SUMMARY OF SEPTEMBER 13, 2022, TECHNICAL SESSION #5

On September 13, 2022, PNM held the first of two technical sessions covering issues related to transmission and the 2023 IRP (Integrated Resource Planning) process. This was the fifth in the series of technical sessions for stakeholders devoted to providing a transmission framework and discussing the advantages and disadvantages regarding the application of different technical methodologies within the modeling framework for the IRP.

PNM representatives Laurie Williams, Director, Transmission and Substation Engineering, and Tom Duane, Manager, Transmission Planning, gave an overview of the role of transmission in utilities' plans for energy transition, PNM's current transmission system, and the regulatory environment for transmission that governs PNM and other utilities. They fielded questions and entertained comments from participants and PNM staff concerning the FERC (Federal Energy Regulatory Commission) process, proactive transmission planning, and various interconnection options, among other issues.

MEETING ATTENDEES

Twenty-two stakeholders attended the virtual session. Participants, not including PNM staff, included members of the public and representatives from the following organizations: NM AREA, InterWest Energy Alliance, and Sandia National Laboratories, among others.

Meeting slides can be found here.

Stakeholders raised the following questions.

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STAKEHOLDER QUESTIONS/COMMENTS

Stakeholder	Question/Comment	Categories
NM AREA:	NM AREA will be most interested in PNM's specific plans for its 2023 IRP to meet Ordering Paragraph B of the Commission's July 25 Order.	**Transmission**
Member of the Public:	Are there FERC withdrawal penalties for applicants?	**Transmission**
Member of the Public:	To whom are you targeting this information? Is this to the general public or just specific financial interests? It seems that the general public is not very well informed about much of what was covered today.	**Transmission**
InterWest Energy Alliance:	[Concerning] the chicken and egg problem. I want to put in a plug for proactive transmission planning. We've encountered this problem for a long time, and we found that the only thing that works is proactive transmission development. You know the CREZ (Competitive Renewable Energy Zone) example was kind of the first one that did this. At that point, it was kind of a risky and novel idea that we are going to designate these zones, we know where renewables are, and we think they'll develop. And they did. We built it and they came.	**Transmission**

	We've seen it replicated in SPP and MISO, with the MVPs (Multi Value Projects) and [in California]. All these examples we've seen have been very successful. And given where the renewable cost trends are with the IRA tax credits, and most importantly with New Mexico state law basically specifying where your generation mix is, it seems to me there's extremely low risk that you would build transmission to these high real resource areas. And we know where these are, and the renewable resources are not going to change. We know where the wind is and where the sun is. It seems almost no brainer if you were to build transmission, proactively plan transmission to those resource areas, maybe informed by projects in the queue, and even do some type of public season process where there are some deposits, some skin in the game from developers to ensure they are real. That's been used in other regions as well. I'm very confident this would work and get you much more cost energy at a lower cost of transmission because you could right size it to accommodate the scale of the project for one interconnect that you need to meet your load. Basically, you can do proactive transmission planning and incorporate this into your process. I	

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	think that is essential for doing this cost-effectively.	
Sandia National Laboratories:	When an interconnection is made for a specific generator, how much of that cost eventually goes into the transmission rate base? It seems like some facilities could be useful for interconnecting more resources and others might be only used for that one generator.	**Transmission**
InterWest Energy Alliance:	Are you thinking in terms of incentivizing developers to focus on particular areas just to be more efficient with your dollars? Are you thinking that you will be focusing some investments yourselves to enhance the interconnection opportunities in particular areas, to kind of create the hot highway and they will come and focus on those particular areas?	**Transmission**
InterWest Energy Alliance:	Am I to understand from the previous few slides (Slides 30-35) that these transmission options are all selectable in the IRP model? Can you describe what is selectable in the IRP model?	**Transmission**
PNM:	Can you provide any color around the cost of the permitting/CCN labels (Slide 30)? The cost last time was obviously lower than this when we looked at it, a couple years ago in that IRP cycle. Is the permitting and CCN timeframe there five years, is that the entirety of the process, or is there additional time on top of that	**Transmission**

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	for construction and other things that need to be done?	
InterWest Energy Alliance:	[Concerning AC DC projects], is it in our interest, is PNM having discussions, particularly with Sun Zia, about essentially integrating the eastern end of that into the New Mexico system so that you take advantage of load diversity with other parts of the West, particularly, areas to the West--most notably California--that have built a lot more solar? There's a lot of cheap generation available during most of the afternoon in New Mexico that could flow west to east along those lines that maybe wasn't envisioned 10 years ago when those lines were initially sketched out. Is that something that would be of interest, is PNM exploring, potentially making some of those lines network elements?	**Transmission**
PNM:	You've given some of the significant cost increases related to the repair of the AC/DC converters. It may have doubled from the last time those were estimated, or something to that effect. Do you have an idea of what the cost of doing these lines today would be as opposed to when they were done just a few years ago?	**Transmission**
PNM:	Are there interconnection costs that are network upgrades as well?	**Transmission**

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PNM:	For resources that come online that do not have a defined customer yet--they're building and they're assuming that they will find a customer once it's built--how are we studying the network upgrades that may be required?	**Transmission**
Member of the Public:	Do developers have any responsibility for what they do to the system? They put their generation unit out there somewhere with a big wind farm. They put in the generator tie, and then they don't care what happens? Are there no controls?	**Transmission**
PNM:	Do you have a thought why most of these interconnection points (Slide 26) are situated along the major transmission corridors?	**Transmission**
InterWest Energy Alliance:	In your off-peak period, where you've got high winds, high solar, you've got substantial flows to the northwest. Are those off-peak periods times at which some of our neighbors to the west, and I'm thinking in particular California, they might still be on peak, or that they have higher needs that we can fill? I'm wondering if that occurrence can help us with some geographic diversity enhancements and filling neighbor's needs, when perhaps we have excess during these off-peak periods.	**Transmission**
Member of the Public:	How much do you anticipate that some users, perhaps even the non-	**Transmission**

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	retail users, which are perhaps [a] larger [segment], would peel off and become kind of separate independent nodes of their own to do their own power generation, solar with battery backup, things like that, and how would that impact the need for transmission?	
Member of the Public:	I just continue to be concerned [about] the changes in the industry overall. The grid is 115 years old, or something like that. Really not very old, in the grand scheme of things. We're trying to look into a crystal ball that's pretty cloudy, looks like to me.	**Transmission**
InterWest Energy Alliance:	What about the thorny issue raised of cost allocation? Do you plan to provide input to FERC on that? What's your view on that issue?	**Transmission**
InterWest Energy Alliance:	What kind of input have you as PNM had into the FERC process? I know it's early days, but what do you anticipate contributing to that, the FERC consideration of its rules?	**Transmission**
PNM:	In terms of all these other customers accessing PNM's transmission system, whether to try to incorporate resources for PNM's use, or to ship out of state, any of those that are not dedicated to PNM retail still affect the way the transmission system is operated. All the interconnection requests that PNM Transmission does from the federal OATT (Open Access Transmission Tariff)	**Transmission**

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	standpoint really is the primary driver in the manifestation of changes, investments in the transmission system. Is that fair?	
PNM:	Today, given the resources, the loads and the rights that we have, is there much of any more resources that can deliver into southern New Mexico to then be transmitted up to the northern load centers?	**Transmission**
PNM:	The existing resources in the eastern part of state, the 2,457 megawatts-- it's probably about 500 megawatts that's actually contracted or delivered for PNM retail and the rest of it is wholesale being shipped out of state, or something to that effect?	**Transmission**
NM AREA:	Are the 2023 additions for 840 megawatts (Slide 22) additions that are based on the latest updates from PNM to the Commission, that is, the resources that are actually expected to be in service in 2023? Has that been updated to match this number, in line with that, or is it a different number?	**Transmission**
InterWest Energy Alliance:	I just wanted to chime in that the Manchin Bill is currently still being drafted but drafts that are circulating include a cost allocation measure that would allow FERC to determine cost allocation for transmission. And so, I think that is improving some obstacles, certainly for DC lines.	**Transmission**

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	But I think cost allocation is one of the biggest obstacles for significantly sized transmissions because it benefits large regions. It's certainly a national network like this, which allows FERC to do that. There's also a parallel FERC effort looking at transition planning and cost allocation. So, there is federal action that is going to help on some of these issues.	
InterWest Energy Alliance:	I have a question about your opinion about [Slide 15]. I see a 35-year study window here, and IRPs generally look at a 20-year study window. [Do] you believe, like I do, that since transmission is such a long-term investment, IRPs don't really fully capture the benefits of investment, similar to the way that this study does?	**Transmission**
InterWest Energy Alliance:	I'm glad to hear you're looking at what it would take to replace or upgrade the converters. Are you looking at just replacing the same capacity? Or are you looking at increasing the capacity so you could transfer more across the ties?	**Transmission**

All IRP questions and answers can be found here.

The latest future meeting schedule can be found here.

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