An Interview with
RAY WAHLE

Conducted by Marta Monti
On
January 29, 2016
Missouri River Energy Services, Sioux Falls, Minnehaha County, South Dakota

Humphrey School of Public Affairs
Center for Science, Technology, and Environmental Policy
University of Minnesota, Minneapolis

Copyright, 2016
Ray: We serve 60 communities in four states--North and South Dakota, Minnesota, and Iowa. We are a wholesale supplier. So we’re similar, if you will, to Great River Energy (GRE) in that they are a wholesale supplier, but they supply coops and we supply municipalities. So that kind of gives you a basis of what we do. We are a joint-action agency, you mentioned that term, so you are familiar with that terminology.

Marta: I am, and I’m learning more every day. Can you explain how Missouri River Energy Services (MRES) got involved with the CapX2020 project?

Ray: We are, as I mentioned earlier, we are a wholesale supplier to municipalities. As you can see, we have a large footprint of the municipalities we serve. So that’s our objective. We were formed back in 1965. All of our communities at that time were receiving 100% of their power supply from the dams off the Missouri river, and that was being sold by the Bureau of Reclamation at the time. What happened, then, is that once the capability of those dams were consumed by everybody that was purchasing power from the Bureau of Reclamation, the Bureau basically came out and said to everybody, you now have to find alternate sources of power to meet any growth you have over and above what we can supply.

So basically, the Bureau at that time “fixed” their customers...the amount of power they could purchase from them, and it was fixed at the 1977 amount. And once that was fixed, the municipalities had to look for another source of energy. They formed MRES to actually accomplish that. So we started in in the business--we actually sold our first power back in 1977--but from that time forward we have been building power plants, mostly power plants, to serve our 60 members.

As you can see from the very large footprint that this map represents, there is no way we can build transmission to each individual community. When we got into the business, they were already hooked up to the grid, because they were purchasing power from the Bureau of Reclamation. So we really started by building power plants, and then over time we gradually got into the transmission business.

Up until CapX, we had a fairly modest investment in transmission, even though we were trying to invest more and more, we had a fairly modest investment in transmission. Then CapX came along, and again, from what you’d already written in your paper, it’s pretty obvious that the utility industry recognized back in the early 2000s that we were not building enough transmission infrastructure. We really needed some additional transmission infrastructure to really serve reliably all the load that had increased in the area, as well as the new
laws...Minnesota did pass, or was contemplating the Renewable Energy Standard (RES), and how we are going to meet those needs with the existing system.

Now to back up a little bit in time, the way the utility used to work, is that it was typically that companies would build large central station power plants, and these plants could be in the 500-plus-MW size. Very large power stations. When the utilities--and sometimes more than one utility--would invest in those projects, that large of a power station would require obviously a lot of study work, and then you would have to add transmission to the grid to be able to integrate that large power station into the grid. So the utilities, typically what happened was, when they built a power plant, that’s when “grid expansion” took place at the same time.

Now comes some renewable generation. Wind generation. And wind generation was not large central station power. When it first started up, a 50 MW wind farm was HUGE. But a 50 MW wind farm, that doesn’t take a lot of transmission. Yet, when we were looking off into the future, we could see that there was going to have to be a lot of renewable energy, a lot of wind resources--I mean, that’s what this area is famous for, wind--and so, as the utility industry, we were saying, “How are we going to do this?” Because it did not fit our typical model.

Our typical model was 500 MW and a bunch of transmission, and this was…and by the way, that 500 MW of generation was in a very tight geographic area. Well now, if you wanna have 500 MW of wind, you’re talking about a large geographic area, and how are we going to do that. Through that process, we in the industry realized that we’re going to have to do something different.

That was kind of the seeds, if you will, of CapX. Asking, “How are we going to do this? How are we going to do scenario planning in order to be able to integrate all this wind in these large geographic areas?” That’s kinda what sparked the idea--we needed to do something in the transmission area, we needed to build a backbone. And that’s really what CapX is. It’s a backbone transmission system.

And then, of course, how MRES became involved, I actually remember it. It was in June of 2004.

Marta: So, immediately, right off the bat.

Ray: Yes, we were very early in the game. I received a phone call from two gentlemen, and at the time it was Rod Scheel from Otter Tail Power--he’s retired now, and Tom Ferguson of MN Power, he’s also retired. They called me up, and the reason I know it is because I was vacation in northern Minnesota with my wife on our 25th wedding anniversary! That’s why I remember the date, haha. They called me when I was driving back from that, so I distinctly remember the call.
They called me and described...they were thinking about transmission expansion in this region, and just for the region...I kinda mentioned to meet the MN RES as well as increase reliability and to meet the load growth of the region. They described the overall concept...it was nowhere near...obviously there were no projects defined, they were just talking about “we need to do something. We don’t know what it is. We’re starting this, would you like to participate?”

And of course, I looked at that as an opportunity, and you never wanna say no right off the bat. You at least want to find out more about it. So I said, “Sure, we’ll participate!” From that point forward, it just started going, and things kept going, and it just kinda snowballed after that.

So that’s how we got involved in the CapX initially. So, simple phone call with an invite to a meeting. That’s really what the request was.

**Marta:** What was that first year like?

**Ray:** It started slowly, and we had this concept. Okay, we’re gonna build transmission. But what are we going to build? Where are we going to build it? How much are we gonna build? We started in 2004. It was a concept. Nobody really had any idea what we should build, where. Or how big it should be. Or anything like that.

That’s how we started off. We said, “Okay, we really think we need additional transmission. What are our roadblocks? What is stopping us from building that transmission?” And, obviously, one of the things was some of the existing regulatory process needed to change. So that was kinda the major roadblocks to us getting this build. And that was an early identified roadblock.

The other thing is, is what are we gonna build? That was another big question, and so we started off by doing technical studies. But we also had to figure out where the generation was going to be. Because if you go to a transmission planner, and you say, “I want to build transmission to meet the MN RES to improve the reliability,” they will say, “Okay, great, where is that generator going to be?” And the answer is “We don’t know.”

Through that conversation, that’s when we hit upon looking at scenarios. So we did this scenario analysis. And we did a lot of study work, because we’re saying, “What if a generator is concentrated in North Dakota and South Dakota? Or what if the generation is concentrated in Minnesota? Or what if the generation is concentrated in Wisconsin?” So we started looking at different scenarios, and when you start looking at that….and when we say concentrated, we actually laid out some kind of a very high level scenarios of how much generation and where it would be located. Given that, we gave that to the transmission planners, and they took that
information and they said, “Okay, if you have this scenario, this is the transmission that should
be build to be able to get that generation to the load.”

We went through all the different types of scenarios, and interestingly enough, several projects
always showed up in the studies. You always need this project, or you always need that project.
If you had different scenarios, like if you had it weighted to the west, there might be a different
line versus to the east. But you still had the basic CapX projects that worked and were needed, so
we said, “Okay. Since these transmission lines are always needed--and we looked at a broad
scenario--those are the ones we should start with. And then as time marches on, if you see now
generation is developing, say in the Dakota’s, you might need some additional facilities in the
Dakotas, but the backbone is now been put in place and is operating.”

That’s really the process. It took quite a unique study approach to come up with what the CapX
facilities should be. We started with a no-regrets scenario. We wanted whatever we built to work
with whatever generation develops in the future.

**Marta:** About the technical studies: Collaborating on studies together is not completely new, but
was there some “newness” element to working with that group?

**Ray:** We worked with most of the partners. We knew who they were. They were not strangers to
us, we were not strangers to them. It’s a small...believe it or not, the utility world is relatively
small. You have a lot of colleagues in common. So we’d worked with the CapX partners in the
past on various projects. We’re into different projects with them in different areas.

This was obviously a much bigger effort because of the amount of the transmission that was
being built, the amount of capital that was needed, and the amount of regulatory process that we
were going to have to go through in order to get these permitted and be able to install them. So
from that perspective, I think our organizations got to know each other a lot better, because we
had to deal with everybody almost on a daily basis, and at a lot more levels of the organization.
You get down into the study work, you get down and you approach the construction, and now
you’re having people in the construction levels talk to each other. So you’re really getting....the
organizations are becoming much more known to each other because of the depth and breadth of
the project because you’re getting to know a lot more people.

**Marta:** And that’s just internally. Early on the CapX group also engaged with a lot of
stakeholders that weren’t utilities. Wind developers, renewable advocates, etc. Did you engage
with people or groups that you hadn’t before as a result of this project?

**Ray:** I’m sure I met new people through the process, but we had talked to lots of other
companies in the past. I think it’s much more frequent contact, much more in-depth contact, so
you’re really finding out a lot more about people and what they’re trying to accomplish. I think it was more of that rather than new people, although I did meet a lot of new people over the course of the project.

**Marta:** That must have made it easier in the beginning to move forward though all the uncertainty when you didn’t really know what was going to happen. Was it easier to commit to do study work, and commit resources early on because you had worked with them in the past? And how was it aligning your goals in the beginning?

**Ray:** Everybody had their own goals, their own objectives going in, but I think from an industry-wide perspective that I noted earlier, we all understood that we needed to do something. Again, when we first started out we didn’t quite know what that something was. We needed transmission infrastructure. We had certain problems facing us: the RES, load growth, and reliability.

So I think when we came together as CapX partners, we did have a shared goal in terms of trying to solve these problems. I think that helped a lot in terms of us, as a group coming together, and being able to find a solution to our shared goal and problems. I think it started off on a very solid footing because of that, and everybody was on the same page.

Now in terms of starting and actually moving forward, it was kind of incremental steps. I had a first phone call inviting me to a meeting. That’s not what you would call a very large commitment. So you go to a couple meetings, and you gotta figure out the next steps. And you say, well, okay, we’re thinking about building more transmission, so can we start doing some studies. Again, these incremental steps. It reminds me of the old Chinese proverb: If you’re going to take a thousand mile trip, you should start by sitting down and putting on your shoes.

So really, that’s what we did. We sat down, and we put on our shoes, and then we started walking. And as we started walking, we built momentum. We did studies, then we started to get the sense that there were some projects out there. Now looking forward, we asked what we had to do to get the projects. Well there’s a regulatory process. Well we better start talking to some regulatory folks, and get them to see what we need to do to satisfy them.

These are major transmission projects and we know they are going to be disruptive to landowners wherever we site them, you can’t help that. We think we are doing what we need to do, as an industry, so, how do we get people--maybe they won’t be completely satisfied--but how do we get people that can recognize that what we are doing makes sense. So now you look for other areas, and that’s when you start talking to wind developers and other environmental groups that support wind and explain to them that this is what the Minnesota RES is about. So you start
bringing more and more people to the table, and you start building momentum for the project. I think that is important from a project standpoint to get it off the ground and moving forward.

**Marta:** Oh sure, and I think that momentum is really apparent in how quickly the legislation in 2005 was passed. One year is not a long time to work to get that many changes to a law, but the group did it.

**Ray:** And the reason that happened is because we had identified that as one of the early problems. When you’re talking about 11 utilities, you’ve got a lot of talent, and we--meaning the CapX partners--spent a lot of time in St. Paul explaining to the legislature what we need, why we need it, and this is how we help solve the problem. So yeah, it was a great effort by a lot of people.

I wouldn’t say it was easy, but we got organized and we convinced people. We had a great story. I think we still have a great story.

**Marta:** You mentioned good organization. I think that united front helped make it easy for the legislature to see that it was a joint vision. One part of the bill that I think is underrated, but it’s a change in language that says that the Public Utilities Commission (PUC) must consider the benefits of a project not just to Minnesota, but also to the region. So, just getting that sort of language written into the law makes it easier for groups to collaborate in the future. What part of that legislation do you think was most important to the CapX projects?

**Ray:** We have a different financing method that Xcel, Otter Tail, and MN Power. That legislation did not help us directly. How it helped us indirectly is that it helped Xcel, Otter Tail, and MN Power, which means now that they were fully supportive of CapX. If the legislation had not passed, I don’t know if the IOUs (Investor Owned Utilities) would have joined in the CapX effort. And it really raises a question that if they didn’t join, I think the remaining utilities might not have had the resources in terms of people and capital to build all the projects. I know we didn’t have the resources to build all of them. Could we have built one or two of them? Maybe. Maybe not. So that’s really where the legislation helped MRES, in that is brought in all the partners to the project.

The thing that helped MRES more than the legislation was Federal Energy Regulatory Commission (FERC) Order 2000 and the formation of the Regional Transmission Organizations (RTOs). Up until that time, MRES, even though we were a regional power supplier--as I noted before, we didn’t own much transmission--and really, the way the transmission system worked before the RTOs got formed up, is that you had an entity such as Xcel that built and owned all the transmission in their zone. Otter Tail had their own area, MN Power had their own area. And they would build, own, and then they would charge any user of that transmission. Well, if MRES
went in and built a piece of transmission in the zone, there was no way for MRES to get cost recovery from all the users of the zone, because it was Xcel that had the tariff, and they are the ones that charge for the use of that transmission.

With the advent of the RTOs and FERC Order 2000, now it created these zones where you could have other owners of transmission facilities in the zone, and that would raise the annual transmission revenue requirements of the zone, then all users in that zone would pay for those revenue requirements. So in that case, when MRES invests now in a zone, the zonal cost...all the users of the transmission...pay the owners for the use of that facility, and part of those dollars comes back to MRES. So what really helped us is FERC Order 2000 and the advent of the RTOs which allowed us to get cost recovery for the transmission that we invested in. So that is really the beginning of the story of MRES being able to invest in transmission.

That’s the key, we are structured differently than Xcel or Otter Tail and MN Power, so that’s just a different way that we get cost recovery. And that’s key. You can’t invest without getting a return on your investment.

**Marta:** Can you remind me how much MRES ended up investing?

**Ray:** We invested about $100 million dollars in two of the projects. We are in the Brookings project at 5%, a little over 5%. And then the Fargo project we are we’re in at 11%.

**Marta:** So we talked about the 2005 bill, and now it’s time to apply for permits and to get the project out to the public. Some of the lines go through MRES member municipalities, correct?

**Ray:** Oh yes.

**Marta:** Can you talk about what it was like bringing the CapX projects to your members?

**Ray:** Well, you’ve got to understand our members. Our members are municipal utilities, and we sell directly to the municipal utilities. We’re wholesale, so we don’t sell to a retail customer. So when we go talk to our members, all those people are already in the utility business. They are running, building, and operating their own distribution systems. That’s what they do. They run the local systems.

So when we approached them, and actually we start with our Board of Directors. Our Board is a 13 member board, and they are all made up of 13 of the communities that we serve. It’s a representative board, and they are very familiar with utility operations. They run their own systems, and they are very familiar with generation and transmission.
It was not a hard sell at all because they are within the industry, they understand the need for reliability. That’s one of the key things. If the lights go out, they get a call. So they know all about reliability, so from a reliability standpoint and from a growth standpoint, it was not a hard sell at all. We said as an industry we need this, here’s proof, and the board signed on very quickly and they said yes, we need thing.

And the same was true with the membership. We did not have any special meetings with our members. What we did do, is every fall we go out to all of our members and we meet with our members at area meetings, and of course we told them about these projects early on. And all of our members supported it. Again, our members are in the industry so they understand why we need this and they understood the value.

From our membership standpoint, it was fairly easy. We did not go talk to our member’s customers. Our members did that, but the real impact occurred where the lines were actually placed. Because our members are cities, we were only near the communities, the transmission lines never really went right through the middle of a city. We did try to site it, to the best we could, to avoid the big population areas. But you’re still running through some populated areas, you can’t avoid it with that large a project. So that’s how we communicated to our members.

In addition to that, of course, we attended some open houses when the routes were picked just to understand the issues that landowners were raising as well as we encouraged our members to go to the open houses in their areas. So like Sauk Center and Alexandria and stuff like that, the communities, they did attend as the open houses were moving through the projects, and they understood the issues the landowners raised and what other issues might come up through the project.

**Marta:** I bet it also helped to have that local element, local connection to the projects. Having the ability to have your members go to those meetings and open houses and speak with their customers. To some, it’s a face they may know.

**Ray:** Yes.

**Marta:** That’s far different than having someone from Xcel or GRE coming from the cities to tell them how the project is going to be.

**Ray:** Oh most definitely. And GRE serves the rural areas and we serve the municipal areas, and I think the two of us….we did do a lot of outreach to our members and I know GRE did a lot to their members so that we could get the local support. Yeah, people would show up to the open houses and some of the local people, like some of the guys who ran the distribution systems, they
were at the meetings and they were known, and people could talk to them and find out that there was local support for the project.

One of our….it’s actually a substation that MRES built, was in Alexandria, Minnesota. A very large substation, and of course that is one of the towns we serve. Alexandria is a growth area, it’s the lakes region up there, and so consequently, being able to serve the city of Alexandria and building a substation right there to provide additional reliability to the area, I think was a very good thing for MRES and the consumers at Alexandria.

**Marta:** Do you recall some of the issues that people raised at some of these open houses?

**Ray:** You know, no, not really, because MRES was not...obviously we were part of the CapX projects, but the open houses were done….what we did, and what we eventually did, which I think you are aware of this, is that we picked one utility to lead each project. The Brookings project was led by GRE and the Fargo project was led by Xcel.

So Xcel became responsible for the whole project. They ran the open houses and determined how they would be staffed, who’s gonna go to the open houses, and they also wanted--and I think this is very important--they wanted mostly the same people to go to all the open houses so that there was always a consistent story that people could understand. And the people who were there from Xcel or GRE could really understand what the issues were that were brought up by landowners. So you had uniformity or consistency in coverage so you knew what was going on.

From that standpoint, MRES was not really involved in that effort because that piece was done by GRE or Xcel, who were the big players in the open houses and stuff like that. Because eventually they became responsible for getting the right-of-way, so consequently they really needed that feedback from the landowners, to understand what their issues were. That’s why they led up that effort, and I think it was the right way to do it.

**Marta:** Oh, I hadn’t heard that before. That’s smart. That’s clearly a strategic decision to have the messaging be so consistent.

**Ray:** Oh yes. That was very important to be consistent with that messaging.

**Marta:** Especially on projects so big like this. Can you speak to the differences between the CapX projects and smaller projects you’ve worked on in the more recent past?

**Ray:** Yes, these are very large projects. MRES had to construct the Alexandria substation. And Xcel was the lead for that on the Fargo project, so we were in effect under contract with Xcel to do the Alexandria substation. We worked very closely with them to do that substation. As a
matter of fact, Fargo is the other substation on that line, and we had to get certain pieces of equipment to do both...one of the things we had to do was get a reactor, and there had to be a reactor on both ends. And so we just talked to them [Xcel] and they said, “We’ll go out and bid the reactor and then we’ll just order a second one.”

So that’s one of the ways we worked together in terms of getting the equipment. Rather than us duplicate work, whoever they bought their reactor from, they just went to the manufacture and said “me too, and we’ll sign the same contract.”

Now, our substation design….we had to design and construct the substation….but we did that in conjunction and coordination with Xcel, so they knew exactly what we were doing and made sure everything would fit, if you will.

**Marta:** If you were working on Xcel with on a line like the Fargo one, and it wasn’t part of the CapX projects and group...say CapX wasn’t around, do you think that level of cooperation and coordination would have happened in the same manner?

**Ray:** You know, I would hope it would, because at the end of the day your objective is to build the project. You want to use best practices anytime you build a project. Nobody wants to use bad practices, they want to use best practices. So I hope that the answer would be the same.

I think one of the differences is that when we started off with CapX, we said let’s have a CapX design, and let’s talk about what are the best practices. That might have been a little bit different. When we started early on we said that we wanted do this as best practices, so we developed the CapX design, so you’re seeing a very similar design with all the 345 kV transmission lines in terms of wind loading, and ice loading, and all that stuff….the very details that you get into, it was a CapX design. If we didn’t have all the partners, we probably still could do that, but you might have a more limited set.

The more people you bring in, the broader your knowledge base becomes and consequently, I think with the large number of partners, everybody experiences something a little bit different. And if they take away lessons learned….you never learn anything from doing it right, you only learn from your mistakes. Unfortunately that’s the way it is. I’m never going to live long enough to make all the mistakes there are to make, so it’s always good to find out what other mistakes somebody else has made so we don’t have to repeat them. Just because of the larger knowledge base, I think it did improve the overall project.

**Marta:** With a project this large, it’s easy to get off-schedule, off-budget, and a big part of these projects is that they have stayed on-time and on-budget. What sorts of things--like having a “CapX design,” like you just mentioned--played a factor in hitting those goals?
Ray: It’s always difficult to estimate the cost of your project and to keep it on schedule. I think that’s difficult to do with any project. These are some very large projects, and that does add some complexity to it. I don’t know if it was so much the [Participation and Project] Agreements themselves, but I think just the fact that we had a very good organizational structure. Everybody kinda knew what we wanted to get accomplished, and everybody wanted to get it accomplished and not let your partner down. I think it drove people to really pay attention to what was going on and to really perform well.

I think it was a combination of broad experience that was brought to the table along with a good organizational structure that really got this accomplished. I don’t think you can point to any one thing, but those all played a role in terms of keeping it on-time and on-budget.

Marta: What are some things that we haven’t talked about that you think is important I know?

Ray: One of the things that really sticks out in my mind was the poker chip exercise.

Marta: Oh yes, how could we skip over that!

Ray: That was kind of an interesting process. You know, we did that...I was trying to remember the year we did that, I’m not sure I even remember, but it was really early in the project. We didn’t really have a project agreement drawn up yet. We didn’t know who wanted to invest in what. We didn’t know how much people wanted to invest. And we didn’t know...you know, we’ve got a huge regulatory process that we’ve got to go through...we didn’t know if we were going to get through it yet!

But now you’re gonna go into a room, and you’re gonna tell people how much you want to invest in this project. And you have no idea if it’s gonna be successful or not, but you’re gonna put your chips on the table, and walk away.

Another thing is, what do you do if you don’t have enough money? Because at the end of the day, we’re talking $2 billion dollars, and what if you’ve only got $1 billion on the table? Now what do you do? Or what if you’ve got $3 billion on the table, now what do you do? How do you allocate a shortage, how do you account for if you have too much on one project. It was a very interesting exercise.

It was surprising though, when we started doing that, the way it turned out, is it came out relatively close. I mean, when people laid their chips down, we were very close in terms of having the right amount of money for each of the projects. It was surprisingly close, and with just a little bit of juggling, we were there!
At the end of the day, I was really interested to see how this would turn out, but at the end of the day it almost turned out to be a non-event because by happenstance--it was just happenstance--when people laid down their chips, we had enough money.

**Marta:** Do you recall if there was a project that MRES was interested in being part of that ultimately you were not?

**Ray:** No. When we started that exercise, we wanted to be in two projects: we wanted to be in Fargo, and we wanted to be in Brookings, because those two projects run through our member area. So those two projects we wanted to be in. And we had determined about how much we wanted to be in each of the projects. Or actually, in some total, how much we wanted to invest in the whole overall project. So that was the objective when we went to the poker chip exercise. The way it turned out, we basically got in the projects at the levels we wanted to. And when everyone else laid their chips down, it turned out that we ended up where we needed to be. Everyone walked away satisfied with the way they were invested in what projects and the amount of investment.

I don’t know...it was sheer dumb luck, or people just had clairvoyance, I don’t know what it was, but we all came out...I don’t know of anybody that was dissatisfied with where they were at. It turned out very well I thought.

**Marta:** There were a few utilities who were following the CapX project earlier on but didn’t end up joining. You said the poker chip meeting happened early on--do you remember of some of those people were there. or had the 11 partners been decided by then?

**Ray:** Basin was not at the poker chip exercise. You got to understand, Basin really is in North Dakota, and by the time you get to the eastern end of North Dakota, that’s getting towards the end of the areas they serve. And really, the CapX projects are really from eastern North Dakota going east. It’s right on the edge of where Basin is at, so them not participating didn’t really surprise me because it’s getting out of the area where they have load-serving responsibilities.

**Marta:** Did you know by the poker chip exercise which substations needed to be built, and was the decision of who would own and build them figured out then? Substations are expensive. Was that level of detail there yet?

**Ray:** No, that came up a little bit later. Otter Tail was concerned. They wound up, because the way we did the ownership thing, is that the substations are owned by the entity that builds it. So we completely own 100% of the Alexandria substation. Because Otter Tail, just because the way the project works out, they wound up owning a larger percentage of substations versus
transmission lines. They did raise that as an issue, but over time they became comfortable with where they were at.

The reason we own the Alexandria substation is that before CapX came through it was a small switching station. We owned it. And then because it was a small switching station, it was the ideal location for a larger substation for the area, because now it is now a more regional substation. When we built that substation, it not only accommodates the CapX lines, but we have five bays in there for 115 kV. 115 kV is obviously a lot lower voltage, and it will provide regional support for the area. We owned it initially, then we got tagged with building it out—which is fine. The owner of the original substation became the owner of the expanded substation, is how we worked it out.

Our investment in the Fargo project was 11%. Actually, if you look at it, we own 8% of the line and the other percentage is all the substation. So the substation is a large...that alone was about 25 million dollars. It’s like 25% of our investment in all of the CapX projects, so it’s a big chunk. There’s a lot of stuff that goes into it. You’ve got a lot of equipment, and because of that it costs a lot of extra money.

**Marta:** One other thing we didn’t circle back to was the Renewable Energy Standards (RES). I’m wondering how these lines will help your members meet those goals.

**Ray:** Well, our members don’t have to meet the RES, that’s on MRES. We have to provide, because we sell them wholesale power, so we have to meet whatever the criteria that is with our mix of power. It’s our obligation to provide that.

Because of the CapX lines, on the Brookings project, we have our very first interconnection request—a very large wind farm. I don’t know who’s buying the output of that wind farm, but it’s near Marshall, MN. And Xcel is building a large solar project near Marshall, MN and I assume it’s going to connect to the CapX facility, because that only makes sense.

So really wants happening is, and we fully expected this, is that as you’re relatively near the CapX projects, you’re gonna get additional wind development, and maybe more solar development...I don’t know how that’s going to play out in the future, but obviously with this major transmission, projects will gravitate near there because the transmission can support that project. So how we see these projects then, because they can support additional wind, we see that as time marches on and we have a need for now in increasing the amount of renewables….these give us a resource, if you will, for wind developers to interconnect to the various projects. So we see it enhancing the ability of wind developers to go ahead and interconnect to the projects. That’s how we see it helping MRES meet its RES obligations.
Marta: So you’re seeing it as it happens now.

Ray: Right, it’s all happening. And you would expect that. Projects are going to gravitate because that’s where the capacity is available, so projects are going to gravitate near the CapX lines.

Marta: Well this seems like a good place to end, do you have any closing thoughts?

Ray: This is just a huge project, it’s unbelievable. It’s $2.1 billion dollars total cost of the project, and now it’s almost 12 years from the first phone call till now, and you think, “holy cow, we actually got it done!” Well, it’s almost done, it’s not quite done yet. But we can all see the light at the end of the tunnel now, and that it’s going to be completed. We can take a collective pat on the back.

Marta: So what’s next?

Ray: We’re still involved in CapX. CapX is still meeting. We built out a huge amount of transmission infrastructure at this juncture. Will there be a need for additional facilities in the area? I think that’s to be determined yet. We really have solved a lot of the problems that we set out to solve, so we’ve got that accomplished.

And, we all have an ongoing operations and maintenance requirement. Now you’ve got a huge amount of facilities, and so we’re involved in the Brookings and Fargo project from a maintenance standpoint. Because you don’t build it up and it just sits there, you actually have to maintain the projects.

So we’re still involved, from that standpoint, and we will be involved as long as those lines exist. Those agreements that we put in place 5, 7 years ago, whatever it's been now, those agreements will probably stay in place for the next 50 years...or have to stay in place for the next 50 years as we maintain these projects.

Future-wise, I hope that if there are some additional facilities that need to be built, that CapX could participate in those facilities, and MRES will continue to participate in CapX. Right now there is not a lot on the horizon because we’ve completed these large projects, so now we’re going to wait and see what happens with these projects.

Marta: Thank you so much for spending time talking about this with me today.

Ray: Oh you’re welcome, my pleasure.