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AstraZeneca Looks To Take Sector Lead In Reducing Greenhouse Gas Emissions

by Joseph Haas

Via a partnership with Vanguard Renewables, AstraZeneca is converting its US locations to renewable natural gas, part of a goal to achieve net zero for carbon emissions by 2045.

[AstraZeneca PLC](#) is trying to take a leadership role within the biopharmaceutical sector on the issue of reducing greenhouse gas emissions, with a new initiative to convert all of its US facilities to renewable natural gas, i.e., biogas, by 2026, with greater carbon-reduction goals set for 2030 and 2045. The large pharma is partnering with Vanguard Renewables on the effort and said its suppliers and contractors will need to play a role in achieving the longer-term goals.

As part of its Ambition Zero Carbon initiative, AstraZeneca is converting its manufacturing sites, R&D facilities and office buildings in the US from natural gas to renewable natural gas (RNG) – derived from waste from farms as well as food and beverage factories – with Vanguard using a process AstraZeneca executive Pam Cheng likens to fermentation to produce the RNG. After this process, the RNG is injected into existing natural gas infrastructure for use, initially at AstraZeneca’s formulation and packaging facility in Newark, DE, where use of RNG began on 1 June.

“We’re using the farm power process, effectively taking waste from food and from farms,” Cheng, executive VP of global operations and IT and chief sustainability officer, told *Scrip* last month. “We take that into a renewable natural gas plant, where it goes through what we call the anaerobic digestion process. It’s sort of like a fermentation process.”

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By Eleanor Malone

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“We capture the methane gas, which is harmful for the atmosphere, and then we clean it and scrub it and purify it, and we inject it back into the existing natural gas grid,” she continued. “We are also using the solid waste from this process and injecting it into farm use. Some of the solid waste coming out of this process can be used for cow beds on the farms, for example. Really, it's an example of circularity in motion, where everything we use we get to reuse again and again and again, and thereby reduce the burden on the environment.”

Improving human health is the *raison d'être* of the biopharma sector. But what can the industry do to safeguard and improve the health of Planet Earth? Executives shared their thoughts with *Scrip*.

[Read the full article here](#)

Cheng has overseen operations and information technology at AstraZeneca since 2015 and added the role of chief sustainability officer this past January. Her role means she is in charge of the Global Safety, Health and Environment (SHE) organization, which the company describes as integrated across the business at the regional, area and country level. AstraZeneca is undertaking an effort similar to its US initiative with RNG at its UK sites, Cheng noted.

[Sanofi](#) stated in 2021 that it plans to be carbon-neutral across all emission types by 2030, accelerating a prior pledge to achieve that goal by 2050. (Also see "[Sanofi Accelerates Its 'Carbon Neutral' Pledge Ahead Of Climate Summit](#)" - *Scrip*, 29 Oct, 2021.) [Novartis AG](#) also has made commitments to reducing carbon emissions, with a goal of being carbon-neutral by 2040.

AstraZeneca projects that under its partnership with Vanguard, by 2026 it will use about 650 million BTUs of RNG annually at its US sites, equivalent to the energy required to heat 17,800 homes for a year. This will put it on track to reduce its greenhouse gas (GHG) emissions by 98% from a 2015 baseline. By 2030, the firm's goal is to halve GHG usage by 50% across its global value chain footprint, while using carbon offsets such as reforestation efforts to further limit its carbon impact, and then become net-zero on a science basis by 2045.

Reducing its GHG emissions is an effort AstraZeneca has undertaken for years now, Cheng pointed out, as ongoing actions will enable it to reduce emissions by 79% by the end of 2023, compared to 2015 levels. Getting to net zero in 2045 will require using carbon offsets to achieve no more than 10% of the company's GHG emissions reduction.

“We have to reduce our emissions by absolute terms by 90% and then we can offset 10%,” Cheng explained.

A \$20m-\$30m Annual Investment

As of 2026, by which it expects all US sites to be running on RNG, AstraZeneca projects its annual

investment in the effort will be between \$20m-\$30m a year. The firm claims its partnership with Vanguard is the first of its kind in the US and that its goal is to show that becoming carbon-free is feasible. According to Cheng, similar smaller efforts can be scaled and mean both good business and good community involvement for large companies. From a more practical perspective, she added, reducing its carbon emissions now may help AstraZeneca get ahead of future regulatory requirements.

“We are willing to invest but we also firmly believe being sustainable is good for business and it can be scaled,” Cheng said. “And ultimately, in many parts of the world at some point in time, there will be regulations as well. If there are unsustainable ways of working for whatever industries, I don't think that will be allowed into perpetuity.”

The suppliers and contractors AstraZeneca works with will need to play their part in achieving the 2030 and 2045 goals, she added. The company is starting by encouraging and incentivizing its largest business partners to follow suit.

“Effectively, our view is if all of our partners and suppliers do what we are doing ... then we have a hope to eliminate a significant part of the global greenhouse gas emissions in the health care sector,” Cheng said.

“By 2025, we've set a target to have suppliers that contribute to 95% of our total external spend to adapt the science-based [net zero] target,” she explained. “So, for this top 95% of our spend, we are saying ‘you are our key partners, we want you to establish and sustain a science-based target by 2025. We want you to have sustainability at the top of the agenda.’”

Ultimately, getting partners to come along may require a “carrot-and-stick” approach, she admitted. “If partners fail to act and they are not sustainable, then perhaps we won't be able to do business with them longer-term,” Cheng said. “We've been very transparent and clear.”