

[SQUEAKING]

[RUSTLING]

[CLICKING]

ANDREW: Now we'll hear from Chair Van Nostrand, who has since, I believe, May 2023 chaired the Massachusetts Department of Public Utilities.

JAMES VAN NOSTRAND: Thank you. Thanks, everybody. So I really appreciate the opportunity to be here. As Andrew mentioned, I've been chair of the commission coming up on almost two years, May of 2023. And one of the things I inherited was what was a pending proceeding in Massachusetts called the Future of Gas Proceeding, where we issued an order that's very relevant to what we've been talking about today.

I wanted to provide a little bit of what I had to learn when I got here. I was a law professor in West Virginia University. You can imagine kind of the culture shock of going from a coal state to a wonderful blue state pursuing really aggressive clean-energy targets.

But that provides the framework for what we're trying to do at the Department of Public Utilities and how network geothermal potentially fits into that whole message-- the whole initiative. So what's the statutory framework? What are we doing? And then a little bit about the current demonstration projects, but I think you've probably heard a lot about those already.

So one of the things is the Global Warming Solutions Act of 2008 said we're going to be net zero by 2050, and then later on, another subsequent climate bill says we're going to establish sector-specific emissions reduction targets for 2025 and 2030. So that was the Clean Energy and Climate Plan of June of 2022.

And this is just an excerpt from that plan, but you can see starting off in 1990 and then to the far right is 2030, four various sectors. And you can see the building sector. You can see that reduction that we need to achieve by 2030. And this down below just excerpts that building sector. So that's what we're striving for in terms of, how does this network geothermal fit into? How does the transition to the natural-gas industry, what are we trying to accomplish? It's really trying to achieve those goals.

They're now statutory, the Global Warming Solutions Act. And the fact that the CESP, the Clean Energy and Climate Plan, established these subsector targets pretty much says residential's got to get from 15.3 down to 7.8. And for commercial and the total percent reduction, 47% reduction. And so that's what we're trying to achieve. That's basically I see my job as a regulator is these policy decisions have been made by the legislature. My job is to implement them and try to make that happen.

So the statutory framework-- I think Ania talked about this somewhat already, but where network geothermal comes into the 2021 climate bill expressly allowed the gas utilities to propose these pilot-scale projects. Another piece that came in the following year-- and you may be hearing a lot about GSEP, or Gas System Enhancement Plans. The gas utilities in Massachusetts are spending a lot of money every year to address what is referred to in the statute as leak-prone pipes.

So back in 2014, the Gas Leaks Act was passed. That basically provided preferential rate recovery for costs incurred by the gas utilities to repair or address leak-prone pipe. The notion is these are safety issues. They're risk issues. Obviously, we have a lot of old infrastructure in Massachusetts.

So that expedited rate recovery sort of removes one of the tools that we have as regulators, which is called regulatory lag. Typically a utility will spend the money, and then it won't recover it in rates for a while. Could be a year, two years, but that gap provides an incentive for cost containment.

Well, what the Gas Leaks Act did in 2014 was pretty much say we file your gas system enhancement plan with the DPU October 31. We have six months to go over it. And then May 1, you begin recovering those costs in rates. So it provides this expedited rate treatment to address the leak-prone pipe.

So it's very controversial. We had a GSEP working group that met through a lot of 2023 to figure out that Gas Leaks Act, having been passed in 2014 focusing primarily on the safety issue and the risk issue, but then we have the climate bill that says, well, we need to achieve these greenhouse-gas reductions. Do we need to revisit the Gas Leaks Act in light of the new focus on reducing greenhouse-gas emissions? And so a lot of work is revisiting that.

We currently have those filings in front of us. We'll be issuing orders April 30 with respect to gas system enhancement plans, beginning on May 1. But a big thing in how network geothermal fits into this is the 2022 climate bill-- I think Ania might have mentioned this, but we can basically-- one means of addressing the leak-prone pipe, rather than just replacing it with more gas pipe, is to replace it with a utility-scale, nonemitting, renewable thermal energy infrastructure, a.k.a. geothermal network. So that is a big benefit in terms of we're trying to avoid potentially stranded investment by continuing to replace gas pipes with gas pipes that are going to last 50 or 60 years.

This says, well, when you're spending that money on your GSEP plan, you can actually use a thermal energy network would be one way of addressing the leak-prone pipe and avoiding that stranded cost by just putting more natural-gas infrastructure into the ground.

And as Ania mentioned, the 2024 climate bill actually makes it specific that a gas company is allowed to get in the business of creating these thermal energy networks. And then he also mentioned we're trying to address this obligation to serve, very controversial in the state. But it's basically, as you can see Ania's chart, if you have a customer who does not want to give up their gas, how can you make the case, we're going to substitute this network geothermal for your gas? Very controversial.

So they took a shot at addressing the obligation to serve, at least with respect to new hookups, by allowing the consideration of adequate substitutes. In other words, you might not have a right to gas service if there are adequate substitutes, the non-gas substitutes. But we're still working our way through this.

And then that eligible infrastructure investment in these GSEP programs, it's not just replacement. It also includes retirement, which means we can actually take out the pipe. One way of addressing the leak-prone pipe is just to remove the leak-prone pipe because you're going to convert. You're going to convert customers to electrification, electrified solutions, whether it's ground-source heat pumps or air-source heat pumps.

So when I got here in May of 2023, I inherited this docket. It had been started in October of 2020, and I think the record had closed in October of 2022. And I thought, I think we need to probably issue an order in this docket, but it was basically, what is going to be the pathway for the natural-gas utilities? How do we achieve these greenhouse-gas reduction targets, which the Global Warming Solutions Act and the 2021 climate bill require us to achieve? And so we issued this order basically setting forth this regulatory framework.

And what we basically landed on was electrification is going to be the primary pathway, and that's air-source heat pumps, ground-source heat pumps, which includes the geothermal energy networks. And the way I described what we did in that order was basically point out to this clean-energy framework that I had in the first couple of slides. We just want to put the LDCs, the local gas distribution utilities, on a pathway to achieve net zero by 2050.

And so part of that is, in a couple of months, April 1, each LDC has to file a climate compliance plan. In other words, show that you are on a pathway that's going to get you to net zero by 2050. You're going to achieve those sublimits that I had on that other slide.

The other big thing we did in 2080 was put the burden on the LDC, the local gas distribution companies. Before you make any additional investment in natural-gas distribution infrastructure, show that you considered a nongas pipeline alternative. And that could be-- it could be energy efficiency. It could be air-source heat pump, ground-source heat pump, network geothermal. But, basically, we want to avoid stranded costs. We want to avoid putting additional pipe in the ground. So that was a big element.

And right now, the natural-gas distribution companies, they're all working together. They're going to be filing with us an agreed-upon nongas pipeline, an NPA framework, because we need to start applying that as they're coming in and asking for new, additional investment. Have you consider an NPA, that Nongas Pipeline Alternative?

And then the other thing that I think Ania mentioned, so March 1, roughly a year from now, then we're requiring each LDC to file a targeted electrification project. In other words, try to take out/decommission a portion of a gas service territory in favor of air-source heat pump, ground-source heat pump, electric, or network geothermal.

You have to work with your applicable electric distribution company because in Massachusetts, we have some utilities that are both gas and electric. Sometimes Eversource provides the electric and National Grid provides the gas. You've got to come in together. National Grid actually filed a target electrification demonstration proposal in December of 2024 for the towns of Leominster and Winthrop, where they're going to try to decommission part of the gas service territory in favor of electrification.

But that's going to be a big part of how we manage this gas transition is the climate compliance plans and the role that these demonstration projects are going to play. And that's where the obligation-to-serve piece is so challenging because when you look at the chart that Ania had, all it takes is one customer who says, I don't want to give up my gas, and you're not able to take out that. You're not able to decommission the pipe, and the numbers just don't work all that well if you can't decommission the pipe. So that's why states are struggling with, how can we substitute basically another means of providing the essential service of heat instead of natural gas?

So one of the things that it's helpful along the lines of Ania's discussion of the demonstration projects-- because the 2021 climate bill specifically authorizes the gas companies to file with us demonstration projects, proposals, and it lays out some criteria. So when we look at these demonstration projects, when Framingham comes in and when Eversource comes in with the Framingham project and National Grid comes in for the Lowell and Franklin Fields projects, these are the criteria that we are going to apply in determining the rate treatment, the rate recovery of those costs.

Pretty straightforward. Must have reasonable likelihood of facilitating substantial reductions. That goes back to achieving those greenhouse-gas limits. We don't want you to blend in hydrogen and RNG. And we need to use a third-party evaluation.

And then we consider the reasonableness of the size, scope, and scale. In other words, do the benefits justify the proposed cost?

And another key element is the calculation of benefits must include the calculations of the social value of greenhouse-gas emissions reduction. That's going to be a good way of, when you're looking at those costs and benefits, you're going to put a price on carbon, basically, the carbon that you're avoiding by taking out that natural-gas infrastructure and replacing it with something else.

So real briefly, I think we're going to hear a lot about the Framingham project that Eversource has done. There's a phase II that was awarded a preliminary grant, I think, by the Department of Energy, which is caught up in all this stuff that's going on in Washington, DC, right now. So that was approved in the Eversource rate case from 2020, DPU 19-120.

And then National Grid had a separate proceeding where-- this is before I got here, of course, but authorizing up to \$15.6 million for four network geothermal projects, the first of which was in Lowell. And I think National Grid has announced that they are terminating that project. I think just the level of participation wasn't as great. The numbers didn't work very well. But they've also filed for the Franklin Field Apartments with the Boston Housing Authority, and so that project is moving forward. And then we'll be looking-- like I say, we'll be applying those criteria. Then we consider the rate recovery treatment of these demonstration projects.

So with that, I'm happy to answer questions.

[APPLAUSE]