Tim Andrews:

Good evening. My name is Tim Andrews. Thank you for joining us for this live interactive virtual meeting, hosted by the Sands Township Planning Commission. This public meeting tonight is being held virtually in consideration of COVID-19. This meeting enables the Sands Township Planning Commission and presenters an opportunity to engage with the public in a safe manner.

 Tonight's meeting will include a public hearing. If you're listening through your telephone and you would like to make a comment or ask a question, or if you signed up for a speaking slot, simply press star three on your telephone keypad at any time. And you'll be placed in line to speak with a member of our staff.

 They're going to take down your name, what area you're from and a brief overview of your comment. The next time that you hear your name, you will be live on the call and in the meeting and able to make your comments or ask your question. Again, there is a three-minute maximum amount of time allowed for each public speaker. If you have joined us on the website, you can type in your question or comment right below the streaming player, and it will be read aloud at some point during this meeting.

 If you don't have the phone number and you would like to call in for a speaking slot, here's the number. Write this down because you will need to dial in, in order to speak live during this public hearing. 877-229-8493. Again 877-229-8493. Once you dial into that number, you will need an access code. So write this number down as well. 120356£. Again the access code 120356£. Once you're dialed into the event, again, all you have to do is hit star three, and that'll put you in line for a speaking slot in tonight's public hearing. Again if you have any comments during the public hearing, just press star three. Now I'd like to turn things over to the Sands Township Planning Commission for opening remarks with Shelly Brower, the Planning Commissioner and chairperson. Shelly.

Shelly Brower:

Hey Tim. Roll call, we have everyone in attendance tonight. So the first thing that I'm willing to look at is a motion for approval of the agenda. All in favor? Any opposed? Motion is passed. Approval of the minutes from October 20th. All in favor? Any opposed? That then approved. We are going to go on to the business of why we are here. This is public hearing SUP 20-06 Savion for solar energy farm. I am going to send it back over to Tim. They're going to start with a PowerPoint presentation first, and then we will go to public comments, will be limited to three minutes of your public comments. If you have questions, they will write those down to answer later. Try to use your time wisely. I will be timing you. I'll try to give a little leeway, but if you go severely over, I will be stopping you. Tim I'll throw it back to you.

Tim Andrews:

I think we have Courtney Timmons on the line and ready for that PowerPoint presentation. Is that accurate?

Courtney Timmons:

Yes. Tim, can you hear me okay?

Tim Andrews:

Yes, sir. Go right ahead. Thank you.

Courtney Timmons:

Excellent. Thank you very much. Hello. My name is Courtney Timmons. I'm the lead developer on the Superior Solar Project. If you attended the project open house that we put on, I'm one of the folks that was there talking with you. I've got a very short presentation on the project. I plan to go fast so we can focus our time on the public comments and answering questions. I'd like to thank the Sands Township Planning Commission, and also the Sands Township staff for the opportunity to be able to talk here tonight. Before I start the presentation, just a little bit about myself, I actually grew up in the Upper Peninsula. I was born in Marquette and raised in Scandia. I went through the Glenn school system and graduated in 2000. I then went on to Northern Michigan University. And while I was at Northern, I joined the Army National Guard of Ishpeming and I did a yearlong deployment in Iraq in 2005.

 Once I came back from Iraq, I went back to Northern and finished up my degree and I got into the renewables industry. I spent about 10 years in the renewables industry, and most of that time doing project development work. I'm very excited to take what I've learned in those 10 years and apply it to developing a great solar project for the Upper Peninsula. I'll go ahead and move my slide here. Let me know if that's not coming across. Quickly, just some background on who Savion is. Our company was founded in 2019 when a previous company by the name of Tradewind Energy was purchased by its equity backer. The equity backer bought the wind side of the business, and then the original founders of Tradewind Energy then took the solar side of the business and created Savion. So while the company was founded in 2019, the people and the platform and the projects have all been working together for several years now.

 The company is based in Kansas city and we've got projects all across the US and over a hundred employees to fulfill our company. A little bit about our portfolio. We've successfully completed 26 projects under the Tradewind or Savion name. Those are solar projects that are in operation under construction, or are contracted, and we've got over a hundred solar and battery storage projects in development across the US. Key thing I want to point out here is Savion is a top tier developer in renewable energy and has a successful track record.

 Getting into the project. This is Superior Solar by the numbers, just an overview of the project. The project is 150 megawatt utility scale solar project. The project will be about 100 million to 150 million capital investment in Marquette County. At that level, it'll generate 15 million to 20 million in new property tax revenue over the 30 year lifetime of the project. Those are the estimated property taxes. It'll create 200 new temporary construction jobs, one to two permanent full-time jobs, and will be online for an expected 30 or more years. The project will generate enough power for 35 to 40,000 average Michigan homes every year. The project's footprint is expected to be approximately 1500 acres, and that makes up less than 0.2% of land in Marquette County. And we would anticipate two to three years before starting construction.

 This is a map of the project area. If you look up in the upper right hand corner of the map, you're going to see crossroads there. We're away from crossroads. At the top center of the map, you're going to see the gravel pit and then that area just south of it, that is where the temporary shooting range is if you will. The entirety of the project is south of the Goose Lake access road. That's the Northern boundary of the project area. And the entire project is East of the railroad tracks that are outside. The blue line that you see running through the map. That is the 345 kV transmission line that runs from Marquette down into Wisconsin. That is the line that the project would be tapping into. And so this is the general area of the project.

 Progress to date. This is what the project has done to date. From the land standpoint, an auction for the solar lease has been completed for over 2000 acres and we reviewed title. Interconnection application has been submitted to MISO. From a permitting standpoint, we've submitted our permit application to Sands Township. From an environmental standpoint, we've had North Jackson performance aquifer report for us. Dan Widler is going to speak to that here, right after me. We performed a critical issues analysis, the threatened endangered species survey, wetland survey, phase one ESA that's to look for any kinds of hazardous materials. We performed a cultural review and we have ongoing coordination happening with the Michigan DNR. From a meteorologist standpoint, we've collected 14 months of specialized solar data at the site. The picture on the slide there is a picture of our solar monitoring station, which was installed near the site that collected that data for us. We've completed conceptual project designs, and we have discussions ongoing on several regional utilities for the sale of the power.

 From a public outreach perspective, the project put together a project website. The project also hosts a project Facebook page. We performed a public open house in October at the Sands Township pavilion. The picture on the top there is a picture of that open house. We performed a virtual community meeting in October where members of the Lake Superior Community Partnership, and the project has held dozens of local meetings with residents, businesses, the local recreational clubs and Township Marquette County, Northern Michigan University, the Glenn school district, UP economic development groups, and many others. We've gotten a lot of folks interested in the project. And so we've definitely been talking to a lot of people up there in the Upper Peninsula.

 This is a picture of the conceptual layout design that was submitted with the permit application. With all of that community feedback that we got, what we did is we updated our project design to take into account that feedback. And I want to step through some of those changes with you. Up in the upper right corner of the project is last 40 road. There's a couple of permanent residents that are up in that Northwest corner of the project area. The feedback from them was please give us as much distance as we can, and I'm pleased to report we were able to make up about half a mile of distance between the nearest residence and the closest project facility. This project really has a great story when it comes to residential distance. Usually I see solar projects that will have houses that are right up next to projects.

 This project really has a great story when it comes to proximity of residences. The other thing I want to point out in top center of the project, there's a blue circle. That blue circle is the dirt bike staging area. That's out there. We met with the Sand Stormers club and their leadership, and they told us that they've got five areas out here that are special to them. That staging area was the only one that overlapped with our project area. So what we did is we stepped back away from that staging area. If you're familiar with the site, there's a sign out there that says no campfires or something of the like. And there's usually some cars that are parked out there. What we did is we applied that feedback and moved our project facilities away from that staging area. On the West side of the map, there's a couple of features over here.

 The only wetlands that we really found of any importance were over in that area. There was also some cultural feedback that we received in that location. And so what we did is we stopped the project on the East side of the pipeline that's out there so that we can avoid those wetlands and also those cultural areas as well. You'll see the project is broken up into several sections. One thing that's very important is the yellow lines that you see, that's the project fence. We are not fencing off the larger project area or the project boundary. That's just the area that we are looking to site within. So the fencing would be those yellow lines. The project is broken up into sections. And what that does is it helps, part of the reason for that is feedback that we receive on the trails.

 For the most part people said, please leave the trails alone as much as you can. And so that's partly why the project is broken up. From an environmental standpoint and view sheds standpoint, we broke up the project as well. We did make a change to a trail on the spur that goes from trail eight. That's the center of the project out to crossroads. Our proposed conceptual layouts here straightens a portion of that trail to make room for the project and also, straighten up the trail. We got feedback from some of the local folks that straighter trails are better because you can see oncoming traffic. We applied that. We also anticipate moving the trails a little bit as well to get away from the system. We got a lot of feedback of give us as much distance from the trail to project facilities.

 We plan on doing that as we develop additional layout designs. Down in the South East corner, I do want to point out Tunnel road or Hiller road. We received feedback that this road is a very scenic road, especially in the fall. Actually there was a picture of Tunnel road in one of the earlier slides. Really beautiful area. What we did is we moved the project to stay out of that scenic portion of that road and made a small change to Hiller road to go south instead of diagonally, and then link up about in the same spot that it previously linked up. Key point there, we avoided that scenic area based on that feedback. Moving right along here so future development of the project. Future things that we need to do, Ulta surveys, we need to get title endorsements completed.

 We've got interconnection electrical studies that are going to need to be done, and also finalize the interconnection agreement. There will be more permitting that the project has to do. We'll need to submit a site building permit to Sands Township. There'll also be permitting at the County state and Federal levels as well. From an environmental standpoint, we'll be doing some more detailed cultural surveys, phase one ESA updates as needed and ongoing coordination with the Michigan DNR State, Historic Preservation office, US Special Wildlife Service and US club engineers. We also have a lot of engineering to do at the site, including geo-technical assessment and advanced project designs and power purchase agreements, is another key item that we'll be working on all throughout future development.

 Real quickly, this is a milestone schedule for the project. As I mentioned the interconnection application has been completed, and the solar lease is also completed. We anticipate permit approval in December or January and power purchase agreements will be going on through the first half of 2021. If everything goes according to plan, we'll be looking at starting construction in late 2022, operations in late 2023. There's a good chance that that timeline can shift backwards. And so earliest possible starting construction date would still be about two to three years out.

 This is a picture of early construction. The solar project itself, what goes into the ground for the most part are these I-beam piles. There're sunk into the ground and then racking systems are installed on top of those. Key thing I want to point out is the vegetation underneath the racks. This project area will include vegetation underneath the solar energy system. The next slide shows the workers putting the solar panels onto the racking systems. Again take note of the vegetation underneath the project area. And also take note of the space in between rows. We expect estimated 25 feet of space in between each row that will keep things open throughout the project area. That's going to be important for water distribution as well as showing wildlife, breaking up the project view for wildlife.

 This is an image of the final project. Take note of the vegetation and the spacing in between rows to help break up the visualization of the project. Also, take note of how the project rolls with the land in the back of the picture there. Grading is definitely expensive and disruptive to the earth. And so we can install these in a way, sometimes to be able to roll with the land, which is definitely a good thing. A common question that we get. Why this location? This is a very common one that we get. We get a lot of folks that have suggested the basin at the mine or some other mine location. And also K.I Sawyer. The reason that this location is better than some of those.

 There's several reasons. This is a single private land owner. This is really important and helpful for a development and a financing perspective. The 345 kV transmission line that we're planning on tapping into runs through the project boundary. This is a huge advantage for this location for a couple of reasons. One is the project doesn't have to bear the cost of a transmission line to move the power from the project to the existing grid, which saves the project a lot of money, which results in a lower cost of energy coming out of the project. In addition to that, it reduces the need for another overhead transmission line, which is typically fairly unsightly. Most people don't want to see any more transmission lines. The project location is also advantageous because it's located away from major roads, helping to promote the natural beauty of the Upper Peninsula.

 It's also located near the major power users in the UP which is important from electrical standpoint. And the site also has very promising environmental and engineering conditions. A couple of issues with the common ideas that we get, one being the mine and using that settling pond. The engineering associated with that type of solution would be fairly uncertain and also quite expensive as well. And so more than likely that's not something that would be economically competitive in today's market. It would bear a huge amount of engineering risk associated with it. That was one suggestion and how come that's not really an option, but potentially in the future that could be an option. The other idea that comes up a lot is K.I Sawyer. The concern there is we would have to run that transmission line from K.I to the 345 KV line, adding a new transmission line to the area and also increasing the resulting cost of the power.

 Additionally, there's a lot of activity, buildings and the likes at K.I Sawyer, which would need to be dealt with again, increasing the resulting cost of the power, making the project uneconomical. That's the reason why this location is so advantageous and why some of those other seemingly obvious areas, aren't really workable. Wildlife is the other common question that we get. The project represents minimal impact to local wildlife. Wildlife will return to their normal patterns post-construction and the project planning does include open corridors to allow wildlife to be able to pass through. We are currently talking with the Michigan DNR and US Fish and Wildlife Service and we'll continue with that coordination as well. The project will represent minimal impact to wildlife post-construction. Keep in mind we're talking about 1500 acres here. That project layout that I showed you, that's a thousand acres of project footprint, which makes up less than 2% of land and market currently.

 When you put it in perspective, we're really talking about a very small amount of land compared to the rest of the County, compared to the rest of the UP. And as a result, we are not going to see any major impacts to wildlife. Recreation. This is another big concern and a question that we get locally. The project is coordinating with the local clubs. We've met with the Sands Stormers and as I mentioned in the [inaudible 00:23:03] as well. We've been in conversations with the crossroad businesses and also the Michigan DNR that manages the trails to minimize our impact to those recreational opportunities. And we will continue those conversations with those stakeholders to make sure that the solution that is implemented works well for those recreational opportunities. We get a lot of comments associated with so much of this land seemingly being taken up.

 Again, I would just remind folks that it is privately owned land, and it represents about 2% of land in Marquette County. Some of this land is CFA land or Commercial Forest Act land, which means that it can be open to the public by foot. When we compare this project to the rest of the CFA land in the County, it makes up less than half a percent. And when we look at the trail systems in the County as well, we're talking about less than 1% of the trail systems. So this project really has a very low impact to the recreational opportunities available in the County and surrounding UP. Benefits of the Superior Solar Project. This is very important. The project is going to create clean, sustainable energy, promoting the natural beauty of the Upper Peninsula. It has a viable solar resource creating economically competitive power.

 The project will help stabilize energy pricing and diversify energy sources in the Upper Peninsula. The project is estimated to generate 15 to 20 million, a new property taxes over the 30 year lifetime of the project. It will create 200 temporary construction jobs. And one to two new full-time jobs. There'll be a nice local economic benefit to those 200 workers and do housing, food, fuel and shopping. It'll create a local opportunity for contractors, construction, security, landscaping, and equipment rentals. It provides a wonderful opportunity for education trainings, certification, partnership opportunities. We've gotten a lot of interests from local schools and also Northern Michigan University for many educational and training opportunities that the project can bring to the area and one of the fastest growing job sectors in the US. The project is also working on committing to providing a scholarship to local students as well. We're working with the market community foundation on that to create a scholarship every year for the game school system.

 The project enjoys broad community support. We actually had a grass root support group form themselves. They're made up of residents and students and teachers. A lot from Northern Michigan University and also surrounding businesses. They actually put together a local petition supporting the project, which I believe has been provided to you. On the project Facebook page, we've received over 1600 positive engagements on the Facebook page. Below I put a list of some of the key entities and organizations who have provided support letters to the project. And these are just a couple that are really key here. Obviously we want to recognize the elected officials and the Marquette County Board of Commissioners that provided a really nice resolution supporting the project. The Lake Superior Community Partnership of which we're members and the Climate Adaptation Task Force.

 This one is really important because it is made up of different groups in the UP including Northern Michigan University, MSU and other organizations in the UP. Really proud of that one in particular and working with the Climate Adaptation Task Force. And then the signs, so that grassroots group wanted to put up some signs and we did an initial printing of those signs and pretty quickly we ran out. We ended up having to do a second printing because people would come onto us looking for the signs. The project really enjoys broad community support and we've worked very hard to create that. That concludes my portion of the presentation. Next up, we've got Dan Widler to talk about the aquifer. Savion engaged North Jackson to perform an evaluation of the solar project as it related to the aquifer. We certainly understood that this was a key issue. So we wanted to have Dan speak directly to you tonight. Dan, please go ahead.

Dan Widler:

Thanks Courtney for that. I see the slide up here and I think I might be able to advance these as I go here, but I'll let you know Courtney if I need help with that. Thanks Savion and thank you to the Planning Commission for giving me a chance to speak here and address some questions regarding groundwater which have come up. Just a brief introduction. I'm a licensed professional geologist and I've been working in a consulting hydrogeology for 31 years. 22 of those have been here right in Marquette County. I've done a significant amount of work for Cleveland-Cliffs properties, the iron mining operations, just to the West of the Sands plain. Also, Eagle Mine...

PART 1 OF 5 ENDS [00:29:04]

Mr. Wheeler:

... of the [Sands Plain 00:00:51], also Eagle Mine, extensive work for the [inaudible 00:29:07] water authority. And their groundwater well system that provides a water supply for the cities of [inaudible 00:00:16]. And I've also done work for Sands Township directly, and Marquette County for water supply and water conditions, particularly on the Sands Plain. So Savion engaged me this fall to help them look at the environmental impact assessment for the project specifically with regards to groundwater.

 So as I advance this slide, the Sands Plain aquifer is really well-studied and has been for quite a while. Some of the earliest quantitative studies of the hydrology initiated in the late 1970s. And that was really focused on impact assessment for the continued development of iron mining and tailings basins on Cliff's properties to the West. And through that work, the extensive network of monitoring wells and aquifer studies were performed by the US Geological Survey.

 In about the late '80s, '90s, Sands Township took advantage of that and started acquiring supplemental data from this extensive groundwater well monitoring network that is still in existence today, and a network that Sands Township actively does monitor. And it's provided a real wealth of information regarding groundwater elevations, directions of groundwater flow and the interconnectedness of the system of the aquifer to the watershed itself. So advancing that slide, what we've... We know a lot about the system. Sands Plain is a pretty prolific aquifer, I would say. It's highly transmissive, unconsolidated sand and gravel deposits with some other clay units interspersed in there, but generally speaking it's a nice big transmissive package that allows groundwater to flow quite easily from the Plains and to discharge into the Chocolay river and to a certain extent, the East branch Escanaba river watershed.

 What the data for Sands has shown is that the control of the aquifer itself, that is where that water input comes from, is really directly precipitation. And that's probably not any great surprise. Rain infiltrates the sandy soils out there really quickly as the snow melt. And that's really the source of the water that gets into the aquifer. What really drains the aquifer primarily, are the river systems that I mentioned particularly the Chocolay river that by far is the main, if you will, drain on the aquifer, is water that discharges into the tributaries, to the Chocolay, and then out to lake Superior.

 Now, there are a lot of water users, of course, and that's important. And that's probably gets down to the question most people might have about the Superior Solar Project with respect to the Sands aquifer. There's a lot of residential supply wells, and there's a couple larger users of water. That'd be in the state DNR fish hatchery along Cherry Creek. And then the municipal system at Sawyer.

 The residential wells are... They're fairly close. I'm going to advance a slide here. They are fairly close to the project site that is within a mile or two. And they're largely in the down gradient, that is in the direction that water flows. They're clustered around the crossroads area. And so there's a lot of residential use of water out there. And residential use in individual residents may pump something out in the area of 100,000 gallons a year for their personal use. Could be more if there's a lot of irrigation or some other reason for somebody to pump a lot of water, but generally speaking, a household's going to use about that much.

 So a couple of questions come up and they were asked of Savion to essentially estimate how much water would their project really need. And Savion estimated that out. And they looked at a couple reasons why they would use water out there. The first is in construction. They expect they perhaps would use one and a half million gallons required in the construction phase, which would be maybe a year and a half. Okay. So at 1.5 million gallons over a year and a half. And if we look at that, that's 10 residents' sort of worth of water use. Operationally, there isn't really a high demand for water for a solar system like this. They will use it for maintenance and washing. And the estimate there, they've had perhaps up to 170,000 gallons a year. And again, you're looking at less than, sort of two residences' worth of water use.

 And putting it in the watershed context, it's kind of a trivial amount of water compared to the amount of water that gets discharged out of the aquifer on a daily basis into the Chocolay river system, which is really up to 47 million gallons a day of groundwater that's being discharged directly into the tributary. So you see these numbers indicate that the project itself is quite a small user of groundwater. There's 50 to 150 feet of unsaturated material that is beneath the ground surface to the water table on the project. Generally speaking that water table slopes from the West to the East. So it gets deeper underneath the proposed project site, as you go from the West to the East. So there's really no risk of project construction materials, piers, structural supports that would be installed for the panels would only be maybe up to 10 feet deep, probably less than that, really just to get them below frost heave to support the panels themselves. So there wouldn't be any direct construction drilling into the aquifer for the purpose of building this project either.

 And I guess the last point I would make is that in addition to the assessment that we've done in looking at the groundwater conditions out there, as Courtney mentioned, there's been a number of other environmental assessments done. And with respect to risks of contamination the phase one environmental site assessment did not indicate there was any known risks, any known contamination on the property in question for development. So also there does not appear to be any risk from an old use of the property that the Solar Project would exacerbate. So those are the conclusions in our report. And I guess I can wrap it up there to be ready for as they needed to be addressed. Thank you.

Speaker 1:

Yeah. Chairperson [Brower 00:00:37:36], at this point is the commission ready to go to public comment portion?

Chairperson Brower:

Yes we are.

Speaker 1:

Okay. And if you're joining us live for this interactive public hearing for the Sands Township Planning Commission via your telephone, and you would like a three minute time slot to speak, ask a question, make your comments, again, just press \*3 on your telephone keypad. That'll put you in line. You can speak with a member of our staff. They'll get some information from you. And then the next time you hear your name live, you will be live and able to take your three minute time slot or ask your question.

 Also, if you're joining this public hearing on the website and you have a comment, or just a question that you would like to input, simply type it in right below the streaming player. And we will read those aloud during this event this evening.

 Right now, though, let's go with Steve Waller. Steve has been holding. Hi, Steve. Thank you for joining us for this public hearing, sir. You're welcome to ask your question or have your comment.

Steve Waller:

Actually, I have a comment. My name is Steve Waller. I teach renewable energy classes at Northern Michigan university. And I'd like to comment on some of the issues that have been brought up regarding the solar array. Currently, there are two petitions out there. The pro solar petition emphasizes that there's more than one opinion on this subject. And these people realize that solar is not just the future. It's a better future. Many of the opponents say that they're in favor of solar, but not just here. I should say, they are in favor of solar, but just not here. They want low cost energy, but they want it from someone else's land and not their own. When solar is installed somewhere else, the solar benefits go somewhere else. And if proposed, alternative locations are suitable, they should get solar too.

 This project is on private land. The opposition is trying to tell a private land owner what they can and can't do with their own land. If the tables were reversed and someone told anti-solar landowners that they have to install solar panels on their private lands, they would be outraged. Much of this land is private commercial forest. Legally, motorized access is by permission only. No trails are required. But Savion is willingly making accommodations for trail riders. So trails don't seem to really be an issue.

 Commercial forest land owners get a huge tax break because they already agreed to harvest the trees. They only pay $1.35 per acre, per year in taxes. 1,500 acres of commercial forest only generates about $2,000 per year in taxes. Putting solar on those same 1,500 acres increases the revenue from that land from $2,000 to almost a million dollars a year. That new tax revenue is money that local residents do not have to work for and do not have to pay out of their pockets. The solar panels pay those taxes.

 Solar taxes benefit local schools, fire departments, ambulance, and services, et cetera. And without solar, those services struggle for revenue. There are decades of solar energy records. It would be foolish to invest $150 million without knowing what to expect. They know. Today, solar and wind make electricity for less costs than even the newest gas fired generating stations. Staying with old power generators will increase the cost for everybody. Solar panels only lose about one half of 1% of their strength per year. After 20 years, they still typically output 92% of their original value. Recycling won't even be needed for 30 or 40 years. There are already about 75 billion watts in solar installed in the United States. If there really were serious pollution or safety hazards, solar would be banned. Instead, solar is considered silent, safe, and reliable. When all is considered-

Chairperson Brower:

Steve, I just stop you. You're over the three minutes.

Steve Waller:

Okay. I was just going to say that I recommend that you support the solar panels. That's it. I'm done. Thank you.

Chairperson Brower:

Thank you.

Speaker 1:

Thank you Mr. Waller. And again, if you're joining us on the website, but you would like to have a time slot to actually speak. You can do that by dialing in to this event. Here's that phone number (877) 229-8493. Again, (877) 229-8493. Once you dial in, just type in this access code, write this down, 120356#. At that point, you'll be joining this public hearing live on your phone and you can simply press \*3 to get in line to have your comments heard. Again, there is a three minute time slot limit, as you just heard. Let's go to our next caller, John O'Brien. All right, john. Thank you for holding this evening. You are live and welcome to speak.

John O'Brien:

Hi, thank you. Yeah, I'm John O'Brien. I first came up here in 2008 to go to Northern, to study sustainability, but two and a half years in without any big steps being taken locally to tackle the climate crisis, the greatest challenge of our time, I lost hope. I thought the planet was doomed and I dropped out of college. I figured I'd focus on my own carbon footprint. I ended up building a log home on 20 acres in Scandia off the grid with solar power. And I started farming to feed a growing family, but eventually I came to the realization that I couldn't expect the rest of the world to be sustainable, just because I was.

 I am proud to say that I re-enrolled at Northern a year ago and I will be graduating in May with a Bachelor of Science in climate advocacy. That's an individually created program in which I was able to do numerous directed studies and internships. Now, part of my degree is helping out with this Superior Solar Project and the promotion of it. I've been spreading the word about this hearing and the petition, and I've been placing those yard signs and discussing the project with residents. I've been able to answer questions posed by concerned stakeholders on the project's Facebook page. And I've had a lot of support from regular people and businesses willing to display those signs.

 So folks are ready for a big step forward into sustainability. Our young people need to see that someone like Courtney Timmins can grow up here and succeed in the renewable energy sector. So let's send the message to the next generation that we understand the urgency of the climate crisis. Let's give them hope by showing them that we're ready to move forward and lead by example in Sands Township. Thank you.

Speaker 1:

Thank you, Mr. O'Brien. Again, if you have a question and you don't want to actually speak live, you can simply type it in. If you're viewing this public hearing live on the website, just type your question in right below the streaming player.

 Jess Thompson wrote in with a comment and Jess, obviously in support of the project, her comment, the Superior Solar Project is a win-win opportunity for our community. 10 years from now projects like this will be commonplace in her view, but today the UP can be a leader. We can grow a healthy green energy economy here. So let's build a beautiful UP solar farm. Thank you, Jess Thompson for that comment.

 Our next online question comes from Patty Clancy. Patty wants to know, what happens after the 30 years of the expected lifetime of the project? Courtney or somebody want to take that question?

Courtney Tim:

Sorry. This is Courtney Tim. I'm guessing you probably want to hold the public comment and then possibly do questions after the public hearing portion? Is that how you'd like to do it?

Chairperson Brower:

Yeah. If there's actual questions with this, if we could have you answer those at the end of all the public comments. So there's actual questions. I think that might be the easiest. If you can go through and answer those, that would probably be easiest because some of those... I'm looking at those questions right now. So I think the questions... If we can just wait until the end and you can answer each one individually, say what the question is, give your answer if that's okay?

Speaker 1:

Yeah, we can do that. No problem.

Chairperson Brower:

Okay.

Speaker 1:

All right. Let's go to Marge Forslin within the Sands Township. Hi Marge, thank you so much for holding. You're live and go right ahead.

Marge Forslin:

Hi, I'm a Sands Township resident and no one I know makes remodeling changes to their homes because they want the inconvenience or mess. They do them because they want to enjoy the benefits of the changes when they're done. As a Planning Commission, you are essentially in charge of community scale remodeling processes that affect all the residents in the township. You have to consider changes and anticipate their effects in order to achieve those ultimate benefits that they can provide. In this case, the changes being considered are on privately owned land. But your role is to look at the public impacts and purposes. You will need to be deciding if the proposed changes, the remodeling process, are worth it. Will the public benefits be sufficient for Sands Township residents, to be worth allowing them to happen? Will the changes harm any residents or resources that the township government needs to protect, now or in the future?

 I believe the Superior Solar Project is well-worth issuing the special use permit. The public benefits of this project are several and significant and any disruptions to residents, temporary and minor. Current recreation purposes granted under the CFA will continue uninterrupted. It is an environmentally benign development. It does not disturb any land or water functions in any permanent way. The Solar Project could be easily reverted to forest land if it ever became necessary. The project will produce a significant amount of much needed tax revenue for township schools and government. This would benefit our families with direct services and would relieve the tax burden on residential properties. The energy produced and sold would not produce any harmful pollution now or in the future. And the fuel source to keep it running is dependable as long as the planet earth circles the sun. There are no costs to the township, now we're going forward. And the Solar Project anticipates likely future requirements for clean, renewable energy in Marquette County. So I urge you to approve this community scale remodeling project and grant the special use permit for the Superior Solar Project.

Speaker 1:

Thank you ma'am for your comments this evening. Our next speaker on tonight's public hearing for the Sands Township live interactive public hearing is John Foslin, also in Sands Township. Hi John. Thank you for holding.

John Foslin:

Hi, thank you so much. We're talking tonight about disruption. Marge just used that word and I think it's entirely appropriate. Consider how different the world is today, from before we had desktop computing. When IBM was decided to make personal computers, they did a vast survey and decided that well, based on what we know, people doing spreadsheets and things like that, we estimate that there is a worldwide market of 2,500 desktop units. And so they decided to buy off-the-shelf components instead of making their own and deny themselves a lot of profits. But the point is, they were not able to predict what the downstream consequences were of putting computing power on desktops.

 Al Gore has a statement that I really like, the stone age didn't end because they ran out of stones. Something better came along. And when that something better comes along, it comes in with a whoosh and just carries everything in front of it. Consider cell phones. Cell phones were originally considered replacements for car phones. They were big and clunky. Took a lot of power. Used by a few traveling salesman in the military perhaps, but there are now over 5 billion in use around the world. Americans throw away 151 million of them every year. And they're allowing less developed countries to leapfrog over wired communication systems. Nobody expected that. And so we're facing another truly disruptive technology coming in with, in particular, renewable energy.

 We want to get to the point of using renewable energy to basically electrify everything. We are truly motivated to do that. The UP, we can help create the pool of electrons that will allow electrification of everything. This will help solve immediate local problems, but also attack global health and climate problems that affect everybody on the planet. I think I mentioned in the written time that I put in, that between six and nine million people die every year from pollution emitted by power plants. We can stop that. And by having a pool of electrons here, we can liberate a truly disruptive future of unmanageable consequences. We don't know what having power here will do, but it will do a lot just like having computers and having cell phones have done. We don't know what those outcomes are going to be, but they're going to be great. So for a cleaner, healthier, quieter, more just and equity in the world, yes please, approve this permit. Thank you.

Chairperson Brower:

Thanks John.

Speaker 1:

If you'd like to make comment live this evening for this public hearing, for the Sands Township Planning Commission, and you're joining us live on your telephone, simply press \*3, and that'll get you in line to speak. Or if you have a question you'd simply like to type in, if you're viewing this public hearing on the website, just type it in right below the streaming player. Right now we have Brian Kerrigan. Hi Brian, thank you for holding. You are live and your time is starting right now.

Brian Kerrigan:

Thank you all. I appreciate the opportunity. My name is Brian Kerrigan. I am the regional director for the Michigan Regional Council of Carpenters and Millwrights. We represent 750 people... members across the upper peninsula, hundreds within Marquette County and dozens inside of Sands Township. I participate in the Lake Superior community partnership on behalf of the Regional Labor Federation.

 And with that being said, I haven't heard one person in any of my conversations that is not in favor of this project. It would be an outstanding project, not only for Sands Township, but the community. And the public preference concerning energy in the economy has typically been characterized as extreme. And I think there's a lot of pragmatic people that understand the importance of what a viable, safe solar energy project like this will bring to the region as well as Sands Township and the immediate community. I think for various reasons, the Solar Project should be extremely positive.

 Solar power creates jobs and opportunities, economic growth and it truly is an economic engine. Our local and regional economy can be helped by solar power and it creates additional jobs for skilled workers and consequently keeps the economy moving, taxes down and people still have access to the areas in which the farm would be installed.

 The solar power is good for the environment. Most commonly known factors, obviously solar energy represents a clean green source of energy and solar power and could also utilize underutilized lands as in this situation. Solar power is a free source of energy, and I am confident of the project and the required permits have been thoroughly examined through a multi-disciplinary review and the permit application and process. The project permits have been comprehensively and objectively evaluated and should be approved. And once again, we are in support of this project and I encourage the commission to approve the permits and to move the project forward. Thank you.

Speaker 1:

Thank you, Mr. Kerrigan. Up next, we have Ricky Wilson. Excuse me. One second. There we go. Hi, Mr. Wilson, you are live for this public hearing. Go ahead, sir.

Ricky Wilson:

Okay. Thank you for the opportunity to speak. I'm questionable on... and very concerned about the location. And some of the things that I've heard from Savion's open meetings, the one being that they were going to use our herbicide pretty much like Roundup to spray. Now putting that much herbicide, that's got cancer causing agents in it, over the recharge area, the aquifer... I think the Planning Commission, if they're even considering this, should mix that right at the very beginning.

 I'm not against the solar farm. I think the location is poor. I disagree with Mr. Wheeler. I believe that the recharge area is going to be impacted. Trees are needed to sustain the water in the ground and with the snow removal operation that Savion has proposed, I think that he needs to go back and take a better look at what the impact to the aquifer is going to be. Moving the plan just South of the [inaudible 00:57:37] 553, you're getting to the other side of the rock cut, out of the Sands Plains aquifer. Mr. Wheeler has already addressed the tailings basin. The township has had issues with this for years. We have monitored the wells. CCI has moved water away from the recharge area...

PART 2 OF 5 ENDS [00:58:04]

Speaker 2:

Moved water away from the recharge area because of the selenium that was coming off the spill piles. I believe that this is a dangerous undertaking for the residents of Sands Township. I think that the planning commission, if they want to approve a project like this, the 1,500 acres should be chopped up piecemeal so that those that they wouldn't have to do snow removal out away from the recharge area. Because everything we move off the recharge area, like Mr. Wieland said, our water comes from precipitation. That's about as plain as a guy can get. You're going to lose to evaporation from the panels themselves. You're going to lose from the loss of the trees. I think it's estimated about 14 percent is which it would lose to evaporation. So I think by our own master plan, that just approving this project is going to go against pretty much page 78, 84 and 85 and 88 of our own master plan.

 The township has invested a lot of money to protect our aquifer and this organization that's coming in here is coming in saying it's only 2 percent of the land mass of Marquette County. It's a big hunk of Sands Township. It's a big bite on-

Shelley:

Mr. Wills, you have to stop. You're at three and a half minutes.

Speaker 2:

Okay, well thank you for your time.

Tim:

Thank you, Mr. Wills.

Speaker 2:

Thank you for your time.

Tim:

Up next this evening, again, if you're joining us live on your telephone for this public hearing, for the Sands Township planning commission, simply press star three on your telephone keypad. That'll get you in line to speak with a member of our staff and put you in queue to speak live during this meeting. Kathleen Hydaman from Marquette County. Hi Kathleen. You're up next for this public hearing. Go right ahead, Ma'am.

Kathleen Hydaman:

Hi. My name's Kathleen Hydaman. I'm a resident of Marquette County and I'm providing comment tonight on behalf of myself and Steve Garsky, a resident of Marenisco, Michigan. Before the special use permit is decided, I'm asking that the history and specifically the title of the lands under consideration be re-examined. All of the lands within the Superior Solar Project area are owned by Cleveland Cliff, but CCI did not always own them for much of the 1900s. These private lands were part of the Escanaba River State Forest. In 1974, CCI proposed an enormous land exchange with the state of Michigan, offering lands north of the city of Marquette in exchange for these lands and others adjacent to their iron mining and milling facilities. CCI planned to explore the land for additional mineral resources and use it for tailing storage. The public, in 1970s, voiced serious concerns about the proposed land exchange, the environmental impacts of Cleveland Cliffs, expanding industrial footprint and the potential loss of recreational access to their public forest lands.

 The state of Michigan listened to public concerns back then and developed safeguard provisions. In their binding land exchange agreement was a list of conditions agreed to by both parties. A hydrological study, setback zones, an archeological study, and a key agreement that these lands would remain open to the public. I'm quoting from that agreement. "It is agreed that the company it successors or assigns shall permit free recreational use of the land received from the state in this exchange, unless such land are required to support active mining operations." Superior Solar proposal is not a mining project. Ultimately, Cleveland Cliffs received 9,000 acres in the land exchange and the state of Michigan received 2,800 acres and the public was guaranteed free recreational use of the land CCI received. This public use reservation was valued at $216,000 in 1979. Adjusted for inflation, the 2020 value of recreational access to this land is now roughly a quarter of a million dollars. Setting aside its merit, the Superior Solar Project appears to be an incompatible use of a large portion of the land within the project boundary. Large scale solar projects like this one require fenced areas of secure, exclusive occupancy.

 We've seen the map prior in the evening. The developers generally do not share the lease property with other occupants or even the landowner. Exclusive occupancy is not possible here, given the original terms of the land exchange. The solar project interferes with the public guaranteed right of access. Of the 2,300 acres in the project boundary, many of these lands include the underlying guarantee of public access, including lands in section 19, 20, 21, 28 and 29. To summarize, approximately 1,080 acres of the proposed project area were acquired in the '79 land exchange, and they can't be used for the solar project. We highlighted these parcels on maps that we just provided to the public planning commission with our comments. The land exchange back then was hammered out with much public involvement.

Shelley:

[inaudible 01:03:49] You're at three and a half minutes.

Kathleen Hydaman:

Okay. Thank you very much. Recreational access is an important consideration, and it remains an enforceable deed restriction.

Shelley:

Stop.

Kathleen Hydaman:

Thanks so much. I appreciate your consideration.

Tim:

Thank you. Coming up next this evening, during this public hearing for the Sands Township planning commission, we have Ryan Stock. Hi Ryan, you're live and able to make your comment, sir.

Ryan Stock:

Thank you everyone. My name is Ryan Stock. I'm an assistant professor at Northern Michigan University's Department of Earth, Environmental and Geographical Sciences. Almost all of my research at NMU is on the social dimensions of solar development, mostly in India. I'm a homeowner of Marquette Township, but my three toddlers often play at the Sands Township playground. My family has greatly benefited from the infrastructure your town provides to our county, and I'm here to support yet another fantastic infrastructure project that will benefit thousands of families throughout the UPs for generations. I speak today in support of Savion LLC's proposal to construct the Superior Solar Project, which would bring a capital investment of a 100 to $150 million to Sands, a vibrant community hit hard by the COVID-induced recession. This 150 megawatt solar park will provide clean energy to 35 to 40,000 homes in Marquette County, generate property taxes of 15 to $20 million and likely increase property values of adjacent homeowners.

 The project will generate revenue on essentially dormant land from Cleveland Cliffs and create 200 plus local employment opportunities at the start of the project. And Courtney explained all of this, but at the beginning of the project, it will also create some jobs and it will not disrupt outdoor recreation trails nor the UP 200. In fact, the project exemplifies Sands Township's motto, Great Outdoor Fun Year Round, insofar as it mitigates the devastation of climate change on the beautiful environment that attracts people to Sands in the first place. So from my viewpoint, there is no downside to this project. Not when we're considering the economy, equity or ecology. And research has definitively shown that the climate crisis already poses a measurable threat to Marquette County's social, economic and ecological wellbeing. For example, Lake Superior has risen three feet since 2013 and coastal erosion has already become a big problem in Marquette as demonstrated by last year's devastation of Lakeshore Boulevard. Surface temperatures of Lake Superior are increasing, evaporation rates are increasing and ice cover is declining. Winters are increasingly milder and more variable.

 In the coming years, the Marquette region is projected to become warmer and wetter and storm events will become more frequent and severe. Natural gas and coal simply exacerbate the climate crisis, producing greenhouse gases that lock in devastation for generations. Right now we have a once in a lifetime opportunity to capitalize on the sun and a small temporal window to implement this project before causing irreversible damage to our planetary system. Let us not exacerbate the precarity and vulnerability of Marquette County residents. Harvesting photons through the Superior Solar Project will revitalize the UP's receding mining economy, positioning Sands Township as the vanguard of the UP's energy revolution. I strongly urge the planning commission to grant Savion, LLC the special use permit to develop the Superior Solar Project in Sands Township. Thank you very much.

Tim:

Thank you, Mr. Stock. Up next, we have, looks like Dalton Greg. Hi Dalton, Mr. Gray, you're live and able to...

Dalton Greg:

Hi.

Tim:

Go right ahead.

Dalton Greg:

Thank you. My name is Dalton Gray and I'm a student at Northern Michigan University, studying environmental science with a focus in renewable energy, and I'm also a resident of Marquette County. I was responsible for working with a group of advocates, many of which who spoke here tonight with the petition Bring Solar Energy to the UP. I decided to start this petition in response to hearing from countless people around campuses and in my class who wanted to voice their support for the project, but didn't really have a means to, with getting COVID and everything that's going on. And so I really wanted to give these supporters a way to make their voices heard and get involved. And with these times, digital petition is the safest option for everyone to share their support from the safety of their home. And in just a couple of weeks, approximately two weeks, I had well over 200 signatures from people who wanted to support this project.

 And that's kind of amazing given the fact that it was just two weeks and that's also not including some technical difficulties that we had where we lost almost 50 signatures. That would put us just over 300 signatures. That's 300 people who want to see sustainable energy in their community. This broad support was very encouraging and people voiced their support for the project for an array of reasons, inclusive of the environment, economic and community benefits. Like I said, we're just over 300 signatures, if you can count those ones that were deleted in the technical difficulties. And I'd like to finish up my statement here by saying the point of my petition. And with that, I want to say that the personal interest of a few should not be able to deny the private land owner and the residents to reap the benefits of this project. Now is the time to seize this great opportunity for the township and the county, and I want to thank you for your time and I really endorse this project. Thank you.

Tim:

Thank you, Dalton. We still have a few more speakers lined up this evening for this public hearing for the Sands Township planning commission and calling from Sands Township is Emily Wright. Hi Emily. Thank you so much for holding. You're up next. Go right ahead, Ma'am.

Emily Wright:

Hi. Thanks for taking my call. I live in Sands Township, a couple of miles from where this is supposed to take place. And I just want to comment that I'm not in favor of this, as somebody who lives right where it would be destroying the forest that we were exploring in, we like to go hunting in, 4-wheeling, blueberry picking. It seems like it's not that great of a trade-off to give up free recreational access to destroy the forest and do this deal. I'm sorry, I don't have a speech written or anything because I just found out about it. I guess my big objection is with the deceitful nature that this is being snuck in under most people's noses that live in Sands Township. I've got tons of friends and neighbors that live around the crossroads and all the way up to Gwinn. And the people I've talked to don't even know about this project and when I've told them about it, the majority are not in favor of it because it would destroy this recreational area and it would block it off use.

 And I know it's private property, but it's zoned as public. So, and it's being sold as some once in a lifetime opportunity. If it's [inaudible 01:11:20] land to put this, why don't we wait a few years and see if we get a better offer? If it's so lucrative, like you're saying. And I don't think the people that live here and pay taxes here are that, it seems like this was snuck in during election season when people, it was getting lost in the junk mail. People were avoiding [inaudible 00:01:11:44], so people not on social media aren't even aware that this was going on. I think it would be really deceitful to sneak it through because some professors and some scientists and a bunch of your credit for being on this call are in favor of it. But I can guarantee you, they're probably not invested taxpayers.

 They probably don't use this land. And, I don't know, somebody from the DLP told me that there's no power generated from those panels there from September through June. So why would we build them up here? And so when I thought about it, I thought it's probably because Sands Township has cheap property. Also, we're the only blue county in the UP, meaning people who are easily sold on green energy and things like that. You can tell by the stacked panel, from professors and scientists and [inaudible 01:12:38] like that, but I think the majority of the population here is not in favor and [inaudible 01:12:44] because they didn't know about it. They got one letter in the mail this summer that probably got lost with all the political mailers. Probably ended up in the burn pile and they aren't on social media so they didn't see the solar projects. And the people that I've told, it's the first they're hearing about it. So I think we should wait.

 I think we should hold off. And if it's such a lucrative area, why don't we go down to Delta County where there's more sun in the winter. I guess that's, I don't know, that's just one of the big questions I had. I don't know. I guess I'll log off if I'm not at my three minutes.

Tim:

You are. And thank you so much for your comments tonight, Ms. Wright. Now up next, I hope I don't destroy your last name, sir. I think it's Tom Relce from Marquette County. If I got that wrong, you can correct me, but you are live now, sir.

Tom Relce:

Thank you. It's Tom Relce and I am a resident of Marquette County. Although I am in the city of Marquette, we recently built a home here, and my familiarity with Sands Township is when I go cross country skiing and hiking in the Blueberry Ridge DNR area, right across the road from the project. Prior to moving to Marquette, we lived in Three Lakes, Wisconsin, which is about the same latitude as Marquette, just south a little bit. And we had a solar array, a photovoltaic solar array installed on our garage roof in 2009. It was eight panels. Each panel was 205 watts, and that provided us with enough electricity to power our 2,000 square foot home. It was 2015, we added another eight panels and we bought an electric car and that additional eight panels allowed us to put 12,000 miles a year on our electric car.

 And I offer this information just as an example of the merits of solar power at this northern latitude. When we installed in 2009, a lot of people thought it was crazy because we didn't live in Arizona or New Mexico and solar wasn't feasible in a northern region, and we found that it certainly was. We were grid tied, so we did get supplemental power in the winter. Although we were contributing every day of the year, all year round. And of course in the summer we had surplus electricity that we sold back to Wisconsin Electric Power. And that was, again, a benefit to us because we reaped the income from the sale of that electricity. So my main reason for calling in and commenting is that it is a viable energy source. It's clean, it's maintenance-free. We had those panels up there. They just sat there and they made electricity every day and we felt really good about it.

 We really had a good feeling that we weren't contributing to degradation of the environment, which has been going on through fossil fuels for way too long. And I encourage the development of this project. I think it will be a major step forward for humanity, for this project and others like it as they catch on and get developed. That's it for my comments. Thank you very much.

Tim:

Thank you, Mr. Relce. And thank you for keeping it right at three minutes, sir. Good job. Mary Myers is our next public speaker lined up to speak this evening. Then we'll go to some questions that are coming in online about the project. Hi Mrs. Meyers, or Ms. Meyers. You are live and able to start your three minutes, Ma'am

Mary Myers:

Hi, my name is Mary Myers. I'm the director of business development at the Lake Superior Community Partnership. The LSCP, also known as LSCP. The LSCP is a private-public partnership in Marquette County, whose mission is focused on the promotion and advancement of economic and community development. We're an accredited economic development organization through the International Economic Development Council and serve as Marquette County's leading resource for economic development. The LSCP is committed to facilitating job creation, retaining existing business, assisting with business growth and attracting new businesses to our region. We have a partnership of businesses 400 strong and are committed to this mission through the investment of time and resources. On behalf of the Lake Superior Community Partnership, I would like to express our support for renewable energy projects that meet or exceed the regulatory and permitting requirements, while working in concert with the local communities. Solar power in the Upper Peninsula will provide significant tax revenue and affordable, reliable, renewable energy for UP residents.

 Development projects like this allow our area to continue to expand and bring good families, sustaining jobs to our area. They also allow us to build our tax revenue so residents can enjoy our trails, park systems and our other amenities. I just want to thank you for allowing me to make these comments, and they were also provided in written form as well. Thank you so much.

Tim:

Thank you, Mary, for your comments this evening. Let's get to a few of our questions and we've got quite a few online questions coming in about this project. Courtney, the first question we had, actually, Patty Clancy had a couple of questions. First, what happens after the 30 years of expected lifetime of the project? And, secondly, do you plan on using pesticides on the vegetation as we heard about earlier?

Courtney:

Thanks for that question. Shelley, I just wanted to check in with you on exactly how you wanted to handle questions. Do you want to do that as part of the public hearing or close the public hearing and then go to questions? How do you want to handle those online questions?

Shelley:

Let's keep that going in the public hearing portion because once I close it, then it's going to be us talking amongst the board members.

Courtney:

Okay, great. So I'll go ahead and address that question. So, what happens after the 30 year expected lifetime? So there's a couple options, really. The first option is what's called re-powering the site. At the end of the useful life, you've got the great makings for another solar project, right? You've got the land in place, the people are used to the solar project being there and the benefits that it's creating. And there are power users out there that are used to that site being there as well. Also, space on the grid, most likely too. So often, we expect that another solar project will be developed after the first one. If not, the project will be decommissioned and the project equipment removed from the land and the land restored back to its previous condition.

Tim:

And, the second question that Patty Clancy had, Courtney, was, do you plan on using pesticides on the vegetation?

Courtney:

Yeah. So this is definitely a big question that we've been getting, resulting, herbicides and pesticides. I'm going to hand it over to Emma Teichmann, who is our senior manager of permitting and environmental resources to be able to address the questions around herbicides. Emma, can you address that question?

Emma Teichmann:

Yes, I can. Thanks, Courtney. So this is Emma Teichmann. I am a senior permitting and environmental for the Superior Project. And this is a, herbicide use is something that has come up frequently as we've completed our community outreach and had discussions with project stakeholders. And in coordination with the township, we have agreed that vegetation management will be done primarily through mechanical methods, such as mowing. Any herbicide use will be done using environmentally friendly herbicides, according to a formula recommended by the township or possibly via other organic herbicide options. Additionally, the township does have an ordinance in place that prohibits the use of herbicide within the transmission right away. And so that area will not be treated with herbicide of any kind.

Tim:

Our next question comes from Susan Shaver. Susan wants to know, will the panels tilt to match the changing angle of the sun throughout the day?

Courtney:

Yes. Good question. So, yes, the solar panels will be installed on a racking system that can track the sun throughout the day. The racking system has electric motors on it and what it does is exactly as I described. So they will point directly at the sun as it comes up over the horizon, and then they will continue to adjust themselves throughout the day to make sure that they are facing directly at the sun. This increases the efficiency of the solar panels and the energy output of the project.

Tim:

Our next question comes from Mike Wilson. Mike wants to know, during the construction phase for this project, will local union labor be used for this project?

Courtney:

Thanks for the question. So the EPC contractor for the project has not been selected yet. So we are still about two to three years away from construction. So there's a lot to do between now and then in selecting that contractor. Being that this is the state of Michigan, I would expect that there's a high degree of likelihood that union labor will be used. That hasn't been finalized yet.

Tim:

And up next, our question is from Lucas Kessler. Will the solar panels be manufactured in the United States or outside of the United States?

Courtney:

So the solar panels have not been selected yet. There's a lot of different types of solar panels. Module, models and manufacturers. Again, the project wouldn't start construction for another two to three years. So a selection hasn't been made. So we don't know exactly where the solar panels will be coming from or what manufacturer we intend on using. It's certainly possible they could be made in the U.S. or overseas.

Tim:

And our next couple of questions come from Jesse. Is there a fund to remove these panels after they prove worthless? And secondly, a comment and a question. Jesse wants to know, can't you go destroy your own backyards? Why do you have to disturb pristine wildlife habitats?

Courtney:

There is a decommissioning structure in place, and that structure starts with the township requirements. So there are conditions with the special use permit that the project has to be removed at the end of its useful life. In addition to that, oh, and also as part of the special use permit application that was submitted, that application included a decommissioning plan in it as well. So the permit already is envisioning that plan for how the project would be decommissioned and the land restored. In addition to that, the solar energy lease also has a requirement that the land be removed, excuse me, that the solar panels be removed at the end of their useful life and the land restored. And there is a financial security that is required for that work should the project owner disappear. A very unlikely scenario, but there is a separate financial security that is put in place. And that financial security has to be in place before construction can even start. So right from day one, funds will be in place to guarantee the removal and restoration of the land after the end of useful life.

Tim:

And, really the second part of her question was, isn't there another location that wouldn't be destroying wildlife habitat?

Courtney:

So we talked a little bit about the location and why this location makes a lot of sense versus some of the others in the area. So I think, it's hard to, anywhere you were to put a solar project or a wind farm or any kind of power plant you might have some level of impact to the wildlife. It's a consideration of what level of impact. So, this area from, we've done cultural surveys, we've done threatened endangered species surveys, critical issues analysis, and we're currently coordinating with the Michigan DNR. And so we definitely have a good understanding of what species are out in that area. And fortunately all of these studies have resulted in this area definitely being a good area from an environmental standpoint for a solar project.

Shelley:

Tim.

Tim:

Our next question, couple of questions-

Shelley:

Tim.

Tim:

Actually come from Gary Stephens.

Shelley:

Tim.

Tim:

I'm sorry. Go ahead.

PART 3 OF 5 ENDS [01:27:04]

Speaker 3:

Actually covered Gary Stevens. I'm sorry go ahead. Yes, ma'am.

Shelley Brauer:

Okay. I noticed that there's a question. Someone said that there are people that want to speak, but the information to get on isn't available. So could you give them the number and the code again?

Speaker 3:

Absolutely.

Shelley Brauer:

Thank you.

Speaker 3:

If you would like to dial in to speak live, dial (877) 229-8493. Again, that's (877) 229-8493. Now, once you dial into that number, it will ask you for an access code. So here's that number, 120356£. That's 120356£. Once you do that, you will be on the phone call portion of this interactive public hearing. And you can simply press star three on your telephone keypad, and that'll get you in line to speak with a member of our staff and then into, to go ahead and have your three minutes of time during this public hearing. And Chairperson Brauer, if you'd like, we do have another person who has called in and dialed in for public comment. Would you like to go back to them right now?

Shelley Brauer:

Yes please.

Speaker 3:

You bet Andrew Justin from Marquette County. Hi Andrew. Thank you for holding. You're live and your three minutes starts right now.

Andrew:

Hi, thanks. I just wanted to echo what some of the previous speakers have said about the Broad Community Support. I am a Marquette County resident. I've done a Renewable anergy advocate in the area for a couple of years now, and I've been part of a coordinated effort to spread the word about the project to residents and local businesses. And I've only ever heard glowing support for clean, renewable, cost-efficient energy, and the UPC signs of support have gone up on the highway. There are hundreds of signatures on the petitions that have gone around for the project and overall between the environmental and economic benefits, it looks like something that would be positive for the needs of the community. That's all I have.

Speaker 3:

Well, thank you, sir. That was way under three minutes. I appreciate you holding for us this evening for this public hearing. Again, if you would like to speak during this public hearing and you're joining us on the website, just jump on your phone, dial (877) 229-8493. Then enter the access code 120356£, then you can hit star three and that will get you in line. Right now, we don't have any other speakers ready to go yet. They may be calling in, but let's get to a couple more questions here, if we may. Does that sound good, Chairperson Brauer?

Shelley Brauer:

Yeah, that's fine [inaudible 00:02:53].

Speaker 3:

Courtney, Gary Stevens wants to know a couple of things. One, will the solar panels be fenced in? And will you be having security patrols in the panel area.

Courtney:

Yeah. So the solar panels and the rest of the project facility will be fenced in. The project is likely to have a security during construction. And we're still evaluating the security strategy for the project once it's in operations.

Speaker 3:

And Gary actually had another follow-up question. Will the electricity produced in Sands Township be sold locally or on the open market.

Courtney:

Yeah. This is a difficult question because the way the grid works is a power producer, the solar project will inject its power onto the grid. And then those electrons will flow through the grid to wherever the load centers are, say the city of Marquette for example. The selling of the power actually occurs on paper on the side. So take, for example, if we sold the power to a local utility, they would take credit for that power that they're taking on and then selling. So, it's kind of like a situation if we were exchanging water in a lake and I dumped three buckets of water in one side of the lake, and then somebody took three buckets of water outside and we made an agreement through to pay for that, or to compensate each other for that. It's not the exact same water, but it's the same size and quantity of the item being sold. So that's how the market works.

 So kind of a complicated answer choice seems like a simple question. But the electrons will flow onto the grid, they'll go to where they're needed and the power will most likely be sold to some regional utility, who will then in turn sell it to their customers.

Speaker 3:

Our next question comes from Emily Wright. What was the reason given as to why installing it along an existing highway would not work. There's already right of way cleared and miles of nothing to look at on the way to Glen.

Courtney:

[inaudible 00:05:27]. A location next to the highway isn't exactly an excluding factor for a potential site. The primary factors associated with why the site is such a great location primarily rests on the proximity to the transmission line that the project is interconnecting into. It's just an added benefit that the project is not located next to any major road to help preserve the natural beauty of the [inaudible 00:05:55]. So it's not exactly a restriction, it was really just a happy benefit.

Speaker 3:

Our next question this evening comes from Lucille Scotty. Your primary method of vegetation control is mowing, what will be your secondary method.

Courtney:

Emma I'm going to let... I'm going to point that question to you.

Emma:

Yes, so we will... This is Emma Teichmann again. And to address that question, mowing is generally done about once a year and then as needed, there would be other mechanical means such as weed eating or such.

Speaker 3:

And next comment actually comes from Fran Darling. Fran supports going forward with the Superior Solar Project for Sands Township and some of the reasons that research why is, yes, let's get out in front of our future energy needs and needs that have already been projected through ATCs. David Callio, it looks like his question. The project is rated as 150 megawatt solar installation. Is this the best location for solar within the MISO District? And do you have any idea what the actual power generation would be within a year's period?

Courtney:

So the MISO system covers several states in the Upper Midwest. So it's a very large region. And certainly within that region, there are separate sub-markets that are there. The Superior Solar Project is a green set for the UP within the MISO region. For a lot of the factors that, that we already talked about, there are certainly other areas in other states for other solar projects as well. Now one challenge here is that, if you had a solar project in, I don't know, Indiana for example or Wisconsin or Minnesota, the costs to be able to account for that power going to the UP would be really expensive because you're so far away from where the power is being injected. There is a cost associated with transferring that power that the grid takes advantage of.

 So I hope that helps kind of understand the... how MISO works, and it's a very large region with power coming in and out. And then the second part of that question, I think had to do with the power generation. So we've definitely had a great handle on what the power output of the project is going to be. The project collected 14 months of specialized mythological data from the solar monitoring station nearby the project area. And that data gets fed into models that are then used and a software system that outputs energy estimates based on the conditions that we've put into it. So, there's a lot of meteorology and a lot of science that goes into creating that energy estimate. And of course, those energy estimates feed right into the financials for the project. So it's very important that we have a high degree of certainty on what the estimated energy output is of the project.

Speaker 3:

Now, if you would like to speak live before this public hearing portion of the tonight's Sands Township Planning Commission Meeting has concluded, and you haven't dialed in yet, here's that number one more time. (877) 229-8493. Again, (877) 229-8493, if you would like to speak during the public hearing portion of this meeting. And once you dial into that number, just punch in this access code one 120356£. Once you've done that, all you have to do is hit star three and you will be enlightened to speak live during the public hearing portion of tonight's meeting. Our next question comes from Emily Wright. If the project is maintenance-free, how is it creating jobs for people in the Sands Township?

Courtney:

The project is not maintenance-free. And my apologies, if I said that at some point, or if that was communicated at some point. So there definitely will be maintenance of the project. We anticipate one to two new full-time jobs will be created in those positions will be related to psych management and maintenance. Some of the maintenance that'll occur on the site has to do with vegetation management and landscaping. The solar panels may or may not be cleaned periodically. There'll be regular routine preventative maintenance, solar panels, and the other electrical systems associated with the solar panels. There'll be maintenance on the motors that move the racking system, as well as the project's sub-station and other electrical facilities. There certainly will be maintenance that will be required for the project. And we anticipated in when the two jobs being created to be able to manage the site and perform that maintenance. Some of that maintenance may be subcontracted out as well as needed.

Speaker 3:

And our next question comes from Ann Steer. Does sands township have a plan in place in the event that the solar project does impact groundwater via contamination or water table reduction.

Courtney:

Shelley, how would you like to address that? I think the comment is addressed to the Planning Commission. I'll be happy to reiterate the information that Dan provided, if that helps. How would you like to address that.

Mr. Yelle:

[inaudible 01:39:24]

Shelley Brauer:

Okay. So Randy just stated on the information that we've got, as far as if we are going to approve this. If there ends up being contamination of the water, then that...

Mr. Yelle:

Any contamination...

Shelley Brauer:

...or any contamination...

Mr. Yelle:

...caused by the project....

Shelley Brauer:

...caused by the project, Savion is responsible...

Mr. Yelle:

Full cost of cleanup.

Shelley Brauer:

...for the total cost of cleanup. So that should [crosstalk 01:40:07] that question she did have. Yeah, that answers the contamination part.

Speaker 3:

And then she... the other portion of her question was, if the ground water should be contaminated, is there a municipal plan to create a township water system for the residents.

Mr. Yelle:

There is in the master plan [inaudible 01:40:31]

Shelley Brauer:

So in our master plan, there is information in there to go to a...

Mr. Yelle:

Commercial.

Shelley Brauer:

...commercial water plant.

Speaker 3:

Okay. Next, we do have another speaker who has dialed in and would like to speak. And Sarah Mittlefeldt, I believe it is... If I mispronounced your name, I apologize... Put your three minutes starts right now ma'am.

Sarah:

Great. Thank you. You did great. That was exactly correct.

Speaker 3:

Thank you.

Sarah:

Hello. My name is and Sarah Feldt and I live in Marquette County. And I just wanted to echo a lot of the comments that people have already said, but I studied the history of energy transitions. I'm looking at how in United States we've gone from one to coal, coal to oil and gas. And now we're sort of in this interesting transition into what we call the clean energy economy. And I had a colleague who had this great quote that I love to repeat "[inaudible 00:01:41:38] everyone looking for silver bullets in terms of our great next energy source." It's really going to be used buckshot. And solar is such an important part of that diversified energy portfolio that we're moving to. And I was really excited to hear about this practically here in my own county, and it's going to be able to make a substantial progress to the [inaudible 01:42:05] we're seeing [inaudible 01:42:06] from climate scientists [inaudible 01:42:09] So what we need to do in order to reduce our greenhouse gas emissions.

 So I'm a little excited from that perspective. But another important thing that I wanted to just point out is how important this process is and what a great job. I really want to commend all of the commissioners on the Sands Township Planning Commission, because I know how much time and energy this has taken and your volunteers, and you're doing this sort of because he wants to make your community a better place. So, but this process is important both for this project specifically, but also for any kind of energy development project. The local land use is critical to really trying to get it right in terms of the siting. And I really feel like these developers have done a good job of listening to the concerns that people have expressed about the project in terms of how it might affect special uses of the area, recreation and otherwise, and really changing their plans.

 I've been following this process and I've seen them adapt to what they've been hearing from the community. So I really want to commend them for that and commend you all for having these forums to have questions answered and people have their voices heard. I'm also a teacher and I teach at Northern Michigan university and I'm really excited to see the opportunities around solar development with our students. I was just looking at the US Bureau of Labor Statistics and the number one and number two job growth areas for the next 14 years are solar installers and wind technicians. So I just think this is so great on so many levels because it's going to help prepare [inaudible 01:43:51] kids, rural kids to get some skills. To help them support their families here in town and become active players in the clean energy economy. So again, thank you for having this forum. Thank you for your time. Thank you for listening. And I hope to see this project move forward. Thank you very much.

Speaker 3:

Thank you, ma'am. Oh, we still have a few more questions and comments that have come in on the online portion for this public hearing for the Sands Township Planning Commission. Ms. Clancy wanted to get some clarification Courtney on whether there's going to be use of herbicides versus pesticides. Again, still some kind of confirmation on what will be used at the site in that sense.

Andrew:

Sure. I'll hand that question over to Emma again.

Emma:

Yes. So we will... anything used on site in terms of herbicide or pesticide will be used in accordance with the recommendations included in the conditions proposed by the township? So there's currently a formula for an environmentally friendly herbicide that may be utilized. And we have also requested that an organic herbicide option be continuously used. And, however, as we previously stated, mechanical methods will be our primary method for vegetation management.

Speaker 3:

All right. Next, Lucas Kessler had a comment that, "If Sands Township will not implement a solar farm, then another area of the UP will reap the benefits of the energy, taxes and the jobs for renewable energy. This solar farm will protect the recreational area of the UP and the whole world." Thank you for that comment Lucas. Also, Emily Wright wants to know... and I think you've addressed this a little bit earlier, Courtney... As far as, how are the solar panels made. How are the materials mined. And she had heard that it's even dirtier than coal.

Emma:

So, good question. There's definitely a lot of information that you can find online about solar panel manufacturing. One thing to make clear is that the manufacturing of the panels will not occur in Sands Township. That manufacturing happens elsewhere, and then those solar panels are transported to the site to be installed. So, I want to make that clear, no manufacturing is going to occur in Sands Township, for solar panel. The materials being mined... So the majority of the materials in the solar panels are glass, aluminum and also PV silicon. So if you wanted to look up how those materials are mined... glass, aluminum, silicon, you can find more information about that. Silicon is used in a lot of different things, even in the making of glass, I believe. Anyway, I'll refer you to the experts in those fields and then... Oh, dirtier than coal.

 This is a common myth that we see on the internet. Folks who are interested in other power sources over renewables can provide this kind of information. Solar panels... There is... certainly during the manufacturing process... some waste that is created. That being said, once they are built, the solar panels don't produce any by-products or waste. And so for that initial upfront environmental cost, you'll have 30 years of clean, renewable energy, whereas with coal, you've got that upfront cost to the manufacturing plant. And then as you're burning coal to create electricity, you're outpouring all of the contaminants and then CO2 associated with coal. So yeah, a common thing that we see from the internet. Certainly, you take note of the sources of the information.

Speaker 3:

Our next question is regarding the existing vegetation at the site. Steve Waller commented that, "Since the existing vegetation is naturally very low, why not replant the existing vegetation and that way mowing might not even be necessary at the site."

Emma:

Courtney, this is Emma again...

Courtney:

Yeah.

Emma:

...and I can address that question. So that is something that we would consider. We try to incorporate native species, maybe native plant species into the vegetation plan. So that is something may be considered for ground cover, once construction is completed.

Speaker 3:

And our next question comes from Nancy Olsen. How will the solar farm be lit? And what are the safeguards to protect the night sky in the Sands Township. That's from Nancy Olsen.

Courtney:

Yeah, good question. So the solar project will follow the ordinances of Sands Township as it relates to lighting. Generally, there isn't a lot of lighting required for the solar project. At the substation and at the project O and M building, there may be some lights and generally those lights are cast downward. But, generally you don't see a lot of lighting and the project will follow the ordinances associated with that out of Sands Township.

Speaker 3:

That's the last of our current online questions. Now, if you do have a question you'd like to ask, you can simply type it in right below the streaming player and we will get to it. Right now. We have Todd Yell from Sands Township who would like to speak live. And Todd, you are live, and your three minutes starts right now.

Todd:

I just want to say, as a Sands resident, lifelong resident. I am opposed because I use that area almost every weekend of the year, whether it's on a snowmobile or a side by side or motorcycle, we're out there, and there're several of us out there. And I just think that it could be put in a different location. I know a lot of people from Marquette County want it, but they don't use the facility's areas like we use it. So they... It wouldn't bother them if it's there, but it bothers us. And that's all I got to say.

Speaker 3:

Thank you for calling in this evening. Appreciate you, sir. And right now, it looks like our last speaker that has dialed in to speak during this public hearing will be Jen Hell. Oh, I'm sorry, Jen Hill. Hi Jen. Thank you for dialing in.

Jen:

Hello, wow. You get to be the cleanup batter here. Yes, my name is Jen Hill. I am a resident of Marquette. I have been active on UP energy issues since 2015. When we were faced with a situation where we may have had to pay as much as millions of dollars to We Energies as the power plant was shutting down back then. And it was not at all clear how we were going to continue to have what our energy situation was going to look like. And as everyone knows, we do pay... parts of some folks faced some of the highest electric rates in the lower 48 states because of our antiquated energy system. That was pretty much entirely paid for by the mines and the mills back in the early 20th century. And we have been able to keep our system going, but it was deteriorating over time.

 And we now are at a time where it's time for us to be able to create a new system. But we do still have the legacy of the system that existed and building off of it. And so the question of where we put our new energy, depends in part on what the new technology allows us to do in combination with the historical legacy of the energy system that was in put in place in the early 20th century. And I applaud the local government for taking on this important work of understanding how we should make the trade-offs now for our energy system going forward. And want to say that it is very important that we have local control of our energy, because we are still in a situation where much of our power is coming from Wisconsin. And this would give us the ability to have our own power generation based on new technology that is cheaper in the long run than the older technology it's replacing. So, this conversation is very important and I thank you again for making it possible to consider all these different issues.

Speaker 3:

Thank you Jen, for your comments this evening. And it looks like that's the last of our public speakers that have dialed in to speak during this public hearing and no additional questions yet online. So let's send it back to Courtney. Courtney, do you have any closing comments you'd like to wrap things up with?

Courtney:

Yeah, thank you very much. We'd like to thank the Sands Township Planning Commission and the staff for their hard work and consideration on this opportunity. The staff has been really great to work with, especially during these really challenging times that we've got going on with COVID. I hope we presented a very straightforward decision for either consideration, for a small investment in private land, the township county and the people [inaudible 01:54:32] can realize tremendous benefits that this project can offer. We're also very grateful for the overwhelming community support that this project has received. We look forward to continuing to work with Sands Township and the community on this exciting township. Thank you very much for the opportunity.

Shelley Brauer:

No other comments or questions it looks like, correct?

Speaker 3:

Yes. Ma'am no other comments or speakers dialed in or written at this point.

Shelley Brauer:

Okay. I'm going to call it the public hearing. So no more questions via phone or online at this point. So then I'm going to turn it over and we'll have Randy, if Mr. Yelle, if he has anything to talk to us about before the commission starts to talk.

Mr. Yelle:

Well, the only... Thank you... only thing I would add is your package had four letters of non-support... five letters of non-support [inaudible 01:55:36] in a petition that was signed by 82 people, that also had 38 letters of support was a petition signed by 201 people. I delivered the package at [inaudible 01:55:48] Thursday. After that, I received another three letters of non-support and another 38 letters of support with a petition of support signed by 407 individuals. I have also re.

PART 4 OF 5 ENDS [01:56:04]

Speaker 4:

Individuals. I have also talked to two supervisors. Don't state from what was the name of that County, Moreland County, Mormon township and shirt, and township. And they both had worked with Savion and they both have similar projects going on and they have done an awful lot of research. They have had no issues with the product or with the solar panels. If there's any questions of me or the board, please ask dash now and I will respond. I'll send it back. You not a jerk.

Courtney:

Okay. Commissioners. No, we got questions. If there's any of the members of savvy on discussions, I have a couple of different questions and I don't know Kim who wants to answer this. There was a couple of different, I guess, conflicting information are, is the fencing around the solar panels, six feet high or seven feet high.

Speaker 4:

Am I going to pass that question to you? So, and because you're the most familiar with the ordinance,

Speaker 5:

Right? So to address that question is the way it's designed is a six foot fence with barbed wire. So it's technically seven feet total. That is what was included in the sup application.

Courtney:

Okay. Thank you. Another question that I had is I know that you rebuild the smell. Are you just removing their off the solar panels and it's just going on the ground or are you moving it to a different location?

Speaker 4:

Yeah, this is definitely a big question that we've gotten out here at this site. We certainly understand the amount of snow load that this site experiences. There's a few, there's a couple of ways for snow mitigation, some of which are just by the, very nature of the solar project. And those include the angle of the solar panels will help facilitate snow sliding off those snow solar panels. Also the solar panels will generate a small amount of heat as well with that will help us facilitate snow coming off of those panels. The panels that are expected to be used at the site are bi-facial. And so what that means is the front and the back of the solar panel is open to collect energy from the sun and that energy can be reflected up from snow onto the back of that panel to create electricity and also that small amount of feet to help the melting.

 Now, as far as snow removal goes, the strategy is still being determined as far as how that is going to work. It's very expensive to be able to re-locate snow out of that area. And so, we will look first to; one allow the snow to fall off of the panels where they are and then two there have been strategies employed in other projects that are in similar regions where the snow is blown underneath, from where it would slide off the panels through underneath the adjacent row. So as of right now, not planning to really relocate snow, but certainly the strategy for snow mitigation is constantly evolving. As we studied the site.

Courtney:

Thank you

Speaker 6:

Clarification about fencing, several residents, both of them are users of that property for recreational use. And they're concerned that the whole 2300 plus acres will be fenced off with only certain points of going through on the designated trails and Coney roads. Is that true or are you just fencing your own project arrays in facilities of themselves?

Speaker 4:

Yes. Great, good question. Thank you. We're getting a fair amount of confusion around this topic. So the only the solar facilities themselves will be sent, not a larger circle area that, that entire 23 acres only the facilities themselves. There was a map that we showed earlier and included in your special use permit application that shows that the project is broken up into five or six separate pieces. And those individual pieces are fenced off and include corridors in between them that are left open. So only the project facilities will be fenced. Everything else will be left open.

Speaker 6:

Thank you also for some, I may say, have come through for a site preparation and vegetation clearing for this up for this project. Again, are you clearing and grading the whole 2300 plus acres or only where the buildings and facilities are located?

Speaker 4:

Yes. So the, the clearing and grading is, you know, it's expensive, it's also disruptive to the earth. So we want to minimize the amount of that work that we need to do as much as possible. And so part of that comes down to site selection. So one of the reasons that this site works so well is the topography was conducive for a solar project without having to do a lot of grading. So w the project will only do grading where project facilities are, if it's necessary. There was a picture that I showed earlier in the presentation of a finished solar project. And you can kind of see some of the rows kind of moved up and down with the, with the, with the flow of the land. And so that, that's what we would intend to do here. So yeah, in short breeding will only be done where it's needed and we certainly want to deal with [inaudible 02:02:42]

Speaker 6:

Sure. Yes. Thank you. That makes sense to do with that. What size water? will be on site. Are you looking at just a residential site as well with residential output, or are you looking at a high capacity Wells for washing facilities or washing operations and such.

Speaker 4:

If there is a well needed on site, it would likely be just with the open and building and would be kind of a residential use type of size.

Speaker 6:

Yeah. And could you describe your water run-off retention system? Is that something that is going to just go to a collection base and then evaporate or soak in, or do you have intentions of using that water for different parts of the operational requirements of the project?

Speaker 4:

So water sort of the solar project is open there's rows, and there's about 25 estimated 25 feet of spacing in between rows. So participation that falls in between those roles will go directly into the ground participation that precipitation that falls under the solar panels will run off those solar panels and then go into the ground. As you guys all know standards township is extremely Sandy, right? So that water tends to go directly into the ground very quickly. The project though will require retention ponds, partly because of the storm water permit that the project will need to get. And so, there will be areas on site to help collect groundwater and keep it from moving. However, because of the ground conditions being. So Sandy, I anticipate that Water will go into the ground almost immediately.

Speaker 6:

Okay. Thank you for clarification on those different issues. Thanks. [crosstalk 02:05:06]

Speaker 7:

That'd be on requested condition for approval, I believe should be included in that, which basically that the issue three runs with the land, which it will applications and count two permits on this development of the project, which it does application. So submit the township final plan, which they will include perimeter fencing of six foot high with Constantine waiver on it. They're not trusting by extension of the three stands of barbwire and protection and comply with zoning ordinance section 401 . So those are, I have included those in my recommended conditions, including other than that comply with San Antonio board in December 23 was just an herbicide ordinance attachment 12 of Savion’s plan, which is the site preparation vegetation management plan, blah, blah, blah. And that's where I say that, except for the environmental friendly mixture of water than you're in soap or approved as don't you for food organic control mechanical means you'll be the only means use to control grass and weeds and stuff like that.

 And another one is for 80, she'll comply with the Santos predator, warden or road ordinance, this commissioning plan binder attachment 10, which is a very good plan at Richard. The whole thing for this community. If it's all said and done, they got to bring it back to its natural, right? In other words, all the fencing, everything was removed. And the final one suggested condition as the project owner is responsible for total cost of cleanup of any, and all contamination caused by this project. I would ask that he would strongly consider adding those to the conditions of the motion if you approve it.

Courtney:

Okay. Is Dan weed lot still on the pole?

Dan:

Yes, I am still here.

Courtney:

Okay. I have a question to ask you. I know you've done a lot of work on the aquifer information, and I know a lot of your information. You'll when we looked at the packet, talks about how for several years, our aquifer table was going down and now it's starting to come back up. I guess my question becomes, what kind of impact are we going to have as this gets into a drought again?

Dan:

Well, I mean, certainly you go into a drought period and you know, the water table will likely go down as it was through most of the 1998, you know, 2013, this, this project wouldn't change that, you know, the, the, the climate conditions are going to still control the nature of the water table. So drought periods is going to go down wet periods like we're in now, it's going to still go up this project as designed it won't materially affect that. And it won't change really the recharge that's going on naturally out there.

Courtney:

And then another question, Dan, and I don't know if you can tell me how, and I don't know if this has to go to Randy, how often is Dan's township checking that well out there that it's going to be in the middle of this project?

Dan:

Yeah, I guess that would be probably a question for sands. I know right now those are, those are measured twice a year.

Courtney:

Okay. All right. Thank you. You answered any discussion, right? I wouldn't say ask them. I really would. [crosstalk 02:09:34]

Speaker 8:

During, during the phasing of construction views intended to have the entire group of rays come online at once, or will it be in phases?

Speaker 9:

I can answer that if you want.

Speaker 4:

And also introduce yourself real quick.

Speaker 9:

Yeah, stand showing I'm senior director engineering at Savion. And so to answer your question about how we would bring a raise on, and that we would, the commissioning processes, we do, what's called one inverter at a time, and each inverter is called a block. And typically we'd have about three megawatts in a block and they would transfer those on one at a time to come onto the grid. Once we have a power to the project substation, not sure if that answers your question or not.

Speaker 4:

Just to add a little bit to that, the testing On the project, we would expect that the entire project as built will go online. I.e., Achieve its commercial operations date when it is injecting power into the grid for that to happen all at once. It's certainly possible that there could be a future phase of the project, but, but that would require a separate permit, separate interconnection and everything else. So in general, the project would be all built at once and tested separately, then go all online at the same time.

Courtney:

Got one more question, hang on. We're going to move the phones

Speaker 8:

All through all this. There's been the comments and the information given out that the expected life of life of this project is 30 years. That because that is the timeframe that cliffs has leased the property to you, or is that when the project would need to be either have all new panels replaced and then move on from there for another 30 years, what would be the true life expectancy, I guess is what I'm asking.

Speaker 9:

Do you want me to answer that one too? Courtney again, this is Stan again. Sure. Yeah. Go ahead, Courtney. Well, you can add on, but basically the, the life expectancy of a solar facility is determined by the corrosion rate on the steel that hold up the panels. It's likely the panel technology it's changing so fast that they, you know, would probably upgrade that sometime in the life of the project. Same as you know, with the electrical equipment. A lot of that gets upgraded. So when we look at life of a solar facility, it's usually, you know, what we think is going to have the, you know, the safety margins we need for the steel to hold up the racking and 30 years, it could be 40 years on some designs, but this one is 30.

Speaker 8:

Thank you.

Courtney:

All right. Nobody can hear me. Okay. So questions, concerns I've seen from various people or heard is that with this coming up here and there's going to be energy, that's not going to be the fly to local people. And I guess if you can kind of reiterate, you know, I think that some of the concerns from people that I've heard of or read that, you know, this isn't going to benefit anybody up here. So can you kind of go over a little bit of that and, and tell us, you know, all that determined where this is going?

Speaker 4:

Sure. Yeah. This is definitely kind of a complicated concept. So the power from the project will be injected into that three 45 transmission line that runs through the project area, the power bill, actual electrons coming from the project will go where the load is essentially where the need is for energy, right? And so that transmission line connects to other transmission lines and it goes up to Marquette and it goes down to Wisconsin. So the energy just goes out onto the network and obviously sands township is part of that network, right. That three 45 is kind of a super highway. And so there are some step downs for the energy to be able to get to, to sands township.

 So there is, somewhat of a barrier there, but in general, the project or the energy is going to go to where the energy is needed and be used, it goes where it's needed the most first, right. Which is the general local region. It's not going, way down to Minnesota or something like that, right. It's used where it's needed. Now, the way that the power is sold is, is done a little bit differently. It's on paper. And so the local utility purchases, the power and then sells that power to its retail customers like sands residents. The, all of that transaction is sort of done on, on paper and it's done separately. I think the key thing for folks to understand is that, in addition to creating clean, renewable energy versus other forms of energy, which can release, waste and byproduct, the project will also create, tens of millions of dollars in new property taxes.

 And those taxes will help fund the township and the County set up the systems that all of the residents relying on in addition to that, the project will be funding those budgets for the County and township. And so if you're a taxpayer and sounds, fans township, that's tens of millions of dollars in property taxes that they don't have to pay into that budget. So you have this entity, new entity, that's creating all of this new property tax that can be used to help fund existing services or improve the services. And the like, and that doesn't allow the project is also working

 On committing to a scholarship as well for every year that the project is, in operation and potentially beyond if we do an endowment. So that's another local benefit and that scholarship will be available to, to Gwen students. So the power is a little convoluted, but there were certainly a lot of other benefits, especially for folks in the township and the County.

Travis:

Hey, Courtney, it's Travis, can I just add a little bit on with the power pricing? [crosstalk 02:17:24]

Speaker 4:

Yes, please. Yeah. Introduce yourself.

Travis:

Yeah. So this is Travis I'm. I'm vice president of development at Savion. And we do get this question a lot. And if you think of us as a wholesale provider, if you think about, if Walmart buys their power cheaper, when they are buys their products cheaper, when they re-sell those products, whoever's buying them is getting them cheaper, right? Because they're lowering the price. So we will have to get power contracts. And that could be with an Appco. It could be with the market of lightened power. We don't know yet. So those contracts would still have to be put in place.

 They will sign those contracts. You know, obviously they're going to get them at the cheapest price that we can provide them at. And the Michigan public service commission will only approve those. If they think they're a value, right? So they won't let them sign an out of market power purchase. So when they purchase that power, it should help towards rates. We can't say how much, because we have no idea. We don't know what that buyer's source looks like. But right now the UP is mostly importing a lot of power from Wisconsin up through the main transmission backbone. And that at times is very expensive. And I think somebody on the phone earlier alluded to paying some of the highest prices in the lower 48. And that is absolutely true, and this should help with that. So that will help all rate payers in the UK

Speaker 10:

Reviewing.. The township zoning ordinance and master plan and receiving staff input, receiving savvy and representation and public input. We thereby grant sup 20, 20 dash Oh six with the following conditions of approval. No, but I still have to read them building. No, I don't have to. seven requesting conditions of approval, which is attachment one, a comply with Stan's townships ordinance number 23, attachment 12 savvy, excuse me, of savvy and binder.

 This section is not approved regarding the proposal use of herbicides as control for weeds, except for the environmental friendly mixture of water vinegar and dish soap. One cup of salt weeds will be controlled by mechanical means, or we have to add organic material or organic materials egress off of County road. Four 80 was compliant with Sam's township private road ordinance, along with County approval, the decommissioning plan binder attachment 101 C is accepted and adopted project owner is responsible for the total cost of cleanup of any and all contamination caused by this project. All in favor. [crosstalk 02:21:32] .

 I need a roll call, so, okay, well I'll start this session with Sue Sundale Pearson. Yeah, I know Dustin yell, Boucher, Shelley Browers. Yes, it is. Yeah. [crosstalk 00:02:22:08] All right. We are ready to sign off everyone. That's online. We will. Yeah. I'll have you go ahead and make an announcement that we are done.

Speaker 11:

Yes ma'am. And thank you and enjoy your holidays and as we are coming to end of our bed today. What is everybody for taking the time to join us? Because important live public hearing with the sands township planning commission and with that be safe and good night.

PART 5 OF 5 ENDS [02:23:06]