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# Loudoun County Board of Supervisors, Transportation and Land Use Committee, Thursday, October 17, 2024

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Place Board Room, First Floor, Government Center, 1 Harrison Street SE, Leesburg, Virginia  
Length 2h 1m (video)

- Official meeting video (county, Granicus): <https://loudoun.granicus.com/player/clip/7770>
- Agenda (Granicus): [https://loudoun.granicus.com/AgendaViewer.php?view\\_id=73&clip\\_id=7770](https://loudoun.granicus.com/AgendaViewer.php?view_id=73&clip_id=7770)

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Speech-to-text: whisper.cpp, model large-v3-turbo. Produced 2026-10-21. Each paragraph starts with its time [HH:MM:SS] in the meeting video.

[00:15:53] Thank you very much. We're convening the October 17, 2024 Transportation and Land Use Committee meeting. This room has a hearing loop. If you need hearing assistance, switch your hearing aids to the telecom mode. If you need a headset, we have those available as well. Please see the clerk to request one. Please join me in the Pledge of Allegiance.

[00:16:13] Pledge of Allegiance to the flag of the United States of America and to the republic for which it stands one nation under god indivisible with liberty and justice for all thank you all very much i appreciate it um i would like to note uh for the record tonight that item number six proposed on street parking restrictions on pleasant valley road is being deferred to the november 20th 2024 teluk meeting to allow staff time for further development of the item uh the

[00:17:00] Proposed consent agenda is as follows, Elizabeth Mills Lock Stewardship Management Plan, the FY 2024 Housing Choice Voucher Resident Advisory Board Annual Report, and the Advisory Plans Examiner Board Calendar Year 2023 Annual Report, and the Facilities Standards Manual Public Review Committee Fiscal Year 2024 Annual Report.

[00:17:20] those are items two three four and five is there any discussion on the recommended consent items from anyone any comments uh all those in favor of placing those on consent and uh passing those unanimously please say aye aye any opposed those four items are passed unanimously i move oh i'm sorry

what oh very good let's do this more formally is there a motion to move i move the adoption of of the consent agenda is there a second second thank you very much any discussion once again all

[00:17:58] those in favor please say aye any opposed thanks i raced in here and my roberts rules are a little rusty here tonight um all right um information items let's start with uh item number one environment and energy work plan quarterly update if we point a point of order yeah where's our worthless piece of information i i had it i had it and it was related to the fact that i attended the navy birthday party about this last weekend oh and nobody cared and neither did i so as an air force guy it just wasn't that i'm disappointed but you know there's always next time thanks

[00:18:40] actually i will say what i said i made some remarks and i started off my my remarks by saying We live in a contentious time, and we have divided ourselves into sides, and we think of the other side as the enemy, and we think they talk weird, and we think they talk in code, and we think there's hidden agendas, and at the birthday party I vowed as an Air Force guy I was not going to think that way about my Navy brothers and sisters ever again.

[00:19:11] Thank you all very much for tolerating my really warped sense of humor sometimes. You are clear to begin. Thank you, Committee Chair Turner, members of the Transportation and Land Use Committee. Mark Govaney, Assistant Director with General Services. Happy to be here this evening to present to you our quarterly report on your environment and energy work plan.

[00:19:31] With me this evening is Kara Moore, who is our Environmental Program Manager, and our Energy Manager, Mr. Mike Sandler. Just want to point out that many of the items we'll be seeing are the direct result of their good work. As you know, our purpose is to provide a quarterly update to this group.

[00:19:48] We are working off of the approved fiscal year 2025 work plan that includes 22 different items and we'll be highlighting some successes and upcoming events for you this evening. Just as a reminder, the original work plan was developed in cooperation with the staff and the environmental commission.

[00:20:07] I do want to mention our chair of the environmental commission, Jim Bingle, is here with us this evening as well as some of our members so we appreciate their their attendance. It is a since 19 since 2024 you have given us a baseline budget to do these work plan items and all these items have been well vetted and fully supported by the commission and public input. Just a schedule that shows our quarterly plan coming to you and we are obviously in October and providing you with a quarterly update. As a reminder, all the items on our work plan fit into these five initiatives,

[00:20:46] sustainable energy, natural resource protection, environmental justice, public engagement, and government by example. Our first initiative, sustainable energy, has seen a lot of activity since we last met with you in July. We continue to work on our implementation plan for the board approved energy strategy, and we're hopeful that we will have that plan for you in concert with our consultant ICF at our next meeting. We had our first CPACE clean energy finance right here in Leesburg for a hotel that is making use of state available funding to do some different

[00:21:22] sustainable energy items and we hope to give you a little more information on that as that project continues. Just this week we signed a agreement with the National Renewable Energy Lab known as NREL to work cooperatively with our data centers here in Loudoun County to look at renewable energy use and greenhouse gas emissions by data centers. We're very excited about that partnership with NREL,

which is part of the Department of Energy, as well as the data center coalition, and we look to provide you some more information on that partnership soon. We continue to expand our

[00:21:57] public electric vehicle charging. We're now up to eight locations, and if it works, we'd like to show you on the GeoHub on the county website how easy it is for residents to go and find where a publicly available electric vehicle charger is. At any rate, on the county website under the GeoHub, you will see actually right there. If you see on the GeoHub, we have a link for EV charging stations. And if you click on that link and say, okay, you can see different

[00:22:37] electric vehicle charging. These are county owned and operated, um, and available to the public. And as we continue to add more EV chargers for the public, we put them on the website. So they're easy to find the locations. Um, and this, this project is going very well. We continue to be hopeful that our grant proposal with the Metropolitan Washington Council of Governments to put even more EV chargers in will be successful, and we'll report back to you on that when we hear more about that grant proposal. Moving into natural resources, we have just finished a tree

[00:23:13] canopy study. It is a draft. This study was done also by a consultant, and it reports 45 percent tree cover countywide in Loudoun County, and we're very excited about this study. We just got the draft. And we hope to bring this to you soon and talk about some possible programs for increasing tree canopy in Loudoun County. As this group knows, you approved a natural resource strategy when we last came to you. And we will begin that process in concert with our friends over in planning and zoning and building and development and looking at a strategy for natural resources

[00:23:52] that is similar to our strategy for energy, so we're excited about that. Kira has been very involved in starting a Bull Run Watershed Management Plan in the Bull Run Watershed and working with stakeholders in that area to look at issues related to erosion and sediment control, flooding, and also natural resource protection.

[00:24:11] So we're very excited about starting that process. And then finally, because of the money that you gave us, we partnered with our Soil and Water Conservation District here in Loudoun and working with HOAs to do some pet waste and tree planting in public areas, and that's been very successful, and they've actually spent all that money that we gave them to do that.

[00:24:30] So we're excited about that partnership. One of the issues that we've been working on has to do with environmental justice, which is listed in the bylaws that we received from the board when we set up the Environmental Commission. We have contracted with our energy equity consultant to develop an energy equity plan.

[00:24:49] That plan is draft and is finished. It includes stakeholder identification, it includes a lot of focus groups, and we are excited about developing a program to come to you for energy equity in Loudoun County. So we'll give you more information about that plan here in the coming months.

[00:25:07] Government by example, my favorite initiative. A lot of things going on there. We continue to cooperate with our friends in transportation and capital infrastructure on new buildings, especially when it comes to renewable energy, such as solar and geothermal. And Mike is working with staff in transportation and capital infrastructure to get as much renewable energy on our new buildings as possible. This picture that you see there of myself and Mike Sandler, and then in the middle, someone you

might recognize, Ray Banks. That's actually deep in a Loudoun County data center that Equinex, where Ray now works as their government representative.

[00:25:48] And we had a very fruitful discussion there about the concept of district energy. And district energy tries to use waste heat that is produced abundantly in these data centers and reuse it. An example might be where it heats a swimming pool. In fact, the Olympics this year, the swimming pools were heated from waste heat. So that's kind of an example. And we've started some very productive conversations with our partners there to talk about how we might have a waste heat project right here in Loudoun County. We've done a lot of building audits of our existing buildings, 73, and we continue to work with our partners in the facilities section

[00:26:27] of general services on how we can build that into our capital asset preservation program that I know the members of the board are very familiar with, things such as new windows, LED lights, and other improvements that we make that save energy and that reduce greenhouse gas emissions.

[00:26:44] So that project is going along very well. And then finally, we have our E2C2 with our employees, and we're working on a lot of exciting things, such as a sustainability video. Mike is doing some lunch and learns on electric vehicles and just kind of involving employees more in energy conservation, which is always a good idea and a source of many good ideas that we can look at.

[00:27:11] That is our report this evening, Chair Turner. We are happy to take any questions from the committee. And as I said, many of these projects that you gave us money to hire consultants with are now coming to the end. And so we will look at how we might develop some programs on all of those initiatives and bring those back to you to provide details.

[00:27:31] That is my report. I stand ready to answer any questions. Thank you very much. Let's do three-minute rounds. Questions? Supervisor Glass. Thank you, Chair Turner, and thank you for this presentation. I actually don't have any questions, but I'm really proud of what the county is doing.

[00:27:50] We are doing a fantastic job when we're talking about our environment. I can say that when I've been talking to younger folks when I speak with the Boy Scouts or with the Girl Scouts or any a couple of young groups that I have, you know, having conversations with, I think the top questions that I have is what we are.

[00:28:13] we doing with our environment um what's the county doing um and then also the the next thing that i hear from constituents um that i'm they're concerned about the tree canopy um with all the development that's going on and um just having conversations and letting them know what we're doing as a county regarding our trees so thank you for all that you're doing thank you supervisor kershner yes thank you supervisor turner so i've got just a couple real quick questions on the ev charging stations we have eight now you said correct actually ten there's two uh that were

[00:28:51] existing at the metro garages so can you are you able to track what level of use they're being put to absolutely can you give me some what sense of how much do we track by hours by amount of energy can you we can track uh kilowatts and uh dollars received so i can prepare a report and send that to you yeah i'd love to see that just to see how much they're being used because i mean that's obviously an indicator of the the demand for them and i would assume the more folks figure out where they are the more they will probably get used as well so that geohub kind of finder was obviously pretty useful i would assume it goes up every month it's been going up but we'll be happy to

[00:29:30] prepare a report and send it to the board that'd be great i'd love i'd love to see that and then secondly um supervisor glass touched on it that this tree canopy did i did i i don't know if you Senator if I read it in the report it we've gone up 10,000 acres yes a lot well that's interesting the reason for that care do you want to handle that or do you want me to I'll let care actually led that report so I'll put her in there so yeah we were also a little bit surprised by that when we first got the results and one thing is that when you actually look at the full acreage of Loudoun County 10,000 acres is actually not as much as you think but a key thing that we came

[00:30:07] across is that a lot of it is trees that were planted in new developments that had just started or places that were open and then new developments went in where trees were planted so a lot of it is trees in developments that have grown up and matured in the last 10 years and some of it is new developments that were previously open space that now have trees in them yeah i found it here so it's that since 2012 so over a 11 year period essentially yeah 2012 to 2023 huh and to some extent a lot of the development that people think of when they think of loud and entries being cut

[00:30:44] down was before 2012 so it doesn't necessarily capture right all of that but right and have we have we been keeping this tree canopy statistic only since 2012 or do we have any other data prior to that this is our first full analysis of it in this context i think that the maps geographic information office does have some gis data over the past time but this is the first time we've done a full assessment of it. Okay and do we obviously the more tree canopy obviously the healthier the environment etc and everything is being filtered but we don't really have a sense

[00:31:21] of the trees with just the amount of shade I said I guess when we talk about the canopy is that correct and and and there's there significance between total number of kind of forested area versus the canopy I mean the more mature the tree I'm assuming the better is that correct? Yeah and so this one thing that this does not capture or discuss quantitatively is you know You know, forest and a tree are not the same thing.

[00:31:42] It doesn't just count contiguous trees. So the level of granularity that it could get in the assessment, it can, one tree can count within the area. So it doesn't just capture forest and it doesn't discuss the quality of the tree cover versus the acreage.

[00:32:00] This brings up another question. So obviously you mentioned that this 10,000 acre lot has to do with maturity of the trees and some of the developments that have occurred prior or I guess since 2012 that may have been smaller, less mature trees, is there a, I guess, an interaction with our zoning or our planting requirements within our zoning code and what you guys, recommendations that you're making to instruct that given the desire to have a greater canopy or no?

[00:32:29] So we haven't looked at the zoning ordinance yet, and Mark can speak to this, but I think this is some of the next steps things we'll be looking into. Okay. Based on it, we're just finishing up the assessment right now, and what are we going to do next with it is to be discussed. Okay. Thank you. Madam Vice Chair.

[00:32:45] Thank you, Chair Turner. So I'm going to the sustainable energy section, and I know that, you know, the Board is doing a data center CPAM and ZOAM, and I'm kind of wondering how the Environmental Commission and how DGS is involved in that, are you -- because I do see with some of these strategies like renewable energy use, there might be an opportunity to collaborate, to coordinate in that process.

[00:33:16] So we are beginning the conversation and the collaboration. Just this evening, we've been speaking to some folks in planning and zoning about that and how we might interact a little bit more with them. And so we are beginning that collaboration, Supervisor Tricone. Okay. Do you think you need, in your department, a subject matter expert?

[00:33:35] I know you're doing energy, but I don't know that you're focused more on energy transmission. mission or data center, you know, with renewables and on-site generation? I don't know. Is that something you think you would need to help? Let us develop that a little bit more and get back to you. I mean, we presented last night, actually, at this very table, a lot of new positions that we're getting in general services as part of the study that we did. So hopefully, maybe some of those positions might be able to help in that regard as well. Yeah, yeah, because I wanted to ask that question, but I ran out of time. So I wanted to ask, because I'm very happy to see that the department's going to be restructured to put more of a priority on energy and the environment.

[00:34:14] I see a lot of opportunities for collaboration and coordination with what you're doing, because what you're doing is great. I mean, it's very innovative and some great ideas, and I want to make sure we're working together. We are. Thank you. Okay, good.

[00:34:33] I'm just going to run down the list here on the project titles. Just as a precursor statement, I continue to be astounded by the amount of the work that the Environmental Commission is doing under Jim Bingle's leadership. I really do appreciate her leadership. But also under your leadership and management and assistance, the team is doing a great job.

[00:34:54] I'm amazed at the amount of work that you've gotten done and that you can continue to get done. Talk to me about landfill gas and the study. I know it's just completed. What would be the application if they come back and say, "Yeah, great idea. Are we going to – I've tried to understand the concept in my mind.

[00:35:10] So we capture the gas, and then the county has to pay for piping structure to get it somewhere. What would happen to it? So we just received the report back from our consultant, and we're sitting here – in fact, Ernie and I looked at it just the other day, and we're actually preparing an agenda item to come to the board to talk about all those types of issues.

[00:35:28] The good news is that the amount and quality of the landfill methane gas is sufficient enough that there's interest to develop it into some type of beneficial use. So we're going to be, you know, very exacting and specific and obviously talking with administration about what the next steps will be and present some options on what that might look like.

[00:35:50] So more to come on that, Supervisor Turner. Just an interesting piece. There's various types of hydrogen that can be generated by fuel cells. Blue hydrogen fuel cells are fuel cells where they strip the hydrogen out of methane or some other hydrocarbon natural gas but if you capture the waste gas and use that as your source to get the hydrogen for the hydrogen fuel cell that's basically green hydrogen and that's an interesting interesting wrinkle that is possible that i hadn't even thought of um um tell me more about

[00:36:27] data center partnerships says the contract is ready to sign what what's the nature of that relationship? You don't have to mention the name. The contract is actually signed with the National Renewable Energy Lab. This is part of DOE. I think you're familiar. Very, very prestigious government lab. And we worked very hard with the data center coalition and economic development to talk about

renewable energy use by data centers in Loudoun County and also the greenhouse gas emissions that come from them. COG, Council of Governments has a list on their website of

[00:37:04] greenhouse gas emissions from every county. And if you look at Loudon's, Loudon's is pretty high in the commercial development area, which includes data centers. Many feel that those numbers are not as accurate as they could be because they only reflect square footage. They don't reflect renewable energy use that data centers might be using within the grid or within the state.

[00:37:28] And so we partnered with NREL to actually develop a template where the data centers that want to participate, and we hope many of them will, will actually share their renewable energy use so that we can get a better estimate on that. Very exciting, and we hope a lot of them or enough of them will participate in that study. NREL is going to be the neutral third party to kind of collect that information and analyze it so it's accurate, you know, from a data standpoint.

[00:37:52] And we're very excited and look forward to coming back to you with some good news in that regard. For some reason, I thought that that report was from COG, right, on emissions in the various – The report is from COG. Is it emissions or is it fossil fuel consumption? It's showing greenhouse gas emissions from various sources.

[00:38:10] Because I remember questioning that when I read it the first time. I find it really hard to believe that our data centers are emitting that much greenhouse gas. We hope to find out, Supervisor. Maybe it's a backup generator. It could be a backup generator. So that was the intent of the study. Yeah. And we just signed it last week to work with them.

[00:38:26] So we're very excited about that. Just a little interesting note that I discovered this week, a Tier 4 backup generator. We have 4,000 generators in the county. The vast majority of them are Tier 2 backup generators. A Tier 4 generator reduces nitrogen oxide and particulates 99% lower than a Tier 2 backup generator.

[00:38:48] the emissions quality is dramatically, dramatically different for a tier four backup generator. Little interesting factoid. Talked about district energy, 'cause I think it's the Northern Virginia Regional Council's really interested in district energy, and they identified a couple of opportunities where you got data centers sitting right next to county buildings.

[00:39:09] - Yes, sir, I'm gonna let our energy manager handle that. - Welcome, Mike, good to have you. - Hi, thanks everyone. So it's been a conversation we've had the Environmental Commission a couple times about district energy. The concept is thermal energy, heating and cooling, and you can connect several buildings, and if the buildings have complementary uses or need heating and cooling at different times of day, then they can actually share the same facility. So you don't need to have multiple facilities in multiple buildings.

[00:39:39] And a lot of times you hear about that on college campuses or old downtowns. we're starting to see if we can apply that in Loudoun County and there may be some areas where different uses are overlapping. I actually found a study from 10 years ago about, you know, one Loudoun and Morefield Station and some of those other places when they were under development.

[00:40:01] So we're kind of dusting off some old reports and then we're looking at some new reports that we can do as well and looking at county facilities. Great. Any other questions? Anyone? Yeah. Supervisor Thank you, Chair. Chair Turner. I'm curious about EV chargers. So I'm wondering, is there a different cost

at different chargers? Because I'm thinking, like, when you go to a gas station, you can go to a gas station, Ashburn Village, and it's \$3.

[00:40:40] 08 a gallon. And I can go somewhere else, it'll be \$3.39. Is the price the price, or how does that work? Per board direction, it was established at \$2.10 for a charging session. So all of our EV chargers that are county-owned have a standard \$2.10. That was per board direction many years ago when the metro station garages first went in and EV chargers were put in those.

[00:41:01] Okay. And I could add a little bit. In terms of privately-owned stations, there are some different networks out there. There's one called Blink. There's one called Electrify America. ChargePoint is well known, and those are the ones the county uses. So each of those, when you go to charge, they'll have different prices in the private sector.

[00:41:23] It also depends on if it's called level two or level three charging. So level three provides a lot more electricity, so it's more expensive. But I consider that more useful for road trips versus just around town, level two might be sufficient. Okay. Thank you.

[00:41:39] Any other questions? Thank you all very much. Great work. Let's move on to item number item number six has been deferred let's move on to item number seven the zoning ordinance committee bylaws update thank you all

[00:42:16] very much any presentation you're welcome supervisor Turner we did not prepare a presentation okay for this evening let's go straight to a motion we have two motions and I'm gonna go first to the vice chair for her motion and land use committee recommend to the Board of Supervisors that the ex officio position for Visit Loudoun be designated as a non-voting position for the Zoning Ordinance Committee and that this change be included in the Zoning Ordinance Committee bylaws.

[00:42:50] Motion made. Is there a second? Seconded just to hear what you have to say. Okay. Seconded by Supervisor Glass. Opening comment. Okay. Thank you.

[00:43:06] Visit Loudoun receives 82 percent of their funding from the county, and I believe because of that there is a perceived conflict of interest, although probably not a direct conflict of interest.

[00:43:24] I do believe that Visit Loudoun would be a positive influence as far as having a seat at the table. But I believe they should be non-voting. Visit Loudoun is the coordinating lead of the rural CPAM and ZOAM and will be very involved in that process. And I think that was something we all voted on and agreed on. But I do think regarding ZOC, which is long-term, it's not just for the rural CPAM and ZOAM, I think it makes sense to have them

[00:43:59] be an ex officio member versus a voting member. A lot of organizations like Visit Loudoun have a seat at the table, but aren't voting members. And so I would propose that they have a seat at the table, but they don't vote. And we keep the number of members to 16 versus 17. So we don't increase the number but we keep it at 17 and or we keep it at 16 and you know we add them to the list but as

[00:44:30] an ex officio member. Thank you. Other comments? Mike? Supervisor Kirscher. I'm not sure this was first time I've seen this. I'm not sure I'm willing to support it this time. I don't really quite understand what the conflict is. I mean to me visit Loudoun in large part represents Loudoun and our desire to ensure that we have a robust tourism-type community in our Western Loudoun.

[00:44:58] And so I think, quite frankly, their vote is probably a pretty important vote. So in some ways, they are a little bit of our representative here in Loudoun County to ensure that happens on the board. So I'm not sure I quite understand. I mean, I look at a conflict of interest as like an attorney representing two different clients.

[00:45:18] Obviously, that's conflict. I don't really see the conflict here. As a matter of fact, I think it kind of fits nicely that they would come in and they would have that vision as a whole. And I think if they were a non-voting member, then we would have even numbers as opposed to odd numbers and not have a tie-breaking vote, assuming we had the proper members.

[00:45:36] So those are just my thoughts. But, I mean, I'm not saying I couldn't be persuaded later, but I don't think I'm ready to support this now. Okay. Supervisor Glass. Thank you. I may agree with Supervisor Kirshner regarding this. I don't see it as a conflict of interest.

[00:45:55] I think Visit Loudoun gives us a lot of beneficial information regarding to what's going on in the county regarding our tourism. So, I don't think I would be voting for this.

[00:46:13] Okay, thank you. My feeling is pretty strong. This is not a regulatory body. It's an advisory body. Nothing that is decided in ZOC is binding in any legal way. They make recommendations to the board, and we're free to act on those recommendations or not.

[00:46:29] I don't see any conflict of interest. I am more than happy to talk to the county attorney to verify that, but I would be very surprised if he suggested there was any problem with conflict of interest, so I won't be supporting this either. Closing comments? I just want to say, so it may not be a legal conflict, maybe but in my view a perceived one so that that's just how i see it is that since uh visit loudon is funded by the county um i believe they should have just be non-voting and have a seat at the table um remember this is regarding zoning not not tourism not um you know sports this is

[00:47:08] this is about zoning so i feel like it it would be um in my view a a conflict of interest to be advising the county on zoning when your your organization is 82 funded by the county so thank you thank you motion was made by a surprise to crony seconded by supervisor glass all those in favor say aye aye sorry all those opposed no sorry question are you opposed okay that motion will fail one three and with that i will go to supervisor kirschner for his motion we could cause this

[00:47:45] supervisor turner motion oh this is essentially your motion i think with the second portion change so okay if you want me to read it i'm happy to go for it and this is uh for item number seven the zoning ordinance committee bylaws update it's an all um i move that move that the transportation land use committee recommend that the board of supervisors approve the revised zoning ordinance committee bylaws provided as attachment to the october 17 2024 transportation and land use committee action item with the following amendment um i move that the transportation and land use committee recommend that the board of supervisors amend the zoning ordinance committee bylaws by

[00:48:20] renaming article 3 membership section 2a 2n the stakeholders organization designation of agribusiness to the designation owner of employee or designated agent owner excuse me owner or employee or designated agent of a loudon county-based winery brewery or distillery i'll second that okay and yes certainly and supervisor turner and i he had a proposal to define agribusiness rather than defining my recommendation was well let's just change it from the definition agribusiness because once we just start defining terms i'm always concerned that that might get bled over into other

[00:48:57] policy areas so rather than defining agribusiness i thought in his concept was to include someone from the winery brewery or in distillery industry so we just rather than saying what the definition of agribusinesses we would just replace it with winery breweries too and this was ultimately i think requested coming out of uh zoc if i recollect they asked us to define give a little more definition on that and i think that's kind of conceptually what we were looking at originally so that's the reason for the amendment thank you other comments uh let me just say um uh the fact that this uh recommendation passed out of the zoning ordinance committee with voted 10-1-2

[00:49:35] indicates that this is probably the right move that we want to do the whole purpose of me proposing this is to rebalance as we move into the rural cpam zoem discussions i really wanted to ensure that we had a balance of the two broad groups in western loudon county and i know there are variations and various competing agendas within those two broad groups but the two broad groups that I characterize in my mind are agribusiness, western agribusiness, and farm, farming, and

[00:50:11] conservation, and protection of rural Loudoun interests. Those are the two broad groups and I wanted to try and ensure that those two broad groups are equally represented on ZOC as we go into these very challenging discussions and that, so that was my purpose behind it. So I'm more than happy to support this closing supervisor the only other thought is i did not read the first part of your alternative motion do we need to add that to this motion which is the i move the transportation land use committee recommended the board of supervisors approve the revised zoning ordinance committee bylaws provided an attachment to over the october 17 2024 transportation and land use

[00:50:47] committee action item and then this portion i think that's what we did not i did not add that to this now i'm losing the bubble on on what that's going to do if we include that so so i think sequentially they're okay essentially you're approving globally what the attachment says but then in the second part you're revising what you just approved okay so i think you're fine could i could i add that as a friendly to my own amendment did you not state the first i don't think i did i only read the second portion okay yes we need to re we need the first part read into the record okay so would you like would it be okay with you supervisor

[00:51:26] so um i let me just read the whole motion again i move the tr the move that the transportation and land use committee recommend that the board of supervisors approve the revised zoning ordinance committee bylaws provided as attachment to to the october 17 2024 transportation land use committee action item and then the portion which i read originally stating i move that the transportation land use committee recommend to the board of supervisors wrong one i'm reading yours yeah you forgot the part with the following amendment what did i do yeah oh you have it

[00:52:01] i move um yeah i think i only read the second and then i moved that the land hold on a second i may have gotten myself mixed up yeah that's kind of what i'm thinking i believe you read the whole did i read the whole i thought i only read the second section you read the whole thing you read this strike yes okay i thought i'd only read the second section my apologies we'll stick with the original motion sorry supervisor okay supervisor kirschner you're you're now fired. I thought I'd only read the second section. Motion made and seconded. Any

[00:52:35] further discussion? Any closing statements? No. All those in favor, please say aye. Aye. Any opposed? Nay. That motion will pass 3-1-1. I should have said that in the first vote that we had since Chair Randall is off the dais for this one. She is, by the way, attending the Northern virginia transportation

authority meeting there was a conflict tonight thank you very much chair turner i'm sorry we were consulting when you read the record who who was the no vote the no vote was

[00:53:09] supervisor to crony okay with that let's go to expedited process for legislative affordable housing expedited review good evening good evening thank you and you may proceed okay good evening

[00:53:44] Tealuk, Jackie Marsh from the pardon. Now I will begin. Jackie Marsh from Planning and Zoning, Dan Galindo is here joining me. I am not showing the right presentation. That's all right. Well,

[00:54:23] you're sorting that out. I want to make an administrative correction just to make sure the record is clear. The vote to defer the parking item that we took was actually 3-1-1, not 3-1. You can make a note of that in the minutes. And who voted against? I'm sorry, it was it was four zero one four zero one thank you thank you okay okay thank you i'm going to try this for the third time uh i'm here tonight to talk about the proposed expedited process for legislative affordable housing applications staff was before tlock last month and we have brought

[00:54:58] back a formalized policy for tlock to consider i am going to spend a bit of time on this screen but we want to talk about the criteria to qualify for this process and we do believe that it should be limited to applications that propose 100% affordable units that seek funding assistance.

[00:55:18] Staff does appreciate the discussion that we had with TLUC last month. We talked about ideas that contemplated applications that propose affordable housing as components of an overall application or have affordable units that are interspersed throughout the community, but we do believe at this time this process should be limited to applications that are 100% affordable that seek legislative approval by a date certain to apply for funding assistance.

[00:55:44] Our rationale is based on our experiences with these applications and also our current staffing levels. We understand there is a desire for these applications to go faster and consider more alternatives such as allowing applicants to provide for sale units, but at this point in time we want to limit this process to what we can control because of our staffing levels.

[00:56:07] If TELUC or the board feels that consideration should be given to the criteria in a way that would result in more applications than we would anticipate, we would request, we would have to request an out-of-cycle resource request. At this point, we wouldn't feel entirely comfortable committing to expediting applications until the board could approve additional staff positions.

[00:56:28] Based on these realities, we do believe that we are proposing a fair process to provide more affordable housing in the county. We're looking at this as a pilot program, a first step to taking action as recommended by our 2019 general plan and the unmet housing needs strategic plan.

[00:56:45] We would like to come back to the board either at the end of next year or the beginning of 2026 to report on how the process has or hasn't worked. And at that time, it could be appropriate to expand the process to allow more alternatives.

[00:57:01] I want to talk about any concerns that we have received from internal or external agency reviews, and we haven't received many about expediting affordable housing applications. VDOT would not commit to shortening their 30-day reviews, however, but we actually received a lot of interest from our adjoining county neighbor friends that wanted to talk to us about this process and what we were thinking and what it would look like.

[00:57:26] So that's really exciting. It is. So I went over our rationale for why we want to limit this to just 100% affordable for rental units only. We want to just make it clear that when an applicant is submitting proffer statements, it must clearly commit to providing all units as affordable.

[00:57:50] In the process, it is on Earth's attachment one of the item. It's sort of the standard policy. And what we would expect for is the applicants to come in and identify a specific program deadline that they are seeking to apply for.

[00:58:08] We want to anticipate an eight-month minimum from the time that the application is accepted to final board approval. We can agree to a tentative schedule with the applicants, and staff does have the right to halt the process if we run into issues.

[00:58:26] This is an example timeline. This is condensed, but yet it bakes in enough time if the Planning Commission wanted to have a work session or if the board didn't feel comfortable approving the application the night of their public hearing, they would send it to a business meeting.

[00:58:45] So we use the hypothetical example of an applicant seeking LIHTC funding that the deadline would be July 24, 2025. If their application was submitted by November 1st and accepted by November 1st, 2024.

[00:59:01] This is about eight months. And as I said, this bakes in enough time for a work session, a business meeting. This only provides for two reviews. So again, this would be a, I don't wanna say a worst case scenario, but this could go faster.

[00:59:23] And I wanted to show, oh, I had a hidden slide. I wanted to show this hidden slide. it's hard to see, but I wanted to point out all of the steps that a legislative application has to go through. This is the process that a project manager has to take. It has to do with how long the first reviews are. We have to submit legal ads. We have staff reports to prepare.

[00:59:55] We have to post the property. So there are a lot of factors when we are considering the steps that we need to take for processing an application on a normal timeline and also processing it as a faster application. I do have our colleagues from the Department of Housing here for support, and I also want to recognize Allison Britton and the land use team for her assistance.

[01:00:24] She was the project manager for the Atlantic Boulevard application that was approved earlier this year, and she had some helpful insights to share. And with that, I would be happy to answer any questions. Thank you very much, Ms. Marsh. Comments, questions? Supervisor Glass.

[01:00:41] Yes. Thank you for this presentation. This is very exciting. I remember a couple of years ago I was looking into what another, I think it was another state, I was looking into how they were going through the like a faster track of process of of their affordable housing and I'm really glad that we're looking into doing this and so you said that you wanted to start off

[01:01:12] first with additional with 100% affordable rental units and use the how long do you all think that you're looking for us to say, okay, now maybe we could expand to 100% affordable for purchase applications. I think we could come back in a year. I think a year is an appropriate time to evaluate, again, how the process has worked. We could have additional staff by that time.

[01:01:45] The other issue that we're running into is land use isn't fully staffed. It feels like land use is never fully staffed so we want to have a team up and running and if we identify that we need need

additional land use planners we can put in those resource requests but i think a year would be a good a good test okay thanks and thanks for showing the task that staff has to do i don't think people understand that the the hours that you all put into all board members so that they can see all the steps that go yes i think you should bring that up for all of us to see thank

[01:02:23] you um vice chair to crime yeah thank you chair turner yeah i do like that that you should distribute that just so people know what you do every day you know all the processes all the steps you have to go through um it looks like that you might need um a full-time employee for a legislative land use planner or above, someone of that level?

[01:02:48] Is that to do this expedited for rental proposal? It could help assistance on the team in general. I think that we might not want to start a brand new planner on expediting an application.

[01:03:06] So I think that we could task those to our more senior staff, the staff that have experience. Okay, great. And then I remember last time I asked about kind of the complexities. If you have, you know, a multifamily LIHTC building that's part of a larger application that's 100% affordable, you know, rental units, is that eligible for this process?

[01:03:35] Even though it's part of a larger application with lots of different pieces, we would prefer that that be its own individual application. Not part of an overall, let's say, 30-acre ZMAP that contemplates various units, various uses.

[01:03:52] So they'd have to separate that out in a separate land bay and go through a separate... They could do that, yes. Okay. So then one of my concerns is that what if you approve that and not the rest of the application and we don't have the improvements that we need, the road improvements, and so that's a question.

[01:04:11] Is that something to consider? So, in other words, if you prove the LIHTC only and not the rest of the 30 acres. I think that's something we would have to identify early on, is having that discussion with the developers in case this other part of the geographic area is delayed or you can't build this road in time to provide access.

[01:04:37] I think that's something we would have to consider. Okay. Yeah, that might need to be part of the process, because I see that as being a common what you see, you know, mostly is these separate LIHTC buildings that are great. You know, and I guess an applicant could structure their proffers for that individual building in such a way that the delivery of those improvements would be associated with the companion application, and they could structure it in such a way that they would be available for access to those residents.

[01:05:12] Yeah, I like that. I like that better, where it's not, you're not depending on the other larger application to get approved for improvements. Okay, thank you. Thank you. A couple of things that I just wanted to highlight here in my three minutes.

[01:05:30] I want, kudos to staff, Mr. Galindo in particular. We had a developer that started this process and said, hey, we've got an all-Lytec project that's 100% affordable. We think this is a candidate for an expedited review. And I went to Mr. Galindo and I said, hey, what do you think? And his response, immediate response was, yeah, we can try that, which I thought was terrific.

[01:05:50] Without any knowledge of, I mean, it's not like DPC has a whole overage of staffing. And so to just stay straight off as a default position, yeah, let's give it a try, was really commendable. And we got it done.

[01:06:06] I mean, we did that. A couple of points I want to make. Expedited review, by definition, is not the DPC staff working weekends until 11 o'clock every night. That is not expedited review. That is a painful process of normal review crammed into eight months.

[01:06:24] The purpose of this is to come up with an expedited review that allows our existing staff to work with normal business hours and get it done in eight months. That's our purpose. Please don't hesitate to come to the budget process this year with expedited review in mind and say we need one, two, three extra FTEs in order to implement expedited review the way we need to.

[01:06:49] And I would even include, we need some salaried mechanism to entice someone to come in and fill the nine empty slots that we have. And so increase your budget request of that. DPZ is a critical office. We just can't have empty seats sitting in that office.

[01:07:08] Can you explain to me why you want to do 100% affordable, but for the first expedited review, one-year pilot, you only want to do LIHTC projects instead of any kind of affordable project? What's the difference in those two mechanisms?

[01:07:24] When we were thinking about crafting the policy, the reason that we crafted this was because, you know, the board directed us to look at expediting the process. But those are the only applications that we have experience with that the applicants are requesting to make the process go faster because of the deadlines.

[01:07:46] Okay. All right. So there's not that they've been the most painful to get through in the past two or three years because the applicants are constantly worried about hitting the timelines so they they best match this kind of scenario where we could try to commit to that up front and follow things along okay is there is there anything intrinsically that you see in just a normal non-lytech affordable project that would make it substantially different that when in other words could we can is there something that would causing us to not want to try that roll that into the expedited review process is it just because it's radically different than a light tech project functionally no our concern is

[01:08:24] just trying to trying our best to limit what we can do with existing staff okay we think that this is this hits the pain points we've been experiencing while allowing us to try it with existing staff without too much trouble our concern is if we open it up um i mean we're not going to know how many come in how many applications are coming in anyway even with it limited but if we broaden it to where it covers more and more we're just inviting more of that through and as much as believe me we would love to be able to process all of our things well within our deadlines it's and if we sure if that becomes a desire we can increase staff appropriately but for right now this seemed like a good middle ground to try to help out affordable housing without potentially

[01:09:03] opening the floodgates okay and if i could you want to add we already are expediting other types of applications faster for public facilities substations those are often double advertised so not everything can be expedited no no i understand that i'm curious are you expediting those as a matter of course and have been or were the lessons learned in your the first expediting process that you're now

applying in other areas they're actually two they're they're very different radically different okay radically different um uh any other questions i'm going to take my second

[01:09:41] around then um um what's fundamentally different if you have a uh 100 units and they're all affordable for rent and 100 units and they're all affordable for purchase what's fundamentally different in the expedited review process if the applicant is seeking to meet the deadlines uh okay for a light tech for light tech yes so that's being for purchase versus for rent really complicates the process no i think what jackie's trying to say is that there are deadlines you absolutely have to meet in the process as we've built in here for light tech if you are pursuing

[01:10:21] other options while we would love to do that as fast as we can too there's not a hard deadline to hit in the same way i got it and light tech strictly rental yes that's why the deadlines exist because it's light tech and that that sets the deadlines and that's only rental properties got it okay um all right let me just say then in in my comments before we go into the motion here um the development members of the development community reached out to me and said hey we'd really like to express some opinions about this expedited review process can we do that i talked to mr glindo and i've talked to mr hemstreet um and one of the reasons we're making the motion now

[01:10:58] to have those meetings between now and a second tuck meeting where we will report out changes based on the outcome of those meetings i called mr hemstreet you're not going to like this mr glendale but i had an idea how to structure those meetings with the development community which i think is a pretty streamlined way to do it i think we can probably accomplish it in one sit down and i want to talk to mr hemstreet next early next week and i'm going to do that to see and then see what he thinks and depending on his feedback we may or may not come to you and say okay here's how we'd like to structure these meetings i think i'm i'm recalling back to the

[01:11:35] zock process and we kind of hit some magic answers during the zock process and every time i can to i try and reach back and replicate that process and so that's what i'm trying to do here but i think i don't i think those meetings will go very very smoothly and probably hopefully very quickly but i want to talk to mr hamstreet and then we'll he'll probably come talk to you any other comments with that i will make a motion then i move that the transportation and land use committee direct staff to one meet with affordable housing industry representatives to review the proposed policy to create an expedited process for legislative affordable housing applications

[01:12:12] and two return to a future transportation and land use committee meeting to report on any outcomes of the meeting with industry representatives and present staff's recommended policy for action by the committee that's seconded by miss glass opening comments i think i've said everything i need to say and we will be reaching out to the members of the development committee to attend those meetings and schedule those meetings i have no close all those in favor please say aye aye any opposed that motion will

[01:12:46] pass 4-0-1 thank you both very much i appreciate it and our final item if i can have staff come forward is the Loudoun County electrical infrastructure

[01:13:13] study and recommendations. Good evening. You may proceed at your leisure. Good evening. I'm Pat Giglio with the Department of Planning and Zoning. Also with me is Mike DiNicolò, who's the project

[01:13:53] manager with Kimley Horn, and you know our planning director, Dan Galindo. So Kimley Horn was contracted earlier this year to evaluate the county's existing and proposed electric transmission infrastructure and provide recommendations for future planning efforts. The findings from the Loudoun County Power Transmission Support Due Diligence Report will be presented this evening.

[01:14:14] Following that presentation, I will provide you an overview with the current electrical policies in the 2019 general plan and staff's recommendations for the initiation of a future comprehensive plan to update the county's electrical policies. So with that, I'll turn it over to Mike for his presentation on the due diligence report. Welcome. Good evening all. Nice to meet you good evening everyone Kim Lee Warren the purpose of this presentation is to go through what we've done over the last year looking at the

[01:14:50] power transmission evaluation for Loudoun County when we started this the scope of the work was to evaluate the existing conditions of the infrastructure as it stands today which and then was to look at what is being proposed throughout Loudoun County and then to look at demands future demands within Loudoun County and see if the projections would involve additional projects in the future and then what mitigations may exist for that. So that's the purpose. The overall agenda here is, first we'll start by talking about the high voltage transmission system, the existing system,

[01:15:29] and then what is made up of the proposed, what's being currently proposed is several projects, 230 kv and 500 kv transmission lines and then future electrical load growths and then the recommendations we came up with and then pat will talk about the cpm process so an overview what you're seeing on screen is the pgm territory which is stands for pennsylvania new jersey maryland it's a regional transmission organization louding county which sits within the

[01:16:05] the Dominion Territory is part of this, and PJM's role is to coordinate the Salem movement of wholesale electricity in 13 states, including Virginia and Washington, D.C. They manage and approve the need for new transmission system upgrades, and it's the first formal step to transmission siting process.

[01:16:24] As discussed, we're showing the extensive Loudoun County fully within the Dominion Territory, And then this is the map that we developed in the first stage of the scope of work.

[01:16:43] We looked at various datasets and then did field investigations to lay out the existing transmission system. So what you're seeing in red is 500 KV lines which run north-south through Loudoun County.

[01:16:59] There's one line that runs 500 KV that comes in from the north, two that come in from the south and then the yellow lines represent 230 kv system which really feeds a lot of the data centers and industry in the area and then all the substations you could see are those yellow nodes which are the 230 kv system and just on that just some statistics so there's approximately 37 miles of 500 kv lines there's 125 miles of 230 kv lines and then there's two miles of

[01:17:38] underground 230 kv lines and then regarding proposed high voltage transmission projects pjmc came up with came out with a regional transmission expansion plan in 2022 they do this annually but as part of that they had projected one of the reasons for this was for there's 5700 megawatts of power demand in the county for to serve data centers and they needed a plan to get uh the transmission lines to serve that that need i want to just make an extra point

[01:18:14] here mike i can just interrupt for just a second um in 2022 pjmc projected loudon county and depends on which slide you look at whether it was northern virginia or loudon county projected we would

use 3.4 megawatts in 2023 so if we use this estimate of 5.7 it's added onto the 3.4 it still comes up way short of what the current estimate is which you talk about here later. I just want to baseline everybody the most recent PJM estimate I saw for 2023 was 3.4 gigawatts of actual use. Okay. Okay.

[01:18:49] And you know as part of that window they open it up to developers different transmission developers and utilities and there are 72 proposals that were submitted by 10 different entities and then what you're seeing on screen is what was eventually selected of those 72 proposals and um this is a bit dated as i'm sure everyone's aware on the next slide you'll see um this was in July 2024 where they they changed the the nextera

[01:19:24] proposed 500 kv woodside to aspen transmission project where it was cutting through western Loudoun and they moved it to co-locate with existing transmission lines which is what we're advocating for um you know moving forward so that was a positive change but this project the western route was also uh identified by department of energy as a national interest uh electric transmission corridor which there's only 10 of those in the country so what

[01:19:56] happens is if um in certain circumstances it wouldn't go to the Virginia SEC um it would be could be ruled on by FERC, which is a little bit different of a process. So it was a big deal that it changed because it would have been hard to change it later because it wouldn't be in the Virginia SEC process.

[01:20:21] And, Mike, I'm sorry to interrupt. I know this is unorthodox for me to do this, but there are key points here that you're making that I want to make sure my colleagues hear. So what do we think is going to be designated as a national interest electrician?

[01:20:36] electric transmission corridor the Dobbs to Goose Creek corridor or all of the Loudoun County corridors i my understanding based on what i saw was the Dobbs to Goose Creek Dobbs to Goose Creek and the implications of that are if the SEC drags its feet or doesn't approve something the federal energy regulatory commission can weigh in and say no no you are going to build that line in that corridor that's the implication they take over the authority from the SEC in that Dobbs to Goose Creek corridor which is that northern corridor coming down from Maryland

[01:21:11] down to by Leesburg. That's absolutely correct. Yep. Thank you. And then the state process what we reviewed is everything as of I think it was you know May 2024 we reviewed Virginia SEC's website for all height and SEC regulates transmission lines and substations over 115 kV and we reviewed it and we mapped all the projects that were going on at the time and so what you're seeing on screen is the same thing instead of showing the existing here's all the current

[01:21:47] projects that exist as of May 2024 in Loudoun County it's all in eastern Loudoun and then the next slide shows you really what they're trying to accomplish these are the Dominion Reliability Projects. These all roll up to the regional transmission expansion plan.

[01:22:11] But basically they're trying to meet all the load in data center alley. There's essentially a ring that runs around a loop line that runs around Cloning County. And the thing to note here though is the summer transfer capability. So when you read these SCC dockets, what we found is the 230 kV line for summer transfer capability can move 1,573 megavolt amps.

[01:22:41] We'll just say that's megawatts. And the 500 kV line can move 4,357 megavolt amps, which is megawatts. So when you sum those up, that gets you a little north of 5,700 we were talking about before this is in the 5900 so they're essentially planning these projects that tie back to the RTEP for 5700 megawatts

and that becomes important later is when we look at our load forecasts anything that exceeds that would mean that you know this project may not be enough to meet the

[01:23:17] needs potentially and and just to put a fine point on that if i understand it so i talk with uh joe wooten in the meeting we have with dominion here he's the transmission guru for dominion he said they had increased the amps on the 500 kv lines to 5 000 and the amps on the 230 kv lines to 4 000 but they don't run at that that's peak capacity they don't run at that all the time what's this telling me is they can run at these loads for summer transfer capability if they need to but nominally they're going to run and I said about 2.1 gigawatts for 500 and about 750 megawatts

[01:23:54] for 230 on normal daily load. So I think that tracks with what you have here just to realize that this is the maximum they can draw across these lines. Okay thanks. And then what you're seeing on screen here is when working with Loudoun County is we received some data from them on permitted data centers throughout time so the graph on the left is showing each year how many data centers were permitted and you can see that there's an increase a substantial increase

[01:24:28] starting in around 2016 on and then on the right side of the screen it's a little blurry apologize for that is where all those data centers are placed and we put them in bands the red is everything that existed, I think, before 2001, then the green color is between 2001 and 2010, and then the yellow is 2010 to 2020, and then the orange is beyond that. But what you're starting to get a sense of when you kind of look at that is that the numbers are increasing. And, you know,

[01:25:06] Looking, just to give you some statistics, the first data center went in in 1997. The average from 1997 to 2023, there's about, based on the graph, there's six data centers permitted per year. But if you look at it from 2014 to 2023, the average is about 14 data centers permitted per year.

[01:25:29] So if you extrapolate that, you know, which we did in this case, which is just taking a look at it over the next five years, you could anticipate 17 per year, which gets you to something like 85. But the only problem with that is, that's not considering data center developers' plans, and that's not considering how much land is actually available to them.

[01:25:53] So you'd think as that, as data centers grow, they'd be less. - How do you define data centers on these slides? So if you have one company that's a, that, is that, but they've got four buildings on the campus, Is that four data centers or is that one data center?

[01:26:08] - It's per building. - Per building? - Yeah. - Okay, so you're counting a data center as a building? - Yep. - Got it, okay. - And the one thing I'll note is, I think from what we saw, there was about 199 data centers or so there, but we didn't plot anything that we didn't have a date associated with, so.

[01:26:29] - That's existing, 199, Brown? - That's our, as of, yeah, as of many. Yeah, I've been saying 200, that's pretty close. Oh, yeah. Yeah, you may be right, but -- No, no, no, I just pulled that off the wall because Buddy Riser started saying 200.

[01:26:47] If you're at 199 on the count, that's pretty accurate. Yeah, yeah. So this is where we start trying to get into understanding what's really out there. So the county manages a GIS layer that's referred to as the pipeline data center partial data set, and basically what you're seeing on the right screen The right side of the screen is everything that has a purple parcel, there's 148 of them.

[01:27:15] There's some sort of data center application that exists. And that's of August 2024. And that's about 2,541 acres of land. And that's in addition to the 199?

[01:27:34] This is what, moving forward, these are folks that are, these are developers that are looking to build. So on the next slide, you know, you could say what is a parcel and, you know, how does that have to do with power demand?

[01:27:53] So what we did is we then looked at each one of those and looked at Landmark, which is the, you know, public system, you know, to look at the applications. And we looked at active site plans and we tried to figure out how many buildings are on each one of these properties.

[01:28:12] So, of those 148 parcels, 72 of those parcels, nearly half, had a data center site plan. So, we knew for sure there's 84 proposed data centers as of today on those less than half parcels.

[01:28:32] And so, that was the first thing. We said, okay, great. We know we have 84, but what about the other 76 parcels? Can I ask a question? And, Dan, you might want to weigh in on this one, too. Or, Pat, either one of you. Um, I always get confused with application versus site plan.

[01:28:51] Can you explain that to me? So if, so you say there's 148 parcels with active data center applications. So that tells me they put it in an application and it's now in the hopper. So it's active. But then it seems to me that you're making a distinction whether or not it's got a site plan or not.

[01:29:07] So they can put in an application without a site plan? I'm let my, because that's the clarity you provided in terms of the active site plans that they did are those that actually have, are going through building and development right now with active site plans and some of the other numbers that you had were active legislative applications which again could not be determined at the time of what the data, what was going on.

[01:29:32] So that's where some of the speculation occurred in terms of the forecasting. So this is really just trying to get a big broad picture of kind of where we are in looking forward which is a hard thing to do as you know. Yeah, but that's really helpful. Dan, you're going to say something? No. Yeah.

[01:29:48] Yeah, so just to be clear in my own mind. So an application means they've put in an application. It doesn't have to have a site plan with it. It just means heads up, we're going to apply for something on this parcel. So I think in this case, on this slide, they're just talking about site plan applications.

[01:30:05] Basically everything that comes through, whether it's a rezoning, a permit, they're all applications. So, in this case, they've made this specific to site plans only. Other portions where they're looking at legislative would be using applications for legislative as opposed to site plans which are administrative.

[01:30:21] Okay. So, the site plans are administrative? Yes. Correct. So, every rezoning or special exception that comes before you ends up having to do a site plan before they can build a data center or really any other commercial structure.

[01:30:36] So, the site plan is really -- that's -- they're serious. They're going to build a data center if you've got a site plan in your hand. Correct. And an application may or may not result in an actual data center, but a site plan is going to result in a data center. I mean, I would say almost always if you put in the time and money to design a site plan and submit it, you're going to go through -- because the whole point of an

administrative process is that as long as you check the right boxes, you're going to get approved as opposed to legislative where there's a little bit more.

[01:31:01] But with a legislative or a by-right application, they both have to submit a site plan. Yes. That's the key. That's why that's the key. the real gauge as to what's going to be built there. Okay, great. Thank you. So is the 72, is that the buy right? You lied on.

[01:31:16] I'm sorry. Yeah, is that the buy right, the 72? So it would be, at the point that there's a site plan, it would count for both. It would be any property that has the right to submit that site plan for that use. So it could be from a rezoning, or it could have been from something that had those rights for decades.

[01:31:36] So just to clarify that, we've got 72 site plans on 148 parcels. That doesn't rule out data centers on the remaining 76 parcels, right? That's correct.

[01:31:51] Okay, got it. So these ones we felt pretty certain about because we actually had a site plan. And then what we did, you can't see it well on the map, but those green shapes that you're seeing on those parcels are actually, we digitized them and mapped them.

[01:32:08] So those are all actually shown in the right location geographically. And then the question, which Supervisor Turner just brought up, is what about the other 76? So we'll get into that next.

[01:32:23] So these were the statistics that came off of the ones that had applications, the 72 parcels with applications. I won't go through these, and just something for you to look at. but the floor area ratio is something that we used um which is the the gross uh the gross air floor area divided by the parcel size so we kind of use this in the next step to determine on the that other land how many buildings would be cited on those remaining parcels

[01:32:59] we'll show the yeah so on the right side of the screen is every application that it's in the the report, every application that doesn't -- that has an application but no site plan, so I guess that's a legislative application. And then what we -- we did the math here based on the parcel area, which is the 720 -- 712 acres to convert it to feet is 43560 multiplied by the floor area ratio and divide by the gross floor area we're getting -- the average

[01:33:34] the average gross floor area of a building we're getting 33 additional buildings is what we're estimating on those remaining 76 parcels um so we have i guess you could say we have 84 that we're really certain about 33 that are probably further behind because they don't have site plans they're going through other applications to i guess either a zoning map amendment or zoning concept plan amendment but we're anticipating that there's 117 data center buildings right now being being

[01:34:13] planned for by developers and then on the right side of the screen is one of the site plans from one of the e-plans but basically it had the megawatts on there on the drawings so we took that and came up to an average of 70 megawatts per building because i think in this in this circumstance they were they were roughly about 70 megawatts per building so if we just extrapolate the 70 megawatt connected load with 117 buildings you know we could be anticipating something

[01:34:51] in the ballpark of 8.2 gigawatts of additional power which is a substantial amount of power and going back to pjn their summer load for that for their project was 5700 megawatts so I guess the, you know, the concern is if there's this many projects planned, and there may be more transmission projects planned in the future.

[01:35:23] So, I'm sorry, so an additional 8.2 above the 5.7? I'm sorry, yeah, just additional 8.2 for the 117 future data center buildings, that would total to 8.2, so additional.

[01:35:44] Okay. then just there are certain trends that were interesting you know as we were going through this exercise um one is that if you think about the ones with site plans being further along than the ones without site plans um you know the the lot of the a lot of the virgin land is being taken so you're seeing a lot more tear downs on these uh on these other the ones that don't have site plans are you can see there's buildings underneath of it so a lot of those there's 60 of those

[01:36:20] would require redevelopment or teardowns where the ones with site plans most of the time you know 70 percent of the time they were on virgin land. Mike can I pause you there one second without objection I'd like to take this to a committee of the whole so we can just ask questions and let's do it for 10 minutes can we do that thanks can you back up one slide I want to make a point here. The 8190 megawatts, 117 buildings at 17 megawatts at 8190 megawatts. I can't tell you how

[01:36:55] gratified it was to see that number, because I looked at that, and in my paper, which I wrote over the last nine months, my estimate was 11.56 gigawatts by 2028. If we actually consumed 3.4 in 2023, adding 81.90, takes us to 11.59 instead of 11.56 by a completely independent consultant that arrived at virtually the same number. And the fact that Dominion is only estimating another 5.7 megawatts, and we independently have arrived at virtually an identical number

[01:37:35] on our own, reinforces to me that Dominion is underestimating the power demand that they're going to have over the next five years. And neither Kimley Horne's estimate or my estimate takes into account the exponential expansion of power demands from AI and from electric vehicles hooking up to our grid in Loudoun County, which everybody is now doing. So this reinforces pretty strongly for me the conclusions that I've already reached, which is that the grid is really over subscribed and it's going to stay that way for quite a while. Thanks, Mike. I appreciate it.

[01:38:10] Yeah, and I think that's the thing on these PGM, these Regional Transmission Expansion Plans is we'll continue to see other projects come out in the area as they look to meet the load. I wanted to jump to this slide too, Mike, to explain a little more too about the different forecasting we saw from Dominion.

[01:38:32] And this one's very revealing in terms of Dominion's numbers, and I'll let you explain it a little more in terms of the 2028 numbers. Yeah, for the load growth projections, you know, we've said that other project, the RTEP 2022, is the 5,700 megawatts, which includes all those Dominion reliability projects we showed with the ring around eastern Loudoun.

[01:38:59] The Kimley Horne forecast was the 8.2 gigawatts, and then Dominion has indicated that, you know, in one of their presentations that there would be, you know, I think recently, you know, growth to 8.3 gigawatts.

[01:39:17] And those numbers were by 2028 as well, and the nice thing about the Dominion numbers is most likely they are directly from requests from service from data centers. So we know that's an actual number. And that's the nice part about that is it confirms a lot of the forecasting that we did and that we're in the same area.

[01:39:40] That's all I wanted to point out. Yeah, it wasn't Dominion that underestimated it. It was PJM that underestimated. Dominion is pretty spot on. And that's the hard part with the PJM numbers of part of that may have been presented by Dominion with some of those projections at that time. And then we've

had the discussion internally about that date of 2022 and the sudden growth of the AI industry and what we're seeing in terms of data centers and hyperscale and the energy demands associated with that have ramped up significantly from that time period. So that's just a little clarification.

[01:40:12] Another fine nuance point that I just thought about is this load projection by Kimley Horn and also by Dominion is based on site plan of those 72 applications that have site plans that's assuming they get built and how many of those are by right and how many of those are legislative we don't know but that's assuming all 72 get built so if all 72 don't get built then we've got some pad that's correct but that pad could be easily more than overtaken by the increased demand from AI. So we really, there's so many large moving muscle movements in this process, it's very

[01:40:51] difficult to say where are we going to be in five years because everything is so big that's moving around. Okay, thanks. Are there some other slides we wanted to touch on? Can we go back to that slide? Are we still within the committee as a whole? Sure. Can you go back to the slide? So I just want to make the top point, the PJM 2022, is that a projection or is that what we have now? I just want to make sure I understand this slide so PJM that are that's what they were designing around um in 2022 2022 okay for 2028 that's just I wanted to make sure and then obviously growth they expected in 2020 that's

[01:41:25] what they expect now Kimley Horn and Dominion have forecasted in 2024 the growth by 2028 and that is assuming all 70 or 84 is it 7 84 72 of those sites are developed yeah it assumes that fully that all the ones with site plans and the ones without site plans it assumes every the 117.

[01:41:48] So that's all 107 exactly you know if everything were to get approved so that's probably the worst case scenario. So let me make sure I understand this let's assume everything gets and is that is that full racks everything or I mean I guess I'm trying to understand is once those all get built out and they're at full capacity is this their projection I mean I'm trying to understand.

[01:42:10] so they're designing their transmission lines around 5700 megawatts right now so all those projects they're assuming they were they're being designed for 57 so for in excess of 57 there's going to be need for uh upgrades to transmission lines or new transmission lines so the ones that yeah sorry so here's my question then I mean is that even a reasonable is it even reasonable to believe that those will be built by 2028 and fully I mean I just that's that's a great question and I think I think that the whole where things fall in time you know if they're only projecting out to 2028 and they're

[01:42:48] looking at hookups from a certain point in time and say for example the ones that don't have site plans and they're just trying to see if they can use the lands they might not be already putting in for service requests so they might not already be with Dominion on hookups.

[01:43:06] So it's really hard to say. But I think the trend is -- and with the -- there's a bigger megawatt requirements for some of these newer data centers is that it's going in that direction. MR.

[01:43:21] But it seems to me like this timeline, which I would assume the power companies want to look at it in this way, is pretty aggressive. I can't imagine we actually get to this level by 2028 given my understanding and what -- the the length I've been on the board for five years now almost, that all those will actually be up and running?

[01:43:39] That's fair. Okay. That's fair. Is that, Dan had his light on, is that? I was just going to say, I think the limiting factor is not going to be whether they can be constructed, it's going to be whether the power is

available. Yeah. So if the power is not available to get anywhere close to that, then they're not going to need to be constructed as quickly.

[01:43:57] My understanding is I think Dominion and Kim Lee Horn are assuming that everything goes probably perfectly well or significantly well with the development process and they're ready to go and they're saying, hey, we're ready for power. Is that correct? I think the Dominion will only probably forecast based on requests to hook up. And so their numbers are probably based on someone coming to them. I can't say for certain, but that's my assumption. Do we know when a data center asks for hookup, what percentage of the total full power, do they start at full power

[01:44:33] or they're like that's what they're going to get forever or do they do they slowly grow as they build as they fill out that data do we know i can't answer that all right quite often they do they do grow the issue is that um dominion originally was was giving them the rights to the power for full belt out until they started running into this crunch and so now they're sort of meeting it out more slowly they're doing that because they do grow a bit inside the building every year until full build out of all the racks. Gotcha. All right. So I just wanted to reiterate

[01:45:07] the reliability projects that Dominion's doing now, Apollo to Twin Creeks, Aspen to Golden, Golden to Mars, Mars to Wishing Star, Dobbs to Goose Creek Corridor, and the big north-south one that we looked at that I'm calling Morrisville, the big one, Pat, that we looked at today, is all for 5,700 megawatts.

[01:45:29] Yeah. On the previous slide, when we went through the Virginia SEC filings, they talk about the summer capability, transfer capability, and that's telling you how much on the line that they can move. So that statistic there, the 1,573 megavolt amps, which we'll just say is megawatts.

[01:45:50] But that's for the 5,700 that was projected by PJM. so um so we're not even done we're not even i mean we're working on these so we're never i mean how do we make the 8346 like it just seems like we're not going to make that 2028 date because we're still working on these reliability projects that are for the load of 5700 yeah no that's that's the concern yeah okay okay um and i there's another request i have and for staff and uh maybe come to you mike it's very difficult i have tried to figure out what is the capacity of the various

[01:46:29] lines with so much going on with upgrades so dominion has said we're reconductoring have they finished reconductoring are they on ongoing is that a plan to reductor they're moving to what is it acsr lines which is a newer line um which increases capacity by 50 percent nothing I've seen, if they're estimating a 5,700 megawatt growth, is that their estimate? That's their estimate of load demand, right? That's not their capacity estimate. They're building to, they're

[01:47:06] building the, this plan is to build to a 5,700 megawatt load demand increase. That's, yep, that's my understanding. Okay. We really struggle to find out what is the current load capacity of our existing lines. So the question would be, have they recondutored all the lines in Loudoun County?

[01:47:26] Are they planning to? If so, when are they going to finish reconductoring those lines? Have they increased the amps to 4 and 5,000 respectively on 230s and 500s? Is that on all of the lines in Loudoun County? Is it just on the main north-south line? Those are the kinds of questions we really struggle to get answers for. So if somebody can just kind of hip pocket that question, we're constantly looking for that. And does reconductoring increase the capacity by 50 percent so I don't I don't know about that that's yeah re-conductoring is a big thing uh

[01:47:56] advanced conductors um and it's a composite core and it has more strength it can move some some say double the capacity through the lines I guess the challenge on existing lines are though um I mean it's a little bit more costly but in this case it seems to make a lot of sense but it's if you're already moving power from it is taking outages to reductor the lines could become a logistical challenge so i think that as long as it's phased and and it's thought through by dominion is that is that a wreck and rebuild process or no that um it doesn't necessarily need

[01:48:36] to be um but it could be and dominion told me that they're moving from a aluminum core uh steel supported acss to aluminum core steel reinforced which is 1970s technology and the numbers that i saw was a 50 increase they're not moving to the carbon composite anywhere in the system because they're worried about that it's subject to sag with freezing if there's any kind of freezing weather they won't they won't do that okay go ahead so i know we're talking about reducting when we talk when we talk about reductor do are we literally talking about increasing

[01:49:15] either changing the material on the line itself or increasing the capacity because i've heard discussions on 750 kv lines is that a thing or is that something that they could my understanding is that you could put those conductors on they could be installed on 750 or 500 or 230 you know they're they're just a different makeup than the aluminum uh conductor steel reinforced, which is kind of the standard line that goes in.

[01:49:45] That's interesting. Any other questions? Yeah. So with the reductoring would that just be, would that just get us to the 5700 megawatts or would that increase even more of the need that we have?

[01:50:05] I guess if these projects had advanced conductors they might be able to get more throughput through them then more than 5700 potentially so when we talk about reductoring is that all the way you know all the lines all the way going to pennsylvania to virginia or is it like a certain point that the reductoring occurs it could be on any line um so i'm not sure to like mike's point before um i'm not sure which lines have which type of conductors i mean that would

[01:50:41] would be an exercise of sitting down with the minion I think and kind of working through all yeah there's a lot of unknowns that's right thank you and this goes back to our discussion about the ability to reductor and utilize existing corridors and that you know again oftentimes they are using the same structures they're just changing out the wiring and the conductors on those particularly with the more modern monopole design we have so part of the larger picture and and this is up for a reason, is the loop that's created allows them to then take certain lines offline for a period because now they have redundancy in that entire system.

[01:51:19] So that's the important thing in looking at Eastern Loudoun and the 500-230 kV loop and how these all interrelate together in terms of an entire network. And if you looked at our original map that we saw, most of Eastern Loudoun is served by those 230 kV lines.

[01:51:37] So there really is not the larger volume of electricity being delivered to those areas where we know there is increased demand. So that's kind of a big-picture approach to it. The final answer is, and I think we've all come to that, is we know there's going to be additional demand for electricity.

[01:51:55] And as part of that, we need to prepare for additional transmission lines. And with that, that's part of the idea behind the CPAM. So I don't know if you've got any other comments on that, Mike, or if there's any slides we missed that you'd want to talk about.

[01:52:12] I appreciate your tolerance. This is important stuff and I wanted to take some extra time. Well, it's a pretty involved topic, and again, to try and, you know, for all of us to get on the same page, so. Yeah.

[01:52:28] And then just going back to the slide, that other trend was just data centers now that they're developing on smaller parcels of land, they're also developing vertically, so you could see the pie chart there but you're seeing more two three four story uh buildings being put in without objection i'm going to take us out of committee the whole thank you okay keep going i think now is a great part to transition into the discussion about the cpam or do you want to do your due diligence recommendations i mean they they are very similar to our recommendations with

[01:53:07] the plan i mean i can whatever you can yeah why don't why don't we go ahead and move to that so So as we just discussed, we should anticipate additional high-voltage transmission corridors and/or the redevelopment of our existing transmission corridors. And so in looking at our existing energy policies in the plan, they already call out, you know, the requirement and the county already recognizes that, you know, that the electrical network is necessary infrastructure and that, again, for the growth of our existing and future businesses,

[01:53:42] It's one of those things that we as a county have to plan for as well as work with Dominion to ensure the structural integrity and reliability of that so that we do have adequate power delivered to our businesses and our residents.

[01:53:57] Specifically, the energy policies and the plan call for the county to work with electrical providers to identify potential high-voltage transmission lines and substation locations that minimize impacts on key travel corridors, cultural resources, and residential communities and encourages the placement of transmission lines underground when approaching those areas.

[01:54:18] The policies also support the use of existing transmission corridors and the co-location of new transmission corridors to expand the capacity and reduce impacts on communities. So, as part of the proposed CPAM, what we would like to do and why we are here tonight is to receive guidance on a proposed comprehensive plan amendment to update the electrical policies of the 2019 general plan.

[01:54:48] The CPAM is anticipated to have a mapping component and a policy review and development component. The mapping component is anticipated to identify all existing 230 kV and 500 kV high voltage transmission corridors as features shown in the 2019 general plan.

[01:55:06] The identification of the existing high-voltage transmission corridors as a preferred location for the development of future transmission lines is in keeping with the county's existing policy and it clearly directs electrical providers and reviewers at the State Corporation Commission to locations where the county would anticipate the development and redevelopment of high-voltage transmission corridors.

[01:55:30] As part of the CPAM, we would also propose amendments to our current policies to better address location, design, and aesthetics of high-voltage transmission corridors. And as part of those, we would take a look at strengthening our existing policies, calling for co-location. We would develop additional policies supporting undergrounding of high-voltage transmission lines where practical to minimize impacts on scenic landscapes, heritage resources, major travel corridors, and residential communities.

[01:55:58] And we would also encourage the establishment of passive trails and the incorporation of native plant species within these transmission corridors. So with the proposed CPAM and the policy

amendments and mapping amendments, they'll provide additional guidance for electric providers, county staff, electric officials, and decision makers when planning where and how high voltage transmission corridors will be constructed in the county.

[01:56:24] And with that, staff recommends that TELEC forward the item to the board with a recommendation to initiate the electrical infrastructure CPAM and direct staff to develop a project plan. So with that, we're available for additional questions.

[01:56:40] Thank you very much. Mike, thanks for Kimley Horne's work on this. It was really, really helpful. I really appreciate it. And Pat and Dan, you guys did great, as always, so we appreciate it. I'm going to go straight to motion, if that's all right with everybody. I move the Transportation Land Use Committee recommend that the Board of Supervisors initiate a comprehensive plan and amendment for electrical infrastructure to adopt mapping, text, and policy amendments to the Loudoun County 2019 General Plan for high-voltage transmission corridors as generally described in the October 17, 2024 Transportation Land Use Item and direct staff to develop a project plan.

[01:57:13] Second. Seconded by the Vice Chair, Supervisor DeCarone. Opening comments, I think we've said all that needs to be said. Having this formalized in the plan gives us some weight when we engage in discussions with utilities and with SEC and I think it's absolutely vital at this point.

[01:57:30] I think the presentation has clearly demonstrated this is a fast moving train with some real major variables that are just very hard to predict over the next five years. And the more we can codify our desires in this plan, the better I think we'll be in any kind of discussions.

[01:57:46] Any other comments? Supervisor Kirshner. Thank you, Supervisor Turner. Yes, I agree with Supervisor Turner's comments, and that is, you know, just obviously strengthening our policy documents and desires to help guide or gauge where these corridors run or where our power lines will hopefully end up because obviously the demand is going to be there, Dominion, and other providers are going to need to continue to provide for them.

[01:58:15] So we certainly support this. The one question I had, if I can ask the staff a question, Chair, So this plan, once it's brought to the full board and adopted, what is the estimated time on that? Do we estimate that it could reasonably be completed? We would estimate, again, with our typical CPAM process, anywhere from nine months to a year.

[01:58:35] We will be engaging in some additional research to look at current trends that are going on, as well as we may be anticipating some changes in state legislation, which may affect what policies we would add in as we kind of move forward.

[01:58:50] So, but probably a nine-month to a year process. Okay. That's obviously, I think, expediting it as much as possible would, I think, be helpful. Thanks. Mr. Rose-Glass. Yes, I was just going to say that I do support this motion, and thank you all for the information that you've given us today.

[01:59:10] It's been very eye-opening about our need And the concerns that my constituents have regarding the transmission lines that are coming to or near their homes.

[01:59:29] And we get calls, I know, calls or emails every week regarding what is going on. So for us to have a plan so that we can let them know what we intend on doing and what is going to happen.

[01:59:47] so that they don't feel like they're being blindsided with our need as a county. Thank you. Supervisor Tocconi. Thank you, Chair Turner.

[02:00:03] So I think residents will be very pleased to know that we're looking at co-locating proposed transmission lines in the existing corridor and also undergrounding them when they are near residential or near sensitive areas I also like the idea of looking at some trails passive trails and pollinator meadows you know because that's a benefit to residents that live near these transmission lines and I'm glad to see that we're going to be

[02:00:42] proactively planning for lines that we need in the future with an eye towards co-locating where we can, but knowing that we have a huge, you know, amount of load that we're going to have to meet, and it's good to plan and to proactively come up with ideas and to reach out to the community to let them know what we're thinking of, realizing that, you know, we may need new transmission lines, and hopefully they can be underground.

[02:01:09] That would be my hope. So thank you so much. glad we're doing this process um one more time thanks very much for your great work we really do appreciate it uh any other comments motions been moved and seconded all in favor say aye aye any opposed that motion will pass 4-0-1 without any further ado i believe we have completed our agenda and we are adjourned thank you



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