

INDIANA RENEWABLE ENERGY

Siting through Technical Engagement and Planning (R-STEP™)

Planning and Permitting for Utility-scale Battery Energy Storage Systems (BESS)

August 27, 2026

BESS Jurisdiction and Regulatory Process

NFPA 855 - Standard for the Installation of Stationary Energy Storage Systems

- **Emergency response**
 - Response plan and annual training for fire departments
 - At a minimum, this plan should address mitigation, preparedness, response, and recovery
- **Fire control and suppression systems**
 - Containers should have a fire alarm system
- **Fire Safety**
 - Egress/Vegetation Clearance: 10-foot
 - Site access
- **Signage**

NFPA 70 – National Electrical Code

- **Fencing**
 - Minimum height of seven feet

- In 2023, the Indiana General Assembly passed legislation that adopted a regulatory framework for proposed Utility Scale Battery Energy Storage Systems (BESS)
 - Defines Utility-Scale BESS as: “capable of storing and releasing more than one (1) megawatt of electrical energy for a minimum of one (1) hour using an AC inverter and DC storage.

Indiana Utility Regulatory Commission

Utility Regulation

- Reviews petitions for utility-scale battery storage projects
- Approve technical and safety standards prior to the interconnection
- Manage coordination with grid interconnections that affect local utilities

Indiana Department of Homeland Security (IDHS)

Authority Having Jurisdiction*

- Ensure petitioners comply with NFPA 855 standards for BESS installation safety
- Requires a Local Emergency Response Plan, annual safety training with local emergency responders

Indiana Department of Natural Resources (IDNR)**Regulate and Preserve Natural Resources**

- Regulate projects that pose a risk to natural resources (i.e., wildlife, forestry, floodplains, etc.)
- Environmental reviews and compliance

Indiana Department of Environmental Management (IDEM)**Environmental Permitting**

- Regulate and approve waste, water (waste and storm), air, and wetland permits
- Implement federal and state environmental laws

- If counties have adopted planning and zoning, they can regulate BESS by:
 - **Defining** the use
 - **Regulating** which **districts** it is permitted in and the permitting process
 - Setting **use-specific development standards**
 - noise, height, wiring, fencing, screening, etc.
 - Requiring **plans, studies or agreements** as part of the permit process
 - i.e., economic development agreement, decommissioning plan, road use agreement, noise study, emergency response plan, etc.

2026 BESS Ordinance Inventory

Process requirements for locating a BESS in an agricultural zone

Process	Number of Counties	Counties
Special Exception	5	Delaware, Jasper, Starke, Vermillion, and Warren
Rezoning or amendment to the zoning map	4	Lake, Marshall, Montgomery*, and Wells*
Rezoning with special exception	4	Clark, Jefferson, Madison, White

* Use overlay districts

Delaware, Huntington, Madison, and Montgomery counties also require a development plan review process as permitted by IC 36-7-4-1400.

- BESS included in ongoing ordinance inventory update
- Collected BESS ordinances from 14 counties so far; 1 county prohibits
- Adopted between 2024 and spring of 2026

 BESS, primary use

 BESS not permitted



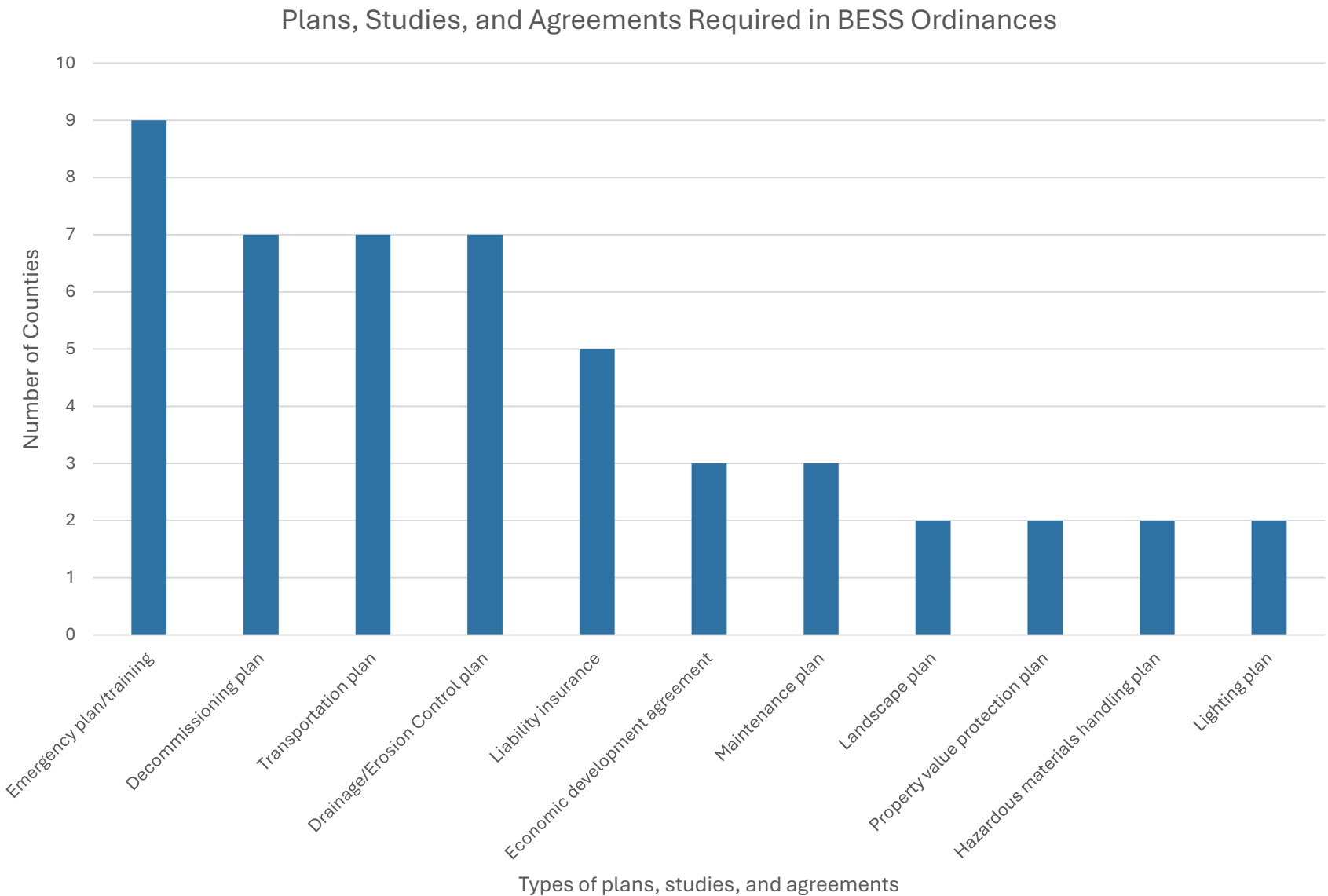
Setback from:	# of Ordinances	Range (ft)	Median (ft)	Mean (ft)
Residences	7	300-2000	500	920
Setback (Property Line)	8	50-2000	400	709
Setback (ROW)	6	30-2000	125	438

Setbacks are measured differently among counties, with some being measured from the fence while others are measured from the nearest BESS unit.

Counties also may or may not be recorded ROWs. These variations make it difficult to compare between counties.

- 3 counties have setbacks from educational and religious institutions.
- White County has a municipal setback of 2 miles.
- Marshall County has specified distances between units.
- Starke County has a 2000' setback from medical facilities, waterways, drains, wells, and conservation or wildlife refuges.

County	Decibel Limit	Duration Measurement	Place of Measurement
Delaware	60 dBA	hourly average	Property line of adjacent dwelling or residential zone
Jasper	50 dBA	hourly average	Property line
Marshall	40 dB		Property line
Montgomery	32 dBA		Property lines
Starke	55 dBA/dBC	at any point	Non-participating parcel
	45 dB	for more than 12 hours a day	Non-participating parcel
White	50 dBA	hourly average	At dwelling on an adjacent property

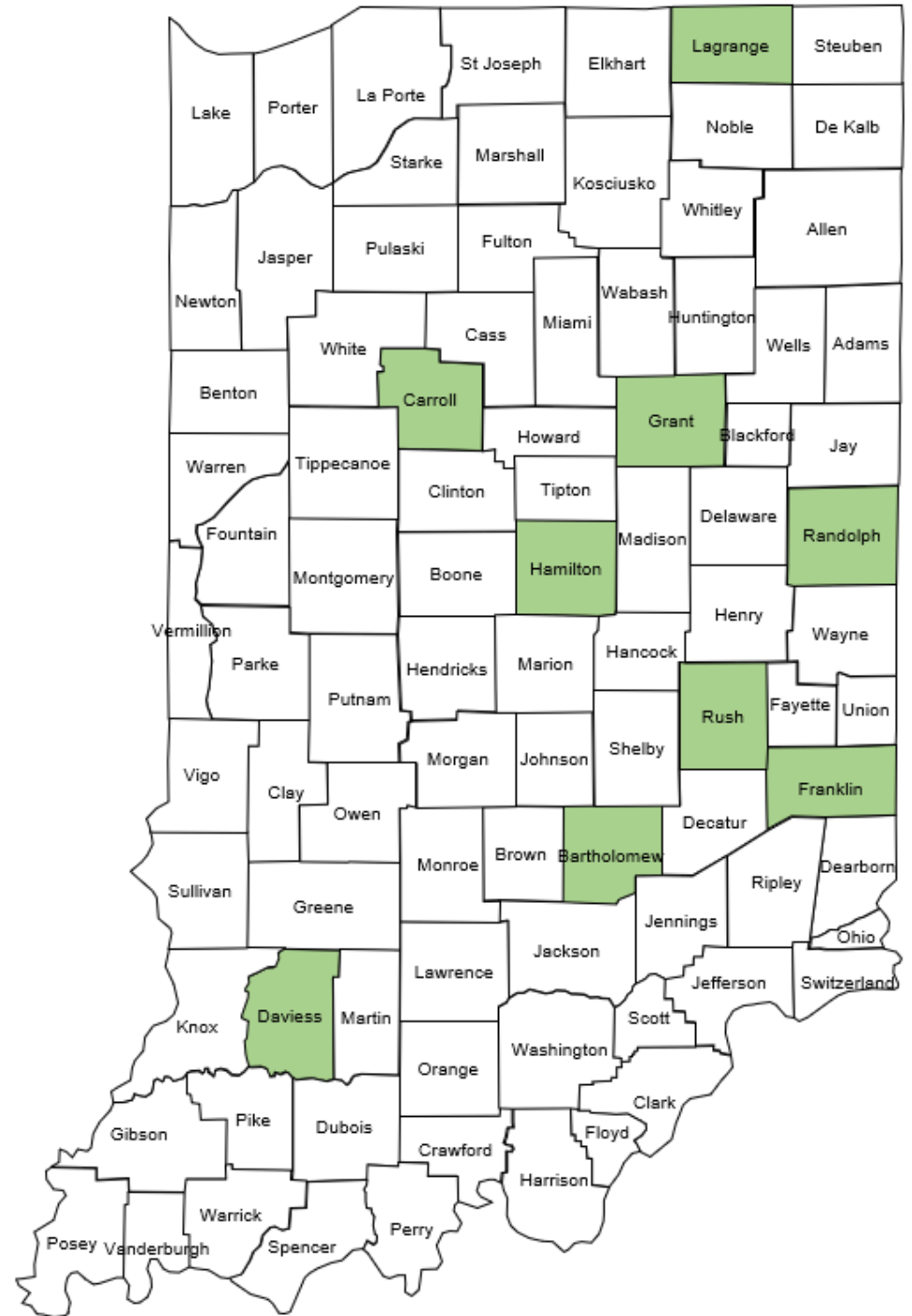


Other Standards

Standard	Number of counties
Fencing	9
Maximum height	7
Warning signage	7
Wiring, underground	6
Screening	5
Lighting	2
Signal interference	2

Many counties require BESS to comply with applicable state codes or NFPA standards

- 9 additional counties mention BESS in their solar use standards
- Unclear how they would treat a standalone BESS permit
- Grant County does not allow BESS within a commercial solar development
- These are generally a sentence or two regulating BESS co-located with solar.



BESS Planning, Permitting, and Land Use Considerations

Comprehensive Plan Goals and Objectives

- What goals will these developments support
- What goals will they conflict with

Conflicting Land Uses

- What are the primary concerns or issues
- What tools/standards would help to alleviate these conflicts

Public Infrastructure and Investment

- How do these developments add to public infrastructure and investment
- What measures need to be put in place to protect or remediate public infrastructure

Externalities

- What are the positive or negative externalities of these developments

- Primary Use (Standalone) or Accessory Use (Co-located with Solar)
- Noise
 - Sources of noise: Inverter, Transformer, HVAC System
- Emergency planning and access, staging area
 - Road Use Agreements, Local Emergency Response (Local Fire Departments)
- Project Size (much smaller lot sizes than solar)
- Landscaping (vegetation could pose a risk)
- Fencing/Security
- Drainage
- Setbacks

- Location and Scale
 - Utility-scale BESS can require approximately 0.03-0.1 acres per megawatt (MW),
 - Locate where it is easiest to interconnect to the grid
- Timeline – 6.5-8 years
 - Required Project Permits and Applications
 - Interconnection Agreement
 - Decommissioning Agreement
 - Construction

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