

Decarbonization Download Vlog – Full Interview Transcript 5 Questions with Gundersen Health System

Kelly

Hello, everybody out there. I am Kelly Speakes-Backman, and I am the acting Assistant Secretary at the Office of Energy Efficiency and Renewable Energy [EERE] here at the Department of Energy. We have the privilege today of talking to Tim Wilson of Gundersen Health System. Gundersen is a participant of the Better Buildings Low Carbon Pilot. Tim, thank you so much for being here with us today.

Tim

Thank you, Kelly. It's my pleasure to be with you all today and talk about our work here at Gundersen Health System.

Kelly

Excellent. I'm going to ask a couple of questions if you don't mind, and we'll start off with the first one: Why is decarbonization important to your organization?

Tim

Healthcare facilities use two to three times more energy than a conventional office or commercial building. A lot of that energy is produced through the burning of fossil fuels. When we look at being a healthcare organization, burning fossil fuels is not something that is conducive to being a healthcare facility.

At Gundersen, we've been on a mission since 2008 to achieve energy independence. In that latest version of energy independence, we are focusing on site-based energy independence.

We have a two-pronged approach to our site-based program. The first is we launch new buildings. We're trying to make all of those new buildings essentially zero-energy or net-zero buildings. We're doing that through really solid design, conservation, and site generation.

We're also taking all of our existing buildings, and we benchmark them against the ENERGY STAR website to figure out how much energy those buildings could consume. We want to be at 50% of the national medium for those buildings. We're doing that again through conservation and site generation at the sites.

Kelly

That's awesome. That's really exciting that you are taking your business' mission to heart and really focusing in on decarbonization. I wanted to ask you about your customers and your stakeholders. Who do you consider those to be? Do they care about decarbonization?

Tim

We have a lot of stakeholders when it comes to our energy program. We think about the patients that come to our facilities, the staff that work in our facilities, and the communities that our facilities are in all as stakeholders in what we're doing with our energy independence.

Specifically, we look at our energy program as a way to reinvest in our communities. We hire engineers and architects. We hire construction folks to design and build these energy systems and programs.

Specifically, we've got a biomass boiler here on campus, so we have five wood suppliers. Those folks are very invested in this program because we buy wood chips from them and they turn around and buy healthcare from us. It's a really good community in that sense.

Kelly

That's really cool, not just about decarbonization and fighting this climate crisis that we're in, but also about connecting with the community. You mentioned the biomass project. What other projects are you doing that you're really excited about?

Tim

Actually, this year we've been really busy. We have about 14 different energy projects going on this year that have been funded through Gundersen, including different lighting projects, I think seven solar projects, a lot of HVAC improvements, and scheduling and equipment upgrades.

One that's recently finishing up is our West Salem distribution center. This is a building that we recently purchased as a manufacturing facility and converted into a consolidated service center, which is basically a distribution center. This was done in a three-phase approach.

During the first phase, we remodeled, turned it into a distribution center, and punched some holes in the walls. We had to figure out how to keep air in and be an efficient building with holes punched in the wall. We worked on things like the dock seals.

One of the better improvements we made was adding air curtains to the dock doors to prevent the cold from rushing in or the heat from escaping. So, there was a big improvement to the facility. And then we also powered that facility using a geothermal system with heat pumps in the roof.

We also added a 250-kilowatt solar array recently and a battery system to do some peak shaving and load shifting.

If there's one project I'm most excited about, I think it's our new clinic that we're in the process of designing and building at Elroy, Wisconsin. -This is the first clinic where we'll be essentially 100% site-based energy independent using the geothermal rooftop solar.

We've given this building an energy target of 20. I think that's 25 kBT use per square foot. We've done the energy modeling and we're down to about a 27 kBT use per square foot. Then, we're going to try and offset all of that with rooftop solar in the building. We will have no gas. It'll essentially be a geothermal and solar powered clinic.

We have another facility; it is a brand-new hospital we're working on. We have an energy target of 100 BTUs per square foot on that building.

We're going to get to the point where all of the energy is produced right on site, so it should end up being a zero-energy facility when we're all done.

Kelly

I love that you're combining various sources like geothermal, solar, and of course, starting off with efficiency because the cheapest kilowatt-hour is the one that you don't use.

That's pretty cool. Next question is really about the challenges in these projects that you just mentioned, or others. What are the challenges that you see in reducing carbon emissions?

Tim

There are always technical problems. We're hiring energy modelers to help us make those decisions so we can test out different approaches and come up with the one that's going to hit our energy target initially and also give us the best financial return long-term.

Then it's financial. You've got to show that these projects save money, and I think Gundersen has done that over the years. On the facility operations side, we're saving about \$2-4 million a year in energy versus our peers.

Once you're saving that kind of money, you can show those savings to your management team so that they get on board, and keep investing and reinvesting from a financial side. Then they also see the benefit. Our management team sees the benefit just from being a good corporate citizen and a good partner in the community as well.

Kelly

Too often people think of this as a zero-sum game where you have to choose between the economics and the climate or the decarbonization, and you all are proving that's not necessarily the case, which is pretty awesome. Last question: What would you say to people who are watching or to other organizations who are considering this kind of work?

Tim

I think an important part is really to tie it to your company's mission. Here at Gundersen, we tie in directly to the company mission through improving the health of the community

that we serve, lowering the cost of delivering health care, and enriching every life. So those are three ways in which we tie our energy program directly to the company mission. So I think it's important that you do that in your organization so you can get that buy in from your company.

Secondly, it's doing some benchmarking: setting some aggressive targets for your energy program so you've got a direction that you want to go. Then I think it's going out and getting some quick wins and finding a way to show results quickly through conservation. Then it's about reinvesting and celebrating those wins so that the organization gets on board with you.

Kelly

Cool. Well, Tim, we celebrate you today. Thank you so much for taking the time today to talk with us about Gundersen's important efficiency and carbon reduction work with Better Buildings. We really look forward to seeing some great things from you all in the Better Buildings Low Carbon Pilot. Thanks again for sharing with us today.

Tim

Thank you. It's my pleasure.