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Aspen School District Is Investigating the Exploitation of Geothermal Energy

One of my favorite newsletters is from “Big Pivots,” which describes itself as a Colorado-based non-profit that “aims to document, understand, and educate about the changes made necessary by climate change.”

Last week’s installment contains a fascinating description of how the Aspen schools have responded to the need for August air conditioning with a full-fledged commitment to the use of geothermal not only for cooling, but for heating, melting snow on the school grounds and even generating electricity. You can find a link to the article at <http://RealEstateToday.substack.com>.

It would be hard to justify using energy to melt 30 inches of annual snowfall from school playgrounds, sidewalks and parking lots, but when that energy is virtual-

ly free — extracted from the earth below — it’s a beautiful thing.

Last November, Joe Waneka, director of operations for the Aspen School District, began investigating potential remedies. To quote the Big Pivots article, “Conventional chiller units could be added but would add an extra \$100,000 to \$125,000 per building in electricity costs.

“By March, Waneka had narrowed his focus to geothermal, to tap the underground for both coolness and heat. This would comport with the school district’s strategic plan, which calls for students and staff to have access to sustainable energy.”

It should be noted that the school district has not yet pulled the trigger on the plan,

which would have to be funded through a bond issue, but it’s quite possible that Aspen will add to the growing number of places where geothermal is being implemented.

The article continues: “Burning natural gas at the three schools and two associated buildings and the use of snowmelt systems produce 235,000 therms of energy heat annually.... Greenhouse gas emissions produced are comparable to burning almost seven railcars of coal.”

And, “If successful, this thermal energy network would provide heat and cooling for up to 600,000 square feet. That includes the schools and other buildings, along with 30,000 square feet of future buildings and 157,000 square feet of athletic fields and the track... Many schools across Colorado already use geo-exchange technology, as does the governor’s mansion in Denver and the state Capitol.

“The Poudre School District first used geo-exchange in 2002 at an operations build-

ing in Fort Collins. It used the same technology in a school in 2004 and again recently at three new schools in Loveland, in Timnath and in Wellington.

“Grand Junction has Colorado’s most prominent use of geothermal. Officials at Colorado Mesa University in 2008 pulled the trigger on a geo-exchange system that now provides heating and cooling for 1.2 million square feet of space contained within 16 campus buildings. The success has drawn national attention.”

These are only a few extracts from the Big Pivots article, which I recommend reading in full. Take, for example, this pivot:

“These ideas are not novel. For example, in Denver, heat is drawn from a 72-inch pipeline that transports sewage from downtown to a treatment plant. The extracted heat provides 90% of what is needed for buildings on the 250-acre campus of the National Western Complex, site of the annual stock show.””

Thrive Home Builders Is the Only Builder I Recommend

I have never sold a Thrive home, although I’d like to. My concentration has always been on the sale of existing homes. And I’ve never spoken with anyone other than an on-site sales person at a Thrive sales office — although I fact-checked this article with another Thrive salesperson after writing it.

Earlier this summer I visited the latest new home development called “The Manors Collection at Outlook Golden,” a 106-home subdivision being built by New Home Co. It’s on the slope of Green Mountain, overlooking the noisy interchange of C-470 and I-70. Home prices start in the “low 800s.”

I went to the ribbon-cutting, because I wanted to see what sustainable features this latest new-home community had. Surely, I assumed, no home builder with any common sense would be building homes in mid-2025 with gas forced air furnaces, gas water heaters and standard A/C compressors, right? Wrong, every builder except Thrive Home Builders is stuck in that old paradigm, when it has been clearly demonstrated that heat pump HVAC systems and heat pump water heaters are more economical in terms of energy costs and are better for the planet.

Visiting the sales office at Outlook Golden, I immediately noticed a heat pump compressor next to the model home’s garage that is being used as the sales office, so they clearly know about heat pumps. But the home itself is stuck in that 20th Century HVAC technology which no builder should still be installing.

Many builders have adopted sustainable practices, such as improved insulation, and they all install double-pane windows

— woohoo! A few builders have toyed with solar panels. I had to laugh when Lennar built the Table Rock Ridge subdivision on the northeast corner of Highway 93, marketing it as an “energy efficient” community in which every home had solar panels.

I laughed because none of the homes were designed to have good south-facing rooflines, and many of the homes have solar panels on the north-facing roof!

Every Thrive home has a radon mitigation system already installed, and qualifies under the EPA’s Indoor AirPLUS program. Many building materials, especially paints and particle board, emit gases like formaldehyde that degrade indoor air quality. Thrive builds exclusively with low-VOC (volatile organic compounds) materials. I know of no other home builder with that focus on indoor air quality.

Thrive homes have heat pump heating systems and solar panels and an average HERS score of 22. (That means it uses 22% of the energy of a home built to the current energy code, producing almost all the energy it uses.) No other builder in Colorado comes close to building homes that match Thrive homes in terms of energy efficiency or indoor air quality.

Thrive is building and selling homes currently in Loretto Heights (southwest Denver) and Lone Tree. The homes in Lone Tree start under \$600,000, and the townhomes in Loretto Heights start under \$450,000. (I’d love to sell you one!)

In Fort Collins, Thrive has built a 220-home community called Sonders, which targets 55+ buyers. You can read about it and other Thrive communities at its website, www.ThriveHomeBuilders.com.

Green Mountain Ranch Backs to Greenbelt

This 3-bedroom/2-bath home at **13172 W. Montana Ave., Lakewood**, backs to a greenbelt. The living room and primary bedroom have new carpeting. The kitchen has an island range and hardwood flooring and a door leading out to a patio. There are 3 bedrooms on the main floor with a full bathroom including a jetted tub, plus a 3/4 bath in the primary bedroom. The finished basement has plenty of space for a family room, game room, workshop, or whatever. One room could be a 4th bedroom, with rough plumbing for a bathroom next to it. The backyard has a large concrete patio and a shed. The 2-car garage is oversized. Beech Park and two golf courses are nearby. The home needs some updating, which is reflected in the pricing. Find more pictures, floor plans and a narrated video tour at www.GRElistings.com.



Coming Soon: A Million-Dollar Fixer-Upper



This 4-BR/3-bath home at **55 Coolidge St., Aurora**, is on 2+ acres in rural Arapahoe County, a half mile east of E-470 and a couple miles south of I-70. The subdivision is Thunderbird Estates. This is horse country, although this property has not been used for that. The seller bought the lot in 1981, when her husband thought she was crazy for buying something “in the middle of nowhere.” They didn’t build the home until 2001. It’s a big home, with 6,079 square feet of above-grade finished space and a 1,360-square-foot attached garage. The county assessor values the home over \$1.4M, but it needs updating and is priced accordingly. Best of all, the current VA loan of \$440,000 at 2.875% is assumable by any buyer, not just veterans. It goes active on the MLS next Wednesday, and you’ll be able to view interior photos and my narrated video walk-through at www.GRElistings.com and then come to my open house on **Sunday, Sept. 14, 11 to 1.**

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