

June 27, 2024  
Regular Meeting of the  
Marshall County Plan Commission  
112 W. Jefferson St. Room 203  
Plymouth, IN 46563

## MINUTES

President, David Hostetler, called the Marshall County Plan Commission meeting to order at 7:00 p.m. on Thursday, June 27, 2024, in Room 203 of the Marshall County Building. Present were Commission Members David Hostetler, Craig Cultice, Brienne Slonaker, Chris Kline, Michelle Mieras, and Deborah Johnson. Plan Director Ty Adley, Lori Lowry Administrative Assistant, Fred Webster the City of Plymouth Liaison and Derek Jones, Marshall County Plan Commission attorney was present along with interested parties. Members absent were Matt Miller, Terri Barnhart and Mike Burroughs.

**A motion to table the April 25, 2024 Planning Commission meeting minutes due to not having quorum for that meeting. Motion carried by acclamation.**

**A motion to table the May 23, 2024 Planning Commission meeting minutes due to not having quorum for that meeting. Motion carried by acclamation.**

The third item of business was 24-PC-05 Marshall County Plan Commission - An ordinance amending article 3, 6, and 13 to create a regulation for battery energy storage systems.

Per the request during the May meeting the plan director gave a comparison of NFPA and IAF (actually ICC code IFC), and detail of the 855 standards.

The Indiana Fire Code was created by ICC. What we are working under is the 2012 Edition which was effective December of 2014.

Shared information from Tom Abbott included a suggestion on revisions to IFC in 2019. Per an email from Deborah Johnson between her and Tom Abbott, he would suggest a 300' setback from property line or a compromise to 150'.

Discussed concern over residential sized battery storage.

Currently within the Marshall County Zoning Ordinance there are little to no requirements for Battery Energy Storage Systems. The Plan Commission has advised the County Commissioners and there is currently a Moratorium in place prohibiting the application of Battery Energy Storage systems that is set to expire on October 16th, 2024. The Moratorium is set so that the Plan Commission can consider and determine appropriate building, zoning and use regulations

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which should be adopted and incorporated into the Marshall County Zoning Ordinance as the same pertain to Utility Scale Battery Energy Storage Systems. Battery Energy Storage Systems are the latest in a line of ordinances that the public has taken great interest in. The County ordinance currently only has an online reference under the existing solar ordinance as of early February 2024, but as battery technology has advanced and become a more viable stand-alone land use an ordinance is in need of being created should a project apply in Marshall County's zoning jurisdiction. The State of Indiana has adopted a process, procedure, and series of requirements that are to be adhered to for Battery Energy Storage Systems effective July 2023. Those requirements were reviewed along with the reference document NFPA 855 which set the standard for Battery Energy Storage Systems. The following proposal is based on the research of Indiana Code 22-14-8 (HEA 1173) "Utility Scale Battery Energy Storage Systems", National Fire Protection Association (NFPA) 855 "Standard for the Installation of Stationary Energy Storage Systems", articles by National Renew Energy Laboratory, UL Solutions (previously Underwriters Laboratories), Pacific Northwest National Laboratory, American Clean Power, along with multiple communities with existing battery storage ordinances outside of the state of Indiana due to the recent interest in the state of Indiana for such projects and the lack of ordinances dedicated to regulating them. One amendment per discussions with the local fire department has been included and can be best shown in the tract changes document. As better detailed in the PowerPoint presentation for the research from IC 22-14-8, Various Sources and Communities; Grid-Scale Battery Storage FAQ, UL 9540, Siting and Safety Best Practices for Battery Energy Storage Systems, Energy Storage in Local Zoning Ordinances, An Overview of Local Zoning Ordinances for Battery Energy Storage Systems, Community Codes, and NFPA 855 below is some basic information from analysis prior to writing the ordinance. Indiana Code now requires that the Department of Homeland Security regulate and approve all BESS projects beginning July 1, 2023, and shall be compliant with NFPA 855. It permits BESS projects within ½ mile of a floodplain so long as the structure is raised 2 feet above the floodplain (commonly known as flood protection grade). The operator shall provide copy of the emergency response plan and provide annual training for the fire department on their specific operation. Per the article "Siting and Safety Best Practices for Battery Energy Storage Systems" by Exeter Associates, there are three items that should be updated in current regulations of battery facilities, and they fall into three categories; siting, safety and decommissioning. They were more detailed as: "The siting plan should address undergrounding on site utility lines; maintaining the site free of vegetation; following noise, height, and setback requirements; fencing or enclosing the site; and installing screening or other measures to minimize visibility impacts. The safety plan should include: hazard detection systems; means of protecting incipient fires; and ventilation and/or cooling strategies for protecting against thermal runaway, fires, and explosions. As a corollary, sound training must be provided to local responders so that they are equipped to handle any of these potential emergencies – which require substantially different tactics – as safely as possible. BESS should have plans to address extreme weather, earthquakes, or other environmental threats that may occur. The decommissioning plan should include: descriptions of the steps that will be taken, a cost estimate, a funding plan, and a contingency plan for handling damaged batteries." The 4 communities that were reviewed in 3 states had the following standards of interest; Tier's of Battery Storage, Reference to State Building Code and NFPA 855, Road Access, Clearance space Lighting for safety and security shall be shielded, 30' clear space of vegetation in

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accordance with 855, Setbacks, Buffer, Fencing, Noise, Decommissioning Plan and Bond, SDS(safety data sheets), Emergency Operations Plan, Statement of Purpose, Applicability, General Requirements, and Utility lines. NFPA 855 is comprised of 15 chapters and 8 annex's that have been around and amended every 3 years since the mid/late 1990's. It covers topics including but not limited to; Definitions, Hazard Mitigation Analysis, System Interconnections, Commissioning, Operation and Maintenance, Firefighting Considerations, Decommissioning, and has a specific annex titled "Guide for Suppression and Safety of Lithium-Ion Battery Energy Storage Systems" which is beneficial because Lithium-Ion is the leading and most used technology when it comes to energy storage systems. The annex indicates that; "As an important first step in protecting public and first responder safety while promoting safe energy storage, the technical committee has developed this annex as a comprehensive set of guidelines for reviewing and evaluating LIB ESS facilities." As well as "This annex provides details about the design, hazard evaluation, installation, operations, appropriate technology application, inspection, and first responder safety processes of LIB-based ESS." The annex even goes on towards the end to indicate that through explosion modeling has shown that the minimum distance should be 75'. It is recommended to increase that to a minimum clearance of 100'. Then that a Recommend evacuating buildings withing a 200' diameter of the battery energy storage system (BESS). There is potential for damage to glass in windows and structure depending on distance from the site. Each hazard will be different based on the state of charge at the time of the event. The Technical Review Committee met on Thursday February 1st and outside of its recommendation discussed later, indicated that some additional research would be beneficial on Electromagnetic Fields and Sound Frequency. Below is a brief synopsis for the analysis, but additional information is provided within the PowerPoint presentation. Included within the EMF and Sound frequency research were articles from the National Cancer Institute and National Institute of Environmental Health Sciences. NCI indicates that "electric and magnetic fields are invisible areas of energy (also called radiation) that are produced by electricity, which is the movement of electrons, or current, through a wire." Electric and magnetic fields are referred to as EMF and there are two categories; high frequency (ionizing) and low to mid frequency (non-ionizing). High Frequency is a greater frequency than visible light beginning at approximately 10 to the 15th power of hertz (measurability of frequency). Low frequency is less than the visibility light spectrum from 0 to approximately 10 to the 15th power of hertz. As a point of reference power frequency is 50-60 hertz. A cell phone operates at approximately 1000 hertz or 10 to the 3rd power (per the NIEHS study). Per the NIEHS study, one of the topics included links of EMF to childhood leukemia, but "the association is weak and it is not clear whether it represents a cause-and-effect relationship." The study further goes on to discuss relationships between EMF and heart rate, sleep electrophysiology, melatonin, and several more topics. These items have been researched post the recommendation of the proposal, should the Plan Commission identify a need for change in the ordinance as proposed, it can be reverted back to staff and/or the Technical Review Committee for additional consideration.

Topics of research discussed were:

- Bonds are Regularly Utilized in the Renewable Energy Space
- Performance/Payment Bond

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Right of Way Bonds  
Custom Bonds  
Operations and/or Maintenance Bonds  
Decommissioning or Restoration Bonds  
Surety Bond Providers Can Assist with Contractor Prequalification  
Surety Providers can Help Resolve Claims Effectively  
Ground/Spill Protection  
Noise and setbacks/Comparisons  
Thermal Runaway

The following battery energy storage system proposal was presented.

- Article 3
  - Uses and Districts
- Article 6
  - Intent
  - Public Purpose
  - Types of Battery Energy Storage Systems
  - Personal Battery Energy Storage System Standards
  - Utility Battery Energy Storage System Standards
    - Setbacks
    - Buffer
    - Fencing
    - Power and Communication Lines
    - Deforestation
    - Topsoil Preservation
    - Signage
    - Lighting
    - Noise
    - Stray Voltage
    - Force Majeure
    - Access Roads
    - Batteries
    - TRC Review
  - Permitting
    - Site Plan
    - State Permit
    - Battery Type
    - SDS
    - Emergency Response Plan
    - Hazard Mitigation Analysis
    - Property Operations and Maintenance Plan
    - Environmental Report
    - Traffic Management Plan
    - Commissioning Plan
    - Decommissioning Plan
    - Restoration and Reclamation Plan
  - Site Plan

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- Decommissioning Plan
- Bonding
- Article 13
- Definitions

### Recommendation:

Based on the information provided to the Technical Review Committee there was a majority recommendation to approve the proposal with the inclusion of the fire departments access amendments, but there were some areas of interest including; the term third party and who had rights to select whom the third party would be, corresponding with the local Emergency Management Director, setbacks being too small, the effects of EMG and sound frequency.

Per meeting with Plan Commission Attorney, there are a few sections that can benefit from additional clarity, but the suggested amendments were not included as the meeting was after the ordinance was initially proposed.

Initial proposed was tabled February of 2024 for additional information, which was presented in April.

The proposal was then tabled in April and May to take the additional information and public comment under advisement.

Based on the information and discussion that Staff had with Mr. Abbott due to the concern surrounding residential battery storage and the population density accompanying such batteries, stricter standards separating the battery from the residential structure is recommended.

Some of the questions the board had: Would still like to hear from Mr. Abbott, water wells are important, what happens to the contaminated water, setbacks between the units be addressed, liability for contaminated run off, add to the site plan review with appropriate emergency services, a residential section, questions whether a generator may be of benefit as a fall back, and the possibility of banning specific types of batteries.

Ms. Slonaker made a motion to open for public hearing, seconded by Ms. Johnson. Motion carried by acclamation.

1. Ray Trump                      9451 18<sup>th</sup> Rd.                      Gave a couple examples of normal fires from a firefighter's perspective.
2. Katy Lewallen                1075 E. Shore                      Talked about a BESS fire in CA. Paul Rodgers recommended two separate decommissioning plans. An emergency plan and an end-of-life plan.
3. Casey Neidlinger            16682 14B Rd.                      Concern about fire suppression systems.
4. Paul Levett                    161 18<sup>th</sup> Rd.                      Doesn't want the Solar and Bess Ordinances to be bare minimums. Has a concern about the water and setbacks.
5. Don Nunemaker            14375 Nutmeg                      Spoke about the BESS fire in CA.

Ms. Slonaker made a motion to close the public hearing, seconded by Ms. Mieras. Motion carried by acclamation.

The board discussed some of their existing concerns.

**Mrs. Johnson made a motion to create a task force...died for a lack of a second.**

**Mr. Cultice made a motion to create a task force with Mr. Adley as the chair, seconded by Mrs. Johnson. Motion denied with a voice vote 4-2 with Mr. Kline and Mr. Hochstetler voting against.**

Mr. Adley explained an example of the breakdown of who might make up the task force committee and how the process of a task force works.

The board discussed options if the Plan Commission could nail down their concerns and work through them during the next meeting or pursue a task force to allow in-depth discussions and citizen members to come together and create a good ordinance.

**Mrs. Johnson made a motion to create a task force with Ty Adley as the chair, seconded by Ms. Slonaker. Motion carried with a voice vote 6-0.**

**Ms. Slonaker made a motion to create a list of actions items that the Plan Commission would like the task force to focus on, seconded by Mr. Kline.**

**Ms. Slonaker amended her motion to include the list of actions below that the Plan Commission would like the task force to focus on, seconded by Mrs. Johnson.**

1. Setbacks and distances between containers
2. Residential
3. Water wells/talk with environmentalist on the effects on water table and sizes of wells
4. Force majeure/12 months too long
5. Prohibit most dangerous types of batteries
6. Two separate decommissioning plans
7. Backup power for alerts
8. Site plan review with emergency services involvement
9. Property guarantees discussion/setbacks

**Ms. Slonaker made a motion to table 24-PC-05 Marshall County Plan Commission - An ordinance amending article 3, 6, and 13 to create a regulation for battery energy storage systems until the task force returns with a recommendation, seconded by Mrs. Johnson. Motion carried with a voice vote 6-0.**

#### Other Business

#### **2025 Proposed Planning Commission Budget**

The plan director brought to the board the proposed 2025 Planning Commission budget. The proposal includes: 4% recommended wages, increase in legal service, increase in fuel cost, increase in advertising and a proposed updated comprehensive plan.

Mr. Kline made a motion to approve the proposed Planning Commission 2025 Budget, seconded by Ms. Slonaker. Motion carried with a voice vote 5-0-1 with Mrs. Johnson abstaining.

There being no further business, a motion was made to adjourn and seconded. The motion was passed by a voice vote.

Respectfully submitted.

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Craig Cultice,  
Secretary