AREA PLAN COMMISSION OF TIPPECANOE COUNTY
ORDINANCE & BYLAW COMMITTEE
MINUTES OF A PUBLIC HEARING

DATE ..... March 04, 2026
TIME .....4:40 P.M.
PLACE .....COUNTY OFFICE BUILDING
20 N. 3RD STREET
LAFAYETTE, IN 47901

This meeting was held in-person. Members of the public could watch the livestream of the meeting at https://www.youtube.com/c/TippecanoeCountyGovernment

MEMBERS PRESENT		MEMBERS ABSENT	STAFF PRESENT	
Diana Luper	Vicki Pearl	Jackson Bogan	Ryan O'Gara	Kathy Lind
Tom Murtaugh	Gary Schroeder	Larry Leverenz	Amanda Esposito	Eric Burns, Atty
Kathy Parker		Jerry Reynolds	Nathan McBurnett	

Gary Schroeder called the meeting to order at 4:40 PM.

I. APPROVAL OF MINUTES

Kathy Parker moved to approve the minutes from the February 4, 2026, public hearing. Diana Luper seconded, and the minutes were approved by unanimous voice vote.

II. UPDATING OUR SOLAR ENERGY REQUIREMENTS:

This will be the first discussion of a conceptual amendment to the UZO regarding solar energy requirements. It is the product of the work of our solar energy committee that has been meeting twice a month from September, 2025 to its latest meeting on February 26th.

A. Report by APC staff
B. Questions from the Ordinance Committee
C. Public comments (limited to 3 minutes per person)
D. Comments from the Ordinance Committee

The Ordinance Committee will continue this discussion at its April 1st meeting.

Report by APC Staff:

Ryan O'Gara, APC staff, stated that a memo and draft were created with recommended changes from the solar study committee. It was organized into the following areas: sections where no changes were recommended, sections with changes recommended with different alternatives, and sections where a consensus was not reached. The goal was to take the choices the Ordinance Committee voted on, put them into proper ordinance format, and present them at the April 15th Area Plan Commission (APC) meeting. Solar is currently addressed in the Unified Zoning Ordinance, Chapters 1, 2, 3, and 4.

Comments from the Solar Study Committee:

Katherine Sobieralski, 938 Chepstow Lane, West Lafayette, stated that the point of zoning ordinances was to balance the interests of adjacent property owners and to collocate harmonious uses. The focus was health, safety, safety, and welfare of direct stakeholders. When homeowners living next to the fields ask about classic zoning protections, that is a land use conversation. Another conversation deals with other members of the community who live entirely elsewhere and want to have a policy talk about the virtues of solar. The most important voices in the zoning conversation are the farmers and their direct neighbors. Almost 70 ordinances from the state of Indiana were reviewed and the following areas have not been addressed for Tippecanoe: provisions on emergency responders, provisions on road use standards, provisions on an application fee for the county to hire outside review at the time of special exception, and others. Counties like Benton, Boone, Madison, Huntington, and Jasper have ordinances that give rural neighbors increased protection without banning projects.

Kenny McCleary, 942 Chepstow Lane, West Lafayette, referred to the solar moratorium as an opportunity to have common sense guard rails put in place in the ordinance to avoid the harm and negative impact that similar projects have created elsewhere to participants, property owners, county infrastructure, and the environment. He had created a 12-point plan as an accumulation of what other counties in Indiana have done. A fact-based approach should be taken by observing actual facilities, including other states, looking at completed projects, talking to people in counties where projects have been completed, and looking at battery energy storage system facilities. He did not agree with all the conclusions that were tagged as consensus items. They were good starting points, but there was more work to be done. There were critical community voices missing from the discussion including the Tippecanoe County citizens who do business or make their living from agri-business and farm service. Emergency responders, realtors, and smaller communities have not been represented in conversations.

Dr. Jane Frankenberger, 2640 Newman Road, West Lafayette, a professor of agricultural engineering at Purdue specializing in soil and water engineering and management, serves on the solar ordinance study committee to bring her expertise to the deliberations. The committee's goal was to create a clear, defensible, and balanced solar ordinance by drawing on the diverse expertise of its members, incorporating scientific evidence, and compromising where necessary to achieve consensus. Despite meeting together 9 times since September 2025, she didn't feel that they were successful in those goals. They had carefully reviewed concerns about the existing ordinance and examined potential solutions in good faith. They believed they had reached a compromise on several key provisions, including a limit on total project acreage in the county that many found quite restrictive, but agreed to as a better alternative than individual project caps. However, that compromise broke down during the final meeting when alternatives that had not been discussed, or supported by evidence, were presented. An example was the setbacks in Chapter 4 where alternative one included a set of tiered distances ranging up to 600 ft from an occupied structure. While some believed this distance exceeded what was necessary given the low expected noise and visual impacts of modern solar facilities, it was agreed to it in the interest of compromise. Despite that, another alternative was added that would require a 1,320 ft setback. This distance exceeds setbacks required for junkyards, adult entertainment facilities, mining, motor vehicle raising, and shooting ranges with no evidence to justify it. What was presented was one alternative that reflected significant compromise and another that reflected an extreme position. The document presented a range of alternatives for several decisions with some appearing to be motivated primarily by a desire to deter large-scale solar development, disregarding the county's well-balanced approach to solar energy planning. She plans to provide clarification supporting the solar study committee's recommendations for the ordinance committee's consideration.

Joseph Sobieralski, 938 Chepstow Lane, West Lafayette, addressed the acreage cap. A 400-acre project is 2/3 of a square mile or over 300 football fields and solar projects can operate successfully on this scale. Data from the Clean Grid Alliance showed there were currently 117 commercial solar farms operating in Indiana, 104 of those, or nearly 90%, were 300 acres or less. At a 400-acre cap, that is still larger than most solar farms already operating in the state. The developer that applied last year, GenX, had a list of their operating projects online and nearly half of them were less than 200 acres. The idea that these aren't economically viable at smaller scales is unfounded. Project size matters because impacts increase as projects get larger. Larger facilities need to spread panels out, have more inverters which have more potential for noise, and a greater chance that glare could negatively impact residents. As project size grows, more non-participating landowners are exposed to these impacts. Project size also has public safety implications. Extremely large solar facilities can make emergency access more difficult for firefighters, EMS, etc. Reasonable size limits help ensure that projects remain manageable in the event of an emergency. A 400-acre cap does not stunt or forbid solar development. It simply ensures projects remain at a reasonable scale for rural areas.

Larry Nies, 2221 Huron Road, West Lafayette, a licensed professional engineer and a professor in environmental engineering at Purdue University, worked with a firm that developed, constructed, and operated utility scale solar facilities. Demand for electricity has grown approximately 3% annually nationwide and more than doubled that rate in some regions. According to the US Energy Information Administration, more than half of all new generating capacity coming online is solar. There are already more than 5,000 utility scale solar facilities operating successfully across the United States and many

counties have adopted well-grounded ordinances that align with established codes and standards while providing meaningful protection for residents. Larger facilities produce lower overall impacts than multiple smaller ones. Smaller parcels significantly increase the ratio of perimeter to land area which means more shared boundary with neighboring properties. Having fewer larger facilities reduces that exposure. They also cost significantly less to develop per megawatt which improves project viability and potentially allows more development resources to return to the county.

Comments from the Public:

Anna Sorg, 122 North Street, West Lafayette, spoke on behalf of students in the Sustainable Energy Club of Purdue, the Purdue Climate Action Collective, the Purdue Student Sustainability Council, and the Boiler Green Initiative Club. Collectively, that is over 250 students representing the future generation. Her generation is invested in seeing solar technology used in Tippecanoe County and urged the committee to go forward with amendments to the solar ordinance that would benefit the future production of solar energy. She discussed solar myths and rebuttals pertaining to the proposed alternatives in the new ordinance. The first solar myth is that solar farms create glare. Manufacturers utilize anti-reflective coatings on panels that manipulate and reduce the amount of light that bounces back off the surface. The glass surface is textured to diffuse the light reflected instead of a concentrated beam. Studies show that the following are more reflective than solar panels: asphalt, standard windows, standard window glass, water, and snow. In the new subsection proposed in the UZO Chapter 4, one of the alternatives suggests that large-scale SES shall not exceed 0.5 footcandles yet at midday in no shade the sun emits 10,000 footcandles. This is not a fair suggestion for solar to only admit 0.5 when the sun causes 20,000 times more natural glare. The second solar myth is that solar creates heat islands. A study by the University of Arizona found that the temperature of soil in full midday sun is often hotter than the same solar soil under solar panels. Per a study by the National Renewable Energy Laboratory, planting native seed mixes below solar arrays will absorb heat naturally and ultimately support soil health. The third solar myth is that citizens within Tippecanoe County are against utility scale solar development. For the past 5 months, deep canvassing and phone banking showed that citizens are in support of utility-scale solar.

Dr. Darrrell Schulze, 1815 Woodland Ave, West Lafayette, a soil scientist and retired professor of Agronomy from Purdue, talked about how when solar farming is done right, it can improve soil health. It is beneficial to plant perennials under solar panels such as pasture grass or a mix of plants with deep fibrous root systems. These roots are alive all year round and distribute organic matter deep within the soil. This promotes diverse communities of soil microorganisms, insects, and earthworms and in turn supports a diverse community of small mammals, birds, and other wildlife. Soil structure improves over time and as soil structure improves, water infiltration improves, and soil erosion and runoff water decreases. In contrast, maintaining and/or improving soil health under row crops is difficult. With corn and soybean rotations, crops are actively growing only 3-4 months of the year. If the soil is tilled after harvest, the soil is bare for more than half the year. In summary, solar farms are a win-win situation. Not only do they convert much more solar radiation into usable energy than corn and soybeans, having perennial vegetation under solar panels greatly improves soil health, promotes water infiltration, and reduces erosion and runoff. It is critical for solar farms not to compromise soil for future uses. Unnecessary stripping of the topsoil and grading for ease of construction should be prohibited. The removal of topsoil for access roads and pads for equipment is acceptable, but the topsoil should be saved on site for future restoration. A handout he distributed addressed other inaccurate and misleading soil related assertions.

Sallie Fahey, Morehouse Road, West Lafayette, representing the League of Women Voters of Greater Lafayette, stated that the League has had a long-standing position supporting renewable energy, including large-scale solar. That position is based on extensive study followed by adoption. That position was reiterated last June to the county commissioners in support of the existing solar ordinance. The league supported compromise if it resulted in tweaks to the UZO that produced a better ordinance for all involved. However, the league does not support compromise in this instance if the compromise is so one-sided that it deters large-scale solar companies from seeking to locate in Tippecanoe County. Because of the late publication of the solar study committee's report, the league reserved the ability to thoroughly review the report's recommendations and alternatives and either submit a written statement prior to the next ordinance committee meeting or to speak to those recommendations and alternatives at the next

meeting. There may be some concern in the community about accountability regarding compliance with the ordinance. There are numerous county departments with authority to enforce pertinent ordinances. Those departments include the Area Plan Commission, its Board of Zoning Appeals, the APC staff zoning inspector, the County Permits Office, the County Highway Department, the County Surveyor, and the Drainage Board. She has worked with these departments for 47 years and can state with absolute assurance that they all work well together, support each other's mandates, and are not timid about enforcing the available ordinances for the benefit of our community.

Angie Delworth, 2908 Wilshire Ave, West Lafayette, spoke in support of a solar ordinance that allows new solar farms in Tippecanoe County and agreed with the study committee's recommendations to limit development to no more than 5% of premium agricultural land. She wanted to focus on fiscal stability and the rights of property owners, particularly considering the property tax relief bill passed by the Indiana General Assembly in 2025. According to the Indiana Legislative Services Agency, Tippecanoe County is projected to lose about $24 million in revenue in 2026 due to SB1 with losses increasing in future years. These reductions will inevitably affect services relied upon by county residents. Purdue agricultural economist, Larry DeBoer, found that the solar farms he studied in 2023 generated roughly $900 to $1,000 per acre per year more in property tax revenue than the same fields if used for crops. A 1,000-acre development would generate approximately $915,000 in additional tax revenue annually. Using these same numbers, the proposed 1,700-acre Rainbow Trout project could have provided about $1.6 million per year for the county and other local taxing units. She has spent most of her career managing budgets at Purdue. When facing revenue reductions, academic units had to make the hard decision to reduce expenditures or identify new sources of revenue. Solar farm development represents a very practical way to help offset the anticipated losses of SP1. She spoke on property rights as a co-owner of farmland in a neighboring county that has been in her family for more than 150 years. She was raised on that land in a rural community where landowners were trusted to use their land responsibly to support their families and communities. For solar farms that meet established codes and requirements, they should likewise trust the Tippecanoe County landowners to make decisions that best serve their situations and their operations. While nearby residents have expressed concerns, those concerns have been addressed in the ordinance language. It is therefore appropriate to also consider the broader public benefit of the increased tax revenue from these farms. These decisions require balancing individual preferences with property rights, fiscal responsibility by the county, and long-term economic impact. She urged the committee to adopt a solar ordinance that supports the development of solar farms in the county allowing them to operate at full capacity, strengthening the local tax base, supporting infrastructure and public services, and delivering sustained economic benefits to the broader community.

Benjamin Davis, 5105 Snap Dragon Court, Lafayette, spoke in favor of large-scale solar and has had solar on his roof for 4 years. He enjoyed knowing that he has a fixed amount of energy produced over the next several decades regardless of rates. He would love to see solar in his backyard. A lot of people are afraid of having solar near them as they think it would block their view and would generally prefer crops like corn. After building his home in 2016, the neighboring property was sold 2 years ago and is now farmed. For a few months out of the year, instead of the clear view that he chose their lot for, he sees a wall of corn. He has dreamed of seeing that land having solar on it, improving the view with silent, clean energy production. Large solar developments provide numerous benefits for residents, including increased property taxes for the project, potential for community benefit agreements for additional local investments, and decreased need for expensive long-distance transmission lines.

Nicole Duttlinger, 511 Kerber Road, West Lafayette, spoke to what she saw as a logical inconsistency in how land use policies are approached in Tippecanoe County. In comparing data centers and industrial solar she referenced the moratorium that was placed on data centers by the APC which would give maximum public scrutiny to the process. The same should be done with ordinances for industrial solar. Many in the community strongly support strict ordinances for data centers. The concerns are similar: land consumption, environmental impact, strain on infrastructure, long-term community benefit, and transparency in the approval process. The inconsistency when it comes to industrial solar, is those same standards are often relaxed or even dismissed entirely. If the principle is that large industrial developments require strict oversight because they affect land use, infrastructure, aesthetics, and community character, then that principle must be applied consistently regardless of whether the project

involves servers or solar panels. It cannot be argued that data centers demand rigorous review because they are industrial in scale yet claim that industrial solar is fundamentally different simply because it produces renewable energy. Both occupy large tracks of land. Both alter the landscape. Both involve long-term contractual and infrastructural commitments, and both deserve thoughtful consistent standards. Good policy is consistent and applies the same criteria to similar impacts. If the concern is land preservation, let's preserve the land. If the concern is community character, let's protect it.

Dan Collins, 7602 Amanda Lane, West Lafayette, spoke on behalf of people living in the Shelby Township who value the quiet beauty, wildlife, and ambiance of the surroundings and the farmland that supported families for generations. The land, property values, and chosen way of life are being threatened. The revised ordinance in question needs to protect the property values of over 200 residents that are very near the proposed section and the residents themselves. They need to protect the surrounding environment with its abundant flora and fauna and preserve some of the most fertile productive farmland in the world. The protections needed to mitigate foreseeable harm to township and county homeowners were presented last August. Protections need to be included like other counties have by developing an appropriate and applicable ordinance as intended by the county commissioners' moratorium.

Suzanne Collins, 7602 Amanda Lane, West Lafayette, shared her concern that the proposed ordinance did not address energy storage systems. Most large-scale utility solar facilities use lithium-ion batteries which are volatile. An ordinance is needed that will put controls and guidelines on how these batteries are set up within the solar energy area. Should there be a fire resulting from battery usage, emergency systems need to be in place to handle it. Large-scale fires can have a 3–4-mile evacuation circumference because of the poisonous gases that are emitted. When local fire departments testified in August, they were concerned about having to fight these fires. For the immediate fire, a particular foam is needed, but sometimes it takes massive amounts of water to cool the remnants. Water contamination that then goes into the ground and wells is something to be considered.

Marlee Brimner, 24 Hilltop Drive, Apt. 6, West Lafayette, as Vice President of the Business Law and Compliance Society, spoke to the importance of government as it relates to the larger conversation about solar energy. Some of the ordinance revisions prioritize community protection over community guidelines. Community guidelines and ordinances have been shown to make communities happier and more prosperous. She spoke about her changing views on government as she grew up. A phenomenon in environmental sciences sees students dropping out when they learn about what's happening and the science behind climate change because they find it too devastating and discouraging to continue to fight and make a difference. She spoke about the hope and belief that differences can be made on a local level. Solar energy gives the government a chance to prove itself and to prove that it works for the people. She offered to personally oversee the regulatory compliance of these businesses to make sure that communities are not hurt by these arrangements but are the beneficiaries. She challenged everyone to research what a community benefit agreement can offer when it's paired with utility-scale developments.

Lisa Tarkin, 110 Windmill Court, Lafayette, spoke about the difficulty of trying to downsize from her current home to a place that won't be next to potential developments like solar farms. Solar farms have a place but need to be considered with caution.

Del Craig, 6817 S 700 W, West Point, provided a handout with recommendations to consider in terms of the ordinance with data he pulled from the Farm Service Agency detailing the registered farmland here in the county. He addressed Section 1 of the ordinance that outlined permitted uses by special exception. Alternative 3 of the proposed ordinance suggests 10% of crop and pastureland be used for solar. This amounts to 20,000 acres, since there are currently 200,000 acres of row crops and pastureland in Tippecanoe County. He found this amount of farmland loss to be scary. He wrote a letter back in August on behalf of the Tippecanoe County Farm Bureau and its 800 members to express concern regarding the proposed Rainbow Trout solar project that was under review for special exception. While they supported renewable energy development and recognized its importance, they believed the project raised significant issues that merited careful consideration, further analysis, and accurate answers. He thanked the commissioners for getting the ordinance committee together to talk about it. He wanted to emphasize that

the concerns about this specific project do not reflect opposition to renewable energy, but these developments need to be done in non-agricultural zoning areas.

Geoffrey Sanchez, 8343 N Homers Drive, Monticello, a PhD candidate at Purdue University, spoke about solar energy and agriculture coexisting. The way the ordinance is currently being proposed makes it a choice between renewable energy and farming. The role of a county solar ordinance is to protect the local landowners while encouraging development to occur. County ordinances need to ensure that solar developers are not driven purely by profit but are required to design projects in ways that support the local stakeholders. Tippecanoe County houses Purdue University, a world-class agricultural research institution, that studies how solar and agriculture can coexist. The research shows that solar sites can be designed in ways that allow farming to continue. The thoughtful and proper execution of ordinances which encourage dual land use has already been found in other states. For example, Maryland mandates that for a solar developer to receive property tax cuts, a suitable agriculture project must be installed. A solar array casts shadow patterns based on their configuration. In row crops, dense configurations may reduce yield substantially, while more open configurations create lighter shadow and allow crops to perform closer to normal levels. Farmers and landowners should not have to navigate these risks on their own. Solar developers should be required to fund an independent, impartial agricultural representative who can help farmers understand the implications of a solar project before agreements are signed. Farmers deserve access to clear, unbiased information about how a project will affect their crops and soil. Tools that model the impacts of shading already exist. That information should be provided to farmers upfront and it should be the obligation of the developer to provide it. Farmers should also be aware how these installations will interact with their existing equipment and farming practices. Understanding that crop yield and array density are inversely related, land lease agreements between farmers and solar developers should be determined by the density of a system and the capability for a farmer to continue farming. Solar development can provide a new source of economic stability for family farms in rural communities. That can only happen if our ordinances ensure that developers share responsibility for supporting the agricultural systems that already exist.

Kevin Kircher, 614 New York Street, Lafayette, an assistant professor in Mechanical Engineering and Electrical Engineering at Purdue University, spoke about the popularity of solar. In terms of polling, solar consistently outperforms almost every other type of energy source nationwide. A recent poll in Canary Media reached out to 800 Republicans, Trump voters, and Republican-leading independents, and found that more than half view utility scale solar favorably. That number rises to 70% favorability among Republicans if the panels are made in America. Another poll by Pew Research recently found 77% favorability across all Americans of utility scale solar, 91% among Democrats, and 61% favorability among Republicans. In addition to comments from Tippecanoe County residents, polls and surveys also show support for solar. The range of options on the table runs from extreme to no regulation of solar. The proposed document has half a dozen provisions in it that would amount to effectively banning solar in Tippecanoe County. A non-ban solution needs to be considered that provides solar opportunities for developers and the farmers who want it on their land, while continuing to be good stewards of the land. Solar is now the cheapest and cleanest source of new electricity generation. We are in a moment of unprecedented electricity demand from data centers, electric vehicles, and electric heating. Those that live near coal power plants and gas power plants that will make up the gap if solar isn't taken advantage of, are going to face real impacts. If clean energy isn't made, dirty energy will be which will cause real health impacts for the people like lung cancer, heart disease, and other serious illnesses.

John Ade, 8640 W 125 N, West Lafayette, presented a handout showing his property of 12-acres with 60 acres surrounding it that could be affected by the proposed ordinance. The Tippecanoe County proposed ordinance is 12 pages. Boone County's solar ordinance is 26 pages, Fountain County's is 32 pages, and Carroll County's is 26 pages. The Boone County ordinance addresses both residents and farmers, landowners, and proper setbacks. A 1,500-1,700-acre project for this community has a tremendous impact. There is opportunity for review and consideration on this project.

AR Lane, 127 Westwood Drive, West Lafayette, had written a letter to the Journal & Courier in support of large-scale solar. His hope was that the decisions in the ordinance would be guided by evidence, fairness, and long-term local value. Large-scale solar power is often framed as land loss, but it can

function as economic development. Local construction creates skilled jobs and projects can provide ongoing tax revenue through economic development agreements or community benefit agreements that directly support public schools, infrastructure, and services. From a land use perspective, solar is not the end of agriculture. Soil beneath panels typically experiences less erosion and improved water retention due to reduced compaction and runoff. Agrosolar expands the value further by providing sheep grazing and shade, protecting pollinators and beekeeping habitats, which can all coexist with energy production, and preserve working land while diversifying farm income. Considering energy efficiency, in 2024, roughly 43 to 48% of Indiana's corn went to ethanol production. Yet solar produces 14 to 17 times more usable energy per acre and can offset demand within the local energy grid with appropriate legislation and oversight. That doesn't diminish agriculture but highlights an opportunity to balance food, fuel, and economic opportunity with family values and environmental sustainability. Participation is voluntary and landowners negotiate leases and solar agreements which can keep farms fiscally sustainable. A thoughtful ordinance should allow responsible development while protecting neighbors and property rights. We can support farmers, strengthen the tax base, and diversify energy production all at the same time.

David Byers, address redacted, County Commissioner, thanked the committee members and staff for the time that they put into the proposed ordinance. He believed AA zoned land should be off limits to solar because it is considered prime agricultural ground. Jasper County has a scoring system that rates the value of the production of land. They use solar on less viable ground to use the most productive ground for agriculture.

Patty Jischke, 967 Westminster Circle #521, West Lafayette, shared that the main concern for the community, the state, and the country is the need for electricity. The average farmer in Indiana is about 56 years old. There are about 712 farms in Tippecanoe County with the average farm around 334 acres. In 2022, the average Tippecanoe County farmer had a net cash income from their farm of about $78,000. Farm income decreased in 2025 and there was a negative income per acre with the same expected for 2026. Solar panels can yield about $900 to $1,000 per acre for 30 years. This means a farmer could put 100 acres into solar panels, a third of what they own for an average farm, have an annual payment of $90,000- $100,000, and still have another 230 acres to farm. This money could mean the difference between losing their farm or keeping it for another generation. Given the future need for electricity, we must do all we can to grease the skids to generate as much electricity as possible. Solar is clean, cheap, and is not as vulnerable to disruption. Installing solar should be a streamlined process with simple regulations that are straight forward.

Zacaria Martinez, Emergent Solar, 1281 Win Hentschel Blvd, West Lafayette, discussed how the proposed recommendations to the ordinance were created by the solar study committee to create real, enforceable protections for neighbors, roads, farmlands, and taxpayers while rewarding solar contractors that have proper prerequisite knowledge and financial stability. The objective was to recommend ordinance changes that prevent taxpayers from carrying abandoned project risks.

Dean Craig, 3492 E 1400 N, Attica, a farmer with around 1,000 acres in the southwest part of Tippecanoe County, believed anybody should be able to do what they want with their land. He discussed the benefits of small molecular reactors (SMRs). An SMR can do the equivalent of 3,500 acres of solar fields and should be considered given that they have a smaller footprint.

Phil Farrar, 491 Kerber Road, West Lafayette, spoke about his firsthand experience with solar fields working for a company that has built them. He had seen the removal of topsoil and trees so that farmers could place more solar panels or build access roads. Along with noise issues, there are fire concerns with the solar storage units and where the liability belongs if an accident happens. These are issues the county needs to think about.

Lindsey Payne, address redacted, Go Greener Commission, a member of the solar ordinance study committee, grew up in rural Indiana. She trains future engineers to collaboratively work with stakeholders to analyze, design, and implement practical system-based solutions while learning to create sustainable communities and make hard decisions. During study committee meetings, there were many hard

conversations that needed to be made with the eye towards public health and safety, while also allowing for the economic development and diversification of energy systems. Some of the alternatives in the ordinance are evidence-based and for the common good of Tippecanoe County while others are not. For example, a compromise was reached on the limit of total project acreage for the county of no more than 6,000 total acres. This would represent 3% of agricultural land and allow for solar energy systems to be built where they are most efficient and provide willing landowners the ability to lease their land. The 6,000-acre cap was proposed as a number that would respond to residents' concerns about limiting solar development in the county. Other unvetted alternatives would eliminate areas zoned AA in the southern and western parts of the county, totaling nearly a thousand acres or half of the county's farmland. Some land within these areas is likely to be very appropriate for solar energy systems. The soil in these areas is no more productive than other areas of the county. Additionally, capping a single solar project at 400 acres would be a near de facto ban on solar. Project size is largely dictated by the amount of power the grid can accept at a given location without triggering expensive upgrades. This helps limit the size of some projects while maximizing beneficial impact for the grid and the community. While it's possible to build on a smaller scale, that doesn't mean it makes financial sense for the developer or grid operator. These are hard decisions and the alternatives need thoughtful consideration with evidence-based decisions to set policy for the common good of Tippecanoe County.

Susan Schechter, 1001 Ferry Street, Lafayette, talked about how farmland is a limited natural resource. Once land is developed for housing or commercial buildings, it is unlikely to be farmland again. Farmers have an option to continue farming while leveraging the land to earn solid income from hosting a solar project. Ground-based solar panels are not permanent structures and are designed to be decommissioned. Most solar projects have plans to remove equipment and restore land to its original state. Even more beneficial, agrivoltaics, the simultaneous use of land for agriculture and solar power generation, harvests photons from the sun while sheep or poultry graze under the panels. The 1.3-gigawatt mammoth Solar project in Pulaski County is implementing sheep grazing under panels and crop production in buffer areas. Gunthorp Farms, a northern Indiana organic meat producer, has been raising sheep under panels. Purdue University has an active agrivoltaics program. Corn is fermented to blend ethanol into fuel, but it is a very inefficient way to produce energy relative to solar. Considering the one-year moratorium the county commissioners placed on utility-scale solar, she hoped other protections would be considered for similar businesses like fuel stations and factories.

Peter Bermel, 1011 Elm Drive, West Lafayette, professor at Purdue University, spoke about agrivoltaics being a key future technology in development at Purdue to benefit the local community. Solar is a vital technology to solve some of the key challenges that society is facing, including on the local scale in Tippecanoe County. The energy supply has not been keeping up with the demand. Solar, wind, and batteries are the three leading energy sources that are being added to the grid. Solar is increasingly compelling because, through a learning curve, cost reduction is improving along with installation and decommissioning processes. Compared to 10 or 20 years ago, solar has become mainstream technology. If we prevent ourselves from being able to use solar power, we are putting ourselves behind the curve in terms of ability to keep up economically both within the Midwest, across the country, and on a global scale. It is essential for the future of Tippecanoe County to have this capability and setting a limitation to 400 acres per location is not in best interests. There should be a more flexible approach to accommodate concerns from locals but also be able to make it economically attractive for developers.

Comments from the Ordinance Committee:

Ryan O'Gara reviewed the following non-consensus items from the solar committee that showed what was currently in the UZO along with the proposed alternatives.

Permitted by Special Exception: OR, A, AA, AW	NO CONSENSUS	**Alternative 1**: by Special Exception in OR, A, AW only
		Alternative 2: No change (current UZO)
		Alternative 3: No change to SE zones, but add footnote to Permitted Use Table: "No more than 6,000 total acres of the county shall be developed for Large-Scale Solar Energy Systems."
		Alternative 4: No change to SE zones, but add footnote to Permitted Use Table: "No more than 10% of all crop and pastureland defined by the most current USDA Census of Agriculture."

Tom Murtaugh discussed how owners with AA zoning could be participating property owners if that zone was removed.

Ryan O'Gara clarified that a developer could represent multiple owners, with consent forms, to submit a single rezone petition.

There was discussion that the committee will bring the different options to the floor to see if there is a majority vote for a preferred alternative. Recommendations may then be revisited for more input without a final decision yet.

Ryan O'Gara clarified that the committee was free to craft their own alternatives and were not limited to the suggestions from the solar study committee.

There was discussion on the alternatives and combining aspects of multiple alternatives. Existing language allowing large-scale solar to be permitted "by right" in zones I1, I2, and I3 had no changes and would move forward.

Tom Murtaugh motioned to craft alternative 5 which will allow solar by special exception in OR, A, AW only and no more than 6,000 total acres in the county shall be developed. Diana Luper seconded, and the motion carried by unanimous voice vote.

Ryan O'Gara introduced the next non-consensus item dealing with setbacks on large-scale energy systems.

(A) All solar panels, ***mounting devices***, and ***inverters*** shall be set back 50 feet from all property lines.	NO CONSENSUS	**Alternative 1**: Unless waived by written consent of the owner, all solar panels and mounting devices shall be set back: (1) a minimum of 100' from all nonparticipating property lines, 50' from roadways, and (2) A minimum of 300' of linear distance from nonparticipating occupied structures. If two property lines of a nonparticipating property is within 200' of the project boundary, the minimum property line setback shall be 200' and minimum occupied structure setback shall be 400'. If three property lines of a nonparticipating property are within 200' of the project boundary, the setback shall be 300' from nonparticipating property lines and 500' from the nonparticipating occupied structure. If four property lines of a nonparticipating property are within 200' of the project boundary, the setback shall be 400' from nonparticipating property lines and 600' from the nonparticipating occupied structure.
		Alternative 2: Unless waived by written consent of the owner, all solar panels and mounting devices shall be set back 1,320' from all nonparticipating property lines.
		Alternative 3: No change to current UZO language

Ryan O'Gara pointed out that definitions had previously been agreed to by the solar study committee for participating person vs. nonparticipating person. The concept of staggered setbacks was taken from ordinances in other counties.

Nathan McBurnett clarified that in alternative 1 the written consent of the property owner is referring to a nonparticipating property owner.

There was discussion on possible financial benefits to being a participating property owner and the difference between participating vs nonparticipating.

Ryan O'Gara clarified the intended goal of the meeting was to achieve a majority vote on the non-consensus items so that by the April Ordinance Committee meeting, the results could be presented in ordinance form for further discussion. Changes could then still be made before a formal recommendation was sent to the full APC.

Tom Murtaugh motioned to move forward with alternative 1. Diana Luper seconded, and the motion carried by unanimous voice vote.

Ryan O'Gara introduced the next non-consensus item dealing with only inverters for large-scale energy systems.

(B) Solar ***inverters*** shall be set back a minimum of 200 feet when abutting a residential use property line or residential zone.	NO CONSENSUS	**Alternative 1**: Unless waived by the nonparticipating property owner, solar inverters and any proposed transformers shall be setback back a minimum of 500' from all nonparticipating occupied structures and shall be located interior to the SES project such that they are completely surrounded by solar panels and mounting devices.
		Alternative 2: Unless waived by the nonparticipating property owner, all solar inverters and any proposed transformers shall be set back 2,640' from all nonparticipating property lines.
		Alternative 3: Unless waived by the nonparticipating property owner, all solar inverters and any proposed transformers shall be located in such a way to maintain a noise level of 45dbA measured from all nonparticipating property lines.
		Alternative 4: no change to current UZO language

There was discussion on differences between inverters and power substations or transformers.

Peter Bermel, 1011 Elm Drive, West Lafayette, clarified that a transformer is for a high voltage connection directly into a power grid. Inverters operate at a lower voltage and are typically found in households. Microinverters can be installed on individual solar panels.

There was discussion on noise, decibel limitations, and inverter placement.

Zacaria Martinez, Emergent Solar, 1281 Win Hentschel Blvd, West Lafayette, said that string converters are typically within the 45-55 dB range. Distance is a better standard than decibels, but that depends on the size of the inverters. The AC/DC ratio from inverter to panel is 1.2.

Nathan McBurnett added that a proposal to regulate noise for all components would be addressed later in the presentation.

Eric Burns pointed out that this part of the ordinance referenced property lines as opposed to an occupied structure.

Tom Murtaugh motioned to proceed with alternative 1. Diana Luper seconded, and the motion carried by unanimous voice vote.

Ryan O'Gara introduced the next set of non-consensus items which were proposed new subsections, not currently in the ordinance, that would address smaller, community-scale solar.

New subsection - noise	NO CONSENSUS	**Alternative 1**: The noise level measured at all nonparticipating property lines shall not exceed 45dbA
		Alternative 2: The maximum permitted sound level shall not exceed 55 dbA between 7:00am and 9:00pm and 45 dbA between 9:00pm and 7:00am.

There was discussion and clarification that this subsection addressed the normal operations and equipment of the facility and was unrelated to activities, repairs, and construction.

Ryan O'Gara said it was anticipated that the county would execute agreements with the developer regarding the construction aspect of the project.

Nathan McBurnett added that alternative 2 was consistent with the industrial performance standards in the existing ordinance.

There was discussion on the difference in decibel ranges and what would be an appropriate noise level.

Kenny McCleary, 942 Chepstow Lane, West Lafayette, said 55 dB is essentially 10 times more powerful than 45 dB and that 55 dB could be compared to an office environment. Whereas a new commercial refrigerator runs around 35-32 dB. He referenced standards by the World Health Organization and the Environmental Protection Agency.

Tom Murtaugh motioned to proceed with alternative one. Diana Luper seconded.

Vicki Pearl agreed because she didn't know how management of alternative 2 would work.

Ryan O'Gara agreed that enforcement should be taken into consideration.

The motion carried by a four in favor to one in opposition voice vote.

New subsection - glare	NO CONSENSUS	**Alternative 1**: Glare produced from the Large-scale SES shall not cause illumination in excess of 0.5 footcandles when measured at any nonparticipating property line.
		Alternative 2: a Large-scale SES system installed by a project owner shall be designed and constructed to: (1) minimize glare on adjacent properties and roadways; and (2) not interfere with vehicular traffic, including air traffic. If after construction of the SES, APC staff receives a complaint related to interference with glare, the APC staff shall notify the owner or operator and provide thirty (30) days to respond as to how the complaint will be addressed. The SES owner and/or operator shall take reasonable steps to respond to minimize the complaint.

Eric Burns commented that alternative 2 would be a difficult standard to enforce.

There was discussion on what method was appropriate to measure glare. This will receive more focus at the next meeting.

Tom Murtaugh motioned to proceed with alternative 1. Diana Luper seconded, and the motion carried by unanimous voice vote.

New subsection - lighting	NO CONSENSUS	**Alternative 1**: Exterior lighting for the Large-scale SES project shall be shown on the proposed development plan and shall be no more than the minimum necessary for security. Any such lighting shall be shielded and/or oriented to prevent direct or indirect lighting on a dwelling of a nonparticipating parcel. Light shall not exceed one-half (0.5) foot candles at the nonparticipating property line.
		Alternative 2: No requirement

Nathan McBurnett clarified that the 0.5 footcandles limit was taken from the industrial performance standards in the ordinance.

Tom Murtaugh motioned to proceed with alternative 1. Diana Luper seconded, and the motion carried by unanimous voice vote.

New subsection - liability insurance	NO CONSENSUS	**Alternative 1**: A. The owner or operator of any Large-scale SES project shall maintain a current general liability policy covering bodily injury and property damage and may be required to name Tippecanoe County as an additional insured with dollar amount limits per occurrence, in the aggregate, and a deductible, as follows: 1. Owners that have electrical generating equipment of 10kw or less on their property are required to carry $100,000.00 of liability insurance. 2. Owners of any electrical equipment generating over 10kw that is directly connected to the electrical grid are required to carry liability insurance with limits of a minimum of $2,000,000.00 per occurrence and $5,000,000.00 in the aggregate, with a deductible of not more than $100,000.00 B. The applicant, owner, and/or operator of a Large-scale SES shall defend, indemnify, and hold harmless Tippecanoe County and its officials from and against any and all claims, demands, losses, suits, cause of action, damages, injuries, costs, expenses, and liabilities whatsoever, including attorney's fees, without limitation, arising out of acts or omissions of the applicant, owner, and/or operator associated with the construction and/operation of the Large-scale SES.
		Alternative 2: No requirement

Tom Murtaugh motioned to proceed with alternative 1. Diana Luper seconded, and the motion carried by unanimous voice vote.

New subsection - plantings pre-construction	NO CONSENSUS	**Alternative 1**: if the site includes tilled land, project site shall be planted with native perennial vegetation 3 months prior to site disturbance to reduce erosion.
		Alternative 2: if the site includes tilled land, project site shall be planted with native perennial vegetation 3 years prior to site disturbance to reduce erosion.

Tom Murtaugh said erosion controls are already addressed with the drainage board.

Tom Murtaugh motioned to proceed with alternative 1. Diana Luper seconded, and the motion carried by unanimous voice vote.

New subsection - project size limit	NO CONSENSUS	**Alternative 1**: Require that the Large-scale SES project area be entirely contiguous
		Alternative 2: No single Large-scale SES project shall exceed 400 acres
		Alternative 3: No change to current UZO language

This standard is currently unregulated. The stipulation that the area be contiguous was pulled from Clinton County's ordinance.

Tom Murtaugh motioned to proceed with alternative 1. Diana Luper seconded, and the motion carried by unanimous voice vote.

Proposed fee schedule amendment	NO CONSENSUS	**Alternative 1**: the committee recommends that the fee schedule be updated to include an application fee that is unique to a Large-scale SES Special Exception application. This fee should be at a level that takes into account the staff time required to review and process the application materials.
		Alternative 2: fee schedule remains the same, but it should be noted that there is an existing proposal to provide language in Chapter 4 of the UZO that empowers staff to hire third party consultants at the developer's expense

Ryan O'Gara explained that the fee schedule is in county ordinance, not in the zoning ordinance. However, there will be considerable work needed on solar applications and the fee schedule may need to be updated and allow for third party consultants.

Eric Burns discussed the importance of having the right fees and the ability to hire experts for a new zoning standard.

There was discussion on how similar boards pass the review fees onto the developer and having a pre-submission meeting could establish what is needed in terms of third-party groups and costs.

Tom Murtaugh motioned to proceed with combining alternative 1 and alternative 2. Diana Luper seconded, and the motion carried by unanimous voice vote.

The last section to be approved dealt with decommissioning and will be addressed at the April meeting.

Eric Burns suggested that the committee approve all items that were consensus items to be recommended to APC.

Tom Murtaugh moved to approve all consensus items. Diana Luper seconded, and the motion carried by unanimous voice vote.

III. ADJOURNMENT

Tom Murtaugh moved to adjourn. The meeting adjourned at 7:04 pm.

Respectfully Submitted,
Danielle Bistline
Recording Secretary

Reviewed By,

Ryan O'Gara
Executive Director