has participated, please contact Chris Winland at [cwinland@goodcompanyassociates.com](mailto:cwinland@goodcompanyassociates.com).

**GET INVOLVED WITH THE FUTURE OF TEXAS**

## Upcoming Events

Save the date: Friday, March 26th

Two events for Texas educators, administrators, workforce development professionals, trainers, and other interested stakeholders will be held in Austin at the State Capitol on Friday, March 26. The events are FREE, but registration is required.

### Green Jobs Initiative Conference: Retrofitting the Workforce

A green jobs conference will be held in the Texas Capitol Extension Auditorium on the morning of March 26 to bring together industry leaders, workforce development professionals, educators, administrators, and other stakeholders interested in developing a green economy in Texas.

Register at [www.goodcompanyassociates.com/registration](http://www.goodcompanyassociates.com/registration)

### Texas Clean Energy Park Forum on Geothermal Heat Pumps

As a follow-up to the release of our industry report on geothermal heat pumps, a training forum for educators and other interested stakeholders will be held in the Legislative Conference Center of the Texas Capitol in Austin on the afternoon of March 26.

Register at [www.goodcompanyassociates.com/registration](http://www.goodcompanyassociates.com/registration)

## Green Jobs Business Council Task Forces Formed

A *Building Science* task force has been established to determine commonalities of Building Performance Institute and Home Energy Rating System certifications which community colleges can use as a baseline for educating students and incumbent workers.

A *Geothermal Heat Pump* task force was formed to assist with the GHP research paper and to investigate licensure issues in the industry.

A *Green Lease* task force is being formed to find solutions to the problem of split incentives (owners of buildings don't pay electric bills, tenants can't retrofit a building on which they occupy only a part, etc.). This task force will look at solutions from other states and municipalities and look for innovative ways to save money for both building owners and tenants, while creating jobs.

An *Apprenticeship* task force is being formed to address barriers to workforce training and certifications due to lack of sufficient on-the-job experience.

If you are interested in participating in any of these task forces, please contact [dlewin@goodcompanyassociates.com](mailto:dlewin@goodcompanyassociates.com).

## Other News



### Texas Clean Energy Park Forum on Commissioning Held January 15th

A half day train-the-trainer on building commissioning was held January 15 in College Station. Taught by faculty of A&M's Energy Systems Lab, the session was attended by community college instructors and union trainers, and covered best practices in commissioning and retro-commissioning, measurement and verification of energy savings, critical tools for detecting energy losses, and more.

Our thanks go out to Texas A&M University for hosting and conducting this workshop.

### Green Corridor Consortium MOU Signed

Sixteen entities, including seven community colleges, eight workforce boards, and TFIC have formalized their agreement to coordinate and collaborate on green jobs training initiatives by signing a Memorandum of Understanding.

Under the MOU, TFIC and the Green Jobs Business Council will be relied on "to ensure that the efforts and activities of the collaborative are aligned to the needs of green energy industry sector employees."

