Level playing field for a hybrid future

If you look at the developments regarding sustainability in the USA of the last three years, they paint a confusing picture. About three years ago all our customers wanted to switch to hydrogen. They wanted to build more testing capabilities for hydrogen in their factories, they wanted to build electrolysers, they wanted to use green energy to produce the hydrogen and store it afterwards.

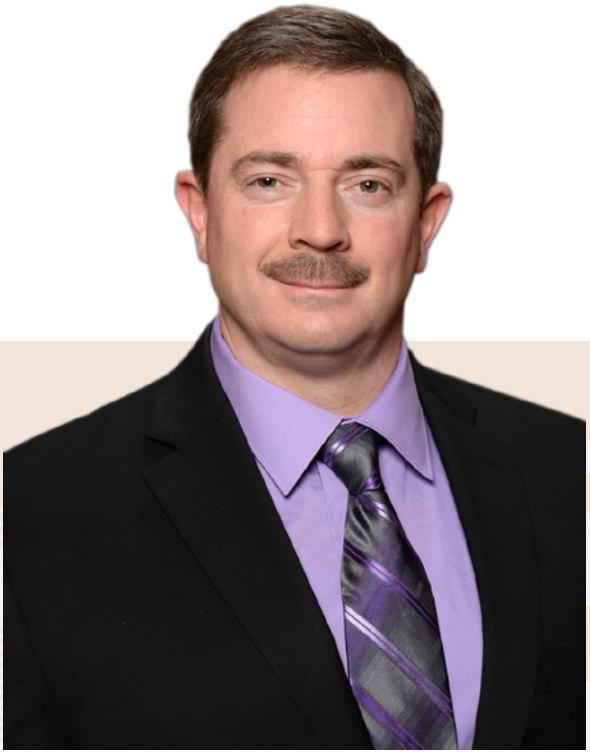
Two years ago, our customers contacted us again. They could not switch to hydrogen for one simple reason: There is none.

About one year ago our customers wanted to go electric. So, they reached out to an electric company to convert one of their furnaces to electric energy. They told them how much energy they needed for one furnace, and it was about double the power that the electric company could provide. So, converting to electricity was out of the running as well.

Now we need another solution. Without question the switch to sustainable energy sources is going to happen. Maybe it will take one generation, maybe it will take two. Is it going to happen the same everywhere at the same rate? Probably not. And of course, the reason for that is economics. If you want to electrify everything, how do you do that? The unique thing about electricity is you have to use it when you make it. Otherwise, you have got to find a way to store it. But where? You can convert it into hydrogen and store it. The US is building seven hydrogen hubs. So, it appears that we will be able to get hydrogen, and we are going to get it cheap because it's part of this government funded project. Can you burn hydrogen? Yes, we can burn hydrogen. But is it going to come at a scale yet? No. Ok, is green electricity going to be available to electrify all of today's processes that use natural gas? No. Can we augment natural gas firing with some electricity? As in a hybrid? Yes.

A lot of the technology we need for carbon neutral processes is not available as of today. Over the next generation there will be technologies that don't even exist today. There will be cheap ways to capture carbon. There will be ways to produce hydrogen more viable. But hybrid is already an option as of today. We can augment natural gas firing with electricity. Those that have hydrogen, can augment natural gas firing with some hydrogen when available as well.

The other big thing is competitiveness. How does that work in a global economy if a manufacturer in the United States doesn't have to play an exact same level playing field as a manufacturer in Germany. Germany already has a carbon tax, unlike the US. US companies want to go carbon neutral, too, but they are in no hurry to do so. And here's why. If a company is going to spend incredible amounts of money to reduce their carbon footprint, they have to pass that cost onto their product. How much more is the customer going to pay to be green when it really comes down to it? The answer to this question will determine competitiveness as well as whether we will achieve a level playing field.



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