CAMPUS & COMMUNITY

Penn's goal of achieving net-zero emissions within the endowment

The Office of Investments has established the goal of reducing the net greenhouse gas emissions from Penn's endowment investments to zero by 2050.

Penn's announcement (https://penntoday.upenn.edu/announcements/message-penn-community-combatting-climate-change) Wednesday of its net-zero emissions goal for the endowment is the latest addition to the University's multipronged efforts to combat climate change.

Penn Today talked to Chief Investment Officer Peter Ammon about Penn's new goal and the challenges that will need to be overcome in order to achieve it.

Q **What does Penn's goal of achieving net-zero emissions within the endowment actually mean?**

Our goal is to eliminate the anthropogenic greenhouse gas emissions footprint created by the endowment's underlying investments. Penn invests by partnering with external investment managers, each of whom in turn invests in a portfolio of public companies, private companies, or real estate. We want to get to a point where the aggregate emissions footprint generated by those hundreds of underlying investments is reduced to zero. Practically speaking, the endowment's overall emissions footprint will likely come down both as the companies in which the endowment is invested reduce their emissions and through shifts in capital towards investments with little or no emissions footprints. If over time there are still investments producing greenhouse gas emissions, we would seek to offset those emissions through investments that remove carbon from the atmosphere.

Let's unpack that a bit more. What are anthropogenic greenhouse gas emissions?

Anthropogenic emissions are those created by human activity. There are seven greenhouse gas emissions identified by the Kyoto Protocol, including carbon dioxide and methane. Unsurprisingly, the two primary sources of anthropogenic greenhouse gas emissions over history have been land use conversion and fossil fuel combustion.

We are aiming to eliminate both Scope 1 emissions—the emissions produced directly by companies in the course of their activities—and Scope 2 emissions—the emissions generated in the production of power that companies use. We will evaluate over time the possibility of taking into account some Scope 3 emissions, which are the indirect emissions generated elsewhere in a company's value chain, such as from its suppliers. In part because one company's Scope 3 emissions are another company's Scope 1 or Scope 2 emissions, however, it is most practical to prioritize Scopes 1 and 2.

Why did you choose 2050 as the target year for your goal?

Penn's goal is consistent the 2015 Paris Agreement and with the UN's Intergovernmental Panel on Climate Change (IPCC) *Global Warming of 1.5°C* report. That study concluded that the world's net anthropogenic emissions need to be reduced to zero by 2050 in order to have a chance to limit the global warming increase from pre-industrial levels to 1.5°C.

To be clear, however, while our goal is to achieve net-zero emissions in the portfolio no later than 2050, we cannot ignore the problem for the next several decades and then expect to flip a switch to achieve net-zero at the deadline. That won't work practically, and it won't work for the environment. I think that the growing number of net-zero commitments from investors will be very positive for reinforcing the need for those pledges to be accompanied by accountability and action. We need to start thinking and acting now if we are to achieve both the specific goal and the broader climate result. While we have identified 2050 as our goal, we plan to develop interim goals and objectives that we will communicate to the community.

Q **What is the current emissions footprint of the endowment?**

We don't know yet. We are starting to build the frameworks that will eventually allow us to calculate it, but it is important to recognize that it may take years before we can get an accurate estimate. While this is frustrating, there is a huge amount of work that we need to do with our managers, and that we and our managers collectively need to do with our underlying investments, in order to figure it out. Today, most companies in the world don't measure their emissions. There even isn't uniform agreement about how emissions should be measured and counted. And consistent frameworks for aggregating emissions across investments need to be developed. So just figuring out where we are today is going to require a lot of work and a lot of patience. We expect to collaborate with experts on Penn's faculty, with organizations developing frameworks and accounting standards, with other institutional investors who have similar goals, with our managers, and even with underlying portfolio investments. The process will take time, although it's important to note that even as we're working on the measurement, we want the endowment to be making progress in other areas as well.

Q **Can you talk more about some of those other areas? Where are you hoping to have an impact?**

Even if we can't quantify the emissions footprint of the portfolio today, we can work to better understand the likely sources of significant emissions within the portfolio. We can then use those conclusions to drive more targeted discussions with our managers about how they incorporate environmental impact into their evaluations of investment risk and reward. I have little doubt that our net-zero commitment will lend greater weight and urgency to those conversations. In turn, our partners can continue to engage with portfolio companies to assess what they are doing to set and achieve greenhouse gas reduction goals. Getting to net-zero by 2050 is a monumental goal for our society. It is going to require scientific innovation, political will, and changes in consumer behavior. We can't control those things. But we can work with our partners to make sure the endowment is helping to drive that transition.

Q **Is divestment from fossil fuels part of the net-zero goal?**

Divestment decisions are considered by the Board of Trustees under their established standards and procedures. Divestment is not part of the net-zero goal. While I recognize that this may disappoint some members of the Penn community, I hope that they will also understand that the net-zero goal is broader and more encompassing than divestment. As such, it will have a more significant impact on the portfolio's emissions footprint. A net-zero goal incorporates the emissions produced by all businesses within the portfolio, forcing consideration of how all sectors can accelerate a transition to a cleaner future. A net-zero goal also acknowledges that it may be more efficient for society to offset residual emissions with carbon capture, if such technology can be scaled cost-effectively.

I think it is also important to note that a net-zero goal allows for investor engagement as a force for change. One of the challenges of divestment is that after the initial announcement, the shareholder's voice is lost. We anticipate that a key element of our efforts to achieve a net-zero portfolio will be engagement with our investment partners to help drive decarbonization at underlying portfolio investments.

We all wish for a world where we have abundant, affordable, and emissions-free energy, and I believe we can get there. But the reality today is that billions of people across the globe still depend on fossil fuels for survival. The net-zero goal is powerful in part because it reminds us that the challenge of eliminating greenhouse gas emissions is not one solely of fossil fuel production, but also of the cost and scalability of the world's currently available energy alternatives, of technological development and innovation, of government policies, and of our consumption patterns.

Q **How will you update the Penn community about your progress towards net-zero?**

We keep Penn's Investment Board regularly apprised of everything we do, and our efforts towards net-zero will be no exception. But we also think it will be important to provide periodic updates to the broader Penn community. We still need to figure out the form and frequency of that communication. Regardless, it is important to recognize that any updates are likely to be very qualitative in nature for some time. For example, initial updates may relate to our development of interim goals, our progress in building a framework for emissions measurement and calculation, or efforts related to manager engagement. As our measurement and work develops over time, we will eventually be able to share data, and then ultimately to demonstrate progress.

This is not going to be easy, and we will need to ask for the patience of our community as we work to get to a point where we can show tangible progress. That said, we are making a 2050 net-zero commitment with the full appreciation for the urgency to start acting now to address portfolio emissions and the broader risks of climate change. That urgency is already reflected in our internal staffing, where we have a team that is responsible for sustainability-related research and that works on all sustainability-related investments in collaboration with the relevant asset class teams.

Q **So, you are looking at investments that are focused on sustainability, or that contribute to the reduction of greenhouse gas emissions?**

Yes—we are looking at a wide range of investments that touch on sustainability. Of course, just because an opportunity might be focused on sustainability doesn't mean it will have a risk and reward profile that is attractive. But we and our partners have found some opportunities that are compelling, and this will continue to be an incredibly active area of focus for us.

CREDITS

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