MARTY ROSENBERG October 21, 2024 GridTalk #426

ANDREW FRENCH INTERVIEW

Hi, and welcome to GridTalk. Today we're not zooming over flyover country but we're landing in flyover country, right smack in the middle of the state of Kansas to interview the chairman of the Kansas Corporation Commission, Andrew French.

Q: Hi, Andrew. How are you today?

A: I'm well. Wonderful to be with you, Marty.

Q: So, you've been on the KCC since 2020 and I want to start right in and have a wide-ranging discussion with you as the world looks from Kansas, what unique situations are defining the situation in Kansas and what things are uncommon with other parts of the country. First off just to make sure the whole world knows; Kansas is a mighty wind empire. It generates enough electricity to satisfy a large hunk of its own energy demands and ranking close to second in the nation in its ability to do so and a lot of Kansans don't appreciate the fact, as you and I recently chatted over coffee, that the value of the wind electricity produced in this state exceeds the value of its wind crop and everybody thinks of Kansas as the breadbasket of the

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country so it must be the wind basket. You recently, your Commission announced the decision affecting the Grain Belt Express which spans 800 miles in four states. Tell us what that project would achieve and tell us what your Commission ruled? A: Yeah, that's a really interesting project. It's different than a lot of transmission lines that have already been built in this country but it's kind of on the leading edge of some new projects. It's a direct current line which is really unique so what we did recently was we approved two 345 kilovolt transmission lines that are basically feeder lines that are going to feed into the bigger version of that project. Kansas actually approved a permit for the Grain Belt Express DC line to extend all the way across our state and all the way to; it's going to extend all the way to Indiana actually. We actually granted them a siting permit for that way back in 2013. It remains unbuilt but looks like it's on the cusp of starting construction as we speak, so the action that we just took was to approve some lines that will help wind and other resources connect in and feed into that DC line and allow power to be shipped out of state using the Grain Belt Express line.

Q: So, a large part of what I want to talk to you in the small amount of time allotted to us is why a project like that takes 11 years and still is not done, but let me ask you this, we

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alluded to the fact that there's a large amount of wind generation in Kansas. If it was adequate transmission linking our wind fields to the population centers in close proximity; St. Louis, Chicago, Dallas, Denver, how much more wind generation do you think could be produced in Kansas?

A: Oh gosh, there is still guite a bit of potential that could be realized but there's a lot of complicating factors to that. You've got to find landowners that are interested in leasing their land. It's got to be land that's optimally situated so that's tough for me to ballpark. I think it's clear that there's a lot more to be gathered; there's a lot of solar that can be gathered in Kansas but I think the other limiting factor there is kind of what you alluded to which is the load centers that might want that energy. We've got some big load centers nearby. You've got the Kansas City area, the Omaha area, you've got Oklahoma City and Tulsa to the southwest but those are all within the Southwest Power Pool and so it's somewhat; I'm not going to say it's easy but it's somewhat straightforward to build the transmission needed to move power around within your region, but when you talk about St. Louis or Chicago or Indianapolis, that presents real big challenges to plan that grid because you are crossing regional planning entities. You're not within the Southwest Power Pool anymore which is what Kansas

and sort of the states to the north and south of us are in, you're now in the Midcontinent System Operator, MISO or the PJM network and there are a lot of barriers in; not to get too far in the weeds but there are a lot of barriers to planning the transmission that crosses those boundaries, things like planning assumptions and modeling but also things like who pays for these lines? How do you split up the costs when they cross all of these regions and we don't have a framework for who pays. That is, I will say, that is one of the big benefits of something like the Grain Belt Express line. That's not a line being planned by those regional entities. That's what we call a Merchant Line and it's DC and it is only paid for by the people that are using it so people are subscribing, mostly the offtakers that are on that eastern side and they're saying we are willing to pick up the tab so that was one part of the equation for why Kansas approved it is yes, Kansans are not getting the power that comes off of that line but it does allow us to develop our wind energy industry and potentially our future solar industry, but ratepayers in Kansas are not paying for that line. That line is paid for by the people that are going to take power off of it.

Q: So, it's not accidental that I picked you for this conversation although you're a fine chap and you are sitting in

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close proximity to me. You're one of 10 state regulators three years ago who put on a joint bureau task force on electric transmission. You've done with NARUC on their committees and with FERQ on their committees. You don't want to get in the weeds; I don't want to get in the weeds but for somebody's who's been in the weeds, are you optimistic that we've moving the ball finally or are there two or three sticky points that you think need attention?

I'm optimistic and there's a lot of good conversation going A: I do want to give kudos to FERC, the Federal Energy on. Regulatory Commission. They have done good work in the last few years of reaching out to the states. As you mentioned, we had a federal/state transmission task force. I was actually in D.C. just last week, last Wednesday to speak to all five FERC Commissioners on a reliability technical conference and so the FERC Commissioners have done a lot of good outreach to the states because it really is a shared effort and we have a lot of shared responsibility in this issue of transmission planning and states access the resources that they need so I'm how encouraged. I will say there are a lot things moving in the direction of a successful energy transition. There are also a lot of things standing in the way or complications. There is of course, public sentiment that doesn't understand some of the

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reasons why we may have need to build new infrastructure and transition to different resources. That's understandable. There's also as I said that I just spoke to FERC about big reliability issues. We are living in an age of sort of unprecedented demand since maybe 100 years ago or 75 years ago at the time of the initial electrification, we are now embarking on a time where we have much more electrification. We don't have 1% load growth every year; we're going to see 5% or 10% load growth every year and that's going to be challenging. We're going to have to thread a needle if we want to do that at the same time as transitioning to what our largely intermittent resources and frankly, we're probably going to need some traditional resources to stay in the mix and we're going to need some new technologies that aren't quite there yet but we hope will be there in the next 10 years.

Q: So, Andrew, this raises an interesting subtext here which you alluded to with the Grain Belt where you said it's progressing with the model where the off-takers will be paying the investment and so the question of who pays has been answered. Along comes in this region as you're aware after reading the local newspapers, Panasonic, and Google and for them, money is no object and they say we have a commitment, a corporate commitment to being green, fast, and will pay whatever

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the price tag. Do you think that's going to get change going a lot faster from the old, century-long utility model that everybody shares and shared costs?

Well, I hope that's an opportunity and I'd really like to A: have more dialogue with those companies because I do think cost is one of the biggest barrier. You know, I've said it to lots of people; look, I'm an environmentalist. I want to see a clean energy transition. I want to see a full clean energy transition but my view is the most successful and fastest clean energy transition we can have is one's that's accepted by customers so that means at the end of the day, energy needs to remain affordable and reliable while we transition to these sources so if there is or are entities that want to help foot the bill and help us keep energy affordable and take on a larger share of the cost of all the infrastructure that's going to have to be built, I think that could really help speed things along if they'll pay for part of the grid or if they will bring new resources in and acquire those on their own and share that for the benefit of all customers, it could really help things more forward faster. Well, to be clear, they seemed to be inclined to pay for OL the generation side. Has there been any signal that they're

interested in helping to contribute to the grid side?

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A: You know, we haven't had those conversations but I can tell you that as we look at load growth in our region, we are talking about new, more innovative solutions to make sure that maybe we aren't charging those customers more but if we are building out the grid for their specific needs, we want to make sure that they pay their fair share of all of those upgrades.

Q: So, you've worked closely and been on boards for the Southwest Power Pool. You know there's a backlog there in projects waiting to get approved so what's the cause of that and are you hopeful that that's being addressed in a timely fashion? SPP says they're working their way out; they have a plan. Why is it taking so long?

A: Well, it's been an issue for a number of years now. I think a lot of the issue was, this is a complex industry even for developers that, developers of generation that are very sophisticated, they have lots of staff. Even for them as they're developing a wind farm, a solar farm, some other generation source, it's really hard for them to anticipate how much it's going to cost for them to interconnect. What additional grid updates are going to be needed for them to connect to the grid and push their power out onto it and that is their responsibility to pay for that and so I think what you've seen over five years ago, was a lot of developers would put multiple

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requests into the queue in different geographic locations knowing that they probably weren't going to build in those, but they needed to explore what might be the best or most optimal or lowest cost site to build at and some people called that speculative. I don't think it should be seen as a pejorative, it was just the case that it's difficult to know what it's going to cost and so you had the queue full of a lot of these different requests and then low and behold, you'd get; they would get answers back from the Southwest Power Pool and it was usually a much bigger sticker price than what they had hoped, partially because they didn't know where to put things and so then you have people withdrawing, and then all of a sudden, you have to restudy the queue and that takes another year and so, it was sort of understood that this was what was going to happen. I just would say we've all come to this agreement that this serial queue-based process for studying, adding new generation; that probably worked for traditional generational when you were adding a coal plant 20 years ago or a natural gas plant 15 years ago. It doesn't really work when you're adding sort of the massive influx of disbursed generation that we're seeing today and so that's why it happened. I do think SPP has made a lot of progress on clearing their queue. They've done things like adding more commercial readiness criteria. They have added

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financial securities and they've really plowed their way through the queue. I think that within the next few months, they'll have the entire queue cleared or at least the queue that existed when they started the process. Now the problem that I may have mentioned to you before, the problem is after the IRA hit, and there's all these incentives to build more generation, they've actually had more generation enter their queue since that time and I think the queue is even longer now that it ever was and so, that problem's not going away, so if somebody wants to build something today, they're still looking at a multi-year process to find out whether they can build and what the price is going to be. I will say that was probably one of my disappointments with the Inflation Reduction Act is we had all this money aimed at generation. It probably overheated the generation and left it without a grid to connect to. I think we would have been better off building out the grid and making it ready for generation to connect in but I do think Southwest Power Pool is doing some innovative things in the next couple of years. They're going to start what they call their Consolidated Planning Process where it's not just going to be a serial queue-based process to plan for generators, we're going to throw planning for generation into the larger transition bucket and so when they plan a folio of transition each year or two, they're going to try to account

for the generators that plan to come online and do just what I'm saying, with they will try to be anticipatory of who wants to be part of the grid and make sure that the grid is built out in time for generators to connect to it.

Q: So, Andrew, if we have big issues in the generation side and there have been tens of billions of dollars of federal money allocated to incentives, let's look at the other side and talk to us a little bit about this whole concept about transmission corridors and what is the vision there and what's your view of that effort?

A: Yeah, that's a difficult one. I think the vision makes a lot of sense. I mean, we know there are areas of the country that have the resources and we know there are load areas that don't have resources that need to access them and we know that our infrastructure is insufficient. I think the vision was in broad brushstrokes to try to connect those dots to relieve congestion in between those point that's causing; either people can't access the type of generation they want; say they have renewable portfolio goals or they're constrained and they have very high-cost generation and they want lower costs to flow in, I think that's the goal. I probably would say that at least in my state, people are very concerned about how it's been rolled out. I think they just see that the federal government has just

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put in these corridors that are five miles wide and they're wondering, is there just going to be a swath cut through the state? Now, of course, that's not how we plan or build transmission but it has left people concerned. I probably have as a policy maker, if I put on my policy hat, I've got some concerns with how that's been rolled out in the sense that I think we have ... you run the risk of people becoming worried about what's happening and maybe getting their hackles up more than they even need to because it feels a bit like a cram-down, when that's not really; I don't think that's the intention of DOE and that's certainly not how we plan transmission and build transmission through our regional processes so it's DOE's kind of walking a razor's edge there. I will say that I think most of the pushback has been on things like the backstop siting that's going to be afforded to FERC but as far as some of the other benefits that go along with the corridors, I haven't heard any pushback on that.

Q: Okay. You in our preliminary chat mentioned SPP's FERNS Study for the Future Energy and Resource Needs Study done by Brattle. What were some of the key takeaways about our region that you learned from that?

A: Oh, gosh, I would say that is a complex but actually a pretty high level study and just to go back on what that is,

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it's really taking a look far out into the future and saying, what are the scenarios we think we're going to dealing with in the future and how are we going to make sure that we serve load, as I said before, both reliably and cost effectively if those scenarios come to pass and so in the FERN Study they looked at the two major drivers they were looking at were, how much of our energy is going to be required to come from carbon-free resources in the 2030's, the 2040's, the 2050's, and much; what's the level of electrification that we are going to see? Are we going to see enormous load growth in those out-years? And I think there is some expectation that both of those things are going to happen when of course, it's scenario-based planning so we don't know exactly how much they will happen but we know they're going to happen and it's based on a lot of different influences but we know those are going to happen and so a lot of what they did was look at land availability, resource availability within the SPP and they were trying to gage what is our energy mix going to have to look like at that time because is not, to be clear, they are not a resource planning SPP agency. They are a transmission planner but to know what transmission to plan, you kind of need to need to know what the resource mix is going to look like and you need to know in general, what the geography of that resource mix is going to

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look like and so, this is still an ongoing process but my big takeaways are, we're going to be asking the grid to do a lot of things that the old grid, your grandaddy's grid of 75 years ago was not asked to do and so there's going to have to be a pretty big infrastructure buildout and we're going to have to evaluate and try to co-optimize that somehow with an influx of probably a little more wind, a lot more solar, a lot more batteries and some new technologies we don't know about yet, although I will say that the FERNS Study, the one question I asked of them and they specifically answered is they tried not to anticipate or include any technologies that didn't exist yet. They didn't put hydrogen generators into this mix I think because it's just too uncertain. We just don't know what generation source is going to come around in 10 or 20 years but we know if we're going to balance supply and demand 30, 40 years from now, it's going to take a little more wind, it's going to take a lot more solar, it's going to take a lot more batteries, it's probably going to take some natural gas as much angst as that gives people but there's going to have be a bridge baring some new technology that I will say, the financial rewards for somebody developing that technology will be immense so I'm looking forward to seeing if something else can fill that gap over the coming decades.

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As you and I have chatted, you've been at this job now for 0: five years. You put in in 2020; that's longer than a lot of commissioners. You've talked about the complexity of decisions being made, regional transmission entities at FERC, state regulatory policies that have to be wrestled. It seems like if defies easy comprehension, let alone coordination. As somebody who graduated from KU in environmental studies, do you think environmental objectives can be achieved in this environment with this complex energy grid that we are so dependent on? You know I'm an optimist at heart as you can tell. I do A: think they can be met. I think as long as don't erect new barriers I think that's clearly the way things are moving. It's just a matter of pace. As I said before, I think the fastest energy transition we can achieve is one that's going to be reliable and affordable and I can see that end state. It's going to take some new technologies probably but a lot of it can also just take place through good grid planning and a continuation of some of the policies we already have in place. But the biggest challenges are things that we probably hadn't seen. It's things like demand growth from things like data centers that want a lot more energy a lot faster than we thought. We probably would have been on pace to meet a lot more of our demand through renewables

until all of this additional demand showed up. That's a challenge but...

Q: You're around long enough to remember the industry conferences where demand growth was close to flat and utilities were wondering where is our growth going to come from?

A: Yeah, and we were starved for demand growth, I mean, even when I'll say just a few years ago when we started to learn about the potential of something like an electric vehicle battery plant being built in Kansas or the chip plants that we now see coming in, we were thrilled by that because in the typical world of utilities and the old paradigm, you want if you've got some excess energy, you want more people to use it because that's more units of sale to spread your product across and so rates can do down. Well, if you add too much too fast, turns out you have to build a lot more generation to serve that and it's still good to have demand growth but you definitely want it on the pace that you can handle it and right now, I'm glad I'm not a utility resource planner. I mean, I say this with all earnestness, I'm glad I'm sitting in my seat and not the utilities' seat because they have customers coming and you can't always tell customers, no. You have an obligation to serve them but as we talked about before, you may not have the power. The whole region is short on capacity so you can't just go buy a

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power plant or a piece of a power plant from somebody else so you've got to build your own. Well, like we said, there's a queue and it takes a few years to get through that queue. I hope we'll be able to fix that but right now, you're looking at a few years to get new generation online and it's a tough spot. You've got a lot of customers that want power. You've got industries like transportation that are transitioning to electrify their fleets and you'd never want to be in a position to say, I'm sorry, we don't have the power to sell you because that's your business, so I'm glad I'm not in that position.

Q: Thank you for giving us a glimpse of the world of Andrew French, circa 2025. Thank you for talking with us.

A: It will be different five years from now I'm sure. It's a fast-changing time.

Q: We'll have conversations between now and then to help grease the skids for people so they can see what's coming. Andrew French, thanks for joining us.

A: Thank you so much. I appreciate the time.

We've been talking to Andrew French who's Chairman of the Kansas Corporation Commission.

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