Welcome to this podcast from the Environmental and Energy Law Program at Harvard Law School. In this episode, our staff attorney, Hana Vizcarra, speaks with our electricity law and energy director, Ari Peskoe, about comments he submitted to the Federal Energy Regulatory Commission in July on the consideration of greenhouse gas emissions and natural gas facility certifications. We hope you enjoy the podcast.

So Ari, you recently submitted a comment to FERC on their policy statement on certification of new interstate natural gas facilities. Why don't we start by speaking a little bit about what the FERC statement is about and how they use it. Can you tell us?

Sure. So FERC has authority under the Natural Gas Act to regulate entry and exit into the natural gas pipeline industry. So in other words, if you want to build a pipeline that's going to cross a state line, you have to go to FERC and essentially ask them permission to do that. And FERC in 1999 issued a policy statement that basically outlined how it was going to make that decision. And earlier this year, FERC decided to start a docket to open comments on that policy, rather, take comments about that policy and whether or not that policy should be updated to reflect changes in the market. So we filed a comment in that docket about this policy.

1999, so a lot's happened since 1999.

FERC put out a notice of inquiry, which is the first step in this process of potentially updating the policy. And there's a little bit in there about some of the changes that have happened in the natural gas market since 1999. The big one that gets a lot of attention is the shale gas revolution. So we produce more natural gas in the US today than we ever have before. And one thing that we mention, it's really relevant to our comment. Another change since 1999 is greenhouse gas regulation. It's now clearer than ever that greenhouse gases are contributing to climate change. And there's an increased focus at the state level and even at the national level as well, despite recent things that have happened with this administration. There's regulation of greenhouse gas that simply didn't exist 20 years ago.
Hana: And beyond regulation, there's also fiscal impacts that we're seeing and are more apparent and potentially impact facilities and investor interests as well, doesn't it?

Ari: Yes. Greenhouse gas emissions as we discussed in our comment present a range of risks. And so there's the environmental consequences of greenhouse gas emissions and there's also economic risks for investors. So one way this plays out in the natural gas space is that demand for natural gas may change due to many factors. There could be competing technologies that are just simply better than natural gas on a performance level. So it could be that we'll have more electricity, for example, generated from the wind and from solar rather than fossil fuel burning facilities. But it also could be that due to regulatory changes, it becomes less attractive to use natural gas for all the things that it's used for today, which includes electricity generation and heating in buildings being two of the major uses.

Ari: So there's a range of risks associated with natural gas and that's one of the main areas of focus for our comments.

Hana: And as I understand it, the policy statement outlines the commission's approach for determining if a proposed project meets the public convenience and necessity standard which is required for certification. Can you tell us a bit about the history of that standard? A lot of your comment focuses on this history and how it allows FERC to consider these issues.

Ari: So I should take a step back from it and talk about what the law says and how that relates to the policy statement. So the Natural Gas Act, as I said, it gives FERC the power to regulate entry into the pipeline industry and it tells FERC to approve projects that are required by the public convenience and necessity. And that's really the single phrase in the law. And just from that phrase, FERC, since 1938 when the law was enacted, has built up an understanding of what that phrase means and the policy statement based on that understanding. But Congress itself in the Natural Gas Act didn't invent this phrase. This public convenience and necessity phrase was from state laws starting in the late 19th century.

Ari: And so state utility regulators regulated entry into a range of industries starting in the, as I said, in the late 19th century. So that included electric utility service, gas utility service, but it also included other industries. For example, there's a Supreme Court case from the 1920s I think about ice manufacturing in Oklahoma and how that was also subjected to the public convenience and necessity standard. So regulation under this standard primarily looks at economic factors. Primarily state regulators historically looked at what's the optimal level of competition in this particular industry. And we think now of competition being a
hallmark of our capitalist system in that competition drives innovation and it lowers prices for consumers.

Ari: But there were certain industries that have been considered either monopoly industries or subjected to heavily regulated competition. We think of public utilities like gas and electric as being examples of that. And so it was up to regulators using this public convenience and necessity standard to think about what is the optimal level of competition or is monopoly the way to go for this industry. And so they would think about protecting the investments of utility investors under the standard and they would think about preventing duplication of facilities. So you wouldn't want, for example, if you were a local regulator, you wouldn't want necessarily competing sets of pipes to go up and down every street because somebody might go bankrupt and then you'd have just this useless system of pipes all over the town.

Ari: And so public convenience and necessity standard was really, the heart of it was just economic regulation and competition. But there's another thread of regulation under this public convenience and necessity standard that thinks about broader impacts to the community. And so there's historic basis for considering things like environmental effects under the standard as well. When you think about should this new company be allowed to enter this industry, you want to think about not just the economic effects for consumers and for other companies in that industry, but also what are going to be the larger effects on society.

Hana: So the history of this public convenience and necessity standard is essentially an economic balancing test that takes into account some of those externalities both on the communities in which they serve. Is that correct?

Ari: Well, I think part of it is an economic test. And then I think in a lot of ways, these externalities, including environmental externalities or public safety externalities may not be part of that economic test. They may have sometimes been considered separate from that.

Hana: That's a pretty rich history for the public convenience and necessity standard. Where has FERC taken these issues? It's apparent that environmental considerations have in the past been incorporated into this balancing test and into their considerations. How has FERC treated those issues recently?

Ari: So recently FERC has taken a pretty hands off approach to the public convenience and necessity standard. Since 1999 when FERC issued this policy statement, it's approved nearly every application that it's received. I think I've seen research I believe from Sue Tierney who's an analyst in the energy industry that says there've been 400 applications and only two have been rejected. And
so a number of groups have been very critical of FERC for essentially just rubber stamping these pipeline applications. And what FERC has really focused on under the policy statement is, is some of the capacity on the pipeline already contracted for by shippers?

Ari: So in other words, what FERC's trying to do here is demonstrate that there's actually need for the pipeline and its public convenience and necessity standard. So the key question is, is there a need for this pipeline? And if the developer shows FERC that a certain percentage of the pipeline is already contracted for, then that's sufficient to demonstrate the need. And that's pretty much been it. Once you do that, you're pretty much set.

Hana: That's a pretty limited view of what need and demand is.

Ari: Right. FERC recently has taken a pretty hands off approach, but there's a much richer history if you go back before the policy statement and look at how FERC has interpreted the standards. So FERC has taken a number of factors into account. We really focus on two in our comment. One is air pollution, that obviously has a direct connection to greenhouse gas emissions and as air pollution came to be a nationally salient issue in the 1960s, this was a factor that FERC considered. And often that was a factor that benefited the pipeline because pipelines would, in some cases, transport natural gas that would displace coal or oil burning facilities. And so natural gas was a cleaner burning fuel and it could actually improve local air quality and FERC would account for that in a number of these decisions in the '60s and '70s.

Ari: We also look at decisions in the '40s and '50s in particular where FERC would look at how was the gas being used? And there was concern here that natural gas supplies were, it was an exhaustible resource and so FERC wanted to make sure that natural gas was being used for what it thought were high value uses. At the time it thought power generation was a low value use because you could be using other fuels, but there were other uses that may have been higher value. And so it was looking only to approve pipelines for these higher value uses. And so here it was, it's relevant to the greenhouse gas emission issue because it shows the breadth of factors that for considering it was explicitly looking at the gases consumption, what the effects of that consumption was.

Hana: And the commission has acknowledged recently that it has authority to cover environmental impacts of projects in its considerations. Correct?

Ari: Yeah. There's no doubt. I mean, the existing policy statement from 1999 is pretty clear on this that FERC does this economic test, but then it also, once it does that test, which I said mostly involves looking at whether or not there's subscribed capacity on the pipeline, it then looks at environmental issues. But those are
typically centered around the local impacts, around the construction of the pipeline. And FERC hasn't yet expanded it to include greenhouse gas emissions.

Hana: Speak a bit about what your comment is urging FERC to do. So they have acknowledged that they have the ability to consider environmental impacts. You're urging that they consider GHG impacts in general, how does this work in the process standpoint? What is it that you're asking that they do?

Ari: So what we want FERC to do is to acknowledge in the policy statement that the economic risks associated with greenhouse gas emissions will be part of the economic... the threshold economic test that's part of the public and convenience necessity analysis. And in addition to that second stage analysis, when they look at the environmental considerations, they would also weigh greenhouse gas emissions there. And this is assuming that they maintain the two step framework. There are a number of commenters in the docket that would prefer that the environmental effects be included as economic effects as well. But I think the central point is that the commission should acknowledge the relevance of greenhouse gas emissions in its analysis.

Ari: And what that will do in specific proceedings is that it will invite parties to be presenting this analysis and then the commission can figure out specifically how to weigh it in each case.

Hana: So in this two part framework, as it stands now and should they invite this type of analysis, I know from my own work right now that... and we touched on it a bit earlier, that there's an increased investor interest in climate risks on the economic future of corporations and how it impacts their investment decisions. So that would essentially go into that first step, right? Your economic test, how investors see physical and transitional risks of climate issues impacting the pipeline itself or the facilities that are being considered in this process.

Ari: I think the clearest example of an economic risk associated with a pipeline proposal is the stranded asset risk. The idea that pipelines are long lived piece of infrastructure, they are built to last for many decades and the concern is that due to... whether it's simple supply and demand in the market, but that could change due to competing zero emission technologies. It could change due to greenhouse gas regulation that may be coming down the line. But for whatever reason, because this infrastructure is used to transport fuel that emits greenhouse gas emissions, you're ultimately down the line going to be left with a stranded asset that somebody is going to end up having to pay for even though it has little or no use at all to society.

Ari: The stranded asset risk is something that FERC already recognizes, but it should explicitly recognize that greenhouse gas emission risks amplifies the potential for
a stranded asset risk. And this is something that FERC shouldn't be satisfied with just looking at today's contracts, but should look at broader supply and demand fundamentals, projections about competing technologies and other evidence that might be relevant to address this stranded assets. But I am very interested in the work that you're doing as well that looks at this problem more broadly than just the stranded asset risk and other ways that this climate risk might play out for the energy industry.

Hana: It's becoming an increasingly salient issue in the corporate and investor world. Beyond the potential for stranded assets, even more in a shorter term view, looking at the potential for weather and increased natural disaster issues, events to have a larger impact on supply chains on physical assets as well as, you look at it in two buckets, the physical and transitional risk, and I think that it will provide... it sounds like what you're trying to do is to provide an opportunity to incorporate those concepts and the potential for analysis into FERC's decision making. Not necessarily asking them to take any particular position, but just to say these are things that are out there that others are very actively considering as potential economic risks or environmental risks of operations. Why should FERC not consider them or explicitly exclude them?

Ari: I think what we're really asking for is look, we're recognizing that if FERC does update its policy statement, this policy is going to have a long life. I mean, right, the existing policy is 20 years old, so an updated policy may last, who knows how many decades into the future. And to at least acknowledge there, to put a place holder there for considering these risks. And I think the commission's evaluation of them is going to change over time as facts on the ground change. And I think the climate risk issue is much easier to see today with regard to coal. Right? So I mean FERC doesn't regulate coal, but you can imagine that it did. And imagine it had to approve new rail lines to transport coal.

Ari: When you look at the current market fundamentals of coal, you look at all the reasons why demand for coal is on the decline, why investors may be wary of investing in new coal infrastructure, why there may very well be big stranded asset risks with new coal infrastructure. And you'd see that climate change is a common thread through many of these factors. And so you would want, if there were such a coal regulator, to account for those risks in its decisions and at what point does natural gas look like coal in that sense. I don't know when that's going to happen, but it's just a factor that should be part of the equation today and it's going to evolve over time.

Hana: In this two part test, you have the economic side, you have the environmental impacts of the actual facility also that you're asking FERC to consider in their analysis and you're looking at both upstream and downstream. Outside of the public convenience and necessity standard and the certification consideration,
you also have a discussion about NEPA and the upstream and downstream effects as well. How should FERC consider these issues in their NEPA analysis?

Ari: So this has been a hot topic at the commission in 2018 is how does it look at greenhouse gas emissions in its environmental impact statements under the National Environmental Policy Act, which is this general law that applies to all major federal proposed actions. And there have been a couple of commissioners that think that FERC needs to, in its environmental impact statements, certainly include downstream greenhouse gas emissions, so those emissions that are associated with the fuel when it's consumed. So we think that certainly those emissions do need to be considered in a NEPA analysis.

Hana: Courts have agreed on this as well in some contexts.

Ari: So there was an important court decision in 2017 where there was a pipeline being built in Florida and it was very clear that the gas was going to be burned in power plants. And the court said, "Look, this is very easy to calculate. There's no guesswork here. We know exactly what the gas is going to be used for. And there's no getting around the fact that this is in NEPA terms, an indirect effect of constructing the pipeline is the gas is going to be consumed and you're going to have greenhouse gas emissions associated with that gas. So the court said FERC had to conduct that analysis. And the question is, how broadly does that decision apply? Does that mean every pipeline, NEPA analysis has to include information about greenhouse gas emissions or was it confined to the specific facts of those case where the uses were very easily known?

Ari: And so this also gets to the issue of how much should FERC be asking pipeline developers about how the gas is going to be used? And so, as I mentioned earlier, there's a long history of FERC getting very involved in the issue of how gas is consumed. And so here there's a very modest step that FERC can take, which is simply ask the developer how it's going to be used. And then there's a relatively easy calculation as to what the greenhouse gas emissions are going to be with that pipeline. The harder question is then what do you do with that information? And so there's a lot of interesting comments from environmental groups in the docket about what you might do, whether you use the social cost of carbon to convert the tons of emissions into monetary damages.

Ari: So a lot of interesting work being done on this issue. Our comment simply says that there is simply no getting around the fact that this is an environmental effect of the pipeline's construction, and so FERC has to, just as a legal matter, include that information, include greenhouse gas emission information in its NEPA analysis.
Hana: So essentially it's a legally relevant piece of information that should be considered at that time.

Ari: Yeah, I mean, absolutely. And FERC, in not including it in recent pipeline decisions, FERC, I think is exposing itself to a legal risk that the court's going to send the issue right back to FERC to redo its analysis.

Hana: Thank you, Ari, very much for speaking to us about your comments. They certainly raised some interesting issues on the incorporation of climate risk and GHG emissions into FERC's decision making process.

Ari: Thanks. It's my pleasure.

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