

Courtney Doyle (00:27):

Welcome back to another episode of Co-Op Energy Talk. I'm your host, communications and member relations manager, Courtney Doyle. This month we are celebrating a pretty big milestone. It is Alpine Power Plant's 10th birthday. I have Cherryland CEO Rachel Johnson and Wolverine Power Supply Cooperative President and CEO Eric Baker here today to share the story of Alpine, explain how it helps power our communities, and then talk about why the decision to build it a decade ago continues to benefit our members today. So thank you guys for taking some time to celebrate Alpine. Good story.

Rachel Johnson (01:00):

'Thank you. It's great story to tell too, so we're excited

Courtney Doyle (01:03):

To talk about it. 10th birthday, double digits. Yep, there you go. Yep. Eric, I wanna jump right in and, and for those who haven't heard us talk about Alpine before, can you give us, uh, a little rundown of, you know, what are, what are the specs of Alpine and, and in, in the name of birthdays, like how was it born 10 years ago?

Eric Baker (01:19):

Great. Alpine is a, is our most recent addition to our generation fleet and it's been part of a 30 year quest we've had at Wolverine for our members to control our destiny, to invest in assets carefully and strategically and, and systematically so that we're not always, um, taking whatever the market gives us. We have, we have the ability to plan, to predict our, our future costs, and then to, to produ - um, to provide price stability for our members that is simply not available in a marketplace. So in mid 2015, we looked at about 18 different locations in Northern Michigan and we settled on Alpine given its proximity to high voltage transmission. It's literally right next door to a very large, um, interstate gas pipeline. And, uh, the board authorized us to go ahead and build that project and 10 years later we're here with a, a, a really big success story.

Courtney Doyle (02:25):

And that's up in Gaylord,

Eric Baker (02:26):

Right? Just outside of Gaylord in a little town of Elmiron, I'm 32.

Courtney Doyle (02:31):

And talk to me a little bit about, so, uh, Alpine is a peaking plant. Correct. Uh, how does that fit into a, a, a power supply portfolio and why was that the decision to build a peaking plant versus a, you know, a twenty four seven generation?

Eric Baker (02:44):

Yeah. At that time, energy prices were pretty low and they continue to often be fairly low many hours of the day. And so what we like about peaking, uh, assets is they're very, very flexible. And what that allows you to do is take advantage of new market paradigms. So for instance, today there's more renewables, more solar and wind on the grid sometimes when it's windy and sunny. Um, and we don't have to run the plant. But when loads are high and those assets are not available, those peaking plants step in and fill the void that old coal plants used to do, but are no longer operating today.

Courtney Doyle (03:21):

And Rachel, just for our members so they can understand, obviously Wolverine manages our power supply portfolio and they do a great job of that. Um, can you talk about how peaking plants, I mean, specifically, we'll dive into the details of exactly the numbers in a little bit, but how p- plants like Alpine benefit Cherryland members?

Rachel Johnson (03:38):

Of course. So you, you kind of hinted at this, but I will just for our listeners who may not totally understand the governance structure. So Cherryland is a distribution electric cooperative. Our job is all the poles and wires it takes to get the power to your home. But then we are one of six distribution co-op owner members of Wolverine. And their job is to handle power supply on our behalf. And that includes both generation and, uh, transmission across long distances. Mm-hmm. So Wolverine does all that work, delivers it to us at a substation, and then we take it from there. Uh, so that's kind of the, the nature of, of the relationship. And what Wolverine has just done a masterful job of on our behalf is helping us hedge our power supply portfolio. First of all, let me say, the number one priority is always gonna be reliability.

Rachel Johnson (04:18):

And we should talk about Alpine's role in that for Northern Michigan. But just as importantly, Wolverine's job is to help us manage our costs. Mm-hmm. And so having a, a, a good mix of some market-based power purchase agreements and also some power supply that we own is how we keep our power cost as affordable as possible for our members. Alpine has historically worked as a power cost reduction, um, component inside our bill. And you see that Cherrylands rates are 15 to 20% lower than the neighboring, uh, investor-owned utility. That is in, that's in part the work we do here, just be as efficient as possible with that substation and beyond, uh, aspect, but also it's a reflection of the work that Wolverine has done and the work that these peaking plants play from a cost perspective - uh-huh. Inside our portfolio. And as Eric hinted at, so it's, it's, it, it has helped our members save money.

Rachel Johnson (05:08):

I know that they don't see it that way, but save money in terms of power cost reduction for a decade. Mm-hmm. But it also continues to give us incredible forward-looking stability because we're now moving into a period of time where I think volatility is gonna be one of the biggest risks we have to manage on our members' behalf as it pertains to cost. Mm-hmm.

Courtney Doyle (05:25):

Cost and again, just balancing that portfolio as this, as the sources of generation kind of ebb and flow and what we're seeing on the market. Mm-hmm. Um, so Eric, can you talk a little bit about the energy industry has changed a lot over the last 10 years. So if we look back 10 years ago, Alpine produces some 400 megawatts. What's the output of that? Yep. And at the time, 10 years ago, we, we didn't necessarily need that much. Right. Um, talk me through the thought process to say, "Okay, here's where we're at today," and the forward-looking mindset of Wolverine, because I think that's a really important piece that when we're talking about power supply, when we're talking about energy in, in general, it's not a, "What do we need tomorrow?" It's, "What do we need 10 years from now?" Yeah.

Eric Baker (06:11):

So first let's talk about the size 400 megawatts. In the perspective of Michigan, Michigan is about 20,000 megawatts of total electric demand. So Alpine being 400 megawatts, it's a fairly large percentage of, of that in a single site. It's also the largest power plant in Michigan north of Midland to Luddington, including the UPs. So it, it plays a really important reliability role because it puts generation close to

Northern Michigan load and that just makes the grid more efficient for everyone, whether it's a municipal, a co-op, consumer's energy, um, having generation closer to load reduces line loss and it's, it's good for the grid. So that's the size perspective. But when we built Alpine, we needed 200 megawatts. That's what we needed to build. And as an option in the, in the RFP, the request for proposals we sent out to the vendors, we said, "Give us a proposal for your next larger unit and let's just look at the economics." Um, and those economics were startling.

Eric Baker ([07:16](#)):

For very little more money, we could double the size of that power plant. And so we invested about \$50 million more and we were able to double the size of that power plant. And so on a per unit basis, it was a, it was a really good decision.

Rachel Johnson ([07:32](#)):

Mm-hmm. What if, what would happen if we had to add that to, because we do need that 200 mega - Yeah. That extra 200 megawatts

Courtney Doyle ([07:37](#)):

Now. Today, 10 years later, yeah. Um,

Rachel Johnson ([07:39](#)):

But talk about the cost to do that today.

Eric Baker ([07:43](#)):

So I think one of the important themes of Alpine is we built it at yesterday's costs at yesterday's interest rates. And everyone is - Win-win there. Everyone is dealing with, if you wanna buy a house today, the interest rates are higher than what you could've done leading into COVID and, and, and just interest rates are much higher. All the equipment cost is at least two, if not three to four times higher today than it was when we built it. And so we financed it at a very low interest rate and we built that power plant at a really, really attractive price for less than \$200 million. That plant today would probably cost \$750 million to build.

Courtney Doyle ([08:24](#)):

Woo. Yeah. It's a pretty penny there.

Rachel Johnson ([08:26](#)):

And, and certainly I think a, a, a good thing for us to keep in mind... Well, one thing that I always keep reminding people too is you're always gonna, tomorrow you're always gonna wish you built at today's dollar regardless of what today is. So the, you, you have to keep kind of just consistently and persistently investing in your system, whether that's power supply or our distribution system. But certainly I think our members should be very grateful for Alpine in their portfolio given the sheer amount of power supply that's gonna be built over the next decade at costs that are three, four, 10 times Alpine. Um, but the other challenge, and we talk about this a lot at the Wolverine table, is timelines. So when we built Alpine, Eric, how long, how long did that take?

Eric Baker ([09:06](#)):

Start to finish, we had that plant operational in less than 18 months. Today, that plant would take us almost seven years to build.

Courtney Doyle ([09:13](#)):

Is there any, is there any type of generation that could be built in 18 months today at all? No. Yeah. So that's kind of crazy to think that 400 megawatts came online within 18 months of the, the beginning of that project. Yeah. And there's not a single megawatt we could bring online for that timeline today. Right. I think that's a really good point. And, and so the, the speed and the cost we were able to get that at, um, compared to, today to yesterday, but at the same time, um, the, the investment that we made on it, to your point, Rachel, earlier is we've already kind of recouped that now with the benefit that Alpine has given to our members. Can you guys talk through a little bit about that, um, the ROI on, on that decision?

Eric Baker ([09:59](#)):

So in very typical power plants are, are designed typically to be paid for over 30 years. You use long depreciation and, and utilities are slow and patient and, and the idea is over the long term, it's competitive. Never in our wildest dreams did we expect, uh, Alpine to perform as economically well as it has. So couple of numbers. We expected Alpine to run 30 to 45 days a year. Alpine now is dispatched by the market 90 to 120 days a year. And so it runs much more than we thought. And to Rachel's earlier point, prices are much more volatile today than they used to be. And so when we run, the benefit of running is much higher today than it was even 10 years ago. So we built a power plant for less than \$200 million and we have earned more than \$250 million on that power plant in the first 10 years in excess, exceeding our cost to, to run it and to own it.

Eric Baker ([11:11](#)):

And all of that has gone to rate reduction for our members. So it's a, it's a really fun story.

Courtney Doyle ([11:17](#)):

I think that's a really important point to put on that, right? So in, in what was maybe a, thought to be a 30-year investment - Yeah. Was, uh, paid back in a third of that time. And then being cooperatives, like I think that's such an important piece. Being cooperatives, what we are now purely benefiting from - Yeah. Now just goes to reducing costs for, uh, Cherryland's power bill, which then in turn reduced costs for our members' cherryland - or their, our members' cherryland bills. And I think that is a piece that can easily kind of feel disjointed from our membership who might be listening. And so, um -

Rachel Johnson ([11:54](#)):

I mean, we like to do our job in a way that they don't have to think about it. Yes. So I will say I take that as a, a badge of honor that they're, they're, they don't have to understand how that sausage gets made because they really, really think it's working well for them, but they should think it's working well from, for them. To, to Eric's point, we already talked about this. It has allowed us to have, uh, a nice power cost reduction component inside our rates for a while. But when I look at the moment we're in right now and look forward over the next 10 years, all I see is things are gonna put a tremendous amount of upward pressure on our cost. And when you think of, um, power, our, our supply chains, our natural gas markets, everything points towards volatility and increasing costs going forward.

Rachel Johnson ([12:30](#)):

So we're sitting here with a 50 year asset that we have now mostly paid off and we can now continue to utilize that towards our benefit as we navigate through that time of volatility. So it, it, it will continue to pay off. But one thing that I was, let me preface by saying I was not sitting in this seat when we built the Alpine pl - power plant, but I, I, to me, the story also reminds me of how co-ops are different. Because if you had been sitting at that decision point, Eric, as a, uh, someone who had a responsibility to drive profit exclusively, you may not have made the same long-term decisions in the moment you made. You may not

have taken the same risks you took to build it as fast as you did without the interconnection agreements and all that, right? The, you get, we, you and I, have the luxury of getting to make decisions exclusively based on what's in the best interest of the people we serve.

Rachel Johnson ([13:18](#)):

And I think you're seeing that benefit flow through now as well.

Eric Baker ([13:22](#)):

One of the strategies that Wolverine has employed a number of times in its last 30 years is each time we have some good news, some piece of debt is paid off or some contract is rolling off that maybe we can replace at a cheaper price, we try to take that savings advantage and invest it forward for our members. And that's what we did at Alpine. So we were able to build that power plant without re-materially raising rates to our members at that moment. And to Rachel's point, the market was cheaper. It would have been cheaper for our members to do nothing for the next three to four years. And most companies chose to do nothing. And then after COVID and after electric demand started to go up and prices are now much more volatile, a lot of companies are scrambling to try to build plants of this type.

Eric Baker ([14:13](#)):

And it's just far more difficult today than it was then. And so doing what others won't or wouldn't so that now we can make our next investments like others couldn't is, is a, is a fun place to be.

Courtney Doyle ([14:28](#)):

Yeah. Well, and to not, I don't wanna send us down another rabbit hole, but to your point, it's a strategy that we've used to our benefit in order to not run into a cliff, right? Yeah. Take, take advantage of the short term to, you know, long, short term gain, long term pain kind of. We're very much long term gain - Right. Um, uh, mindset. And we see that with Palisades, right? You're taking a risk on something that, that maybe others didn't want to at the time and that's coming, that's, that's gonna be a great benefit for our members.

Eric Baker ([14:54](#)):

We think so.

Rachel Johnson ([14:55](#)):

Yeah. And I think this is a spot where, not, not to oversimplify it, but we have a very deeply held value system as cooperatives. And no matter what the markets do, no matter what the world does, we just have to remain grounded in our value system. What is in the best interest of the people we serve for the long term?m. That's what got us here and that's what's gonna get us to the next 85 years for Cherryland. And, and a lot of times those, those decisions may not immediately be popular, but they are still the right thing to do in the long term and it has consistently shown in, in our performance. And so I think when in doubt, lean back on your values - Yeah. Has, has worked pretty well for us.

Courtney Doyle ([15:32](#)):

For sure. And as I transition us to thinking about, okay, that's 10 years ago, here we are today, what's next? How does Alpine fit in next? I wanna rewind a little bit back to something Eric said about the number of days Alpine planned to run and, and the number of days it does run now. Can you talk through a little bit of the dynamics that have, uh, resulted in that increased runtime and then how it impacts Alpine too? Like do we need to be worried about maintenance more or how does that impact a plant like Alpine?

Eric Baker (16:00):

Yeah. Well, clearly operating a plant more means we have to do major overhauls more and we're, we're doing that right now. It, it, we have to do much more maintenance now, but we price that in to our dispatch so, and that money is set aside for that future maintenance. And when we get to those points, it's several, it's several million dollars to do a major overhaul on those machines and it takes weeks and, and a lot of our crews and they come in from other power plants around the state to help us do all that work. So that's complicated and it's expensive, but all in, it's still very affordable for the members. Um, what's driving a lot of this now is about the time we built Alpine is when a lot of the old vintage coal plants were being shut down in Michigan. And so we felt, listen, these, the consumers I believe called them, Consumers Energy called them the classic seven and these were power plants that were started in the 1930s and, and, um, and the idea was we're gonna need to replace this capacity somehow so we built Alpine.

Eric Baker (17:05):

Well, now it's driving a lot of dispatch is the market and the grid is much more reliable on renewables or reliant on renewables. So if it's windy, there's a lot of cheap energy available. Or if it's very sunny, there's, there's cheap energy and that's going to become more so as more of these large solar projects are built in Michigan. And so we love the flexibility of Alpine that says if it doesn't run a lot, we can afford the asset because of how we built it. If it does have to run, it's because the grid needs it and then we're paid to run the asset. And so we get es- essentially a double victory and we get the reliability benefit by having that generation in Northern Michigan. And

Rachel Johnson (17:42):

One of the, um, so I mean, like the bottom line is financially, it's been great for our members and will continue to be. But I will say one thing that always sticks in my head when we talk about this, Eric, in the runtimes on Alpine, and stick with me as I try to land this plane on the, on the, the metaphor I'm gonna put out here. The run times of Alpine do tell us something that we should all be paying close attention to. So I think Cherryland members and, and, and the other Wolverine Distribution Co-op members should be very grateful to have Alpine in their portfolio from a cost protection perspective. Northern Michigan should be grateful from a reliability perspective. We should all be paying attention to what that runtime tells us, which is the grid is increasingly, um, have very narrow margins in terms of power supply, which is why Alpine has to run so much.

Rachel Johnson (18:26):

And so the, the metaphor I've been pitching to Eric's team is it's, it's the canary and the coal mine metaphor. So there's a, the canaries are dying and we just happen to be lucky enough to have a canary farm. However, that's not a good long time term strategy. So I'm grateful that we're selling a lot of canaries to dye in coal mines here, but what we really need is for someone to help fix the problem, right? We need to have more investment in, in steady power supply in Michigan because it isn't a good long-term strategy to be that dependent on peakers to run almost like baseload generators. That's my opinion, Eric doesn't have to agree. That's,

Courtney Doyle (18:59):

That's why they're called peakers, right? 'Cause they weren't designed to run all the time. And so, um, yeah.

Rachel Johnson (19:05):

Well, we need a significant increase in peaking generation, right? So if you're going to - Well, we

Courtney Doyle (19:09):

Can't rely on one peaker

Rachel Johnson (19:11):

All the time. Yes, exactly. So there's, there's just clear evidence of a need for investment, I think, in power supply, not just in Michigan, across, across the US. And, and Alpine's runtime shows us that that continues to be

Eric Baker (19:22):

True. And you can see that today with, there's, there's m - considerable interest around the country in building more plants like Alpine. Um, it's just much more difficult to do. Just the interconnection agreements alone take four to five years now. The, the supply chain is very, very strained. Um, so these units happen to be manufactured by GE. They're great machines, phenomenal technology, but we could not get those machines very nearly as quickly as we could back then when the demand wasn't as high. And so now that others are attempting to build peaking plants similar to Alpine, I think it's going to take five to seven, if not 10 years for that supply to catch up to this growing demand that we're, we're seeing nationwide.

Courtney Doyle (20:10):

Because you're balancing a lot of competing priorities, right? Reliability, affordability. Can you talk a little bit about how balancing investing in tomorrow with keeping things affordable today, how do you work through that balance in order to keep the lights on and not absolutely drain people's pocketbooks?

Eric Baker (20:29):

Wolverine, Wolverine projects 10 to 15 years into the future and we try to look for weak points in our portfolio. Are we relying on an asset today that we think is conceivable that it will be forced to retire because it's too old or it's inefficient or it, it doesn't meet an environmental standard that we're comfortable with? And so we have to look 10 to 15 years into the future. There's no way to predict that. So we do it with scenarios and we do it, we stress test around scenarios. This is one scenario. How does it play out mathematically? And then we try to break the scenario. What would make this wrong? And then we start to look for patterns and then we try to, then we start to systematically address that. So we might acquire land for our next project. We might start setting aside money for a down payment on the next generators.

Eric Baker (21:20):

We might start an interconnection process that might take five years and cost 10 million dollars. And that's, those are the types of long-term investments we bring back for the members for their consideration so that we can just systematically keep the ball moving.

Courtney Doyle (21:37):

Mm-hmm. One step at a

Rachel Johnson (21:37):

Time. Yeah. I think one of the things that Wolverine has done very well for us is never view the current project as the finish line. And so you don't, you can't afford to get it done and then stop and sit on your heels, right? Mm-hmm. And you, everything, you need to be looking to what's next, what's next, what's next. And, um, and I think that has served us very well and will continue to serve us well.

Courtney Doyle ([21:57](#)):

Well, and to bring it back to Alpine for the last couple of questions, you talked about, right, you guys are looking ahead and you're gauging, will something need to be retired? Like for the people who don't know a ton about generation plants, like, so what is a 10-year-old plant in, in the, you know, gamut of its lifetime? Is that a young plant? Is, is it- It's very young. Teenager plant?

Eric Baker ([22:17](#)):

No, it's, it's maybe a teenager, early teens. <laugh> Okay.

Rachel Johnson ([22:21](#)):

Um - They're like dog years. Yeah.

Eric Baker ([22:23](#)):

We expected Alpine to run for 40 years. And so, um, we have, we have assets, um, older versions of the similar technology, but gas turbines that are over 50 years old and they still run extremely well. You do maintenance on them. We have shops around the country that do our, do our metal work and they're very talented and we, we, we understand that supply chain. And so you can keep these p- plants running a long, long time, cost effectively.

Rachel Johnson ([22:54](#)):

As long as you take care of them. And, um, and Eric, maybe you have actual numbers on this, but my understanding is that Wolverine's peaking fleet is known as one of the more reliable peaking fleets inside the grid s - the regional grid operator we're in.

Eric Baker ([23:06](#)):

I, I haven't looked at last year's numbers, but traditionally Wolverine's fleet has been the most reliable generating peaking fleet in the, in the entire, uh, Midwest MISO footprint. And that's very valuable for our members. But we also ha - we also staff our power plants pretty aggressively. And the changes in the dynamic are requiring other staffing changes because we're having to run peaking plants later in the evening when solar comes offline or wind lays down. In Michigan, we have to run more frequently in the evening and often much later till say one, two, three in the morning. And so Alpine, we staff 24 hours a day and we'll probably shift another one of our plants in the Detroit area to 24 hour a day operation, just continuing to adjust as the market dynamics change. Mm-hmm.

Courtney Doyle ([23:56](#)):

So a good long life ahead and a lot of good useful benefit for the membership too. Yeah. Well, final question for both of you. Uh, uh, if anybody walks away from this podcast, what's one thing you hope they know about Alpine?

Rachel Johnson ([24:08](#)):

I hope they view Alpine as more evidence of the value of our business model and how we make decisions for the long term. And I hope that they ha - they see and feel that value in a way that they trust that we will continue to, um, work hard to manage their interest. 'Cause it's a co - we, we are in a very complex moment and a very complex industry, but I don't really lose any sleep at night over that because I have such a high degree of confidence in how we make decisions at both the Cherryland and Wolverine board table, and I hope that's what they take away.

Eric Baker ([24:36](#)):

Rachel talked about values and ours at Wolverine and all of our power supply planning is around investing locally and price stability and price competitiveness and reliability and Alpine hits all of those. And, and I'm so proud of that plant and all our power plants that started with a humble little Vesterburg peaking plant that was one 20th the size of Alpine. That was our first one that we had built in years and that was in 1997. So we've come a long way and we have a really talented group of people and investing in Northern Michigan feels really good.

Courtney Doyle ([25:11](#)):

Good. Well, happy birthday, Alpine. Happy birthday.

Eric Baker ([25:14](#)):

Happy

Courtney Doyle ([25:15](#)):

Birthday, Alpine. Thank you guys so much for joining

Eric Baker ([25:17](#)):

Us. Thanks.

Courtney Doyle ([25:18](#)):

Join us next time for more Co-op Energy Talk.