Land Use Board
March 17, 2026
Meeting Minutes

The Union County Land Use Board met in regular session on March 17, 2026, at 6:00 p.m. in the Union County Government Center, 1st Floor Board Room, 500 N. Main Street.

Present: Vice Chair Rick Davis, Derrick Austin, Doug McClew, Drew Medlin, Mark Tilley, Charles Walkup, Jr and alternates David Brooks and Rick Marshfield.

Also Present: Planning Director Lee Jenson, Senior Planner John Wear, Board Attorney Kelly Cope, and Land Use Board Clerk Amy Griffin.

Call to Order: Vice Chair Rick Davis called the meeting to order.

(a) **Pledge of Allegiance and Moment of Reflection**: The Pledge of Allegiance was recited, and Mark Tilley gave the prayer.

Establish Voting Members: Vice Chair Rick Davis noted there was a quorum and David Brooks would be voting today.

Additions and/or Deletions to the Agenda: Doug McClew made a motion to approve the agenda and Charles Walkup Jr seconded it. Vote: Unanimously approved, 7-0.

Approval of the Minutes: Mark Tilley made a motion grabbing and Doug McClew seconded to approve the February 24, 2026 meeting minutes. Vote: Unanimously approved, 7-0.

Public Hearing:

Variance Petition 2026-SUP-01
Staff Contact: John Wear, Senior Planner

Summary of Request

The Applicant, RavenVolt in coordination with North Carolina Electric Membership Corporation (NCEMC) and Union Power, is requesting a Special Use Permit to construct and operate a Major Utility facility consisting of an unmanned electric substation and associated battery energy storage components on property zoned RA-40.

2026-SUP-1

John Wear gave his staff presentation and presented his slideshow. He then asked for questions.

Vice Chair Rick Davis: So this property we're speaking of was originally a substation for Union Power. It's been decommissioned now.

Jim Wear: Correct.

Vice Chair Rick Davis: So then these guys are going to utilize this same property for the battery storage facilities.

Jim Wear: Correct.

Vice Chair Rick Davis: And we'll get him to get them to explain more about the purpose of this as we go along.

Jim Wear: Yes.

Vice Chair Rick Davis: That's all. Anyone have any questions? Thank you, sir.

Jim Wear: Thank you.

Vice Chair Rick Davis: Okay. May we call the applicant up. State your name, please.

Nicholas Cooley: Nicholas Cooley. Good evening everyone. I'm here on behalf of RavenVolt and North Carolina Electric Membership Core Operatives. I have Tim Gubitz here with me to assist in answering any questions. He is from NCEMC. We appreciate the opportunity to present this request. This evening we will present competent material and substantial evidence including sworn testimony from qualified experts demonstrating that the proposed use meets the Union County ordinances.

Vice Chair Rick Davis: Mr. Cooley - I'm kind of at a loss as what we're doing, could you explain what the facility is going to consist of before you get further into this so everyone's got a good idea of what we're talking about?

Nicholas Cooley had Timothy Gubitz come to the podium.

Timothy Gubitz: Good evening. My name is Timothy Gubitz. I'm the director of energy services and technology at NCEMC and we are the wholesale power provider for Union Power. The relationship between the two companies is that we're both nonprofit electric utilities that serve the community that we're located in. This battery is being installed to help offset the cost of electricity for the cooperative and it's part of our larger wholesale portfolio. Essentially, we're buying Power Cheap and then selling it whenever it's most expensive to offset that cost. It's really six different batteries. We're putting them together in two pairs or three pairs rather. Each of them consists of Tesla mega packs and that is the most advanced technology that Tesla provided for this type of use and these are considered their most stable chemistry which is a lithium iron phosphate. So that's the most advanced and most stable safest technology that they have.

Vice Chair Rick Davis: One question. The size of these batteries - to give us a better concept of what's going - on comparing to a lithium car battery. What's the size of this unit compared?

Timothy Gubitz: Right. I don't see the measurements on it, but the way I like to compare

Nicholas Cooley: 30 foot

Timothy Gubitz: 30 foot. Yeah. Okay. 30 feet long. And then 8 ft wide. And so

Vice Chair Rick Davis: How tall are they?

Nicholas Cooley: They're just over 8 foot tall.

Vice Chair Rick Davis: So they're going to be six of these.

Timothy Gubitz: Yes, sir.

Nicholas Cooley: Correct.

Timothy Gubitz: And they're and you can see them lined up on the drawing there. And the way I like to think about it is every Tesla is 200 kilowatt hours for a very like long duration Tesla or and then this will each of them will be roughly 2,000 and so that that's breaking down to like 10 Tesla lined up. So the way that they're designed is - with redundancy built in, with safety systems built in, with fuses to take equipment out of service if there are issues. The whole goal of this is to again improve the resiliency and reliability of the power that's being provided to the local community. As NCEMC we have 17 different battery sites across the state and so this isn't a new technology for us. and those are substation batteries. And usually we do collocate these with substations, but Union Power provided this opportunity to develop this lot or this property because it was previously used for an electrical substation. So, it's consistent with the previous uses. And we monitor these 24 hours a day. and their fleet this morning was used to help improve the power cost for our members and they'll be used tomorrow as well. And so, this is an active ongoing part of our business to help our communities that we're serving.

Vice Chair Rick Davis: So, what you're actually doing is storing power at night when it's cheaper and then actually sending it back out during the day when the price is up.

Timothy Gubitz: That's correct.

Vice Chair Rick Davis: That's good. Do you all understand what he said.

Timothy Gubitz: That was a lot to answer that one question.

Doug McClew: You said there's 17 of these

Timothy Gubitz: Across the state. Not in your jurisdiction. Apologies. So, we have some in Brunswick County all the way down in the southeast, all the way up to Halifax County on the on the Virginia border and then we have one in Surry County. And so, these are all to help across the state.

Doug McClew: I do radio control so I'm familiar with lithium phosphate, but you said lithium

Timothy Gubitz: Lithium iron. Yes sir.

Doug McClew: Phosphate. Yes sir. They still make big fires.

Vice Chair Rick Davis: Okay. Let's hold let's hold the let's hold the rest of the questions because I just wanted him to give us a kind of an idea of what was going on.

Timothy Gubitz: Okay. Thank you.

Vice Chair Rick Davis: Mr. Cooley So, I didn't mean to interrupt. I apologize. We just need to know what we're here in front of.

Nicholas Cooley: Understood. Understood. As I was saying, we're here to present, substantial evidence, from our qualified experts and demonstrating that the proposed use meets the Union County ordinances. As they have already addressed some of the findings of fact prior to my introduction. You will find that in our evidence the proposed use complies with all regulations and standards in the Union County zoning district, will not materially endanger the public health and safety, will not substantially injure the value of adjoining or abutting properties, will be in harmony with the area in which it is located, and will be in general conformity of the comprehensive plan of Union County. As far as the zoning and ordinance, as you can see in this site plan, we included the setbacks that is part of the Union County ordinances. We incorporated the S2 screening. We'll also install a new fence. There is an existing fence around the property but we'll install a new fence with additional screening in that fence as well. It'll be 7 foot tall, with an additional 8 foot of or 1 ft of bar wire making it a total of 8 ft tall. Public health and safety - we designed this to meet the NFPA 855 standards in requirements. We would like to introduce the hazard mitigation analysis and emergency response plan into evidence at this time. I'd like to present testimony from our fire protection engineer Andrew Blum, a qualified expert who has prepared the hazard mitigation analysis as well as the emergency response plan. Their testimony will address the public health and safety and demonstrate how the system has been designed to meet the applicable safety standards and mitigate risk.

Vice Chair Rick Davis: And what's his name again?

Nicholas Cooley: Andrew Blum.

Andrew Blum: Hey everybody. Andy Blum. I work for a company called Fire and Risk Alliance. I'm a principal fire protection engineer there. I have a little bit of background about me before we talk about some of the fire safety aspects. I've been working with lithium-ion batteries for a better part of the last like 15 years or so. I sit on a NFPA standard of national fire protection association 855. Nick just mentioned it. It's the National Fire Protection Association standard for stationary energy storage systems. So exactly what we're talking about tonight. So, I helped write that code back in 2016. We just put out the third edition of that standard, last fall. and it's kind of the industry standard around the country to be used for the installation of battery systems like this. So, appreciate the opportunity to be here tonight. RavenVolt asked us Fire Risk Alliance to work with them on this site, take a look at them at the way what they were proposing, analyze the site design, look at it for code compliance and then also look at it to help develop two additional documents. One being a hazard mitigation analysis and the other one being an emergency response plan. So first let's kind of talk about code compliance and what this hazard mitigation analysis is. So, the North Carolina fire code has requirements for battery systems just like buildings and warehouses and homes and anything else, right? One of their requirements is how you lay out the site. the spacing of the equipment, signage, fences, all that stuff that that he was just talking about, access in, access out. That's one part of the hazard mitigation analysis that we do is we do a prescriptive black and white code analysis, right? Because if you're not meeting minimum code, then you know who cares about everything else that we're talking about? You're not even doing the bare minimum. We analyze the site to make sure it meets all the code requirements from a fire code perspective. The second part of the HMA, the hazard mitigation analysis, is truly doing a risk assessment of that. The fire code in North Carolina lists out very specific things that you need to do. So, they give us a nice playbook and that permits an engineer like myself to follow a good guide and it also permits the regulatory body - the fire marshal that's reviewing this report – they know exactly

what they're looking at and what it needs to demonstrate. In this instance for the battery system, we need to be able to demonstrate five things for this site in order for the fire marshal to give this approval. Right? So, the first one is that you need to demonstrate this fire will remain contained to an area. We don't want a fire starting here and spreading throughout the whole site. You don't want it spreading to vegetation and etc. First approval criteria is you got to demonstrate you're going to keep it contained. Second approval criteria is you got to demonstrate the fire will be detected. And if anybody's in the area you can evacuate before it's a dangerous situation. Just like this building has fire detection and alarm notification, right? We want to be able to detect the smoke and get people to evacuate the building. Same thing here. The third part that we need to demonstrate is that toxic gases will not be a hazard for anybody that's in the general area. It kind of goes side by side with number two. You know we need to make sure that we can detect this. We can get people out. We don't want anybody to get hurt.

Vice Chair Rick Davis: Now which people are you talking about?

Andrew Blum: I'm sorry.

Vice Chair Rick Davis: There's not going to be anybody on the property. Is that correct?

Andrew Blum: Exactly right. So, one of the great features of an outdoor battery system like this that's unmanned is that essentially people aren't here aren't there all the time. They're not inside any of these cabinets. They can't enter them. like they were saying, these are essentially 30-foot steel boxes that are filled with batteries. So, essentially what we need to be able to demonstrate for this site is if there is a site personnel guy there, you know, standing 20 feet away, is he going to be able to exit and get out?

Vice Chair Rick Davis: What about the local residents to the how is there like a pattern or a measuring distance? Do you have alarms? So, any type of alarm to alert the residents?

Andrew Blum: Yeah, absolutely. So, for part of what we do within our HMA is we look around at the broader area too, right? So, we're worried about the site, but we're also worried about the broader area. So, in this case, like the nearest residence is about 300 feet away. and for them, that's a distance, that that generally would not be impacted, right? Because if we're keeping the fire contained to that area and then we're analyzing and the toxic gases and making sure nobody on site would be exposed to them, then somebody 300 ft away would also not be exposed to dangerous conditions.

Mark Tilley: I have a question. The worst-case scenario of evacuation radius, what is it on this site?

Andrew Blum: Yeah, now it's a great question. So, this is a question that's getting kind of getting asked everywhere across the country, right? As these sites, they've talked about 17 sites in North Carolina, but these are going up everywhere in every state. So, a number of fire department organizations got together like the International Association of Fire Chiefs, the International Volunteer Firefighters Association, the NFPA, and a few others. And they put out a white paper on this about two years ago. Their guidance is to make sure that you initially evacuate about 150 feet around the site to make sure that people aren't know getting exposed to anything. That is the current industry guidance is to have that evacuation

Mark Tilley: So you're saying the worst-case scenario fire that would happen here. There's no house close enough that would be evacuated.

Andrew Blum: That's correct. Following that guideline, correct?

Mark Tilley: Okay. Realistically and not following the guideline, what are we talking about?

Andrew Blum: Yeah. No. So, our recommendation, Fire Risk Alliance, we've got a team of retired fire chiefs and firefighters that go around, they write emergency response plans that I'll talk about next. They give training to fire departments. So, we give that guidance, that same guidance. And what we then recommend, right? And as part of our emergency response plan is that just like any other fire event, you would take data to then drive additional decisions from there, right? Because we could talk about worst case, we could talk about best case, we could talk about a hundred different scenarios. It's really difficult to talk about every specific fire scenario. We try to give good guidance that will really address most situations but with every fire there needs to be you know some fluidity to it right. At that point what we recommend is gas monitoring. You would check around the site, see if there is any gases that are getting picked up that that are of a concern to the fire service and then they can then make a decision to either widen or in many cases what happens is they end up reducing the evacuation down even more.

Mark Tilley: But do y'all go around to the area fire departments that would respond to this and go over their regulations with them to where they wouldn't be coming up there, there's a little fire and out of the abundance of caution, they wake everybody up at midnight within a mile and evacuate them.

Andrew Blum: Right. Understood. Yeah. No, we've far with our participation, we've put together the emergency response plan. The next plan, if approved right is to then go around and give this training and do this coordination with the fire service that they don't show up uninformed you know okay you know go out of an abundance of caution start evacuating people miles and miles away

Vice Chair Rick Davis: What is the procedure for extinguishing the fire once it starts. I've heard and my reason is I've heard that you can't put the fires out

Andrew Blum: Yeah, you are absolutely right one of the hardest parts of these fires with lithium-ion batteries is the suppression aspect of it. Essentially what happens when they go into thermal runaway, they will off gas flammable gases and because of the way that these systems are designed. Alright, if you think about it, I've got a steel box and then with inside of it, I've got more steel boxes with batteries inside of it. if those are on fire, if I'm standing outside 20 feet away with a hose, I'm basically just shooting water on a steel box. I'm not actually getting it to the seat of the fire, right? I'm not getting to any of the actual flames. So, with that in mind, it's the approach that the fire protection community has gone, both North Carolina fire code and FP855 is we have kind of moved away from an active suppression tactics like instead of having sprinklers like we do here, we use more passive protection systems. So, in a building, what would that mean? That means putting up like firewalls, fire rated construction to keep things contained. We're passively doing it. What we've done with a system like this, the Tesla mega pack, is we've written it right into code. You need to demonstrate that your fire will not propagate from container to container. Like on the screen right now, they've got six containers up, you know, two and two. They needed to and they have performed full tests where they've burned an entire mega cabinet like that to show that with it on fire it won't propagate to the next one and it won't jump around an aisle to the next two and etc. That's the approach that that that many of the battery manufacturers in the fire protection community have gone to is to not put active suppression in there not and then and then similarly not put it the burden on the fire service to have to show up and try to fight this fire either. They can allow it to consume itself. It again steel box it'll burn up kind of like a dumpster and then when you're done, you're ended up with a burnt-out box.

Vice Chair Rick Davis: Are there any hazardous materials in this box after it's burnt?

Andrew Blum: Yeah, great question. So, five years ago, many of these systems were using lithium-ion battery chemistry. So, a lithium-ion battery, just, you know, there's many different ways you can kind of put it together. and so, lithium ion's kind of like the top of the family. And then there's lots of little sub chemistries. You can think of it like it's a chocolate cake, but there everybody's kind of got their own little recipe on how they can put it together. So, a lot of the EVs that you'll see will use a chemistry called NMC. So, it'll have nickel, manganese, and cobalt in it or maybe NCA nickel, cobalt, and aluminum. And those are really heavy metals, rare earth metals, fairly toxic, difficult to get. Where the industry has shifted over the last number of years is to this lithium iron phosphate chemistry. Its predominantly iron based. iron's one of the most prevalent metals in the earth. It's also much more stable than some of those more reactive metals. And from a toxin standpoint they have really removed a lot of those heavy metals out of the battery itself. You still have copper in there, you still have aluminum, there's still iron, and still a steel box. But those are things that we have in our homes, we have them in our cars, we have them in this building, right? Copper, all those things. So, nothing in there that is abnormally out of character or unique that presents a significant toxicity hazard.

Vice Chair Rick Davis: So, if there was a fire in one of these batteries and it burns itself out, there's no danger of contaminating any of the soil around where this is placed.

Andrew Blum: Yeah, it's a good question. So, what we have found with similar events, because obviously there have been some fire events with outdoor battery containers like this. There have been a number of fires over the last 5 years, and you know talking, you know, less than less than 10. But several of them have resulted in people collecting water and soil samples and they've all come back you know and they get sent off to independent labs, EPA, etc. and they've come back at non-toxic levels. I can say, "Hey, look, there's nothing in that box that's toxic" and hopefully you believe me. But we also have the actual real world fire events, too, and the data reports. And I'm happy to share the links to all these because they're publicly available stuff as well if it would be helpful to where they have not picked up any of these toxins. Yes, sir.

Doug McClew: I'm familiar with LIFE and Li-po. I prefer Life for a lot of reasons but what's the telemetry and what as soon as something happens? Where does it go and who raises their hand?

Andrew Blum: Yeah. great question. one of the one of the requirements for these systems is they have to be managed, right? And there's a battery management system in general for the for the you know when to charge, when to discharge. It's keeping an eye on the state of health, the state of charge of everything, making sure the battery is basically operating within correct norms. and then if it's not, they'll shut it down. and then this is all managed at a site level as well by an energy management system, you know, a scatter system that gets picked up by these folks, right? Because they're keeping an eye on it 24/7. and then with Tesla as well. Tesla has their eyes on every battery system they have globally. They have one of the requirements they have is if you want to buy our cabinets, we have to have our eyeballs on it too. They have a remote operations center 24-7 that also gets these all these signals, the telemetry and everything related to the question.

Doug McClew: So, if the red light flashes, someone sees it

Andrew Blum: Correct. Yeah.

Mark Tilley: I have another question. This facility. Now, you say it charges during the night or the day. How is that? Charges at night when the electricity is cheaper and then during the day it sends out power to help lower your bill. Right.

Andrew Blum: Correct. So,

Mark Tilley: Well, my question is how many houses would this foot?

Timothy Gubitz: Thank you for that. So, at peak demand, that's whenever your house is consuming the most power. We say 600 homes per megawatt roughly. It's a 10-megawatt site. We would say 6,000 homes.

Mark Tilley: Wow. Okay.

Timothy Gubitz: Yeah. And it and it's helping support the Parkwood substation that is located beside it.

Mark Tilley: But basically, like in the summertime that would kick in during your hottest time of the day where all the AC units is running and all.

Timothy Gubitz: Yeah. Yeah. And that's also you might have heard about fuel prices and power prices during the recent winter peak we had.

Mark Tilley: Yeah. I experienced some with Union Electric every month.

Timothy Gubitz: Our goal is to improve that and provide cost mitigation to that. And this is one way we can use do that. That's correct.

Vice Chair Rick Davis: What is the life of these batteries?

Andrew Blum: Yeah. About 20 years. They're cycling on and off just once a day typically. right. And the plan is 20 years. like I think Nick talked about there was requirements there for from the ordinance in terms of decommissioning and things like that. Typically what happens near the end of life is there will be an analysis done - are these batteries still pretty useful? You know is there something newer that we should put in in its place? Should we extend it another five years? Usually, there is some type of analysis that is done you know a little bit further down the road.

Vice Chair Rick Davis: After the 20 years, are they replaced or do they just decommission the whole system?

Andrew Blum: That would be a question for him. I can only tell you generally how it works. for other sites.

Timothy Gubitz: We would make an economic decision to ensure that the power is as affordable as possible for Union Power and all of its member cooperatives. One thing I did want to mention is if there were an issue, we're quite a large company. There's Duke Energy, Dominion, and then NCEMC as far as the large power providers. These systems are insured. We are committed to making sure that we leave no trace and restore things the way they were intended to be as we agreed to with Union County. And in the event of a cleanup or an issue, it's not a fly by night company that's operating the sites. It's the force of all of the cooperatives across the state that are united together to address these types of issues.

Vice Chair Rick Davis: Do you mind if I asked what the price of this substation will be. we it be millions and millions and billions or

Timothy Gubitz: No rough numbers it's commercially sensitive but it's I think on the 12 million aspect but that's over 20-year life and does amateurized and then

Vice Chair Rick Davis: Now is this going to be it's not going to come back to the customers to where they're going to help subsidize this is it to where Duke Energy will come up with probably well the customers are going to help pay for this. This is totally subsidized by Union Power in your companies. With no cost, no energy cost to the consumer.

Timothy Gubitz: So, there's the cost of goods that that are incorporated, but it's all part of our larger portfolio and it's used to offset that high power cost.

Mark Tilley: Well, it must have started this year because my power bill is up about 40% from last year.

Timothy Gubitz: I understand.

Vice Chair Rick Davis: You got me confused here. By putting this system in, is the rural person's power bill, is it going to be increased or a search charge down at the bottom of $50 to help pay for this or is this no surcharge is going to be added?

Timothy Gubitz: I'm not sure how union David, do you want to speak? I'm not sure how union splits it out, but we sell power to Union Power as part of our portfolio. So, this drives that helps drive that down and control it.

Vice Chair Rick Davis: I don't mean to be interrupting all this. There's a lot of information that we need to know. What's the impact it's going to have on the customers. I don't think it'd be right to do this and then the customers wind up be paid $50 a month to help pay for this.

Timothy Gubitz: Yes, sir. We're also a not-for-profit company and there is no profit that is taken on it. We the revenue is for to cover the cost. That said, we're committed to controlling rates and helping ensure affordable power.

Vice Chair Rick Davis: Well, who's going to pay for it?

Timothy Gubitz: It's part of the broader cooperative. Over time, just like if you bought a car and then you pass it on to somebody, everyone or I don't know, a church building, I guess, is a better example. The church pays for it. We're all chipping in as cooperative members to pay for that.

Vice Chair Rick Davis: There will be an increase in the monthly power bill to the customer.

Timothy Gubitz: The goal is that this beats that price and controls that cost. So, as opposed to being open to the free market and that the peak power charges that we don't can't control, we're pulling this into our broader portfolio to help control that.

Vice Chair Rick Davis: I don't mean to sound dumb, but I didn't understand that. Is there going to be an increase to the customers because of this?

Timothy Gubitz: It's to control cost. So, we can't

Vice Chair Rick Davis: You're still not answering my question.

Timothy Gubitz: No, I know, but it's to say, can I predict the economy? Can I predict fuel cost? Can I predict a whole lot of things? So, we have an all of the above approach. So, our goal is to predict how to control costs as much as possible as a nonprofit company.

Vice Chair Rick Davis: So, you're saying there will be an increase in the monthly power bill for the customers to help pay for this?

Rick Marshfield: Not necessarily.

Timothy Gubitz: Not necessarily.

Vice Chair Rick Davis: Okay.

Timothy Gubitz: Yeah. I think that that's the best way to say it. Not necessarily. Thank you. Okay. So, this is all part of that larger portfolio.

Mark Tilley: Well, well, let me ask you this. Is this

Rick Marshfield: Their hope is that it will build up enough power savings in the nighttime that it reduces the amount of money spent in the daytime.

Timothy Gubitz: That's correct. I can confidently say the energy that we sell at peak is much cheaper with the battery system than if we had to buy it on the market at peak.

Vice Chair Rick Davis: You're saying this should offset the cost where the customer's power bill won't be going up any?

Timothy Gubitz: Correct. Based off of the fact that we we're building this site and all of our economic evaluation is that at peak and this I can say confidently since I don't have a crystal ball.

Vice Chair Rick Davis: Well, the reason I'm asking all this is the past power bill last month was as high as it's ever been.

Timothy Gubitz: Yes, sir.

Vice Chair Rick Davis: And the rural customers out here in Union County are going to say, "What in the world have y'all done? Our power bill is already $400." So, you're saying you're approving this substation to pay for this $12 million project? And our power bill is going to go up. Well, no, not necessarily. It won't go up.

Timothy Gubitz: That's right.

Vice Chair Rick Davis: If the offset between selling the lower cost of the rate, it will not go up.

Timothy Gubitz: That's correct. And we purchase if we didn't have this site, then we can use this site at half the cost of the open market is the best way to say it in big broad numbers. We're instead of that peak power that we have seen and is the most expensive just by the way that fuel extends the efficiency of electricity. This system on average is able to sell power at half the cost than if it was exposed to the open market. Again back to the control aspect of we're using this to offset that very expensive peak power.

Vice Chair Rick Davis: Well, the thing that I'm just trying to get this pointed out because >> you look at a senior citizen that's on a fixed income. Well, the average person's on a fixed income. You only make such amount of hour.

Timothy Gubitz: That's right.

Vice Chair Rick Davis: So, you've got to watch out for the extra charges. I'm just making sure there's not going to be any extra charges coming in. But what you're saying is producing it at a lower rate and then selling it when the rate's high should keep the power bill to the average consumer. the same if not maybe a little bit less.

Timothy Gubitz: That's right. And that's our commitment. We too are concerned about all of rural North Carolina and people on fixed incomes. We serve 45% of the land mass North Carolina's electric cooperatives compared to the other 55% being served by public owned utilities or municipalities. Whenever we look at our number of customers per line, it's 10 customers per line or per mile of line compared to 33 for the public utility. Our commitment to the community is to provide services at a nonprofit rate as affordably as possible. And we can't control larger economics, but we do and that my job at the company is to make sure it's as affordable as possible.

Mark Tilley: Well, I got a quick question here. You know, I've been on this board a long time. And several years ago, we had a company come through that wanted to stick solar panels everywhere. That was going to offset the cost. Well, then after they went online, the reality of it was Duke Power took it over and it turned out to be something that offset their carbon footprint. So, just cut through all the stuff here. Is this something else that we're going to pay for as customers to offset the company's carbon footprint they satisfy some other regulation?

Timothy Gubitz: Yeah, these were approved by the company after the one big beautiful bill. and this is based purely off of economics that were incorporated from the One Big Beautiful Bill, excuse me, that wound back a lot of the carbon footprint. The goal here is strictly resiliency and reliability for the community and affordability.

Mark Tilley: Okay.

Charles Walkup, Jr: And it seems to me that another related question to ask would be if you don't do this now, though it may increase bills somewhat now. >> If we don't do this now is it going to cost a lot more later on?

Timothy Gubitz: Right. And I was trying to reiterate that we're trying to control cost. This is one control. We don't know what the future holds, but we can make an economic evaluation to make to build the project now for that control aspect. And whenever we talk about this is considered distributed energy resources and the controllability of those is part of their excuse the pun part of their power is that we can control them. We're not subject to the sun or the wind. We're subject to the market and making economic decisions to drive affordability and control. We, case in point, no one saw the oil prices increasing due to world conflict, but this is insulated from that based off of being able to buy it when it's most affordable and sell it to improve that affordability.

Mark Tilley: Well, the only thing I have concerns about it is the fact that this would be the 18th one in North Carolina. Correct. Well, when there's 1,800 in every state, the cost of building that is going to be a lot less

because it's like everything else. The first time you bought a flat screen TV, you had to, you know, mortgage a house to do it. And now you can go to Walmart and buy one for $175.

Timothy Gubitz: Right. This project was selected as being built strictly on the merits of the economics currently. And based off of that, we see it as a cash positive aspect. And it might get cheaper over time, but we also need to learn lessons now. And it helps us make those cheaper in the future as well.

Doug McClew: Looks like you got room for six more.

Timothy Gubitz: There's two aspects of that. One, making sure that we can move around move equipment in and out. We also, once concrete is in the ground, we want to make sure that it's in a good spot. We have room to revisit the site if needed. Not necessarily for batteries, but our hope with the Tesla technology is that we can create a micro grid. This is located and that's one of my areas of specialty. This battery is located right by Parkwood High School. So, we don't know what the future holds, but the high school is what we call a community lifeline in the event there was a long-standing outage being able to use this for resiliency to even power the high school. And we don't know what that might require or what it would be, but we won't change the site to add more batteries based off of the approval of the site as designed without revisiting the zoning board. But yes, astute observation.

Vice Chair Rick Davis: Anyone else? Thank you, sir. We'll get back now. We'll get back to Mr. Nicholas. Mr. I guess you're the one I'm talking about.

Andrew Blum: Yeah, I'm the guy. Andy Blum, Fire Risk Alliance. So, I think I was talking about fire somewhere there. where we left off. I think was talking about how did we where did we end up on emergency response and evacuation distances?

Nicholas Cooley: Monitoring.

Andrew Blum: Monitoring. That's where we ended up. Thank you for that. Monitored both by Tesla's remote operation centers and as well as the energy company's operation center. kind of two independent sets of eyes that would be keeping tabs on this site 247.

Doug McClew: I was a facility manager and all I remember in NFDA was lead acid. I assume this is another big subset.

Andrew Blum: Yeah. obviously, So, obviously kind of a leap forward with energy density from lead acid to lithium ion. It's why we're not really making battery systems like this with lead acid. There's just a lot more energy you can get with lithium-ion battery. That's why all our cell phones have a lithium-ion battery in it. You could go all day without your battery dying hopefully. some of them. Yeah. But that's the monitoring aspect of it. I think I was kind of describing the HMA and then and then answering questions throughout. That’s kind of the purpose of the hazard mitigation analysis there. It's a code requirement. It has to be turned in just like a drawing set to the authority who's reviewing the project. they have to review it. They have to approve it. If it's not up to snuff, they'll ask for changes. They'll ask for more information, right? You know just like if a design of a building wasn't to code they would push back and require it to get brought up. That’s the HMA side. We talked a little bit about the ERP as well. The emergency response plan it's a little bit less technical, right? The HMA is like 50-60 page engineering report. If you want to go to sleep tonight, I welcome you to open it up. You'll probably be asleep within minutes. emergency response plan really is meant specifically for the fire service, right? We're not getting into every minute nitty-gritty technical

detail. We're trying to provide them with good information to really allow them to make decisions when they're there on the fire scene. General layout of the emergency response plan, you have like a contacts page, right? The key people like if you show up and there's a small fire there, who do I call? Who do I call from the energy company? Who do I call, you know, for these folks? Who do I call at Tesla to talk to them? Have all that information. The second section usually will outline the site itself. You know, the layout. Again, this isn't a massive site. There isn't a thousand battery containers here. It's six. but we still want to introduce them to the battery containers. This is where the control panels are. This is where the disconnects are. Here's the gate. Here's the entrance, the fences, all that stuff, right? Then we'll usually talk about those fire protection aspects in another section. Section four, we'll go through the hazards. You know, what are the chemical hazards on site? What are some of the gas hazards? What are the physical hazards? Of course, this is electrical. So, what are the electrical hazards? We present them with those different hazards. These are all things that they are used to dealing with, just not at a battery site, right? All put together here, right? This is new so we want to try to give them all that information. Then the next section we'll talk about tactics, what to do when to show up. what you should be looking out for. Since again most of our recommendations and the fire services recommendations are non-intervention, we're not looking for them to drive through the front gate, start spraying water everywhere. We don't need them opening up or ripping into cabinets or containers. All that's going to do is put them in danger and it's not going to necessarily make the situation any better. Right? So, just like they're not going to blow through gates and start working in a substation for these guys, we don't want them doing the same thing here. They're going to manage the incident. They're going to take care of the community. They're going to make sure people are safe. and then they're going to contact the appropriate people and get the site safe, organized, and cleaned up so that nobody gets hurt.

Doug McClew: So, basically, first responders aren't to do anything.

Andrew Blum: So, I really Yeah. No, I hesitate to say yes to that because I that is kind of the gist, but

Doug McClew: 855 gives that training portion on a regular basis.

Andrew Blum: Yeah, it's a great question. So, and actually near and dear to my heart. So, one of the best things I think we did with NFPA 855 is we actually put in a requirement that requires an emergency response plan, and it requires training. and that's not something that you'll find in, you know, like the National Electrical Code or some of these other codes. realizing batteries are new and that the fire service needs this help, we basically put the onus on the owner to pay for the emergency response plan to pay for the training. And then there's also a requirement within there for annual refresher training as well. So, right, if new fire service personnel come on board halfway through the year, if they're never trained, what if they're the guy that shows up? The annual refresher training basically makes sure that that doesn't that's not a situation that comes up.

Mark Tilley: I have a question for this gentleman. About 35 years ago, over around Kinston, they had a program the state did and when you bought your tag you paid more for it for your car. They all started out with GIS and then the farmers around that area actually helped innovate the global farming system and the thing was for them being the start of it and helped getting it started they got a long-term discount on using the satellites. being guinea pigs for this. Does some point the residents of Union County might get a something in return?

Timothy Gubitz: Yes, sir. So, it goes into some of our contracts, but we do have a hosting capacity credit that Union Power gets. And so, that's part of the benefit to the local cooperative. And so, Union Power has been a member of NCEMC since its inception. And that's part of our commitment to we call it really the distribution of benefits. We want to make sure that the local community sees those benefits. That's part of that. And then what I would also say is we are committed to innovation and that is why we're doing this. Duke Energy just now brought on their first batteries, but part of the rural cooperative story is that innovation is near and dear to us. And you bringing up the GIS thing or GPS, I believe it reminds me of that. for rural cooperatives, public utilities didn't want to go out into the rural areas because it wasn't profitable, but rural communities came together to do this, and this is part of our continued efforts to improve local rural communities across the state.

Mark Tilley: Okay.

Vice Chair Rick Davis: In case of an emergency, what is the response time from the people that knows what to do? I know the fire department will be there immediately, but they can't go in. What's the response time of the proper technicians being there to handle whatever has to be done? Is there a long response time or is it short or do you keep people close in case something happens?

Andrew Blum: Yeah. Two as to two because there's remote folks, right? And then there's also boots on the ground that we want to have. From a remote aspect you can contact both these folks and the Tesla remote operations center 24/7. You can call their number, say, "Hey, I'm at the UN Parkwood site. Something's going on." They'll say, "Yep, we see it." And then they can kind of talk through what they're seeing on their end from an alarm aspect.

Vice Chair Rick Davis: Who is the they you're talking about?

Andrew Blum: Tesla's remote operation center. And then also

Vice Chair Rick Davis: I'm talking about the people that would be there

Doug McClew: Was driving by and saw smoke.

Andrew Blum: Oh, okay. I thought you were talking about the first responders showing up.

Mark Tilley: Well, Union Electric would have somebody trained to cooperate with the other people. Correct.

Andrew Blum: Correct. And that's usually how there's the service technicians, there's the local presence that would then be that local point of contact to come out to the site and act as that liaison. It's very similar to like a substation emergency, right? You don't wait, you call the number on the fence with the utility, you wait for that liaison, and you work with them too, you know, you don't want them just moving into the site and getting themselves in danger.

Vice Chair Rick Davis: But surely you guys have some type of alerts in case something starts going wrong that somebody's alerted. Yeah.

Timothy Gubitz: So, there's two aspects that Andy mentioned. One is the 24-hour Tesla team, but we also have a 24-hour remote operation center. So, part of all of the sites that we have in the NCEMC portfolio, they we receive alarms up. The kind of big if statements is if it didn't get propagated up and somebody saw an issue locally the local team would be trained on the ERP to respond. It's several layers to this.

Vice Chair Rick Davis: You made a comment a while ago also that it's all got to be done with minimum requirement. They got to meet a minimum program. Are you above minimum or you just right at the minimum?

Andrew Blum: Yeah. No. Like code, right? Code is always just the bare minimum, right? And where the hazard mitigation analysis really kind of comes into play is that it's a risk assessment looking at broader fire toxicity, you know, hazards, right? Not just meet black and white minimum code. That's where the HMA really kind of broadens in and you'll see it where we make several recommendations to make sure that we are going above and beyond

Doug McClew: Notifications more than hard wire. Is it RF or how's the signal getting to wherever if the lines are down?

Timothy Gubitz: I'll let him answer how he plans on putting internet here. We will use a remote cell cellular networks and Starlink and we will also have a fiber communication if we do have an estop event. This all goes back to that emergency. Even Union County would be notified in that event.

Doug McClew: Okay.

Timothy Gubitz: And that and the Union County notification is via fiber. We're running fiber between this site and the other site. It's hardwired as it were in that regard.

Andrew Blum: So, it's fairly typical usually have a hard wire and then you have a cellular backup that if one goes down, you still have backup.

Vice Chair Rick Davis: Does anyone else have any questions for them?

Rick Marshfield: In the event one of these batteries goes down or fails. How's it get replaced?

Timothy Gubitz: We would work with Tesla to understand what the impact was and then we would work to restore the site with Tesla. There's that non-propagating aspect that Andy pointed out and there'd have to be an assessment of how much damage there was and then if it is a total loss and we would lean on our insurance policies and warranty claims and that aspect. It would be a question of is it just one cubert sorry that's just like one little section of a cabinet. Do we just pull that out and replace it because you can have local non-emergency failures right or just local small component failures and they can pull that out and replace it which we've seen done and then the whole the asset evaluation would take would go into effect for a much larger issue

Rick Marshfield: Provide any type of warranty on that product

Timothy Gubitz: They do it's a 15. It's a 15-year warranty. And part of that warranty is having that remote communications. And I think it's also worth saying with the large fleet that Tesla has, this isn't a run fly by night battery we're installing either. They have a whole lot of telemetry and a whole lot of data to predict when an issue could arise. And that's worth noting as well that these things continue to operate and they continue to gather data to be able to be to tell when it happens.

Rick Marshfield: But they're only giving you a 15-year warranty.

Timothy Gubitz: That's on the capacity warranty and then we can extend that out further with a long-term service agreement, but we start to visit that at that 15-year life. So, for this project, we didn't purchase that

ahead of time. Again, going back to that economics evaluation, it's 15 years. And what I envision because we're not for profit, if there's still good life in there, if it's safe, we'll continue to operate it up to that 20 years because we've already purchased it at that point because the loan would have been paid off. It's just more icing on the cake at that point.

Vice Chair Rick Davis: Well, anyone else? I got one last question. Of the seven the 17 sites you're operating, what is the worst disaster you've ever had with any of them?

Timothy Gubitz: We did have an electrical issue that resulted in a rack catching fire and then it self-extinguished. It was located to one issue very much like the non-propagating aspect and that was the extent of damage that one that one section is being replaced. The site is back up and operating and there was no impact to anyone local or remote due to that.

Vice Chair Rick Davis: There's never really been a major disaster then.

Timothy Gubitz: Yes sir. You said what is the worst and that would be the worst.

Vice Chair Rick Davis: But that just one small part of it went bad.

Timothy Gubitz: That's correct.

Vice Chair Rick Davis: There was no effect on any community or surroundings or anything because of that.

Timothy Gubitz: That's correct. It was self-contained.

Vice Chair Rick Davis: Okay.

Rick Marshfield: Was that only in North Carolina?

Timothy Gubitz: That was in North Carolina. Have you seen anything across the nation >> reacted differently?

Timothy Gubitz: What I would say is you have to consider the technology too. That was a lithium-ion phosphate battery. And for me that that's a really good example of how bad it can get in far as it would with those cells because we're committed to safety as part of NCEMC. They were tested with an FPA. I forget the number for non-propagation inside of a module. Do you know it off hand?

Andrew Blum: UL9548.

Timothy Gubitz: That's it. UL9548. And just like these Teslas are. And I just want to caveat it by that because you have to kind of apples to apples, oranges to oranges.

Rick Marshfield: I get that. Yeah. The only reason I asked is because you have explosive hazard listed in your hazard plan. Have we ever seen any explosions out of battery?

Andrew Blum: Yeah. To your question with the explosions, we haven't seen any catastrophic explosions or deflagrations that have you know hurt anybody or extended anywhere off site, anything along those lines. There have obviously been some battery fires. doesn't take long for you to Google it and see. I think last year there was three or four fires across the country where they had where they had incidents. They remained fires that remained contained into that area. They didn't spread off the site. They didn't have an impact on the community in terms of you know with these with these self-contained battery containers.

Timothy Gubitz: Do you want to draw a difference between Moss Landing?

Andrew Blum: Yeah. So, and that's why I try I preface it. Right. So, Moss Landing is a fire that gets discussed a lot. It's a fire in a battery that occurred in California. It's in Moss Landing, California. If you want to look it up, it was last January. The major difference there is that what they did in that situation was they took a decommissioned power plant - it was about 60,000 foot building - and they basically just packed it full of batteries, like open rack batteries and they didn't separate it. They didn't compartmentalize. They put didn't put up controls to keep it contained. And so, they also used it, because it got built, you know, six, seven years ago, they also used a battery chemistry - nickel, manganese cobalt - which is a little bit more energy dense but also can fail more catastrophically. So, in that situation, it's still under investigation. I don't know when we'll get an actual report out because I'm sure there'll be litigation, too. But the whole building burned down and they lost the entire site in that case. And in that situation they did have evacuations for a few miles around the area because they were really concerned about what was going on. But again that that was a 60,000 square foot basic building that was all up on in fire. These, you know, at 30 feet by 8 feet, you know, you're talking 200 square feet. That's the approach that we've kind of gone away from. 10 years ago, people were, "Oh, let's throw all these in buildings and make really big battery buildings." and then what we realized as an industry is this isn't the great the best approach. Instead, let's make these smaller containers. Let's put them outside so people aren't don't have to go inside. We don't have to get anybody hurt. Nobody has to go inside to maintain it, or the fire service doesn't have to go in for search and rescue. let's install them outdoors. Let's make the put the onus on the OEMs. They put the onus on Tesla and the other battery manufacturers. Build your boxes. Don't let it propagate. And that was all and that's kind of the way that the industry has shifted from the way it was like 10 5 10 years ago.

Doug McClew: That was open rack.

Andrew Blum: Yeah.

Vice Chair Rick Davis: Well, I hope you understand we're not being critical about this. We're trying to protect the neighbors that are adjoining this property because that's our responsibility as a board to do the right things for the people that could be affected by it.

Andrew Blum: No, I mean, absolutely not. I mean, you guys are asking all the same questions that I hear across the country for sites like this and you are asking the things that that are important. You know, is it going to impact people? Is it going to impact our fire service? How are we going to handle an emergency?

Vice Chair Rick Davis: Does anyone else have any questions for these two guys?

Andrew Medlin: Will the site generate any noise? Any buzzing, humming?

Andrew Blum: I'm not a noise expert. Just do fires.

Timothy Gubitz: My wife tells me I'm a noise expert. No, I'm just kidding. That's not on the record. As a professional, I am not. We do have a noise evaluation that Nick can speak to as well.

Nicholas Cooley: It was sub submitted as part of the evidence. The document shows this is a 2-hour battery system. They have nine fans within each one of those six cabinets. They conducted a study and they found that the average sound decibel from 10 meters away which is approximately 32 ft is about 60 to 65 dbs. At this point that furthest left battery is approximately 50 ft from the edge of Lancaster Highway at this time.

The property that is adjacent likely won't even hear these batteries at their distance of approximately 300 ft from

Doug McClew: The highway is noisier.

Nicholas Cooley: What's that?

Doug McClew: The highway.

Nicholas Cooley: The highway. Yeah, it's on par with your typical urban sounds.

Charles Walkup, Jr: On the way in I met two gentlemen sitting back there who I believe are the closest house across the road. They came to listen about it. I would like to hear their feedback about it before I make a decision.

Vice Chair Rick Davis: Yeah, we'll listen for the pros and the cons against it. We'll bring the ones that are against it up in just a few minutes. Okay. Go ahead.

Nicholas Cooley: Great line of questioning from all of you guys on the hazard mitigation and the emergency response. Is there anything else before I transition?

Vice Chair Rick Davis: No, I think we're good.

Nicholas Cooley: All right. Speaking of the neighbors, we conducted an impact study specific to this project. At this time we'd like to present testimony from our licensed appraiser. Hunter Howell. He is licensed here in North Carolina, and he conducted the impact analysis that is part of your agenda packet already. Hunter.

Hunter Howell: Good evening everyone. My name is Hunter Howell and just to give you a little background about myself, I am a certified general appraiser, and I work with Paramount Commercial Appraisers and I've been appraising properties throughout North Carolina for approximately 12 years working on a wide range of valuation assignments. and I've also testified at numerous quasi-judicial hearings similar to this one addressing the same types of land use compatibility and property value considerations that I'll be discussing here tonight. And as he mentioned, I believe the report that I did provide is on the agenda. If you haven't read it, I'm going to kind of briefly go through it and happy to answer any questions once I kind of get over the meat and the bones of everything. I was engaged to analyze the proposed battery energy storage system, often referred to as a BESS plan for 5907 Lancaster Highway here in Union County. My role is to present the factual findings from my analysis and offer my professional opinions regarding capability compatibilities and potential impacts on the surrounding property values. The proposed project consists of a Tesla mega pack system on approximately 1 acre parcel. The site was previously operated as an electrical substation. but all the old infrastructure has been removed. The new use is actually less intensive than what would existed there historically with very limited traffic and minimal ongoing activity. The property sits in a semi-rural area surrounded mainly by agricultural land with single family homes located across Lancaster Highway. Based on its footprint and operating characteristics, a BESS is generally considered a low impact infrastructure-oriented use and its placement in this type of setting is consistent with common sighting patterns throughout North Carolina. To confirm my land use harmony, I reviewed several other BESS locations in Asheboro, Hubert, and Goldsboro. These facilities are also located near rural residential areas in agricultural tracks, and they function without land use conflicts. This shows that the proposed use aligns with the similar developments elsewhere in the state. A major part of my study focused on whether BESS has any measurable effect on nearby property values. To evaluate this, I conducted a paired sales analysis

in two neighborhoods. They consist of brick chimney landing and Magnolia Green. where homes sit directly across from operational BESS facilities. In both subdivisions, the home immediately adjacent to these systems sold essentially identical price levels as comparable homes elsewhere in that same neighborhood. So, completely adjacent and on the opposite sides of the same neighborhoods. There was no meaningful difference and no indication that proximity to one of these sites affected sales price. I also reviewed a 2025 Wharton Research Scholar study analyzing 178 BESS facilities nationwide. Their findings were consistent with what I observed locally. There's no significant positive or negative impact on nearby home values associated with BESS installations. Therefore, taking all this into account the character: of the area, the former substation use comparable BESS sites in the state, the paired sales data, and the broader research, I concluded that the proposed battery energy storage system is compatible with the surrounding land uses and is not expected to negatively impact property values in the area. And that's basically kind of a general synopsis of my report and I'm happy to answer any questions that you all might have.

Vice Chair Rick Davis: Okay. Anyone have any questions? Thank you, sir.

Nicholas Cooley: As we've been kind of touching on throughout the throughout the night, harmony with the area. It was previously an existing substation that was decommissioned. What we're proposing now is a much smaller in scale. As you can see in that photo, if you look at the shadows on the north and on the street side, the reduction in size is surmountable. I believe it's 30 to 45 ft off the roadside based off of Union County ordinances. the black dots that are street side on the drawing that you're looking at, those are existing power poles from Union Power. And I believe the three in the middle, those are removed or to be removed. We're also providing screening in our fencing and then the S2 screening with the shrubs and trees to minimize visual impact.

Mark Tilley: I have a question. Are y'all going to be required to put trees up around that

Nicholas Cooley: Around the whole site? Yes, sir. Yeah. Based off of the ordinances, we are

Mark Tilley: I think that's something we need to think about in the future because I'm seeing a lot of these substations where they're having to go in and take all the trees down around them. If we're requiring them to put some kind of screenage up, it ends up costing us money to get rid of it in the future. We need to think about that.

Nicholas Cooley: Okay. Then as part of the Union County's comprehensive plan, the proposed use would be allowed if the special use permit is approved and therefore is in general conformity with the comprehensive plan. At the conclusion of this evidence, we respectfully request that the board approve this special use permit. As the record will demonstrate that all required findings of fact have been satisfied, and we'd be happy to answer any further questions that you guys may have.

Vice Chair Rick Davis: Anyone else have a question? All right. Thank you.

Nicholas Cooley: Thank you all.

Vice Chair Rick Davis: Is there anyone else to speak in favor of this special use permit?

David Gross: Good evening. I'm David Gross. I'm vice president of engineering operations for Union Power. I'll remind the board of the relationship that we have with NCEMC. We buy power from NCEMC. We don't operate power plants. We don't operate battery systems. We buy power from them, and we resell it to our local member owners like yourself, Mr. Tilly. And I'd like to address one of your questions very directly.

There will be no line-item surcharge on the bill for this. Okay. We buy power from NCEMC. They own a lot of different power plant resources. They have contracts to buy power. They have contracts to buy coal fire, natural gas. They have ownership in nuclear power, right? They procure that and sell it to Union Power and that is our relationship with them. We support this project because we believe that it is in the interest of our member owners and we believe that it is going to help us manage power costs because they can charge these power these batteries with less expensive power at off peak periods of time and provide it to Union Power at that cheaper cost when electricity is extremely expensive. That is a trend that has been going on in our industry. I've been in this business 30 something years. And every one of those years, my number one goal was to keep the lights on. You know, just a few years ago, we got into a shortage situation where we had to shed load. Okay. And after 30 something years of trying to gain the lights on, I was the one who had to push the button and shed load here in Union County and the other four counties that we serve. So, we support this because we believe that this project is going to help us avoid that. I can't guarantee you that it won't still happen, but a project like this will help us manage the peak demand on our system. And we believe that it's going to help us manage costs.

Mark Tilley: Do you look for this to be expanded if it works out good to other parts of the county?

David Gross: I don't know that it would be expanded in Union County necessarily. I do think that batteries will help this industry significantly. This industry and the public, you've heard a lot about solar over the years, right? We the term we use as engineers in our business is dispatchable. Solar is not dispatchable. If the sun's not shining, it's not doing us any good. Right? Now we can take other forms of energy like solar and improve it by charging batteries with it. Right? Not just with it with nuclear power and everything else, right? And make sure that we have power when we need it at peak and we have the economics of being able to charge them up with off peak period at off peak periods. I've had some interesting debates over my career about, you know, solar in particular. People were very in favor of solar, right? It doesn't when you don't have to man the power plants, it doesn't consume any fuel, doesn't produce carbon, that kind of thing. And I've always said, I think batteries are really what's going to help this industry. And we just haven't had that technology until just recently. So, we are very much in favor of this project. The particular reason that we offered up this site was we knew that there was an existing utility structure there. We built a newer, much larger state-of-the-art facility down the road, which we came before this board several years ago to permit. We decommissioned the old substation. When we were approached about doing this project, we realized that we already had this area, and we believed that they should pursue this avenue because we're not converting any other forest land or any other farmland and we can put it on an existing site where there was already a utility structure before.

Vice Chair Rick Davis: Now, will this be a benefit for the entire Union County or just for the folks in that area down there?

David Gross: It's a blended cost type of thing. It's going to impact all of the members and ratepayers of Union Power, and we serve five counties all the way up near Salsbury all the way down the state line, but also other co-ops in the state, other rural consumers that are part of NCEMC because remember this is a network of 17 other battery systems.

Vice Chair Rick Davis: So, it's basically benefit for all of Union County, not just the Parkwood area.

David Gross: Yes, sir.

Mark Tilley: Okay. Well, just a scenario here. Say there was a catastrophic storm that cut power off to Union County for a little bit . With this system here, would the people in that area that were close - would they still benefit from this? How does that work?

David Gross: Not initially. Initially what would happen is if the power went out this thing shuts down. Okay. Mr. Gubitz alluded to something called a micro grid and that is something that we might pursue down the road with this right to be able to okay the power goes out to the greater area, but can we use this to keep up Parkwood High School in that very local area close to this site? That would take some additional technology, some additional breakers, that type of thing. I don't know that we're going to be pursuing that anytime in the next 5 to 10 years, but that would be a side benefit of this in order to have a good functional micro grid like that. This battery would be invaluable.

Mark Tilley: So basically, what that would do, like if you done that, Parkwood High School would basically get their power from this all the time. That way if it did shut off, it wasn't the power wouldn't feedback through the other lines.

David Gross: Yes, that that's it. I could get into all sorts of technical details, but that's a good way of summarizing it. I like to kind of think of it as like an uninterruptible power supply for your computer. You know, you run the computer on the battery the whole time and then when the power goes out, it keeps it up. That would be if we pursued a micro grid kind of how that would be for the Parkwood High School area right there. But I don't want to paint the picture that that's a project that we're definitely doing, but it is on the radar and they're building in capability to do that with this battery and with that new modern Parkwood substation that we have that's just out of the frame of that picture there. It has all of the modern digital control systems to be able to accommodate that type of thing whereas that old substation didn't. It is something technically feasible and it is something that might be 5 to 10 or more years out but would be possible.

Vice Chair Rick Davis: Anyone else have any questions?

Derrick Austin: Yeah. So, basically this system hopefully is going to maybe minimize those, you know, certain times whenever y'all tick everybody off when y'all in Duke during extreme weather conditions, y'all wanting us to, you know, cut our thermostat down.

David Gross: I think we're still going to call on conservation if we're asked to by our regional transmission provider. We are going to still ask for conservation and I can't sit here and tell you things won't get so bad that we won't have to shed load again, right? But I can tell you that that Christmas Eve three years ago, if we had 10 more megawatts on my system, that was more than I shed that day.it would be very helpful.

Vice Chair Rick Davis: Anyone else? Thank you, sir.

David Gross: Thank you.

Vice Chair Rick Davis: Yes, sir. Is there anyone else to speak in favor of this special use permit? All right, at that time we'll close that part of it and listen to the ones that are in opposition. Is there anyone that would like to speak in opposition? All right. Apparently not. All right. At this time, we will close the open session and go into our discussion part.

Question 1

Vice Chair Rick Davis: We have the five findings of facts that we have to go through before we start. The board adjustment may not approve an application for a special use permit unless it first reaches each of the following conclusions based on findings of facts supported by competent, substantial, and material evidence presented this public hearing. And what it's saying is there'll be five portions of this that we'll have to discuss, and we have to vote on them. We all have to vote to be in favor of it to approve it. If one of the findings of facts we cannot vote on it and all be in conjunction with it then it does stop the procedure at that point. Okay. The first is the proposed use and development comply with all regulations and standards generally applicable within the zoning district and specifically atypical to the particular type of special use. This is a major utility. It will conform to all the regulations in the RA-40 zoning. Electric substations are exempt from height requirements. However, the height of the site will remain less than 15 ft above grade, including equipment and foundations. Raven Vault will utilize existing trees on property for screening as well as S2 screening dedicated by the Union County Ordinances to limit visibility from the road and adjacent properties. What are your comments? Does it the discussion we've had, has all of that been met?

Doug McClew: Yeah. It's been met.

Vice Chair Rick Davis: All in favor?

Vote: 7 (affirmed)

Question 2

Vice Chair Rick Davis: We'll go to number two. The proposed development will not materially endanger the public health or safety. Raven vault NCEMC are committed to providing safe and reliable power. Unmanned substation. No public utilities will be required to operate and maintain facility. Will provide security fence at a height of seven feet. Minimal traffic will be generated because it's an unmanned station. The site will be designed to meet the requirements of NFPA855. This includes the development of a hazard mitigation analysis and emergency response plan created by a third-party fire protection engineer. That has been done. Raven vault will provide sight specific training to local emergency first responders as well as Union Power. That has been discussed, and I think it was satisfied.

Doug McClew: It was satisfied.

Vice Chair Rick Davis: Does anyone have any comment? All in favor? All right.

Vote: 7 (affirmed)

Question 3

Vice Chair Rick Davis: Now we'll go to number three. The proposed development will not substantially injure the value of a budding property or is in a public necessity. An impact study provided by Hunter Howell stated that the proposed use will not substantially injure the value of a budding property. That has been addressed and there is no property damage.

Doug McClew: They did a good job.

Vice Chair Rick Davis: I think they did a really good job with it. Anyone with any comments? All in favor? All right.

Vote: 7 (affirmed)

Question 4

Vice Chair Rick Davis: Number four. The proposed development will be in harmony with the area in which it is located. This is a track of land previously utilized for utility substation. The new site design is smaller than previous use and utilizes the current Union County screening requirements. The proposed substation is cited to have a minimal impact on surrounding properties and is in close proximity to existing Union Power Electric lines. I think the harmony has been addressed. Is everyone satisfied with the results?

Doug McClew: I think it's going to look better than what was there.

Vice Chair Rick Davis: I think so. All in favor?

Vote: 7 (affirmed)

Question 5

Vice Chair Rick Davis: The proposed development will be a general conformity with the comprehensive plan. The proposed use is an allowed use with the granting of a special use permit. Therefore, it is in conformity with the comprehension plan. I think that has been addressed and has been satisfied. Any discussion? All in favor?

Vote: 7 (affirmed)

Vice Chair Rick Davis: Special use permit will be granted.

Mark Tilley: We got to make a motion.

Vice Chair Rick Davis: Yeah. Do I hear a motion?

Mark Tilley: I'll make a motion to approve.

Doug McClew: I'll second.

Kelly Cope: Will staff recommendations be included in it?

Vice Chair Rick Davis: Yes. Staff recommendations will be included in it.

Mark Tilley: Yes

Vice Chair Rick Davis: So, would you state your motion again now?

Mark Tilley: I make a motion we approve with staff recommendations.

Vice Chair Rick Davis: Is that sufficient?

Kelly Cope: It would be cleaner if you read them. John will help you out with that.

John Wear went to the monitor and pulled them up.

Mark Tilley made a motion for the Special Use Permit with Staff Recommendations that it must comply with all local, state, and federal regulations. Must comply with the Union County Development Ordinance. And must fully comply with the site-specific plan.

Vice Chair Rick Davis: Do I hear a second.

Doug McClew: Second.

Vice Chair Rick Davis: All in favor?

Vote: 7 (affirmed)

The LUB makes the following findings of fact:

1. **The proposed use and development complies with all regulations and standards generally applicable within the zoning district and specifically applicable to the particular type of special use.**

   A. This is a major utility and it will conform to all the regulations in the RA-40 zoning district.
   B. Electric substations are exempt from height requirements. However, the height of the site will remain less than 15' above grade, including equipment and foundations.
   C. RavenVolt will utilize existing trees on property for screening, as well as S2 screening dictated by Union County Ordinances to limit visibility from the road and adjacent properties.

2. **The proposed development will not materially endanger the public health or safety.**

   A. RavenVolt and NCEMC are committed to providing safe and reliable power.
   B. Unmanned substation – no public utilities will be required to operate and maintain facility.
   C. Will provide security fence at a height of seven feet.
   D. Minimal traffic will be generated because it is an unmanned substation.
   E. The site will be designed to meet the requirements of NFPA 855. This includes the development of a Hazard Mitigation Analysis and Emergency Response Plan, created by a third-party fire protection engineer.
   F. RavenVolt will provide site specific training to local Emergency First Responders, as well as Union Power.

3. **The proposed development will not substantially injure the value of abutting property or is a public necessity.**

   A. An impact study provided by Hunter Howell stated that the proposed use will not substantially injure the value of abutting property.

4. **The proposed development will be in harmony with the area in which it is located.**

   A. This is a tract of land previously utilized for a utility substation. The new site design is smaller than previous use and utilizes the current Union County screening requirements.

The proposed substation is sited to have a minimal impact on surrounding properties and is in close proximity to existing Union Power electric lines.

B. There are existing electric lines on the property.

C. A battery decommission plan will be provided.

D. The site will be returned to Union Power following battery decommissioning.

5. **The proposed development will be in general conformity with the comprehensive plan**.

A. The proposed use is an allowed use with the granting of a Special Use Permit therefore it is in conformity with the comprehensive plan.

LUB votes on SUP requirements:

1. **The proposed use and development complies with all regulations and standards generally applicable within the zoning district and specifically applicable to the particular type of special use.**

   Vote 7-0 in the affirmative.

2. **The proposed development will not materially endanger public health or safety.**

   Vote 7-0 in the affirmative.

3. **The proposed development will not substantially injure the value of abutting property, or is a public necessity.**

   Vote 7-0 in the affirmative.

4. **The proposed development will be in harmony with the area in which it is located.**

   Vote 7-0 in the affirmative.

5. **The proposed development will be in general conformity with the comprehensive plan.**

   Vote 7-0 in the affirmative.

Based upon the foregoing findings of facts and affirmative votes,

Motion

Mr. Tilley made a Motion to Approve the Special Use Permit application for Utility, Major with following conditions:

1. ***Must comply with all local, state, and federal regulations.***
2. ***Must comply with the Union County Development Ordinance and North Carolina Building Code.***
3. ***Must fully comply with the site-specific site plan.***

Mr. McClew seconded the Motion. The Motion passed with a 7-0 (unanimous) vote.

Planning Staff Report - Rezoning Case # RZ-2026-004
Staff Contact: John Wear, Senior Planner

Summary of Request

This case is a request to rezone one parcel totaling 10.848 acres appearing on the tax map as tax parcel 04-036-007 located on Pageland Highway from Highway Corridor (HC) with Conditions to Light Industrial (LI). The rezoning request is a straight rezoning, so there are no conditions associated with this request.

Owner/Applicant

Owner: Winding Creek, LLC
5226 Leonard Morgan Road
Marshville, NC 28103

Applicant: Tommy McAlister, Jr.
5234 Leonard Morgan Road
Marshville, NC 28103

Property Information

Location: On the west side of Pageland Highway south of Claude Austin Road. Location more specifically described as tax parcel 04-036-007.

Municipal Proximity: The site is approximately three miles south of the City of Monroe.

Existing Land Use and Development Status: The parcel is currently zoned Highway Corridor (HC) with Conditions and currently is used for office and contractor equipment storage. The property was rezoned in 2016, with the following restrictions: off-premise signs, campground/RV park, flea market, or Type 3 ministorage.

Environmental Features: There are no streams, wetlands or floodplain on site.

Utilities: Public water and sewer are not available to the site.

Zoning and Land Use History: The parcel has been zoned HC with Conditions since 2016 and had been used as a gun shop and most recently an office and equipment storage facility. A telecommunications tower had been located on the site but was removed within the past several years. The properties immediately to the north had been rezoned to Light Industrial and Light Industrial with Conditions in 2024 to adjust property boundaries.

Schools: Because this rezoning request is commercial in nature, UCPS was not consulted for comments.

Transportation: This site is on US 601, which is an NCDOT-maintained facility. This section of US 601 carries approximately 14,000 vehicles per day. There are no funded road improvement projects in the immediate vicinity of the rezoning. A traffic Impact Analysis (TIA) was not required for this rezoning. Because there are no proposed uses with the rezoning, staff are unable to assess impacts on the corridor.

Planning Documents

Union County Comprehensive Plan: The Union County 2050 comprehensive plan identifies this area as an Employment Corridor overlaid upon Rural Residential. The proposed zoning district is therefore considered appropriate, although a lack of utilities may mean that the site cannot be fully utilized with a significant number of employees or customers.

Public and Municipal Comments

Public Comments: A community meeting was not required since this is not a conditional rezoning request.

Municipal Comments: Monroe was not consulted due to the distance to their municipal limits.

Staff Comments and Recommendation

This part of Union County is identified for employment uses as an overlay over rural residential and agricultural land uses. The proposed zoning is consistent with the adopted Plan because of the appropriate size of the parcel, proximity to adjacent industrial parcels, and previous development history. **Because of these aspects of the development, staff recommend approval of this rezoning application.**

Key Details:

- Existing development in the vicinity includes single-family homes and a manufactured home park along Richardson Road.
- Public water and sewer are not available; development would rely on private well and septic systems.
- Environmental Health confirmed the site has been tested and approved for well and septic suitability.

Applicant Presentation – Tommy McAllister:

- The property was previously zoned for heavier industrial use and was later changed to Highway Corridor for retail purposes.
- With the business no longer operating at full capacity and the property being marketed for sale, the request to rezone to Light Industrial is intended to align with surrounding properties and improve marketability.

Public Comments:

- There were no public comments.

Board Discussion & Concerns:

Permitted Uses & Flexibility:

- Discussion emphasized that approval would allow any use permitted under Light Industrial zoning.
- Board acknowledged the need to consider all potential future uses, not just current conditions.

Comparison to Adjacent Properties:

- Nearby parcels already zoned Light Industrial were discussed as supporting context for the request.

Development Uncertainty:

- No specific development plan has been proposed.
- Board noted this is typical for straight rezonings.

Infrastructure Limitations:

- Lack of public water and sewer noted as a limiting factor for more intensive development.

Board Action:
Motion: Recommend approval of rezoning RZ-2026-004 by Mark Tilley, Second: Doug McClew.
Vote: Motion carried, 7-0
Outcome: Approval Recommended

Planning Staff Report – Minor Subdivision Ordinance Discussion
Staff Contact: Lee Jenson, Planning Director

Summary of Request

Planning staff continued the discussion regarding minor subdivision standards as requested by the Board of County Commissioners. The purpose of this meeting was to further evaluate key components of the ordinance, including the definition of a lot, the minor versus major subdivision threshold, the parent parcel concept, and potential family subdivision exemptions.

Staff presented additional information and facilitated discussion with the Land Use Board to gather feedback and direction. No formal recommendation was made, and staff indicated that further stakeholder input and additional review would occur before any ordinance amendments are considered.

Key Discussion Points:

- Definitions of a Lot: Staff reviewed the current Unified Development Ordinance (UDO) definition of a lot, including provisions that allow a parcel divided by a public road or similar separation to be considered multiple lots. Discussion focused on how this impacts subdivision potential, particularly when a parent parcel is split by a road, potentially allowing more lots than otherwise intended.
- Impact of Road Division on Lot Yield: The Board discussed concerns that a parent parcel divided by a public road could effectively double the number of allowable lots under the minor subdivision process (e.g., eight lots per side). Some members expressed concern this could unintentionally increase development density in rural areas.
- Parent Parcel Considerations: Discussion included how road divisions interact with the parent parcel concept and whether ownership changes (such as inheritance) should reset subdivision allowances. Several members supported exploring ways to distinguish between single ownership and multiple ownership scenarios.
- Minor vs Major Subdivision Threshold: The current threshold of eight lots for a minor subdivision was discussed. Some members expressed support for maintaining the existing threshold, while others suggested further evaluation with input from stakeholders before making changes.
- 1978 Parent Parcel Date and Reset Proposal: Staff revisited the previously recommended amendment to replace the February 14, 1978 parent parcel date with a "lot of record" standard and implement a 10-year reset period. The Board generally supported this approach as a way to address generational land divisions.
- Family Subdivision Exception: Staff introduced the concept of a family subdivision exemption used in other North Carolina counties. Discussion included potential criteria such as lineage requirements, limits on number of divisions, and ownership duration. Concerns were raised about enforcement challenges and unintended consequences.
- Balancing Growth and Property Rights: Board members discussed the importance of balancing development regulations with property rights, particularly for families and small landowners. There was interest in distinguishing between family land divisions and larger-scale development activity.
- Need for Additional Input and Examples: The Board expressed a desire to review real-world examples and gather feedback from builders, farmers, and the broader community before making recommendations. Staff agreed to provide additional data, including farmland loss statistics and case examples.

Public Comments:

- Ryan McGee, a local home builder, stated that the situation discussed is relatively rare and typically involves large tracts of land. He noted that limiting development on large parcels may not align with property rights and suggested that larger landowners should have flexibility consistent with the intent of subdivision regulations.

Staff will bring back additional information at a future meeting, including stakeholder input, example scenarios, and comparisons with peer jurisdictions. Topics to revisit include the definition of a lot, subdivision thresholds, and family subdivision provisions.

Planning Staff Report: There were no comments from staff.

Brief Comments: There were no comments from the Board.

Close: With no further discussions, Doug McClew made a motion to adjourn, seconded by Charles Walkup, Jr. It passed unanimously. The meeting adjourned at 9:15 pm.