

RMI opens doors to new energy efficient building

By ELISE THATCHER • JAN 4, 2016



A champagne glass is a lingering reminder of an open house at RMI last week.

ELISE THATCHER

Rocky Mountain Institute has opened the doors to its new offices in Basalt. And for the first time, the think tank is settling into its own brand new energy efficient building. Aspen Public Radio's Elise Thatcher took a tour and has this report.

Michael Kinsley surveys the lobby area of the new RMI building, which is an atrium named after Co-Founder and Chief Scientist Amory Lovins. There is a "living wall" on one side, a thick assortment of plants cascading down. Expansive windows show a view of the Roaring Fork River and the Basalt Library, and to the right is a modern-yet-earthly dining area.

In this lobby there will soon be a video showing just how energy efficient this building is. With the nonprofit moving to Basalt from Old Snowmass, these new offices are a golden opportunity. It's the first time RMI can design and construct its own building from scratch... after decades of helping companies and other organizations come up with their own energy efficient offices. The goal here is to be net-zero, or collect as much energy as is needed to run the place. And, it must inspire other people to construct similarly green offices.

“The fact that we have 15,600 square feet with no heating systems some people find hard to believe,” Kinsley chuckles. “My friends will say ‘what cool new technologies do you have in this building?’ It does have them...but what’s really interesting is less the gadgetry, and more the integrated design.”

There are about twelve elements that help keep this building comfortable for the approximately two dozen workers based here and RMI’s visiting clients. One of the ways to make up for not having the usual heating and cooling HVAC system is using concrete in the floors. That absorbs warmth or coolness, evening out the temperature in the building. RMI has that and another strategy using something that sounds really space-agey.

“A phase change gel,” beams Kinsley. This material also soaks up warm or cool air. It’s in small packets behind the wallboard in the building. Kinsley leads me down a warm, sun-bathed hallway along the southern end of the building. At the end, he points up to a see-through case in the ceiling. Inside there are what look like four large butter packets, only more squishy and empty.

“One of the ways we keep the building cool [in the summertime], is the lower south windows and the upper north windows open automatically. And that flushes the hot air out of the building.” As the cool air comes in, chilling the packets and the gel inside. “And in effect storing the coolth,” says Kinsley with a twinkle in his eye. “Like warmth, but cool. Then when the building reaches the next day a higher temperature, that coolth is then released into the building.” Yes, we’re learning new vocabulary today, here at the RMI Building.

Another way heat is controlled in the building is by using sunshades outside. “Like giant venetian blinds,” continues Kinsley. “They’re retracted right now. But if this was a sunny warm day, they would deploy and reduce the heat coming into the building. They’ll retract automatically if the wind comes up, for example.”

We turn around and head up the stairs to the second floor, where employees are quietly on the phone or their computers, or both. It’s an open floor plan, making it easier for the air to circulate. There are ceiling fans that look like wind turbines, and small offices on the side for workers to talk on the phone more privately. We can just barely hear a tell-tale sign of a big part of keeping the building comfortable. There’s a gentle woosh, from something called a heat exchanger, which helps bring in fresh air while regulating the temperature.

Kinsley is reluctant to say how much this Innovation Center cost to build, as staff are carefully tallying up exactly how much RMI spent and how much of that could be offset by energy efficiency. Many of the seats here are empty, as employees continue moving into the new digs-- and the chairs have an odd look to them. They’ve got mesh and what looks like reflective material inside. “We have seat warmers... and they really work well!” reports Kinsley. The chairs are indeed custom-made, for the chilly mornings when the ambient temperature inside is a little too cold to focus on work.

RMI is offering tours of its new “deep green” homestead through January.