



Energy
Efficiency
Program

Residential GHP Training Webinar Q&A with Anesi

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Questions Answered by our Panelists:

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101 Training Questions

- Are there contractors in IL certified to install these?
 - No, not yet since this is a new product coming to market this fall. Training will be promoted soon and will be performed in the next month or so. Nicor Gas will be sending out invites for the training as well.
 - Anesi will be doing additional contractor installation (201) level training in the next few months. The training will be one day long and will credential the installation contractor for installation and startup of the systems. Janet and our local rep (Windy City) will be able to help keep you informed on those trainings.
- Is the AFUE lower than the COP due to cycling losses?
 - Answered live in the webinar
- What type of piping can you use?
 - PEX with oxygen barrier, or copper tubing is acceptable.

- What is the heat exchange made of?
 - Steel inside the heat pump, and the AHU heat exchanger is copper fin-tube.
- Explain the condensate removal and freeze protection
 - Condensate may be gravity drained into the dwelling (either to a pump or drain) or a drywell below frost line outdoors will also work. In each case the condensate should be heat-traced to prevent freezing in cold weather with a self-regulating heat tape.
- Any die electric concerns in retrofit applications?
 - No dielectric union requirements. The tank is polymer, and the rest of the components are not connected to domestic water. There is no electrolyte potential on that equipment.
- I would love to learn more about multi-family applications...can it be used to retro fit buildings and if so what would need to be there already...forced air heating or hydronic boilers or steam boilers etc
 - It depends on the building and systems installed. Multi-family with forced air or hydronics would be applicable, and the units can be banked to provide multi-stage operation and additional turn-down. I can also do multi-family DHW.
- Capacity loss as ambient temperature drops?
 - Anesi capacity drops off but much less than electric heat pumps, as temperature drops. We still capture from ambient down to ~-25°F.
- Future plans to add a reversing valve and do gas-fired cooling?
 - Roadmap includes vapor compression cooling in short term, and chiller capacity more long term.
- Will there be onsite training available? We're a large HVAC facility and our union training requirements can get pretty expensive.
 - Please reach out to me to discuss training options- Janet Sebahar 331.262.5290
- How hot does the flue pipe get on the external unit? Is it safe for kids and dogs to play near it? Can it run on propane?

- External Flue pipe max is 150F, but typically due to modulation is much lower. there will be components inside the cabinet much hotter in operation, but only service technicians' access, and will have benefit of training and the installation manual
- I believe I heard you say the hybrid heating/cooling system is in the planning phase? How soon would that come to market?
 - We have tested prototype and are moving to manufacturing design. Launch is targeted 2025.
- Do you recommend a heat pump stand?
 - Covered in installation portion
 - If snow is routinely greater than 30", probably should have a stand. However, the unit could literally be buried in snow and still work. Air intake is at 41" near top of unit. Defrost is 6 minute cycle, and heating continues during defrost.

150 Training Questions

- What is the distance the flue pipe must be from windows, doors and or gas meter/ regulator?
 - The entire outdoor unit is minimum 18" clearance, and 24" on the service panel (front) - the flue pipe should be kept clear of windows which will be open in summer since the unit will be heating water in summertime.
- The motorized fan on top generally is required a 4' height from obstruction on conventional heat pump or AC units. Would this be a requirement with this unit for proper air discharge from the fan. Essentially placement under a raised deck or stairs.
 - We can be installed under stairs or deck. 48" is required above the evaporator fan. More important issue may be the air flow and sound impact on homeowner aesthetics.
- Do we get Nate credits?
 - Anesi has applied to become a NATE recognized provider, application is pending.
- Diversitech has a nice heat pump pad # HP3636-8 which is 36"x36"x8"
 - That pad is too small, the footprint of the unit is 48" x 34"

- Diveritech makes several pads that meet the footprint of the unit that can handle well above 1000lbs. The unit weighs approximately 550lbs
- Could it be installed in the roof?
 - Yes, we can accommodate rooftop installations, which would likely be commercial rather than residential. Key issue is to address the hydronic loop length, and if residential then homeowner aesthetics.
- Air handlers are required? This cannot be used as a replacement for a boiler system with radiant heat and no centralized duct system?
 - Absolutely we can be used as a boiler replacement, and you are correct, we would not need the air handler. Typically a zone controller and buffer tank would be needed, and we can adapt our operating software/algorithms to handle these applications. We CAN remote update our software as well, FYI. Hydronic systems are absolutely compatible and are only limited by the supply temperature of the emitters.
- Condensate can be a supply source for well water, right? It was said that the condensate generates 11 gallons of water a day. That's a fair amount of water that could be a resource that could be used by the household. I'm thinking the dry well could be situated close to the domestic water well and supply it with water if conveniently located.
 - The condensate does need to be neutralized per local code if required. In the case of draining indoors to sanitary, even more important to neutralize if cast iron/not PVC. For outdoor drain, you would NOT want the pit to be near enough to a well to contaminate, but certainly neutralize if any doubt.
 - High efficient furnaces produce condensate which will have a certain amount of acidity. Not recommended to drink.
- Is condensate usable as gray water?
 - The condensate needs to drain without obstruction in winter, hence the heat trace. I would have concern with interrupting the flow to capture for gray water needs, even if in summer time (keep in mind summer condensate would be much less volume). I would not recommend trying to capture gray water.
- Condensate consumption
 - Answered live
- How does the installation cost compare with a 95% furnace plus water heater?

- Absolutely comparable/on par
- What type of Manufacturer Warranty is there for this system?
 - 8 years on sealed system and coil internal to air handler
- Any extended warranty?
 - Answered live
- Contact for Iowa?
 - SMTI is still working on establishing representatives in the Midwest.

Local Manufacture Reps and Distributors

For Distributors look to carry Residential Anesi GHPs or contractors looking to purchase from a distributor, please contact:

Windy City Representatives
www.windycityreps.com
quotes@windycityreps.com
630.590.6933

To participate in the residential GHP pilot as a contractor or a participant contact:

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