

OFFICIAL NOTICE

The Des Moines County Board of Supervisors will hold a regular session on **Tuesday, September 23rd, 2025** at **9:00** A.M. in the public meeting room at the Des Moines County Courthouse.

8:30 AM -Work Session: Board of Supervisors: Review of Weekly Business

PUBLIC NOTICE – the meeting can be viewed by live stream at <https://desmoinescounty.iowa.gov/live/> Anyone with questions during the meeting may email the Board of Supervisors at board@dmcounty.com OR call 319-753-8203, Ext 4

TENTATIVE AGENDA:

1. Pledge of Allegiance
2. Changes to Tentative Agenda
3. Meet with Department Heads / Elected Officials
4. Correspondence
5. Discussion / Vote:
 - A. City of Danville / Des Moines County Law Enforcement Agreement FY2025/2026
 - B. Class C Liquor License – The Topsy Traveler – Oct 4, 2025
 - C. Annual Liquor License – Spirit Hollow Clubhouse
 - D. Appointment to Tama Township Trustee
 - E. Bid Invitation for the Public Health Building
 - F. Personnel Actions:
 1. Local Health (1)
 2. County Attorney (1)
 - G. Minutes for Regular Meeting on September 16th, 2025
6. Other Business
7. Future Agenda Items
8. Committee Reports
9. Public Input
10. Adjournment

Work Sessions Following the Meeting:

BOS / SEIRPC

RE: Wind Ordinance Review

**DANVILLE / DES MOINES COUNTY
LAW ENFORCEMENT AGREEMENT
2025 / 2026 FISCAL YEAR**

THIS AGREEMENT, entered this ____ day of _____, 20__, by Des Moines County, Iowa and the City of Danville, in Des Moines County, Iowa;

WITNESSETH that:

WHEREAS, the City of Danville, Iowa, desires to contract with Des Moines County, Iowa for police protection under the provision of Chapter 28E of the Code of Iowa, and

WHEREAS, Des Moines County, Iowa is willing to provide such police protection to the City of Danville upon the terms and conditions hereinafter set forth,

NOW THEREFORE:

In consideration of mutual covenants and agreements hereinafter set forth, the parties hereto legally intending to be bound, do hereby covenant and agree for themselves and their respective successors as follows:

1. The County of Des Moines, State of Iowa, through its Sheriff's Office, will supply police protection and law enforcement services to the City of Danville, including, but not limited to the following:
 - A. Patrolling within the corporate limits of the City of Danville such hours as may be necessary to provide adequate protection and law enforcement. The Sheriff's Office will have a patrol vehicle and officer patrolling within the corporate limits not less than **20 hours each week**. The Sheriff's Office shall maintain a log which shall show the actual time that the Sheriff's Office has an officer within the corporate limits of Danville.
 - B. Answering calls at all times for police assistance in the City of Danville.
2. This understanding (while under the direct supervision of the Sheriff) shall be administered by a Joint Board consisting of the Des Moines County Sheriff and the Mayor of the City of Danville, with law enforcement policy, regulations and other law enforcement matters, including times of patrolling, to be mutually agreed upon and determined by the Des Moines County Sheriff and the Mayor of said City of Danville. The Sheriff or his designated representative shall attend the monthly council meeting of the Danville City Council.
3. In consideration of the services to be performed as herein set forth, the City of Danville agrees to pay Des Moines County, Iowa, (through the County Auditor of Des Moines County) the sum of **Seventy-Seven Thousand, Seven Hundred and Ninety-Two Dollars (\$77,792)** per year with monthly installments of **\$6,482.67** commencing on the 1st day of July 2025.
4. This agreement shall become effective **July 1, 2025** through **June 30, 2026**. The new agreement shall be negotiated prior to **March 1, 2026**, for the following fiscal year.

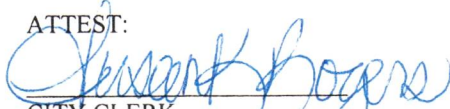
DATE 12/17/2024

CITY OF DANVILLE


MAYOR

DES MOINES COUNTY, IOWA

ATTEST:


CITY CLERK

ATTEST:

COUNTY AUDITOR



State of Iowa

Alcoholic Beverages Division

Applicant

App-229055

NAME OF LEGAL ENTITY	NAME OF BUSINESS(DBA)	BUSINESS		
THE TIPSY TRAVELER'S LLC	The Topsy Travelers	(319) 201-0470		
ADDRESS OF PREMISES	PREMISES SUITE/APT NUMBER	CITY	COUNTY	ZIP
18876 111th Avenue		Sperry	Des Moines	52650
MAILING ADDRESS	CITY	STATE	ZIP	
1919 Dogwood Avenue	Keota	Iowa	52248	

Contact Person

NAME	PHONE	EMAIL
Megan Libe	(319) 201-0470	smlibe2016@gmail.com

License Information

LICENSE NUMBER	LICENSE/PERMIT TYPE	TERM	STATUS
	Class C Retail Alcohol License	5 Day	Submitted to Local Authority
TENTATIVE EFFECTIVE DATE	TENTATIVE EXPIRATION DATE	LAST DAY OF BUSINESS	
Oct 3, 2025	Oct 7, 2025		
SUB-PERMITS			
Class C Retail Alcohol License			

Page 1 of 2



State of Iowa

Alcoholic Beverages Division

PRIVILEGES

Outdoor Service

Status of Business

BUSINESS TYPE

Limited Liability Company

Ownership

• Individual Owners

NAME	CITY	STATE	ZIP	POSITION	% OF OWNERSHIP	U.S. CITIZEN
Megan Libe	Keota	Iowa	52248	Owner	100.00	Yes

Insurance Company Information

INSURANCE COMPANY

Founders Insurance Company

POLICY EFFECTIVE DATE

Oct 3, 2025

POLICY EXPIRATION DATE

Oct 8, 2025

DRAM CANCEL DATE

OUTDOOR SERVICE EFFECTIVE DATE

OUTDOOR SERVICE EXPIRATION DATE

BOND EFFECTIVE DATE

TEMP TRANSFER EFFECTIVE DATE

TEMP TRANSFER EXPIRATION DATE



State of Iowa

Alcoholic Beverages Division

Applicant

App-226439

NAME OF LEGAL ENTITY

Double Eagle Golf, Inc.

NAME OF BUSINESS(DBA)

Spirit Hollow Clubhouse

BUSINESS

(319) 754-0653

ADDRESS OF PREMISES

5592 Clubhouse Dr

PREMISES SUITE/APT NUMBER

CITY

Burlington

COUNTY

Des Moines

ZIP

52601-0000

MAILING ADDRESS

3000 Kirkwood St

CITY

Burlington

STATE

Iowa

ZIP

52601-0000

Contact Person

NAME

Randy Winegard

PHONE

(319) 754-0653

EMAIL

mkenn@winegard.com

License Information

LICENSE NUMBER

LC0030179

LICENSE/PERMIT TYPE

Class C Retail Alcohol License

TERM

12 Month

STATUS

Submitted
to Local
Authority

TENTATIVE EFFECTIVE DATE

Oct 1, 2025

TENTATIVE EXPIRATION DATE

Sep 30, 2026

LAST DAY OF BUSINESS

SUB-PERMITS

Class C Retail Alcohol License

Page 1 of 2



State of Iowa

Alcoholic Beverages Division

PRIVILEGES

Outdoor Service

Status of Business

BUSINESS TYPE

Corporation

Ownership

• Individual Owners

NAME	CITY	STATE	ZIP	POSITION	% OF OWNERSHIP	U.S. CITIZEN
Nancy Winegard	Longmont	Colorado	80503	Owner	49.00	Yes
John Randall (Randy) Winegard	Burlington	Iowa	52601	Owner	51.00	No
Melodee Kennedy	Burlington	Iowa	52601	Officer	0.00	Yes

Insurance Company Information

INSURANCE COMPANY

Westfield Insurance

POLICY EFFECTIVE DATE

Oct 1, 2025

POLICY EXPIRATION DATE

Oct 1, 2026

DRAM CANCEL DATE

OUTDOOR SERVICE EFFECTIVE DATE

OUTDOOR SERVICE EXPIRATION DATE

BOND EFFECTIVE DATE

TEMP TRANSFER EFFECTIVE DATE

TEMP TRANSFER EXPIRATION DATE

page 2 of 2

Township Officials Request for Appointment

Date: 8-1-25

To: Des Moines County Board of Supervisors

I am requesting your approval to be appointed to complete the remainder of a four-year term expiring on December 31, 2028 for:

Tama Township Laverne R Neal
(Name of Township) (Clerk or Trustee)

Thank You

Carl Gerst
Please Print your Name

8381 125th St
Address

Burlington 52601
City & Zipcode

319-759-5073
Phone Number

Carl.gerst@gmail.com
Email Address (optional)

Laverne Neal
Trustee

Chris T. Rhoads
Trustee

Clerk

27-1-9

100

100

100

100

100

100

NOTICE OF DES MOINES COUNTY PERSONNEL ACTION

Name: Wendi Noble Employee #: _____
Title: LPN Department: Local Health

STATUS CHANGES

TERMINATION

☐ Resignation ☐ Unsatisfactory Probation
☐ Discharge ☐ Death
☐ Retirement ☐ Other, Explain _____

Last Day Worked _____
Add Vacation Days _____ to _____
Add Sick Days _____ to _____
Add Other Days _____ to _____
Unpaid Days _____ to _____

Final Termination Date _____
Final Rate of Pay _____
Permanent Address _____
City, State, Zip _____

LEAVE OF ABSENCE

☐ Maternity ☐ Educational
☐ Medical ☐ Military
☐ Other, Explain _____

Dates of Absence _____ to _____

Does the employee Want
Health Insurance Continued ☐ Yes ☐ No
Does Employee Want Life
Insurance Continued ☐ Yes ☐ No

TRANSFER

☐ Permanent ☐ Voluntary
☐ Temporary ☐ Involuntary

Previous Title _____
Previous Dept _____
New Job Title _____
New Dept _____
Previous Rate _____
Effective Transfer Date _____

LAY OFF

Does the employee Want
Health Insurance Continued ☐ Yes ☐ No
Does Employee Want Life
Insurance Continued ☐ Yes ☐ No
Last Day Worked _____

SALARY ADJUSTMENT

☐ Reclassification ☐ Demotion
☐ Anniversary ☐ Reduction
☐ Promotion ☐ Suspension
☐ Probationary ☒ Other, Explain _____

New hire LPN- \$49,150.40 annually

Effective 9/15/2025

Previous Rate _____ New Rate _____
Previous Job Title: (if changed) _____
Effective Date: _____

Authorized by: Christa Poggemiller Department: Local Health Date: 9/15/2025
Authorized by: _____ Department: _____ Date: _____

Pay Period Ending: _____ Payroll Date: _____

NOTICE OF DES MOINES COUNTY PERSONNEL ACTION

Name: Cassie Kilby Employee #: 00
Title: Assistant County Attorney Department: County Attorney

STATUS CHANGES

TERMINATION

☐ Resignation ☐ Unsatisfactory Probation
☐ Discharge ☐ Death
☐ Retirement ☐ Other, Explain _____

Last Day Worked _____
Add Vacation Days 0 to _____
Add Sick Days 0 to _____
Add Other Days 0 to _____
Last Day Paid _____
Unpaid Days _____ Personal hrs _____

Final Termination Date _____
Final Rate of Pay _____
Permanent Address _____
City, State, Zip _____

LEAVE OF ABSENCE

☐ Maternity ☐ Educational
☐ Medical ☐ Military
☐ Other, Explain _____

Dates of Absence _____ to _____

Does the employee Want
Health Insurance Continued ☐ Yes ☐ No
Does Employee Want Life
Insurance Continued ☐ Yes ☐ No

TRANSFER

☐ Permanent ☐ Voluntary
☐ Temporary ☐ Involuntary

Previous Title _____
Previous Dept _____
New Job Title _____
New Dept _____
Previous Rate hourly New Rate _____
Effective Transfer Date _____

LAY OFF


Does the employee Want
Health Insurance Continued ☐ Yes ☐ No
Does Employee Want Life
Insurance Continued ☐ Yes ☐ No
Last Day Worked _____

SALARY ADJUSTMENT

☐ Reclassification ☐ Demotion
☐ Anniversary ☐ Reduction
☐ Promotion ☐ Suspension
☐ Probationary ☒ Other, Explain _____

Unpaid leave – 26.0 hours (9/2 – 9/5/2025)

Previous Rate _____ New Rate _____
Previous Job Title: (if changed) _____
Effective Date: _____

Authorized by: 
Authorized by: _____

Department: _____
Department: _____

Lisa K. Schaefer
County Attorney

Date: 9-18-25
Date: _____

Pay Period Ending: 9/12/2025 Payroll Date: 9/19/2025

September 16, 2025

The Des Moines County Board of Supervisors met in a regular session at the Court House in Burlington at 9:00 AM on Tuesday, September 16th, 2025, with Chair Jim Cary, Vice-Chair Shane McCampbell, and Member Tom Broeker present. This meeting was also held electronically via Webex and YouTube live streaming. Public input was available through board email or call in.

Unless otherwise noted, all motions passed unanimously. The Pledge of Allegiance was conducted.

Meeting with Department Heads: County Auditor Sara Doty reported absentee voting for the Primary Election will take place beginning tomorrow. Voting will be available in the Auditor's Office through Monday, October 6th. IT Director Colin Gerst reported his office is busy. Sheriff Kevin Glendening stated the jail population is at 78. Glendening and Assistant County Attorney Trent Henkelvig discussed the issues with transitioning inmates to the halfway house or prison in a timely manner and cost that is affected by this. Maintenance Director Rodney Bliesener reported his crew is busy. Safety Director Angela Vaughan reported her office is busy. County Treasurer Janelle Nalley-Londquist reported her office has been busy processing tax payments. Assistant Land Use Administrator Jarred Lassiter stated he has items on the agenda. There are several subdivisions in the works currently. County Recorder Natalie Steffener reported her office is busy. County Engineer Brian Carter reported projects are moving along. Washboards on the gravel roads are hard to manage with the dry weather currently. Concrete patching is still taking place by the Des Moines County landfill and on Iowa City Road. Please use caution when traveling in these areas.

No correspondence was received.

Approval of Payroll Reimbursement Claims in the amount of \$564.25 was presented. McCampbell made a motion to approve and was seconded by Broeker.

Approval of Accounts Payable Claims in the amount of \$407,688.69 were presented. Broeker made a motion to approve and was seconded by McCampbell.

Approval of Resolution #2025-048 and Final Plat for Hawkeye Ridge Subdivision was presented. Assistant Land Use Administrator Jarred Lassiter spoke on this and recommended approval. Broeker made a motion to approve and was seconded by McCampbell.

INSERT RESOLUTION #2025-048

Approval of Resolution #2025-049 and Final Plat for First Addition to Kroll Farms Subdivision was presented. Assistant Land Use Administrator Jarred Lassiter spoke on this and recommended approval. McCampbell made a motion to approve and was seconded by Broeker.

INSERT RESOLUTION #2025-049

Approval of HHS Tenant Estoppel Agreement was presented. Assistant County Attorney Trent Henkelvig spoke on this and recommended approval. Broeker made a motion to approve and was seconded by McCampbell.

Approval of Resignation from Washington Township Trustee was presented. Justin Myers submitted a letter of resignation read by Cary. McCampbell made a motion to approve and was seconded by Broeker.

Approval of Appointment to Washington Township Trustee was presented. John Crouch submitted a letter requesting appointment read by Cary. Broeker made a motion to approve and was seconded by McCampbell.

Reports:

Sheriff's Report of Fees Collected, August 2025

Clerk's Report of Fees Collected, August 2025

Broeker motioned to approve September 9th, 2025, regular meeting minutes and was seconded by

McCampbell.

Cary attended a RUSS and Juvenile Detention meeting.

Future Agenda Items – Work Session regarding the Wind Ordinance.

The meeting was adjourned at 9:30 A.M.

This Board meeting is recorded. The meeting minutes and audio are posted on the county's website
www.dmcounty.com

Jim Cary, Chair

Attest: Sara Doty, County Auditor

DRAFT ORDINANCE as of 9/5/2025

**REGULATIONS FOR THE SITING AND OPERATION
OF WIND, SOLAR AND BATTERY ENERGY
SYSTEMS**

DES MOINES COUNTY, IOWA

ORDINANCE NO. _____

Adopted _____, 2025

Text highlighted in yellow = Content not in the original Des Moines County Ordinances, but included in the Lee County Ordinance

Text shown in red = Content not in the original Des Moines or Lee County Ordinances; added or modified prior to July 8, 2025, based on public feedback and discussions at Board of Supervisors Work Sessions

Text shown in red and highlighted in green = Added or modified after work session on July 8, 2025.

TABLE OF CONTENTS

	Page
ARTICLE I. GENERAL PROVISIONS.....	1
<u>Section A.</u> Purpose	1
<u>Section B.</u> Jurisdiction	1
<u>Section C.</u> Administrator	1
<u>Section D.</u> Applicability and Exemptions.....	1
<u>Section E.</u> Relation to Other Ordinances and Regulations	1
<u>Section F.</u> Financial Risk and Responsibility.....	2
<u>Section G.</u> Enforcement and Penalties	2
<u>Section H.</u> Severability	2
ARTICLE II. DEFINITIONS	3
<u>Section A.</u> Word Usage.....	3
<u>Section B.</u> Terms Defined	3
ARTICLE III. WIND ENERGY SYSTEMS – SITING AND DESIGN STANDARDS.....	7
<u>Section A.</u> Purpose	7
<u>Section B.</u> Setback from Structures, Places and Property Lines.....	7
<u>Section C.</u> Height Restrictions	8
<u>Section D.</u> Design and Appearance.....	8
<u>Section E.</u> Electric Lines.....	8
<u>Section F.</u> Lighting and Reflection	8
<u>Section G.</u> Noise Volume.....	9
<u>Section H.</u> Access and Security Fencing	9
<u>Section I.</u> Signs.....	9
<u>Section J.</u> Fire Prevention Standards	10
<u>Section K.</u> Adherence to Industry Standards.....	10
ARTICLE IV. SOLAR ENERGY SYSTEMS – SITING AND DESIGN STANDARDS.....	11
<u>Section A.</u> Purpose	11
<u>Section B.</u> Setback from Structures, Places and Property Lines.....	11
<u>Section C.</u> Height Restrictions	12
<u>Section D.</u> Maintenance of Soil Health	12
<u>Section E.</u> Screening.....	13
<u>Section F.</u> Lighting and Reflection	14
<u>Section G.</u> Noise Volume.....	14
<u>Section H.</u> Access and Security Fencing	14
<u>Section I.</u> Signs.....	15
<u>Section J.</u> Adherence to Industry Standards.....	15

ARTICLE V. BATTERY ENERGY STORAGE SYSTEMS – SITING AND DESIGN STANDARDS..16

<u>Section A.</u>	Purpose	16
<u>Section B.</u>	Setback from Structures, Places and Property Lines.....	16
<u>Section C.</u>	Lighting and Reflection	17
<u>Section D.</u>	Noise Volume.....	17
<u>Section E.</u>	Access and Security Fencing	18
<u>Section F.</u>	Signs.....	18
<u>Section G.</u>	Fire Prevention Standards	18
<u>Section H.</u>	Environmental Considerations	18
<u>Section I.</u>	Adherence to Industry Standards.....	19

ARTICLE VI. SITING PERMIT – PRELIMINARY REVIEW21

<u>Section A.</u>	Purpose	21
<u>Section B.</u>	Siting Permit Application.....	21
<u>Section C.</u>	Required Documentation.....	21
<u>Section D.</u>	Fee Structure	22
<u>Section E.</u>	Application Review	22
<u>Section F.</u>	Public Hearing and Consent to Proceed	22
<u>Section G.</u>	Validity of Active Permit Applications	23

ARTICLE VII. SITING PERMIT – FINAL REVIEW.....26

<u>Section A.</u>	Purpose	26
<u>Section B.</u>	Siting Permit Application – Initiation of Final Review.....	26
<u>Section C.</u>	Required Documentation.....	26
<u>Section D.</u>	Additional Documentation for Wind Energy Systems.....	29
<u>Section E.</u>	Additional Documentation for Solar Energy Systems.....	29
<u>Section F.</u>	Fee Structure	30
<u>Section G.</u>	Application Review	30
<u>Section H.</u>	Public Hearing and Vote.....	31
<u>Section I.</u>	Validity of Approved Permits	31

ARTICLE VIII. METEOROLOGICAL EVALUATION TOWERS.....33

<u>Section A.</u>	Permitting Requirements.....	33
<u>Section B.</u>	Review and Approval.....	34
<u>Section C.</u>	Minimum Siting Standards	34
<u>Section D.</u>	Removal	34

ARTICLE IX. COMMUNICATIONS AND ENFORCEMENT35

<u>Section A.</u>	Purpose	35
<u>Section B.</u>	Public Points of Contact.....	35
<u>Section C.</u>	Changes During Operational Lifespan	35
<u>Section D.</u>	Inspections and Required Access	36

ARTICLE X.	ROAD USE AND MITIGATION OF DAMAGES	37
Section A.	Purpose	37
Section B.	Road Use Agreement.....	37
Section C.	Road Use Agreement – Submission Requirements.....	37
Section D.	Cost Estimate.....	38
Section E.	Financial Security	39
Section F.	Construction – Notification of Local Officials	39
Section G.	Construction – Notification of Property Owners	40
Section H.	Construction Monitoring and Emergency Repairs.....	40
Section H.	Certificate of Completion	40
ARTICLE XI.	WILDLIFE MONITORING AND MITIGATION	41
Section A.	Purpose	41
Section B.	Wildlife Monitoring and Mitigation Plan – Submission Requirements.....	41
Section C.	Review and Approval of Plan	42
Section D.	Post-Construction Monitoring and Mitigation	42
ARTICLE XII.	EMERGENCY RESPONSE	44
Section A.	Purpose	44
Section B.	Emergency Response Plan – Submission Requirements.....	44
Section C.	Review and Approval of Plan	45
Section D.	Response to Damaged Property.....	46
ARTICLE XIII.	DECOMMISSIONING AND ABANDONMENT.....	48
Section A.	Purpose	48
Section B.	Decommissioning Standards.....	48
Section C.	Decommissioning Plan – Submission Requirements	49
Section D.	Cost Estimate.....	50
Section E.	Financial Security	51
Section F.	Confirmation of Decommissioning.....	51
Section G.	Determination of Abandonment.....	52

DRAFT ORDINANCE as of 9/5/2025

**REGULATIONS FOR THE SITING AND OPERATION
OF WIND, SOLAR AND BATTERY ENERGY
SYSTEMS**

DES MOINES COUNTY, IOWA

ORDINANCE NO. _____

Adopted _____, 2025

Text highlighted in yellow = Content not in the original Des Moines County Ordinances, but included in the Lee County Ordinance

Text shown in red = Content not in the original Des Moines or Lee County Ordinances; added or modified prior to July 22, 2025, based on public feedback and discussions at Board of Supervisors Work Sessions

Text shown in red and highlighted in green = Added or modified after work session on July 22, 2025.

TABLE OF CONTENTS

	Page
ARTICLE I. GENERAL PROVISIONS.....	1
<u>Section A.</u> Purpose	1
<u>Section B.</u> Jurisdiction	1
<u>Section C.</u> Administrator	1
<u>Section D.</u> Applicability and Exemptions.....	1
<u>Section E.</u> Relation to Other Ordinances and Regulations	1
<u>Section F.</u> Financial Risk and Responsibility	2
<u>Section G.</u> Enforcement and Penalties	2
<u>Section H.</u> Severability	2
ARTICLE II. DEFINITIONS	3
<u>Section A.</u> Word Usage.....	3
<u>Section B.</u> Terms Defined	3
ARTICLE III. WIND ENERGY SYSTEMS – SITING AND DESIGN STANDARDS.....	7
<u>Section A.</u> Purpose	7
<u>Section B.</u> Setback from Structures, Places and Property Lines.....	7
<u>Section C.</u> Height Restrictions	8
<u>Section D.</u> Design and Appearance.....	8
<u>Section E.</u> Electric Lines.....	8
<u>Section F.</u> Lighting and Reflection	8
<u>Section G.</u> Noise Volume.....	9
<u>Section H.</u> Access and Security Fencing	9
<u>Section I.</u> Signs.....	9
<u>Section J.</u> Fire Prevention Standards	10
<u>Section K.</u> Adherence to Industry Standards.....	10
ARTICLE IV. SOLAR ENERGY SYSTEMS – SITING AND DESIGN STANDARDS.....	11
<u>Section A.</u> Purpose	11
<u>Section B.</u> Setback from Structures, Places and Property Lines.....	11
<u>Section C.</u> Height Restrictions	12
<u>Section D.</u> Maintenance of Soil Health	12
<u>Section E.</u> Screening.....	13
<u>Section F.</u> Lighting and Reflection	14
<u>Section G.</u> Noise Volume.....	14
<u>Section H.</u> Access and Security Fencing	14
<u>Section I.</u> Signs.....	15
<u>Section J.</u> Adherence to Industry Standards.....	15

ARTICLE V.	BATTERY ENERGY STORAGE SYSTEMS – SITING AND DESIGN STANDARDS..	16
Section A.	Purpose	16
Section B.	Setback from Structures, Places and Property Lines.....	16
Section C.	Lighting and Reflection	17
Section D.	Noise Volume.....	17
Section E.	Access and Security Fencing	18
Section F.	Signs.....	18
Section G.	Fire Prevention Standards	18
Section H.	Environmental Considerations	18
Section I.	Adherence to Industry Standards.....	19
ARTICLE VI.	SITING PERMIT – PRELIMINARY REVIEW	21
Section A.	Purpose	21
Section B.	Siting Permit Application.....	21
Section C.	Required Documentation.....	21
Section D.	Fee Structure	22
Section E.	Application Review	22
Section F.	Public Hearing and Consent to Proceed	22
Section G.	Validity of Active Permit Applications	23
ARTICLE VII.	SITING PERMIT – FINAL REVIEW.....	26
Section A.	Purpose	26
Section B.	Siting Permit Application – Initiation of Final Review.....	26
Section C.	Required Documentation.....	26
Section D.	Additional Documentation for Wind Energy Systems.....	29
Section E.	Additional Documentation for Solar Energy Systems.....	29
Section F.	Fee Structure	30
Section G.	Application Review	30
Section H.	Public Hearing and Vote.....	31
Section I.	Validity of Approved Permits	31
ARTICLE VIII.	METEOROLOGICAL EVALUATION TOWERS.....	33
Section A.	Permitting Requirements.....	33
Section B.	Review and Approval.....	34
Section C.	Minimum Siting Standards	34
Section D.	Removal	34
ARTICLE IX.	COMMUNICATIONS AND ENFORCEMENT	35
Section A.	Purpose	35
Section B.	Public Points of Contact.....	35
Section C.	Changes During Operational Lifespan	35
Section D.	Inspections and Required Access	36

ARTICLE X.	ROAD USE AND MITIGATION OF DAMAGES	37
<u>Section A.</u>	Purpose	37
<u>Section B.</u>	Road Use Agreement.....	37
<u>Section C.</u>	Road Use Agreement – Submission Requirements.....	37
<u>Section D.</u>	Cost Estimate.....	38
<u>Section E.</u>	Financial Security	39
<u>Section F.</u>	Construction – Notification of Local Officials	39
<u>Section G.</u>	Construction – Notification of Property Owners	40
<u>Section H.</u>	Construction Monitoring and Emergency Repairs.....	40
<u>Section H.</u>	Certificate of Completion	40
ARTICLE XI.	WILDLIFE MONITORING AND MITIGATION	41
<u>Section A.</u>	Purpose	41
<u>Section B.</u>	Wildlife Monitoring and Mitigation Plan – Submission Requirements.....	41
<u>Section C.</u>	Review and Approval of Plan	42
<u>Section D.</u>	Post-Construction Monitoring and Mitigation	42
ARTICLE XII.	EMERGENCY RESPONSE	44
<u>Section A.</u>	Purpose	44
<u>Section B.</u>	Emergency Response Plan – Submission Requirements.....	44
<u>Section C.</u>	Review and Approval of Plan	45
<u>Section D.</u>	Response to Damaged Property.....	46
ARTICLE XIII.	DECOMMISSIONING AND ABANDONMENT.....	48
<u>Section A.</u>	Purpose	48
<u>Section B.</u>	Decommissioning Standards.....	48
<u>Section C.</u>	Decommissioning Plan – Submission Requirements	49
<u>Section D.</u>	Cost Estimate.....	50
<u>Section E.</u>	Financial Security	51
<u>Section F.</u>	Confirmation of Decommissioning.....	51
<u>Section G.</u>	Determination of Abandonment.....	52

ARTICLE I: GENERAL PROVISIONS

- A. **Purpose.** The purpose of this Ordinance is to establish a set of minimum standards for the siting, placement, construction, installation, operation, maintenance, and decommissioning of utility-scale Wind, Solar and Battery Energy Systems, in order to protect the public health, safety and community welfare of the residents of Des Moines County.
- B. **Jurisdiction.** This Ordinance and all regulations contained therein shall be applicable to all land within unincorporated Des Moines County, Iowa, and shall exclude all land within the incorporated municipalities located in the County.
1. Whenever a parcel or area of land is annexed by an incorporated municipality, the requirements of this Ordinance shall cease to apply, and the subject parcel or area shall be subject to any and all applicable requirements for a Wind, Solar or Battery Energy System imposed by the ordinances of said municipality.
- C. **Administrator.** The Board of Supervisors shall appoint an administrator to implement and administer the provisions of this Ordinance, and shall herein be referred to as the Administrator.
- D. **Applicability and Exemptions.** The regulations contained within this ordinance shall apply only to Commercial Wind Energy Systems (C-WES), Commercial Solar Energy Systems (C-SES), and Commercial Battery Energy Storage Systems (C-BESS), all as herein defined. They shall not apply to Personal Wind Energy Systems (P-WES), Personal Solar Energy Systems (P-SES), or Personal Battery Energy Storage Systems (P-BESS), all as herein defined, and no permits, public hearings, or other official action by the County shall be required prior to their establishment.
1. The regulations contained within this Ordinance shall not apply to the continued operations of any C-WES, C-SES, or C-BESS that was lawfully established prior to the adoption of this Ordinance or any amendment thereto. However, they shall apply to the physical expansion of any such System to encompass additional properties after the date of such adoption or amendment.
 2. The regulations contained within this ordinance shall apply to any property on which a lease agreement was established with the Developer of a C-WES, C-SES or C-BESS prior to the adoption of this Ordinance or any amendments thereto, but construction had not yet commenced on that property by the date of such adoption or amendment.
- E. **Relation to Other Ordinances and Regulations.**
1. Whenever this Ordinance imposes a greater restriction than is imposed or required by another local ordinance, or by state or federal laws, then the provisions of this Ordinance shall prevail.
 2. Whenever another local ordinance, state or federal law, imposes a greater restriction than is imposed by this Ordinance, then those stricter standards shall prevail.

Commented [JL1]: Des Moines County's ordinance did not previously address standalone BESS

3. Any C-WES, C-SES or C-BESS located within the jurisdiction of the *Des Moines County Airport Approach Zone Regulations (Ordinance No. 58)* shall comply with all applicable height and location requirements imposed by that ordinance.
 4. Any C-WES, C-SES or C-BESS located within the jurisdiction of the *Des Moines County Floodplain Management Ordinance (Ordinance No. 25)* shall comply with all applicable requirements imposed by that ordinance.
 5. In accordance with Chapter 414.23 of *Iowa Code*, if an incorporated municipality has established a zoning ordinance with a jurisdiction over unincorporated land within two (2) miles of its corporate limits, all land within that two (2)-mile area shall be subject to any and all applicable zoning requirements for a Wind, Solar or Battery Energy System imposed by that municipality, in addition to the requirements of this Ordinance.
- F. **Financial Risk and Responsibility.** All costs associated with the planning, permitting, construction, installation, operation, maintenance, repair, cleanup, modification or decommissioning of a C-WES, C-SES or C-BESS shall be entirely the responsibility of the Developer, Owner and/or Operator, and no such costs shall be passed on to Des Moines County, its taxpayers, or individual landowners in the C-WES, C-SES or C-BESS project area. In addition, the Developer, Owner and/or Operator shall be entirely responsible for the cost of any legal actions (including defense and settlement costs) associated with the aforementioned activities regarding a C-WES, C-SES or C-BESS.
- G. **Enforcement and Penalties.** Any violation of the provisions of this Ordinance or failure to comply with any of its requirements shall constitute a county infraction, as defined by Chapter 331.307 of the *Iowa Code*. Each day that the violation persists shall constitute a separate repeat offense.
1. In accordance with Chapter 331.307 of the *Iowa Code*, any person or firm that violates this Ordinance or fails to comply with any of its requirements shall upon conviction thereof be fined not more than seven-hundred fifty (750) dollars for the first offense, and not more than one thousand (1,000) dollars for each repeat offense, or be imprisoned for not more than thirty (30) days for each offense.
 2. Nothing herein contained shall prevent Des Moines County from taking such other lawful action as is necessary to prevent or remedy any violation.
- H. **Severability.** Should any section or provision of this Ordinance be declared by the Courts to be invalid or unconstitutional, such decision shall not affect the validity of the Ordinance as a whole, or any part thereof, other than the part so declared to be invalid or unconstitutional.

ARTICLE II. DEFINITIONS

A. **Word Usage.** The specific terms listed in this Article shall be defined as follows whenever those terms are used within the text of this Ordinance.

B. **Terms Defined.**

ABANDONMENT. The state in which any portion of a Wind or Solar Energy System, and/or Battery Energy Storage System, has ceased to produce or store energy for at least three-hundred sixty five (365) consecutive days.

ADMINISTRATOR. Shall refer to the administrator of this Ordinance, as appointed by the Des Moines County Board of Supervisors.

AGRI-VOLTAIC SYSTEM. The physical integration of a Solar Energy System with agricultural operations, so that the underlying soil can remain in active use during the operational lifespan of the Solar Energy System. Such operations may include growing crops such as grain, legumes, fruits or vegetables, livestock grazing on grass or other vegetation, and/or the placement of solar panels on a greenhouse.

AIRCRAFT DETECTION LIGHTING SYSTEM (ADLS). A sensor-based system that monitors the airspace around a Wind Energy System, allowing for the obstruction lights to be activated only when an aircraft is detected in the vicinity.

BATTERY ENERGY STORAGE SYSTEM (BESS). One or more devices intended for storing energy for later use, either on the subject property or elsewhere. This term shall include all accessory equipment necessary for energy storage, including but not limited to: inverters, transformers, cooling equipment, switching gear, metering equipment, transmission tie-lines, other power interconnection facilities, and/or substations.

Commented [JL2]: The definition was greatly expanded to ensure that it covers any type of infrastructure that fits the category. Also, it was split into two types, commercial and personal - similar to C-WES and C-SES. As with the other types of systems, any use of the word 'typically' was removed.

COMMERCIAL BATTERY ENERGY STORAGE SYSTEM (C-BESS). A utility-scale Battery Energy Storage system where the stored energy is either distributed to the electrical power grid for use by the public at-large, or used by one (1) or more large commercial or industrial operations nearby. Such devices may either be installed as part of a Commercial Wind or Solar Energy System, or developed separately as a standalone project, using energy generated elsewhere.

PERSONAL BATTERY ENERGY STORAGE SYSTEM (P-BESS). A Battery Energy Storage System where the majority of the energy produced is consumed directly on-site, or on an adjoining property, though excess energy may be sold and distributed to an electric utility provider serving the general public. Such a system is used to serve the energy needs of a private residence, business or agricultural operation, and may be used to store energy produced by a Personal Wind or Solar Energy System.

BOARD OF SUPERVISORS. Shall refer to the Board of Supervisors of Des Moines County, Iowa.

CEMETERY. Shall refer to any burial site recognized by the Des Moines County Assessor as tax-exempt land, which is physically separate from any taxable private land which it adjoins.

Commented [JL3]: Definition added to ensure that the setback requirement for cemeteries cannot be applied to individual private burials for which no records readily exist with the County.

CIVIC BUILDING. A building that is regularly used for large public gatherings or services, or the housing of unrelated individuals in a group setting, including schools, daycare facilities, churches and other houses of worship, government offices, hospitals, nursing homes, group homes, and homeless shelters. This term shall not apply to any accessory buildings (garages,

sheds, or utility buildings) that are not used for human habitation.

COUNTY ENGINEER. Shall refer to the County Engineer of Des Moines County, Iowa.

DECOMMISSIONING. The complete removal of all components of a Wind or Solar Energy System, and/or a Battery Energy System, following the permanent ceasing of operations – either through abandonment or planned termination at the end of its useful life.

DEVELOPER. The person(s) and/or entit(ies) pursuing the development of a Wind or Solar Energy System, and/or a Battery Energy Storage System, who are responsible for submitting a Siting Permit application and all required attachments necessary for the review and approval thereof by the County.

GUY-WIRES. Tensioned cables used to stabilize a structure that is of insufficient weight to support itself under the pressure of wind, heavy rain, or similar influences. Such wires are fastened to the structure on one end, and to a nearby point on the ground on the other.

HEIGHT, WIND TURBINE. The vertical distance between the ground elevation at the base of the tower and the tip of the blade when positioned at its highest point during a rotation.

HEIGHT, TOWER. The vertical distance between the ground elevation at the base of a wind turbine or meteorological evaluation tower and the highest point of said tower.

ICE THROW. The shedding of ice from a wind turbine blade while the turbine is in operation, with the motion of the blade propelling ice over a greater distance than if it were in a stationary position|.

Commented [JL4]: "NEW" Added this definition, since the term is now used in Article VII (regarding the Operations & Maintenance Plan)

MAXIMUM HORIZONTAL TILT. The point during the course of a daily rotation (if any) at which the panels of a solar array are the closest to being entirely parallel to the ground surface.

MAXIMUM VERTICAL TILT. The point during the course of a daily rotation (if any) at which the panels of a solar array are the closest to being at a ninety (90)-degree angle to the ground surface.

METEOROLOGICAL EVALUATION TOWER. A tall, narrow, lightweight structure, installed on a temporary basis, supported by guy-wires, and containing specialized equipment used for assessing wind characteristics at the prospective location of a Commercial Wind Energy System.

OCCUPIED DWELLING. A building that contains one or more dwelling units intended for residential use – whether occupied by the homeowner or unrelated individuals paying rent, and which is occupied for year-round or seasonal use by one or more households, or actively marketed for sale or rent at the time a Wind or Solar Energy System, and/or a Battery Energy Storage System is proposed to be built in the nearby vicinity. This term shall also include any such dwelling that is under construction and not yet occupied at the time the system is proposed. It shall not apply to any such building which is vacant year-round and not being actively marketed for sale or rent at the time the System is proposed. It shall also not apply to any accessory buildings such as detached garages that are not used for human habitation.

Commented [JL5]: This was added to ensure that these planned homes are factored into the process, since the developer may not be aware of these at the time they start designing a project.

OPERATIONAL LIFESPAN. The period in which a C-WES, C-SES, and/or C-BESS, or any portion thereof, is functionally operating as designed to produce, transmit or store energy. This period extends from the completion of initial construction to its eventual decommissioning and/or abandonment.

Commented [JL6]: This term is used numerous times in the ordinance, so it needs to be defined.

OPERATIONS. The day-to-day functions of a Wind or Solar Energy System, and/or Battery Energy Storage System as it works to produce, transmit, or store energy.

OPERATOR. The person(s) or entity(ies) responsible for the day-to-day operation and maintenance of a Wind or Energy System, and/or a Battery Energy Storage System, including any third-party subcontractors. This term shall apply to all subsequent operators of the System, if such responsibility is transferred at any point during its operational lifespan.

OWNER, C-WES, C-SES, or C-BESS. The person(s) and/or entity(ies) that own the structures and equipment comprising a Wind or Solar Energy System, and/or a Battery Energy Storage System, regardless of whether or not they also own the land upon which it is situated. This term shall apply to all subsequent owners of the System, if ownership is transferred at any point during its operational lifespan.

PARTICIPATING PROPERTY. Shall refer to any parcel of land that is subject to a voluntary lease, easement, waiver or other contract with the Owner and/or Operator of a Commercial Wind or Solar Energy System, and/or a Battery Energy Storage System, concerning the development, construction or operation of that System.

NON-PARTICIPATING PROPERTY. Any parcel of land other than a 'participating property', as herein defined.

PUBLIC CONSERVATION AREA. Any area of land that is directly owned or managed by Des Moines County Conservation, the Iowa Department of Natural Resources, or the U.S. Fish and Wildlife Service, for the purpose of wildlife conservation. This does not include any privately owned land that is subject to temporary easements and/or contractual regulatory authority by any of the aforementioned public conservation agencies.

REPOWERING. The process of upgrading or replacing any of the existing components of a Wind or Solar Energy System, and/or a Battery Energy System, at any point during its operational lifespan. Such activities may be undertaken to increase the energy efficiency or output of the System, or to replace previously damaged or malfunctioning components.

SHADOW FLICKER. The phenomenon in which the sun shines through the rotating blades of a wind turbine, casting a moving shadow that projects onto buildings, objects and surfaces.

SITING PERMIT. A written certificate that, once approved by the County, authorizes the Developer to proceed with the construction or expansion of a Wind or Solar Energy System, and/or a Battery Energy Storage System.

SOLAR ARRAY. An installation comprised of multiple solar panels grouped together and wired into a single circuit, to be attached either to a ground-mounted post or column, or to the roof of a building or structure. Ground-mounted arrays are typically tilted at an angle from the flat ground surface, which may be adjustable to follow the position of the sun throughout the course of a single day.

CLUSTER OF SOLAR ARRAYS. Shall refer to any grouping of adjacent solar arrays that is not separated from any other grouping of arrays by a roadway, other public right-of-way, utility easement, or greater than fifty (50) feet of open space.

SOLAR ENERGY SYSTEM (SES). A system of infrastructure used for the conversion of solar energy from the sun into electricity, which includes a series of panels designed to collect energy from the rays of the sun, along with any supporting electrical equipment and transmission lines necessary for the operation thereof, as well as any associated Battery Energy Storage Systems.

Commented [JL7]: This was modified to make it clear that the lease/easement is the key distinguishing factor - not the actual presence of wind/solar equipment. The definition of 'non-participating property' was simplified for similar reasons.

Commented [JL8]: "NEW" This definition was added to provide clarity as to what constitutes a 'public conservation area'. This way, it is not interpreted as applying to private CRP or Forest Reserve land.

Commented [JL9]: "NEW" This term is now used in Article X, for when an Road Use Agreement is necessary for such upgrades. It was also added in a couple of appropriate instances in Article XII, related to a damage incident.

COMMERCIAL SOLAR ENERGY SYSTEM (C-SES). A Solar Energy System where the energy produced is either distributed to the electrical power grid for use by the public at-large, or used by one (1) or more large commercial or industrial operations nearby. Such a system is designed to produce at least twenty-five (25) megawatts of energy, using clusters of solar arrays situated on private agricultural land, with one or more landowners leasing the land to a company which owns and maintains the solar equipment.

Commented [JL10]: Originally, the definition didn't reference megawatts, or the potential for a large industrial operation to utilize one of these (as has been proposed by Iowa Fertilizer in Lee County - solar and battery). Also, references to acreage have been removed, since this is not always the best metric to draw the distinction. Similar to wind, several instances of the word 'typically' have been removed.

PERSONAL SOLAR ENERGY SYSTEM (P-SES). A Solar Energy System where the majority of the energy produced is consumed directly on-site, or on an adjoining property, though excess energy generated by the System may be sold and distributed to an electric utility provider serving the general public. Such a system is designed to produce less than twenty-five (25) megawatts of energy, and includes either solar panels mounted on the rooftops of buildings, or a cluster of ground-mounted arrays, which are used to serve the energy needs of a private residence, business or agricultural operation.

SOLAR PANEL. A photovoltaic device designed to collect energy from the rays of the sun for conversion into electricity, which may either be part of a freestanding utility structure placed directly on the ground surface, or attached to the roof of a separate building or structure.

STRUCTURE. Anything constructed or erected with a permanent location on the ground, including dwellings, civic buildings, retail stores, offices, factories, utility stations, wind turbines, freestanding solar arrays, garages, sheds, barns, livestock pens, grain bins, and bulk liquid or gas storage tanks.

WIND ENERGY SYSTEM (WES). A system of infrastructure used for the conversion of wind energy into electricity, which includes one (1) or more wind turbines as well as any supporting electrical equipment and transmission lines necessary for the operation thereof, as well as any associated Battery Energy Storage Systems.

COMMERCIAL WIND ENERGY SYSTEM (C-WES). A Wind Energy System where the energy produced is either distributed to the electrical power grid for use by the public at-large, or used by one (1) or more large commercial or industrial operations nearby. Such a system is designed to produce at least one (1) megawatt of energy, and involves one (1) or more wind turbines of several hundred feet in height, situated on private agricultural land, with one or more landowners leasing the land to a company which owns and maintains the wind energy equipment.

Commented [JL11]: Originally referred to acreage (over 100) and didn't reference megawatts. On guidance from the attorney, we removed several instances of the word 'typically'. For instance, it had previously said, "Such a system typically produces more than 1 MW of energy".

PERSONAL WIND ENERGY SYSTEM (P-WES). A Wind Energy System where the majority of the energy produced is consumed directly on-site, or on an adjoining property, though excess energy generated by the System may be sold and distributed to an electric utility provider serving the general public. Such a system is designed to produce less than one (1) megawatt of energy, and includes an individual wind turbine of minimal height that is owned and maintained by the landowner, which is used to serve the energy needs of a private residence, business or agricultural operation.

WIND TURBINE. A structure used to collect kinetic energy from wind and convert it into electricity, which is comprised of a monopole tower, along with a series of rotary operated blades and a nacelle (generator) attached to the top of the tower.

ARTICLE III: WIND ENERGY SYSTEMS – SITING AND DESIGN STANDARDS

A. **Purpose.** The standards within this Article shall apply to all Commercial Wind Energy Systems developed under the authority of this Ordinance. For regulations pertaining specifically to Meteorological Conversion Towers, see Article VIII.

B. **Setback from Structures, Places and Property Lines.**

1. All setback distance measurements shall be taken in reference to the point at which the wind turbine will be closest to the applicable structure, place or property line, along a flat horizontal plane between the two points, to adjust for any significant changes in topography and land surface elevation.
 - a) The requirements in this Section shall apply to all applicable structures, places and properties in the vicinity of the C-WES, regardless of whether they are located within an incorporated municipality or an adjoining county.
 - b) The requirements in this Section shall apply only to a C-WES at the time of construction, and shall not apply if new buildings or infrastructure are voluntarily placed in closer proximity after it has assumed operations.
 - c) The requirements in this Section may be waived if written permission for a shorter distance has been obtained from one or more individual property owners, and the waiver shall apply only to those specific propert(ies).
2. The minimum setback distance from a wind turbine to any of the following structures, places and properties shall be as shown in the table below, with measurements taken from the base of the tower at ground level (not including any stairways or other projections off of the main tower structure):

Structure / Place / Property	Minimum Setback	
	On Participating Properties	On Non-Participating Properties
Occupied dwellings and civic buildings	2 times the height of the turbine	3 times the height of the turbine
All other structures (including detached garages, sheds, livestock confinement buildings, and other wind turbines)	Equal to the height of the turbine plus 10 percent of that height	2 times the height of the turbine
Electric substations	2 times the height of the turbine	
Above-ground electric lines	Equal to the height of the turbine plus 10 percent of that height	
The right-of-way line for any roadway (public or private), railroad, or levee system	Equal to the height of the turbine plus 10 percent of that height	

(table continued on next page)

Commented [JL12]: In Lee County, some residents interpreted these setbacks as a 'taking', assuming the regulations applied to any future buildings on nonparticipating properties as well. This language was added for the sake of clarity.

Commented [JL13]: Was originally 1,800 feet - Lee County is 1,600. Now it will be based on the size of the infrastructure, which varies. 3 times the height results in 1,950 for a 650 ft turbine.

Commented [JL14]: Was originally 1,000 feet or 2 times the height. The same goes for other structures on non-participating, and electric substations. We should consider reducing this even further so that participating dwellings have the same setback as a non-participating property line.

Structure / Place / Property (cont'd)	Minimum Setback – At Any Location
The boundary line of any non-participating property	Equal to the height of the turbine plus 10 percent of that height
Cemeteries	3 times the height of the turbine
Public conservation areas	3 times the height of the turbine

Commented [JL15]: Lee County has it at 1.5 times the height, rather than 1.1. They raised it following public concerns that it should be higher, though 1.5 is the highest used anywhere else in the state (Black Hawk County).

Commented [JL16]: Lee County removed cemeteries entirely, out of concern regarding how loosely that term could be defined (with numerous individual burials on private land and spotty records creating a regulatory hurdle).

Commented [JL17R16]: "NEW" Changed it from 2 to 3 times to be consistent with that of civic buildings on a nonparticipating property.

Commented [JL18]: Was originally 1,000 feet or 2 times the turbine height. Lee County placed a greater priority on conservation, but whichever figure is used, it should be no higher than that for non-participating dwellings.

- No portion of any C-WES shall be constructed within any public right-of-way, utility or pipeline easement, or access easement, unless written permission has been obtained by the intended beneficiary(ies) of that right-of-way or easement and provided to the Board of Supervisors prior to the final public hearing.
- For any roadway that is to be newly constructed or widened as part of a project listed in the State or County Five-Year Program, the minimum setback from a roadway right-of-way in Section B(2) of this Article shall apply to the planned location of the right-of-way line at the conclusion of the applicable project.

C. Height Restrictions.

- The minimum vertical distance between ground level and the tip of a wind turbine blade at its lowest point during a rotation shall be seventy-five (75) feet.
- If any portion of a C-WES is located within the jurisdiction of the *Des Moines County Airport Approach Zone Regulations (Ordinance No. 58)*, then all structures within that area shall comply with the applicable height restrictions of that ordinance.

D. Design and Appearance.

- All wind turbines shall be designed with the configuration of a tubular, monopole type tower, able to be physically supported in place without the assistance of guy-wires or other similar reinforcements.
- All turbines shall be designed to avoid reflective glare from sunlight or other lighting used to illuminate them.
- All turbines shall be painted a neutral color such as white or light gray, and finishes shall be matte and non-reflective. Blades may be a darker color (such as black) in order to facilitate de-icing or reduce wildlife collisions.
- All turbines shall remain painted or finished the same as was originally applied by the manufacturer, unless otherwise approved by the Board of Supervisors.

- E. Electric Lines.** To the maximum extent feasible, electric lines used to transfer energy from a turbine to the nearest BESS or substation shall be placed underground, apart from those within a public road right-of-way or an existing overhead electric easement.

F. Lighting and Reflection.

- Any lighting that is installed on the premises of a C-WES shall be shielded and downcast to the extent that the light does not project directly onto any adjoining

properties. Exceptions shall be made only when such lighting is necessary to comply with requirements of the Federal Aviation Administration (FAA), or any other state or federal agency (such as those pertaining to the lighting of a substation).

2. Each C-WES shall be equipped with an Aircraft Detection Lighting System (ADLS), subject to the approval of the FAA.
3. No occupied dwelling on a non-participating property shall experience more than thirty (30) hours per year of shadow flicker on the external wall nearest to a turbine.

Commented [JL19]: The 30 hours threshold is the standard amount used in other ordinances that contain any reference to 'shadow flicker'.

- G. **Noise Volume.** The volume of noise generated by any component of a C-WES shall not exceed fifty (50) A-weighted decibels (dBA) when measured from an occupied dwelling or civic building on a non-participating property.

1. This requirement shall not apply during a severe storm or power outage, if electrical disturbances cause a temporary increase in noise during the course of the storm or outage.

Commented [JL20]: For the handful of Iowa counties that have addressed noise volume, 50 to 60 dBA is the typical threshold used. "dBA" is a more nuanced and comprehensive measurement than just "dB".

Commented [JL21R20]: "NEW" Reduced from 55 to 50 dBA.

- H. **Access and Security Fencing.** All components of a C-WES shall be sufficiently secured to prevent any safety hazards to the general public.

1. Any wind turbine that is climbable within fifteen (15) feet of the base at ground level shall be fully surrounded with fencing, and an entrance that is locked at all times outside the occurrence of operations and maintenance activities.
2. Any access points at the base of a wind turbine shall be locked at all times outside the occurrence of operations and maintenance activities.
3. All locked entry points shall be accompanied by signage which prohibits trespassing, warns of any applicable risk of high voltage or other safety hazard, and provides the facility's address and GPS coordinates, along with contact information for the Owner and/or Operator in case of emergency.

Commented [JL22]: "NEW" It previously said that the 55 dBA limit 'may be exceeded during short-term events such as utility outages and/or severe storms. The new language is less open to interpretation.

4. Whenever located within two-hundred (200) feet of the right-of-way for a public roadway, all security fencing for a C-WES shall have a minimum porosity of seventy-five (75) percent, in order to permit the free movement of blowing snow, and thereby prevent the formation of snow drifts on nearby roadways.

Commented [JL23]: Added at the request of Lee County Secondary Roads. But we haven't seen this in any other ordinances, so it's up to the Board/County Engineer if you think we should keep it.

- a) The Board of Supervisors may waive the seventy-five (75) percent porosity requirement, if the Developer submits an engineering study which confirms that a fence of the specified porosity will not result in an increase in snow drifts on the adjoining roadway.

- I. **Signs.**

1. No signs shall be installed on the premises of a C-WES if they are visible from a public street, apart from Owner or manufacturer identification signs and any applicable warning signs outlined in Section G(3) of this Article.
2. No wind turbine or other structure associated with a C-WES shall be used to advertise or promote any product or service.

J. **Fire Prevention Standards.**

1. Each turbine in a C-WES shall be equipped with lightning protection technology, designed to prevent lightning strikes from damaging the equipment or triggering a fire. Such technology shall comply with IEC 61400-24 of the International Electrotechnical Commission.
2. Each turbine in a C-WES shall be equipped with an on-site fire suppression system that is capable of extinguishing a fire of any size on the turbine, and preventing it from spreading onto the surrounding property.
 - a) All operations and maintenance personnel shall be provided with safety protocols for working in and around the components of the fire suppression system, and such protocols shall be outlined in the submitted Operations and Maintenance Plan (See Article VII, Section D8).

Commented [JL24]: "NEW" It originally said, "...with a fire suppression system, to detect and extinguish fires in the event of an emergency". This was modified based on concerns from EMA that the language was too broad.

Commented [JL25]: This is meant to address concerns by industry professionals, regarding oxygen deprivation, depending on the type of suppression system installed. In lieu of requiring that a certain type of system being installed, this ensures that workers are adequately familiar with everything beforehand.

K. **Adherence to Industry Standards.** All components of a C-WES shall be built using the industry standard materials and design specifications, without the use of any novel or experimental elements that have not been previously tested and routinely used for C-WES projects in Iowa and the surrounding states.

1. All wind turbines shall comply with the standards of IEC 61400 of the International Electrotechnical Commission.
2. In addition, the materials and design specifications shall have been used for at least two (2) C-WES projects of twenty-five (25) megawatts or greater within two-hundred fifty (250) miles of Des Moines County, which have been operational for at least five (5) years at the time a Siting Permit application is submitted.
3. This requirement shall apply to all of the following:
 - a) The materials comprising the physical structure of each wind turbine, including the tower, blade, nacelle, and subgrade foundation
 - b) The physical configuration and energy capacity of each wind turbine, including the height, width and similar physical characteristics of the tower, blade and nacelle
 - c) The materials comprising all accessory equipment for storing or transferring energy, including inverters, transformers, cooling equipment, switching gear, metering equipment and transmission tie lines
 - d) The location and physical configuration of wind turbines in relation to accessory equipment for storing or transferring energy, and if applicable, the equipment of a C-BESS
 - e) Technologies used for lightning protection, fire suppression, and Aircraft Detection Lighting

Commented [JL26]: "NEW" This was originally under Section D, but it has been moved and expanded to provide greater context, since the original language was deemed to be too vague and possibly difficult to enforce. 250 miles covers all but the northwest corner of Iowa, most of Illinois, about 2/3 of Missouri, half of Wisconsin, and small portions of Minnesota, Indiana, Nebraska and Kansas. Everything within this area is likely to have similar climate conditions with Des Moines County, and it's big enough to include a sizable number of existing wind farms. 25 MW is the threshold for 'utility scale', which gets the Iowa Utilities Board involved. With 2 turbines total, Mechanicsville had 6 MW.

Commented [JL27]: "NEW" IEC 61400 covers the design, safety, operation and testing of wind turbines and their components. One section of it covers lightning protection, and a reference to this has been provided in J(1).

ARTICLE IV: SOLAR ENERGY SYSTEMS – SITING AND DESIGN STANDARDS

- A. **Purpose.** The standards within this Article shall apply to all Commercial Solar Energy Systems developed under the authority of this Ordinance.
- B. **Setback from Structures, Places and Property Lines.**
1. All setback distance measurements shall be taken in reference to the point at which the solar array will be closest to the applicable structure, utility line, or property line, along a flat horizontal plane between the two points, to adjust for any significant changes in topography and land surface elevation.
 - a) The requirements in this Section shall apply to all applicable structures, places and properties in the vicinity of the C-SES, regardless of whether they are located within an incorporated municipality or an adjoining county.
 - b) The requirements in this Section shall apply only to a C-SES at the time of construction, and shall not apply if new buildings or infrastructure are voluntarily placed in closer proximity after it has assumed operations.
 - c) The requirements in this Section may be waived if written permission for a shorter distance has been obtained from one or more individual property owners, and the waiver shall apply only to those specific propert(ies).
 2. The minimum setback distance from a solar array to any of the following structures, places and properties be as shown in the table below, with measurements taken from the closest point of the solar array when the panels are positioned at maximum horizontal tilt:

Structure / Place / Property	Minimum Setback	
	On Participating Properties	On Non-Participating Properties
Occupied dwellings and civic buildings	150 feet	300 feet
All other structures (including detached garages, sheds and livestock confinement buildings.	75 feet	150 feet
Electric substations	150 feet	
Above-ground electric lines	75 feet	
The right-of-way line for any roadway (public or private), railroad, or levee system	75 feet	
The boundary line of any non-participating property	75 feet	
Cemeteries	300 feet	
Public conservation areas	300 feet	

Commented [JL28]: "NEW" Had initially changed it from 300 to 150, but changed in back in order to be consistent with civic buildings on a nonparticipating property

3. No portion of any C-SES shall be constructed within any public right-of-way, utility or pipeline easement, or access easement, unless written permission has been

obtained by the intended beneficiary(ies) of that right-of-way or easement and provided to the Board of Supervisors prior to the final public hearing.

4. For any roadway that is to be newly constructed or widened as part of a project listed in the State or County Five-Year Program, the minimum setback from a roadway right-of-way in Section B(2) of this Article shall apply to the planned location of the right-of-way line at the conclusion of the applicable project.

C. **Height Restrictions.** All measurements shall be taken from the highest point on a panel when it is positioned at maximum vertical tilt.

1. The height of any solar array within a C-SES shall not exceed fifteen (15) feet.
2. The maximum height of a solar array may be increased whenever necessary to accommodate Agri-voltaic Systems, or to comply with the minimum floodplain development standards of Ordinance No. 25.
 - a) In such instances, the minimum setback shall be increased by two (2) feet for every foot at which the height exceeds fifteen (15) feet, but under no circumstances shall the height of any array exceed twenty-five (25) feet.
3. If any portion of a C-SES is located within the jurisdiction of the *Des Moines County Airport Approach Zone Regulations (Ordinance No. 58)*, then all structures within that area shall comply with the applicable height restrictions of that ordinance.

Commented [JL29]: *NEW* Previously, there was no maximum height limit beyond 15 feet, as long as the modified setbacks were complied with. Also, the setback/height language was switched around (before, it was, "the height shall be increased by 1 foot for every 2 feet at which the setback exceeds the maximum"). In hindsight, this seems like a convoluted way of saying that. Finally, referencing Agri-voltaics and floodplain requirements functionally limits the use of taller arrays to only those specific instances.

D. **Maintenance of Soil Health.** In order to ensure that the underlying soil on the properties comprising a C-SES will remain viable for productive farming operations following its decommissioning, the following standards shall be complied with during and after construction of an C-SES.

1. Top soils shall not be removed from the C-SES project area during development, except in any instance where necessary to remediate chemicals or hazardous substances from a prior use of the property.
2. Apart from paved or gravel driveways necessary to transport vehicles and equipment around the C-SES during regular maintenance work, all areas of soils that underly and surround clusters of solar arrays shall be planted and maintained in perennial vegetation, in order to prevent erosion, manage stormwater runoff, and maintain overall soil health.
 - a) Seed mixes and maintenance practices for vegetation shall be consistent with recommendations made qualified natural resource professionals (such as those at the Iowa Department of Natural Resources, Natural Resources Conservation Service (NRCS) and the local Soil and Water Conservation District).
 - b) Seeds should include a mix of grasses and wildflowers, ideally native to the Southeast Iowa region, which will result in a short stature prairie surrounding the clusters of solar arrays.
 - c) Alternatively, the soil surrounding solar arrays may be used for Agri-voltaic Systems, such as the growing of crops or livestock grazing.

Commented [JL30]: This option was not previously addressed in the Des Moines County ordinance. The term 'agri-voltaic system' is now included in the Definitions section of the ordinance.

3. During the course of operations for a C-SES, all chemicals or solvents used to clean solar panels shall minimize the use of volatile organic compounds, and the Operator shall use recyclable or biodegradable products to the greatest extent possible.
4. Once a C-SES has commenced operations, surface-level soil samples shall be taken at regular intervals (no less than once every 10 years), to test for the presence of any of the eight (8) metals identified by the Resource Conservation and Recovery Act (RCRA), including arsenic, barium, cadmium, chromium, lead, mercury, selenium and silver.
 - a) Samples shall be taken at a rate of one sample for every 100 acres of land, evenly distributed throughout the C-SES.
 - b) Soil sampling shall be conducted in accordance with SW-846 ('Test Methods for Evaluating Solid Waste: Physical/Chemical Methods Compendium'), from the U.S. Environmental Protection Agency (EPA).
 - c) Such sampling shall be performed by a licensed third party professional, and the results shall be provided to the Board of Supervisors upon completion.

Commented [JL31]: "NEW" This was added to ensure consistency with other sections of the ordinance that require non-biased third party credentials for this.

5. A baseline soil sample shall be taken prior to the initial construction of the C-SES, to be used as a reference for future samples taken during the course of its operation. A report detailing the results of the baseline sample shall be provided to the Board of Supervisors prior to the approval of a Siting Permit.
 - a) In the event that contamination from any of the eight (8) RCRA metals is identified in any subsequent samples, and the amount exceeds that which was observed in the baseline sample, the C-SES Owner and/or Operator shall provide the Board of Supervisors with an action plan to address the issue. This plan shall specify what efforts will be undertaken to remove the existing contamination, and to prevent further contamination from occurring in the future.

Commented [JL32]: "NEW" It originally said that the Operator 'shall notify the BOS and provide an action plan'. With the addition of 4c above, it is already clear that they must NOTIFY the Board regardless of what the results are.

6. A final soil sample shall be taken following the conclusion of decommissioning for the C-WES at the end of its operational lifespan. A report detailing the results of this sample shall be provided to the Board of Supervisors, along with an action plan to address contamination, if any was identified.

Commented [JL33]: "NEW" Added in order to ensure that this is taken care of after decommissioning, to the same standard as previous samples.

E. **Screening** If a proposed C-SES will include any solar arrays within six hundred (600) feet of an occupied dwelling, civic building, and/or cemetery, the developer shall install a landscape buffer between the C-SES and the applicable property(ies).

1. Each landscape buffer shall be comprised of trees and/or shrubs, which when fully grown will result in a solid visual barrier of no less than fifteen (15) feet in height, for any portion of the solar array within six hundred (600) feet of the dwelling, civic building or cemetery.
2. This requirement may be waived if written permission has been obtained from any individual property owner(s), and the waiver shall apply only to those specific property(ies).

Commented [JL34]: "NEW" Previously, the ordinance just said that such screening MAY be required 'if deemed necessary by the Board'. Since that is arbitrary, this has been modified to include specifics about when it would be required. Since 600 feet is double the minimum setback from non-participating dwellings, this would apply in any instance where the solar arrays would be somewhere in the range of 300 to 600 feet. It doesn't seem fair to require this for a distance of any greater than 600 feet, as the visual impact beyond that point will be much more minimal.

3. This requirement may also be waived if it can be demonstrated that the solar arrays would not be visible from within six hundred (600) feet of the applicable dwelling, civic building or cemetery, as a result of the natural terrain, or the presence of existing buildings or vegetation.

F. **Lighting and Reflection.**

1. Any lighting that is installed on the premises of a C-SES shall be shielded and downcast to the extent that the light does not project directly onto any adjoining properties. Exceptions shall be made only when such lighting is necessary to comply with requirements of the Federal Aviation Administration, or any other state or federal agency (such as those pertaining to the lighting of a substation).
2. A C-SES shall be designed and positioned in such a manner as to prevent reflective glare toward any nearby occupied dwellings, civic buildings, roadways, or airport runways.
3. A C-SES shall be designed in accordance with the standards of the adopted Wildlife Monitoring and Mitigation Plan, in order to prevent wildlife collisions due to reflection from solar panels (see Article XI, Section B).

Commented [JL35]: "NEW" This tie-in to Article XI was suggested by the County Attorney.

G. **Noise Volume.** The volume of noise generated by any component of a C-SES shall not exceed fifty (50) A-weighted decibels (dBA) when measured from an occupied dwelling or civic building on a non-participating property.

Commented [JL36]: This could potentially be an issue a solar farms and battery systems as well as wind. May need to do more research on whether the threshold of 55 dBA is reasonable for those the same as wind.

1. This requirement shall not apply during a severe storm or power outage, if electrical disturbances cause a temporary increase in noise during the course of the storm or outage.

Commented [JL37R36]: "NEW" Reduced from 55 to 50 dBA.

H. **Access and Security Fencing.** All components of a C-SES shall be sufficiently secured to prevent any safety hazards to the general public.

Commented [JL38]: "NEW" It previously said that the 55 dBA limit may be exceeded during short-term events such as utility outages and/or severe storms.

1. A C-SES shall be fully surrounded with fencing that meets the minimum height and design standards of the National Electrical Code (NEC), and an entrance that is locked at all times outside the occurrence of maintenance activities.
2. All locked entry points shall be accompanied by signage which prohibits trespassing, warns of any applicable risk of high voltage or other safety hazard, and provides the facility's address and GPS coordinates, along with contact information for the Owner and/or Operator in case of emergency.
3. Whenever located within two-hundred (200) feet of the right-of-way for a public roadway, all security fencing for a C-SES shall have a minimum porosity of seventy-five (75) percent, in order to permit the free movement of blowing snow, and thereby prevent the formation of snow drifts on the nearby roadways.
 - a) The Board of Supervisors may waive the seventy-five (75) percent porosity requirement, if the Developer submits an engineering study which confirms that a fence of the specified porosity will not result in an increase in snow drifts on the adjoining roadway.

I. **Signs.**

1. No signs shall be installed on the premises of a C-SES if they are visible from a public street, apart from Owner or manufacturer identification signs and any applicable warning signs outlined in Section H(2) of this Article.
2. No solar array or other structure associated with a C-SES shall be used to advertise or promote any product or service.

J. **Adherence to Industry Standards.** All components of a C-SES shall be built using industry standards and design specifications, without the use of any novel or experimental elements that have not been previously tested and routinely utilized in C-SES projects elsewhere, in Iowa and the neighboring states.

1. All solar arrays shall comply with the standards of IEC 61215 and IEC 61730 of the International Electrotechnical Commission.
2. In addition, the materials and design specifications shall have been used for at least two (2) C-SES projects of twenty-five (25) megawatts or greater within two-hundred fifty (250) miles of Des Moines County, which have been operational for at least five (5) years at the time a Siting Permit application is submitted.
3. This requirement shall apply to all of the following:
 - a) The materials comprising the solar arrays, including solar panels, support posts or columns, and subgrade foundation
 - b) The size, height, physical configuration and energy capacity of each solar array, and the distance between each array
 - c) The materials comprising all accessory equipment for storing or transferring energy, including inverters, transformers, cooling equipment, switching gear, metering equipment and transmission tie-lines.
 - d) The location and physical configuration of solar arrays in relation to accessory equipment for storing or transferring energy, and if applicable, the equipment of a C-BESS

Commented [JL39]: *NEW* This used to be in a section called 'Design Materials' earlier in this article. It was moved to the end, and expanded in order to be consistent with the same section in Article III.

Commented [JL40]: *NEW* IEC 61215 and 61730 both apply to photovoltaic (PV) modules - 61215 is for performance, while 61730 is for safety

ARTICLE V: BATTERY ENERGY STORAGE SYSTEMS – SITING AND DESIGN STANDARDS

A. **Purpose.** The standards within this Article shall apply to all Commercial Battery Energy Storage Systems developed under the authority of this Ordinance.

Commented [JL41]: The Des Moines County ordinances previously addressed BESS only when built as part of a wind or solar farm. Also, the setbacks weren't always clearly defined or distinguished from the wind or solar infrastructure itself.

B. **Setback from Structures, Places and Property Lines.**

1. All setback distance measurements shall be taken in reference to the point at which the battery equipment will be closest to the applicable structure, utility line, or boundary line, along a flat horizontal plane between the two points, to adjust for any significant changes in topography and land surface elevation.
 - a) The requirements in this Section shall apply to all applicable structures, places and properties in the vicinity of the C-BESS, regardless of whether they are located within an incorporated municipality or an adjoining county.
 - b) The requirements in this Section shall apply only to a C-BESS at the time of construction, and shall not apply to any new buildings or infrastructure that are voluntarily placed in closer proximity after it has assumed operations.
 - c) The requirements in this Section may be waived if written permission for a shorter distance has been obtained from one or more individual property owners, and the waiver shall apply only to those specific property(ies).
2. For a C-BESS that does not contain lithium-ion, sodium-ion, or sodium-sulfur battery equipment, the minimum setback distance from it to any of the following structures, places and properties shall be as shown in the table below:

Commented [JL42]: The distinction between the two types was established in order to require higher setbacks for a BESS with higher fire risk. (usually doubled)

Structure / Place / Property	Minimum Setback	
	On Participating Properties	On Non-Participating Properties
Occupied dwellings and civic buildings	250 feet	500 feet
All other structures (including detached garages, sheds and livestock confinement buildings)	150 feet	250 feet
Above-ground electric lines	75 feet	
The right-of-way line for any roadway (public or private), railroad, or levee system	75 feet	
The boundary line of any non-participating property	75 feet	
Cemeteries	500 feet	
The boundary of a public conservation area (county, state or federal)	500 feet	

Commented [JL43]: "NEW" Changed it from 150 to 500 feet, to be consistent with that of civic buildings on a nonparticipating property.

(cont'd on next page)

3. For a C-BESS that contains lithium-ion, sodium-ion, or sodium-sulfur battery equipment, the minimum setback distance from it to any of the following structures, places and properties shall be as shown in the table below:

Structure / Place / Property	Minimum Setback	
	On Participating Properties	On Non-Participating Properties
Occupied dwellings and civic buildings	500 feet	1,000 feet
All other structures (including detached garages, sheds and livestock confinement buildings)	250 feet	500 feet
Above-ground electric lines	150 feet	
The right-of-way line for any roadway (public or private), railroad, or levee system	150 feet	
The boundary line of any non-participating property	250 feet	
Cemeteries	1,000 feet	
Public conservation areas	1,000 feet	

Commented [JL44]: For the most part, the figures in the table below applied to all BESS, regardless of the type of equipment. And a BESS only had setbacks established for dwelling/civic buildings, other structures and cemeteries. All of the others have been added, in order to be consistent with solar and wind farms.

Commented [JL45]: These were originally 250 and 500, respectively

Commented [JL46]: Was originally 250 feet

Commented [JL47]: "NEW" Changed it from 500 to 1,000 feet, to be consistent with that of civic buildings on a nonparticipating property.

4. No portion of any C-BESS shall be constructed within any public right-of-way, utility or pipeline easement, or access easement, unless written permission has been obtained by the intended beneficiary(ies) of that right-of-way or easement and provided to the Board of Supervisors prior to the final public hearing.
5. For any roadway that is to be newly constructed or widened as part of a project listed in the State or County Five-Year Program, the minimum setback from a roadway right-of-way in Section B(2) of this Article shall apply to the planned location of the right-of-way line at the conclusion of the applicable project.
6. In any instance where NFPA 855 (Standard for the Installation of Stationary Energy Storage Systems) requires a different minimum setback than Sections B(2) and (3) of this Article, the C-BESS shall comply with whichever minimum setback is greater.

C. **Lighting and Reflection.** Any lighting that is installed on the premises of a BESS shall be shielded and downcast to the extent that the light does not project directly onto any adjoining properties. Exceptions shall be made only when such lighting is necessary to comply with requirements of the Federal Aviation Administration, or any other state or federal agency (such as those pertaining to the lighting of a substation).

D. **Noise Volume.** The volume of noise generated by any component of a C-BESS shall not exceed fifty (50) A-weighted decibels (dBA) when measured from an occupied dwelling or civic building on a non-participating property.

Commented [JL48]: "NEW" Reduced from 55 to 50 dBA.

1. The requirement shall not apply during a severe storm or power outage, if electrical disturbances cause a temporary increase in noise during the course of the storm or outage.

Commented [JL49]: "NEW" It previously said that the 55 dBA limit 'may be exceeded during short-term events such as utility outages and/or severe storms'.

E. **Access and Security Fencing.** All components of a BESS shall be sufficiently secured to prevent any safety hazards to the general public.

1. A C-BESS shall be fully surrounded with fencing that meets the minimum height and design standards of the National Electrical Code (NEC), and an entrance that is locked at all times outside the occurrence of maintenance activities.
2. Whenever located within two-hundred (200) feet of the right-of-way for a public roadway, all security fencing for a C-BESS shall have a minimum porosity of seventy-five (75) percent, in order to permit the free movement of blowing snow, and thereby prevent the formation of snow drifts on the nearby roadways.
 - a) The Board of Supervisors may waive the seventy-five (75) percent porosity requirement, if the Developer submits an engineering study which confirms that a fence of the specified porosity will not result in an increase in snow drifts on the adjoining roadway.

F. **Signs.**

1. All locked entry points for a C-BESS shall have signage which contains the following information:
 - a) Warnings for high voltage and other applicable hazards, in compliance with ANSI Z535.
 - b) The type of battery technology and chemistry associated with the C-BESS.
 - c) The facility's address and GPS coordinates.
 - d) Twenty-four (24) hour emergency contact information for the Operator of the C-BESS.
 - e) Disconnect and emergency shut-off information for all battery equipment and substations comprising the C-BESS.
2. Warning signs for high voltage shall be placed at the base of all pad-mounted transformers and substations.
3. No structure associated with a C-BESS shall be used to advertise or promote any product or service.

G. **Fire Prevention Standards.**

1. The Developer shall ensure that the C-BESS complies with all relevant standards of the National Fire Protection Association, including NFPA 1 (Fire Code), NFPA 70 (National Electrical Code), and NFPA 855 (Standard for the Installation of Stationary Energy Storage Systems).
2. All areas of land within thirty (30) feet of the C-BESS shall be kept clear of combustible vegetation or other combustible materials or growth.

Commented [JL50]: This and the preceding section were added for Lee County, since there was a lot of concern about this topic following a large fire at a BESS elsewhere in the US. These have a comparatively high fire risk - especially if they have lithium-ion equipment.

H. **Environmental Considerations.**

1. The Developer shall consult with the Iowa Department of Natural Resources and Des Moines County Soil and Water Conservation District, in order to obtain

Commented [JL51]: *NEW* Added at the recommendation of Des Moines County Conservation, with discretion given to the DNR and Soil/Water Conservation on a case-by-case basis, rather than imposing arbitrary distance thresholds for which BESS sites would and would not require containment systems.

information regarding any sensitive environmental features within close proximity of the proposed C-BESS site (such as perennial streams, water bodies and wetlands).

2. If the aforementioned entities recommend a certain setback between the C-BESS and any such environmental features, no C-BESS shall be established within a shorter setback unless the Developer demonstrates that the C-BESS will include the following mitigation measures.
 - a) Secondary containment systems capable of capturing electrolyte leaks or fire-suppressant water runoff.
 - b) Retention systems for stormwater and firewater, sized for a one-hundred (100)-year twenty-four (24)-hour storm event, in addition to fire suppression volume.
3. For any containment and retention systems required by this Section, these shall undergo quarterly inspection and sampling during the first year of operations for the C-BESS, including testing for pH, any of the eight (8) RCRA metals, lithium, and any other contaminants of concern.
 - a) The Owner and/or Operator shall provide the results of these inspections to the Des Moines County Conservation Board.
4. If the presence of contaminants exceeds any applicable regulatory thresholds, the Owner and/or Operator shall develop an action plan to mitigate the contamination, in consultation with the Conservation Board and/or Soil and Water Conservation District.
 - a) Quarterly inspections of the applicable containment system(s) shall continue until the presence of contaminants is reduced below the regulatory thresholds, with the results of each inspection provided to the Conservation Board.
5. The Owner and/or Operator shall be responsible for the immediate containment, remediation, and restoration of all affected areas in the event of a release of hazardous materials, in accordance with all applicable State and Federal environmental laws.

- I. **Adherence to Industry Standards.** All components of a C-BESS shall be built using industry standard materials and design specifications, without the use of any novel or experimental elements that have not been previously tested and routinely utilized in C-BESS projects elsewhere, in Iowa and the neighboring states.

1. All battery equipment shall comply with the standards of NFPA 855 of the National Fire Protection Association.
2. In addition, the materials and design specifications shall have been used for at least two (2) C-BESS projects of twenty-five (25) megawatts or greater within two-hundred fifty (250) miles of Des Moines County, which have been operational for at least five (5) years at the time a Siting Permit application is submitted.

Commented [JL52]: *NEW* This used to be in a section called 'Design Materials' earlier in this article. It was moved to the end, and expanded in order to be consistent with the same section in Articles III and IV.

Commented [JL53]: *NEW* NFPA 855 was already cited under Section H, but it seems like the most appropriate standard to reference here too, as there is no IEC equivalent for BESS (as with wind and solar).

3. This requirement shall apply to all of the following:
- a) The materials comprising the battery equipment and the structures that contain them
 - b) The size, height, physical configuration and energy capacity of each structure containing battery equipment, and the distance between each structure
 - c) Materials comprising all accessory equipment to be used for storing or transferring energy, including inverters, transformers, cooling equipment, switching gear, metering equipment and transmission tie-lines
 - d) The location and physical configuration of battery equipment in relation to accessory equipment for storing or transferring energy, and if applicable, the wind turbines of a C-WES, or the solar arrays of a C-SES

ARTICLE VI: SITING PERMIT – PRELIMINARY REVIEW

- A. **Purpose.** Given the size and potential impact of a C-WES, C-SES and/or C-BESS project, it is necessary for the County to conduct a Preliminary Review of the proposed project before final design plans are completed. In this phase of project development, the Developer will submit an application for Siting Permit, containing basic information about the project in terms of location, size, design elements, and proximity to surrounding developments. The precise details of such items will be finalized after the Board of Supervisors grants Consent to Proceed with final design plans.
- B. **Siting Permit Application.** The Developer shall submit an application for a Siting Permit to the Administrator, using forms supplied by the County, which shall include the following information:
1. The location of the proposed C-WES, C-SES, and/or C-BESS, and the size of its total physical extent.
 2. The total number of participating properties associated with the proposed C-WES, C-SES and/or C-BESS.
 3. The total number of structures comprising the proposed C-WES, C-SES and/or C-BESS, including all wind turbine(s), solar array(s), battery devices and other structures that will comprise the C-WES, C-SES and/or C-BESS.
 4. The proposed height and size dimensions of the wind turbine(s), solar arrays, and other structures that will comprise the proposed C-WES, C-SES and/or C-BESS.
 5. The primary use of the energy to be generated on-site, whether this will be for distribution to the electrical power grid for use by the general public, or for use by one (1) or more large commercial or industrial operations nearby.
 6. The anticipated amount of energy to be generated and/or stored on-site.
 7. The length of the anticipated timeframe for implementation of the project, including the permitting process, as well as the construction and placement of all structures and equipment that comprise the C-WES, C-SES, and/or C-BESS.
 8. Contact information for all representatives of the Developer that will be involved in the permitting and review process.
- C. **Required Documentation.** An application for a Siting Permit shall be accompanied by all of the following documentation, to be prepared and/or obtained entirely at the Developer's expense, and no formal action shall be taken by the County until all such documents have been submitted to the Administrator:
1. A draft Site Plan for the proposed C-WES, C-SES, and/or C-BESS, comprised of a map and any associated diagrams or illustrations, which contains all of the following information:
 - a) The planned location of all structures that will comprise the proposed C-WES, C-SES and/or C-BESS, including wind turbines, solar arrays, battery devices and any accessory structures and equipment, including utility lines, whether above or below-ground.

Commented [JL54]: This article was titled 'Conditional Siting Permit' in the Lee County ordinance. A number of changes were made for Des Moines County, to reflect that that there is only one permit involved, with two separate phases - rather than each phase constituting a separate permit ('Conditional' and 'Final').

- b) Lines marking a radius around each proposed wind turbine tower, cluster of solar arrays, and/or battery device, **with each equivalent to the minimum setback distance required for an occupied dwelling on a non-participating property.**
 - c) The location of all existing buildings, structures, and above-ground utility lines and pipelines **within the minimum required minimum setback distance for each proposed wind turbine tower, cluster of solar arrays, and/or battery device, plus an additional two-hundred (200) feet.** This shall include labels to indicate the distance between the two in each case. Distance measurements for structures on non-participating properties may be approximated using aerial photography.
 - d) The locations of all existing utility lines, sanitary systems, drainage tile networks, and any associated easements within or adjacent to the proposed C-WES, C-SES and/or C-BESS, regardless of whether they are currently being utilized.
 - e) The locations of all driveway entrances for obtaining access to the proposed C-WES, C-SES and/or C-BESS, as well as any other private entrances to the public roadway system within one thousand (1,000) feet of each, measured along the road right-of-way line.
 - f) The location, size and type of all bridges and culverts in the public roadway right-of-way adjacent to the proposed project site.
 - g) The location of all proposed security fencing, along with the distance between each fence and the right-of-way line for any public roadway(s) within two-hundred (200) feet.
 - h) The location and extent of any Special Flood Hazard Areas from the FEMA Flood Insurance Rate Maps, along with an explanation of all elevation, grading, filling and other floodproofing measures to be undertaken in order to obtain compliance with the *Des Moines County Floodplain Management Ordinance*.
2. A report from a licensed structural engineer containing the following information:
- a) A description of the individual components of the proposed C-WES, C-SES and/or C-BESS, in terms of functional design characteristics, appearance, dimensions, etc.
 - b) Photographs and/or elevation drawings providing a visual depiction of the components of the proposed C-WES, C-SES and/or C-BESS.
 - c) Documentation to establish that the components of the proposed C-WES, C-SES and/or C-BESS will have sufficient structural integrity for the proposed use and location, and comply with all applicable industry standards in terms of safety and performance.
 - d) Calculations for the amount of energy to be generated and/or stored by the proposed C-WES, C-SES and/or C-BESS, in terms of both total capacity and average amount. This shall include both the total aggregate energy generated by the System, and the amount generated and/or stored by

Commented [JL55]: It originally specified the distance in each case, but this is more complicated if we're basing the turbine setback off the specific height of each turbine.

Commented [JL56]: This originally included the specific amounts for wind, solar and battery setbacks, plus approximately 200 feet in each case. But it would be complicated if the wind setback is based on the height of the specific turbine.

each individual turbine, cluster of solar arrays, and/or battery device.

3. Documentation confirming that the developer has obtained legal permission from all participating property owners for the development of a C-WES, C-SES and/or C-BESS on any portion of their land, including any previously recorded leases, easements or similar agreements.
4. A summary of the terms and conditions that all participating property owners have agreed to as part of their individual contracts with the developer. This shall outline the responsibilities of each party throughout the operational lifespan of the proposed C-WES, C-SES and/or C-BESS, including project development, operations and maintenance, emergency response and decommissioning.
5. Any signed waivers for the minimum setback requirements in Article III through V of this Ordinance.
6. Documentation confirming that the Developer has initiated the process of obtaining an interconnection agreement to distribute energy from the C-WES, C-SES and/or C-BESS into the power grid at-large.
7. A list of any other necessary permits from other permitting agencies at the Federal, State or Local level that will apply to the proposed project, along with documentation outlining the application status and anticipated timeframe for obtaining any such permits.
8. A description of the process by which the Developer, or a contractor acting on their behalf, will recruit employees for the construction of the proposed C-WES, C-SES and/or BESS. This should specify whether or not this will include local recruitment efforts in Des Moines County and the surrounding region.
9. For each of the following documents, the Developer shall provide either a draft copy of the document (if available), or details on the status of developing the document, and an anticipated timeframe for its completion:
 - a) Noise Analysis and Report (see Article VII, Section C(3).
 - b) Road Use Agreement (see Article X).
 - c) Operations and Maintenance Plan (see Article VII, Section D(7)).
 - d) Wildlife Monitoring and Mitigation Plan (see Article XI).
 - e) Emergency Response Plan (see Article XII).
 - f) Decommissioning Plan (see Article XIII).
 - g) Line of Sight Analysis and Report (for Commercial Wind Energy Systems only – see Article, VII, Section D)
 - h) Stormwater Management Plan (for Commercial Solar Energy Systems only – see Article VII, Section E).
 - i) Soil Maintenance Plan, and results of the baseline soil sample addressed in Article IV, Section E(5) of this Ordinance (for Commercial Solar Energy Systems only – see Article VII, Section E).

D. **Fee Structure.** All applications for **Preliminary Review of a Siting Permit** shall be accompanied by the payment of an administrative fee to compensate County staff and officials for the application review process.

1. The fee structure for a **Preliminary Review of a Siting Permit** shall be set through resolution by the Board of Supervisors, and the fee rate shall be structured so that it varies depending on the overall physical size and/or energy capacity of the specific C-WES, C-SES and/or C-BESS, as proposed.
2. Once established, the Board may modify said fee structure by resolution, as necessary.

E. **Application Review.**

1. The Administrator shall review the submitted application materials, and confirm whether the proposed development complies with all applicable requirements of this Ordinance.
 - a) The Board of Supervisors may choose to utilize the services of a third-party consultant to review any of the technical documents and studies submitted along with an application for a Siting Permit. The Developer shall be responsible for all fees associated with such consultant activities.
2. If any aspect of the proposed development is determined to not comply with the aforementioned requirements and conditions, the Administrator shall notify the Developer of any such issues, and provide an explanation of what changes are necessary in order to ensure compliance.
3. The Developer shall coordinate with the Administrator in order to address any identified issues and make any necessary changes to the project plans or documentation.
4. The Administrator shall submit a final report to the Board of Supervisors, providing a summary of the proposed development, and confirmation that it complies with all applicable requirements and conditions.

F. **Public Hearing and Consent to Proceed.** Within ninety (90) days of the submission of a complete **Siting Permit** application with all required documentation, the Board of Supervisors shall hold a public hearing regarding the proposed C-WES, C-SES and/or C-BESS. The Board may grant an extension for an additional ninety (90) days, if necessary to allow the developer to make any changes to ensure compliance.

1. Notification for the hearing shall be provided to the owners and occupants of all properties within one (1) mile of each wind turbine, solar array and/or C-BESS, and shall be published in a newspaper of general circulation within the community no fewer than four (4) or greater than twenty (20) days prior to the hearing.
2. Following the conclusion of the first public hearing, the Board may require an additional hearing if it is felt that further information is necessary to make a decision on the Siting Permit, or to adequately inform the general public and individual property owners of the impact of the project.

Commented [JL57]: Originally titled, 'Public Hearing and Approval'. We'd prefer to use 'Public Hearing and Preliminary Approval', but that depends on whether the Attorney's office is comfortable with the use of the word 'approval' at this stage in the process. 'Consent to proceed' is meant to substitute for that term.

3. Following the conclusion of the final public hearing, the Board shall vote on whether to grant the developer **Consent to Proceed with Final Review of the Siting Permit**.
 - a) The Board may impose additional conditions on the proposed development, which the developer must comply with in order for the Siting Permit to be approved. Such conditions shall be limited to anything deemed necessary to protect the public health, safety and community welfare. Such conditions shall be agreed to in writing by the developer, prior to the Board's **Consent to Proceed**.
 - b) If the Board **decides not to grant Consent to Proceed**, they shall clearly state the reason(s) for doing so, and provide the Developer with a copy of a written statement attesting to the same.
4. Notification of the Board's decision shall be mailed to the owners and occupants of all properties within one (1) mile of each wind turbine, solar array, and/or BESS, as well as any other members of the general public that attended as a result of the newspaper publication for the hearing, excluding any such individuals that were present at the meeting in which the decision was made.

G. **Validity of Active Permit Applications.** If the developer does not submit final design plans within two (2) years of the Board's **Consent to Proceed**, the Siting Permit application shall be deemed null and void.

1. If requested by the Developer, an extension may be granted by the Board of Supervisors, provided that sufficient evidence is presented to demonstrate the ongoing viability of the project.
 - a) In any such instance, the Developer shall submit a written request for extension to the Administrator, which explains the reason(s) for the extension, and specifies the anticipated timeline for submitting a final design plans.
 - b) In order for the extension request to be approved, the Developer shall submit the request no less than sixty (60) days prior to the two (2)-year anniversary of the date on which the Board granted **Consent to Proceed**.
 - c) If it is determined that the information supplied by the Developer is insufficient to justify an extension, the Board shall not deny said request until the Developer has been provided with an explanation and an opportunity to submit additional information prior to the close of the two (2)-year permit period.
2. In any instance where a **Siting Permit application** has expired, the Developer may re-apply for a new **Siting Permit**, subject to all applicable requirements outlined in this Article.

Commented [JL58]: Originally titled, 'Validity of Permits', referring to a 'Conditional Siting Permit' when the two were separate.

Commented [JL59]: Refers to a 'Siting Permit application', rather than a 'Conditional Siting Permit'.

ARTICLE VII: SITING PERMIT – FINAL REVIEW

- A. **Purpose.** Once the design plans for a C-WES, C-SES, and/or C-BESS have been finalized, it is necessary for the Developer to supply sufficient detail regarding the final scope and design elements of the project, in order for the County to confirm that the C-WES, C-SES and or C-BESS will comply with all applicable requirements of this Ordinance, and any special conditions imposed following the Preliminary Review.
- B. **Siting Permit Application – Initiation of Final Review.** The Developer shall notify the Administrator of their intent to proceed with Final Review of their previously submitted Siting Permit application.
1. If any of the information from the previously submitted Siting Permit application has since been modified, the Developer shall submit a revised version of the application form to the Administrator, where each such change is identified.
 2. If any substantial changes have been made to the details of the project, in terms of the physical location or extent of the proposed C-WES, C-SES, and/or C-BESS, or to the design components thereof, the Developer shall submit a report that identifies all such changes, and explains the reasoning for doing so in each case.
- C. **Required Documentation.** In order for the County to proceed with Final Review of the Siting Permit, the Developer shall submit all of the following documentation, to be prepared and/or obtained entirely at the Developer's expense:
1. A Site Plan for the proposed C-WES, C-SES, and/or C-BESS, comprised of a map and any associated diagrams or illustrations, which contains all of the following information:
 - a) The location of all structures that will comprise the proposed C-WES, C-SES and/or C-BESS, including wind turbines, solar arrays, battery devices, and any accessory structures and equipment, including utility lines, whether above or below-ground.
 - b) Lines marking a radius around each proposed wind turbine tower, cluster of solar arrays, and/or battery device, with each equivalent to the minimum setback distance required for an occupied dwelling on a non-participating property.
 - c) The location of all existing buildings, structures, and above-ground utility lines and pipelines within the minimum required minimum setback distance for each proposed wind turbine tower, cluster of solar arrays, and/or battery device, plus an additional two-hundred (200) feet. This shall include labels to indicate the distance between the two in each case. Distance measurements for structures on non-participating properties may be approximated using aerial photography.
 - d) The locations of all existing utility lines, sanitary systems, drainage tile networks, and any associated easements within or adjacent to the proposed C-WES, C-SES and/or C-BESS, regardless of whether they are currently being utilized.

Commented [JL60]: A number of changes were made in this article, to reflect that that there is only one permit involved, with two separate phases - rather than each phase constituting a separate permit ('Conditional' and 'Final'). This article was titled 'Final Siting Permit' in the Lee County Ordinance

- e) The locations of all driveway entrances for obtaining access to the proposed C-WES, C-SES and/or C-BESS, as well as any other private entrances to the public roadway system within one thousand (1,000) feet of each, measured along the road right-of-way line.
 - f) The location, size and type of all bridges and culverts in the public roadway right-of-way adjacent to the proposed project site.
 - g) The location of all proposed security fencing, along with the distance between each fence and the right-of-way line for any public roadway(s) within two-hundred (200) feet.
 - h) The location and extent of any Special Flood Hazard Areas from the FEMA Flood Insurance Rate Maps, along with an explanation of all elevation, grading, filling and other floodproofing measures to be undertaken in order to obtain compliance with the *Des Moines County Floodplain Management Ordinance*.
2. A report from a licensed structural engineer containing the following information:
- a) A description of the individual components of the proposed C-WES, C-SES and/or C-BESS, in terms of functional design characteristics, appearance, dimensions, etc.
 - b) Photographs and/or elevation drawings providing a visual depiction of the components of the proposed C-WES, C-SES and/or C-BESS.
 - c) Documentation to establish that the components of the proposed C-WES, C-SES and/or C-BESS will have sufficient structural integrity for the proposed use and location, and comply with all applicable industry standards in terms of safety and performance.
 - d) Calculations for the amount of energy to be generated and/or stored by the proposed C-WES, C-SES and/or C-BESS, in terms of both total capacity and average amount. This shall include both the total aggregate energy generated by the System, and the amount generated and/or stored by each individual turbine, cluster of solar arrays, and/or battery device.
3. A sound analysis and summary report from a licensed structural engineer, utilizing the most current modeling software available, which shows the anticipated noise impact on all residential properties within one (1) mile of the C-WES, C-SES, and/or C-BESS.
- a) The report shall specify the maximum noise volume to be experienced at all occupied dwellings within the specified area, expressed in terms of A-weighted decibels (dBA).
 - b) If the report concludes that any occupied dwelling on a non-participating property is likely to experience noise volume in excess of fifty five (55) dBA, the Developer shall present a mitigation plan to reduce the impact to no greater than the aforementioned level.
4. Documentation confirming that the developer has obtained legal permission from all participating property owners for the development of a C-WES, C-SES and/or C-BESS on any portion of their land, including any previously recorded leases,

Commented [JL61]: As with shadow flicker, the ordinance provides a means for the developer to try and mitigate the impact, in order to avoid having the whole project invalidated.

easements or similar agreements.

5. Any signed waivers for the minimum setback requirements in Article III through V of this Ordinance.
6. A copy of the final interconnection agreement(s) between the Developer and any utility provider(s) that will utilize the energy generated by the C-WES, C-SES and/or C-BESS.
7. Copies of any and all applicable permits issued by other permitting agencies at the Federal, State or Local level, which confirms compliance with any applicable requirements from those agencies.
 - a) If applicable, this shall include documentation of an approved National Pollutant Discharge Elimination System (NPDES) permit from the Iowa Department of Natural Resources, along with the associated Erosion and Sediment Control Plan, which outlines the specific control practices to be utilized during construction of the C-WES, C-SES and/or C-BESS.
 - b) This shall include any applicable permits from Des Moines County or the Federal Aviation Administration (FAA), if any portion of the C-WES will be located within or below the Part 77 Surfaces for the Southeast Iowa Regional Airport.
 - c) This shall include any other applicable permits from Des Moines County, including Floodplain Development Permits, and any permits from the Secondary Roads Department, for working within the County right-of-way.
8. An Operations and Maintenance Plan, which shall contain the following:
 - a) A description of how the C-WES, C-SES and/or C-BESS will be regularly operated and maintained, including references to any subcontractors or associated firms that will be directly involved.
 - b) The expected frequency and duration of on-site visits and inspections by operations and maintenance personnel.
 - c) The procedures for keeping the individual components of a C-WES, C-SES and/or C-BESS locked and secured outside of regular operations and maintenance visits.
 - d) A copy of the safety manual for operations and maintenance personnel, with full details regarding the procedures to be followed in the event of a fire, explosion, or severe weather event on the premises of the C-WES, C-SES, and/or C-BESS.
 - e) For a C-WES, a description of the procedures to be used for monitoring ice accumulation on wind turbine blades, and the mitigation measures to be used for preventing ice throw.
 - f) Details regarding any necessary restrictions or coordination efforts between the Operator and surrounding landowners, concerning aerial crop spraying activities in the vicinity of the C-WES, C-SES and/or C-BESS.
9. A copy of the final Road Use Agreement with Des Moines County Secondary

Commented [JL62]: The public request called for an 'unredacted copy'. Certain details of such a document may still be classified by the company, but as worded here, it's clear which information the County insists on being provided with.

Commented [JL63]: "NEW" Added this in order to ensure that this topic is addressed in advance, without requiring any specific type of mitigation measure to be utilized. Also added a definition for 'ice throw' in Article II.

Commented [JL64]: When added for Lee County, there was no reference to compensation for aerial applicators for any extra costs to work around a wind farm. It was simply to make sure that applicators didn't get in trouble for flying in restricted air space during wind or solar farm operations. We aren't sure where the most appropriate place for compensation would be in the ordinance, and there is no precedent of it in any other ordinances. Perhaps this existing passage is enough, since it at least introduces the topic of crop spraying near a C-WES.

Roads, as outlined in Article X, along with a financial security which guarantees payment for all costs associated with the repair of roads and other infrastructure following the construction of the C-WES, C-SES and/or C-BESS.

10. A Wildlife Monitoring and Mitigation Plan, as outlined in Article XI of this Ordinance, which shall be reviewed and approved by the Des Moines County Conservation Board prior to its submittal to the Board.
11. An Emergency Response Plan, as outlined in Article XII of this Ordinance, which shall be reviewed and adopted by Des Moines County Emergency Management and the applicable Fire Department(s) serving the project area prior to its submittal to the Board.
12. A Decommissioning Plan, as outlined in Article XIII of this Ordinance, along with a financial security which guarantees payment for all costs associated with the decommissioning of the C-WES, C-SES and/or C-BESS.
13. Information regarding any insurance policies that will apply to the C-WES, C-SES and/or C-BESS, along with confirmation that the provider has been supplied with a copy of the required Emergency Response Plan, along with the Decommissioning Plan and associated cost estimate (as outlined in Articles XII and XIII).

Commented [JL65]: Based off of an account that the Mechanicsville developer took a long time to demolish the damaged turbine because of an issue with their insurance provider.

D. **Additional Documentation for Wind Energy Systems.** In addition to all of the documents referenced in Section C of this division, the Siting Permit application for a Commercial Wind Energy System shall be accompanied by the following:

1. A line of sight analysis and summary report from a licensed structural engineer, utilizing the most current modeling software available, which shows the anticipated visual impact on all residential properties within one (1) mile of each individual turbine within the C-WES.
 - a) The report shall specify the amount of shadow flicker to be experienced at all occupied dwellings within the specified area, expressed in terms of both total hours per year and total minutes per year.
 - b) If the report concludes that any occupied dwelling on a non-participating property is likely to experience shadow flicker in excess of 30 hours per year, the Developer shall present a mitigation strategy to reduce the impact to no greater than the aforementioned levels. This may include turning off the turbines at times of day when shadow flicker is most likely, based on the results of the analysis. Such recurring practices shall be incorporated into the required Operations and Maintenance Plan for the C-WES (see Section C(8) of this Article).

Commented [JL66]: It was previously 1,250 feet. This ensures that any property with potential impact is accounted for, even if it's past the minimum setback distances.

E. **Additional Documentation for Solar Energy Systems.** In addition to all of the documents referenced in Section C of this division, the Siting Permit application for a Commercial Solar Energy System shall be accompanied by all of the following:

1. A Stormwater Management Plan, prepared by a licensed engineer, which details the measures to be taken during and after construction of the C-SES, to minimize any increase in the volume of stormwater runoff that is a direct result of its

construction and ongoing operations.

2. A Soil Maintenance Plan, which describes the vegetation planting and other soil maintenance practices to be used on the premises of a C-SES during and after construction, in order to demonstrate compliance with the requirements of Article IV, Section E of this Ordinance.
 - a) This plan shall include references to any and all outreach conducted with qualified natural resource professionals such as the Iowa DNR and NRCS, either for this particular C-SES or a previous, similar project in Des Moines County or another community with similar climate and soil conditions.
 - b) This plan shall include references to the methods used to control weeds, pests, and other potential hazards to adjoining agricultural properties.
 - c) This plan shall include a description of any chemicals or solvents that will be used for the routine cleaning of solar panels, and details on the method and location of storage if any of these will be regularly stored on site.
 - d) Photographs and illustrations of the proposed practices, including examples from previous projects in similar communities, are strongly encouraged.
3. A report outlining the results of the baseline soil sample addressed in Article IV, Section E(5) of this Ordinance.

F. **Fee Structure.** All applications for **Final Review** of a Siting Permit shall be accompanied by the payment of an administrative fee to compensate County staff and officials for the application review process.

1. The fee structure for **Final Review** of a Siting Permit shall be set through resolution by the Board of Supervisors, and the fee rate shall be structured so that it varies depending on the overall physical size and/or energy capacity of the specific C-WES, C-SES and/or C-BESS, as proposed.
2. Once established, the Board may modify said fee structure by resolution, as necessary.

G. **Application Review.**

1. The Administrator shall review the submitted application materials, and confirm whether the proposed development complies with all applicable requirements of this Ordinance, and any conditions that were agreed to by the Board and the Developer prior to the Board's **granting of Consent to Proceed**.
 - a) The Board of Supervisors may choose to utilize the services of a third-party consultant to assist in reviewing any of the technical documents and studies submitted along with an application for a Siting Permit, such as the Operations and Maintenance Plan and Decommissioning Plan. The Developer shall be responsible for all fees associated with such consultant activities.
2. If any aspect of the proposed development is determined to not comply with the aforementioned requirements and conditions, the Administrator shall notify the

Commented [JL67]: This section was greatly expanded to provide clarity on what the review process would look like - especially if compliance issues are identified by the Administrator.

Developer of any such issues, and provide an explanation of what changes are necessary in order to ensure compliance.

3. The Developer shall coordinate with the Administrator in order to address any identified issues and make any necessary changes to the project plans or documentation.
4. Once the Administrator has confirmed that the proposed development complies with all applicable requirements and conditions, they shall submit a final report to the Board of Supervisors, providing a summary of the proposed development, and confirmation that it complies with all applicable requirements and conditions.

H. **Public Hearing and Vote.** Within ninety (90) days of the submission of a complete Siting Permit application with all required documentation, the Board of Supervisors shall hold a public hearing regarding the proposed C-WES, C-SES and/or C-BESS. The Board may grant an extension for an additional ninety (90) days, if necessary to allow the developer to make any changes to ensure compliance.

1. Notification for the hearing shall be provided to the owners and occupants of all properties within one (1) mile of each wind turbine, solar array and/or C-BESS, and shall be published in a newspaper of general circulation within the community no fewer than four (4) or greater than twenty (20) days prior to the hearing.
2. Following the conclusion of the Public Hearing, the Board shall vote on whether to approve or deny the Siting Permit.
 - a) The Board may request additional information be submitted by the Developer prior to voting on the Siting Permit, if it is deemed necessary to confirm compliance with all applicable requirements of this Ordinance, or any conditions **agreed to prior to granting Consent to Proceed.**
 - b) The Board may attach additional conditions to the approval of a Siting Permit, which shall be limited to anything deemed necessary to protect the public health, safety and community welfare. Such conditions shall be agreed to in writing by the developer, prior to the Board's approval of the Siting Permit.
3. Notification of the Board's decision shall be mailed to the owners and occupants of all properties within one (1) mile of each wind turbine, solar array and/or BESS, as well as any other members of the general public that attended as a result of the newspaper publication for the hearing, excluding any such individuals that were present at the meeting in which the decision was made.

I. **Validity of Approved Permits.** An approved Siting Permit shall be valid for two (2) years following approval by the Board of Supervisors.

1. If requested by the Developer, an extension may be granted by the Board of Supervisors, provided that sufficient evidence is presented to demonstrate the ongoing viability of the project.
 - a) In any such instance, the Developer shall submit a written request for extension to the Administrator, which explains the reason(s) for the

Commented [JL68]: For Lee County, a public hearing is not required for the final siting permit approval - just the preliminary review (conditional permit). The intent was to emphasize how the final approval is contingent only on compliance with ordinance standards - not on any public pressure to deny a project that previously went through a preliminary review. But ultimately, facilitating public access for the final approval process would be okay, in the interest of transparency.

extension, and specifies the anticipated timeline for the completion of construction.

- b) In order for the extension request to be approved, the Developer shall submit the request no less than sixty (60) days prior to the two (2)-year anniversary of the Siting Permit approval.
 - c) If it is determined that the information supplied by the Developer is insufficient to justify an extension, the Board shall not deny said request until the Developer has been provided with an explanation and an opportunity to submit additional information prior to the close of the two (2)-year permit period.
2. Once approved by the Board of Supervisors, no Siting Permit shall be revoked for any other reason than failure to comply with the minimum requirements of this Ordinance, or any conditions that were agreed to by the Board and the Developer prior to the Board's approval of the Siting Permit.

Commented [JL69]: All of this was added for the sake of clarity, so that everyone is clear on what this process would look like, if it is ever necessary.

ARTICLE VIII: METEOROLOGICAL EVALUATION TOWERS – SITING PERMIT

- A. **Permitting Requirements.** When proposed for temporary use in relation to a proposed Commercial Wind Energy System, meteorological evaluation towers shall require an approved Siting Permit prior to being placed or installed at a given location for assessing wind conditions. In total, the Developer shall provide all of the following to the Administrator:
1. An application for a Siting Permit, using forms supplied by the County, which shall include the following information:
 - a) The location of the proposed meteorological evaluation tower(s).
 - b) The number of individual properties contained within or directly impacted by the tower(s).
 - c) The size and height dimensions of the tower(s).
 - d) The length of the anticipated timeframe during which the tower(s) will be in place.
 - e) Contact information for all representatives of the Developer that will be involved in the permitting and review process.
 2. A Site Plan, comprised of a map and any associated diagrams or illustrations, which contains all of the following information:
 - a) The location of all proposed tower(s) structures and associated anchors for guy-wires.
 - b) A line marking a radius of one thousand (1,000) feet surrounding the base of each tower.
 - c) The location of any existing buildings or structures within one thousand (1,000) feet of each proposed tower(s), measured from the base, and measurements to indicate the distance between it and each of these buildings and structures. The distance from structures on non-participating properties may be approximated using aerial photography.
 - d) The locations of all driveway entrance points for obtaining access to individual tower(s), as well as any other private entrances to the public roadway system within one thousand (1,000) feet of them.
 3. Formal documentation of agreements signed between the Developer and all properties upon which the proposed tower(s) will be located.
 4. Documentation of an approved entrance permit from the Des Moines County Secondary Roads Department, for any new or modified entrances from a County roadway necessary to access a tower.
 5. Documentation of any and all applicable permits issued by other permitting agencies at the Federal, State or Local level, including any necessary permits from the Federal Aviation Administration, if located near an airport or other regulated landing facility.

6. Payment of an administrative fee for review of the Siting Permit, which shall be set through resolution by the Board of Supervisors, with the fee rate based on the total number of towers proposed.
- B. **Review and Approval.** Upon receipt of a complete application and all required attachments, the Administrator shall review the materials in relation to Section C of this Article, and following the completion of this review, shall act to either approve or deny the Siting Permit request.
1. The Administrator may attach additional conditions to the approval of a Siting Permit, which shall be limited to anything deemed necessary to protect the public health, safety and community welfare.
 2. The approval of a Siting Permit for a meteorological evaluation tower shall not be construed as the approval of any C-WES eventually proposed for construction on the same site or nearby properties. Prior to submitting a Siting Permit application for a tower, Developers are strongly advised to assess the relative viability of a system at that location, in relation to the requirements listed in Article VII of this Ordinance.
- C. **Minimum Siting Standards.**
1. For any meteorological evaluation tower, the minimum setback between it and any structure or utility line shall be equal to the height of the tower plus ten (10) percent of that height, with this distance measured from the point at which the applicable structure or utility line would be the closest to the base of the tower, on a horizontal plane extending between the two.
 2. If any portion of a meteorological evaluation tower is located within the jurisdiction of the *Des Moines County Airport Approach Zone Regulations (Ordinance No. 58)*, then it shall comply with the applicable height restrictions of that ordinance.
 3. For each tower, visible and reflective objects such as plastic sleeves, reflectors or tape shall be placed on the anchor points for guy-wires, and along the outer and innermost guy-wire up to a height of eight (8) feet above the ground. Visible fencing shall be installed around the anchor points of guy-wires.
- D. **Removal.**
1. All meteorological evaluation towers shall be removed within one (1) year of the commencement of operations for an associated C-WES.
 2. Any towers determined by the Administrator to be abandoned shall be removed at the expense of the Developer, and failure to comply shall constitute a violation of this Ordinance, subject to the penalties outlined in Article I, Section G.
 3. The preceding regulations in Section D of this Article shall apply to any meteorological conversion tower that was permitted and installed under the authority of any previously adopted County ordinance.

Commented [JL70]: Ensures that these requirements will apply to the 2 met towers installed in NW Des Moines County, if the existing wind ordinance is replaced by a different ordinance regulating wind, solar and battery.

ARTICLE IX: COMMUNICATIONS AND ENFORCEMENT

- A. **Purpose.** Once a Siting Permit has been approved for a Commercial Wind or Solar Energy System, and/or a Commercial Battery Energy Storage System, it is essential to ensure that adequate lines of communication are established and maintained between County staff and officials, representatives of the Developer, Owner and/or Operator, and members of the general public. It is also necessary to identify the role of the County in enforcing the provisions of this ordinance throughout the duration of the project.

B. **Public Points of Contact**

1. The Developer, Owner and/or Operator shall provide the County with contact information for any member of the general public to ask questions or report issues and conflicts concerning the C-WES, C-SES, and/or C-BESS, from the start of construction through the end of decommissioning.
 - a) If multiple points of contact will be used for different purposes, or for separate phases of the project (i.e. construction, operational lifespan and decommissioning), then the purpose of each contact shall be identified, and shall be furnished to the County prior to the commencement of the applicable phase.
 - b) The designated points of contact shall be readily available to respond to public comments, complaints and inquiries on a regular basis, by telephone, regular mail and electronic mail.
2. The Administrator shall serve as the County's official point of contact regarding the operations of a C-WES, C-SES, and C-BESS, in the event that the Developer, Owner and/or Operator is found to be nonresponsive, or any member of the general public reports a complaint to the County.
 - a) The Administrator shall keep a detailed record of any such submitted comments, and shall evaluate each to determine whether a violation of this Ordinance has occurred (in accordance with Article I, Section G).
 - b) If it is determined that a violation has occurred, the Administrator shall promptly notify the Owner and/or Operator of the specific details of the violation, and provide them with an opportunity to respond and present a specific plan and timeline for resolving the violation.
 - c) If the Developer, Owner and/or Operator fails to respond or present plans for resolving the observed violation, then the County may impose penalties for the violation, in accordance with Article I, Section G of this Ordinance.
 - d) Any person aggrieved or otherwise affected by the order, requirement, decision or determination made by the Administrator may file an appeal to the Board of Supervisors, and any such appeal shall specify the reasons they feel that the order, requirement, decision or determination was made in error or was otherwise unjustified.

Commented [JL71]: *NEW* The original title of this article was, 'Enforcement During Operational Lifespan'. Based on the newly established definition of 'operational lifespan' (in Article II), this no longer seemed appropriate with the additional content that concerns the construction and decommissioning phases of the project. Also, a new purpose statement was added to tie everything in this article together.

Commented [JL72]: *NEW* This section was previously titled 'Conflicts and Enforcement', and it only concerned the role of County staff, in responding to public complaints. It has been modified to primarily address the owner/operator, to ensure that there is a way for members of the public to report issues (i.e. a road blocked by equipment during construction, or a turbine appears to be malfunctioning somehow). That way, the Administrator's role is limited to situations where the owner/operator and a member of the public are unable to resolve the issue amicably.

C. **Changes During Operational Lifespan.**

1. The County shall be notified within ninety (90) days if any of the following occurs

Commented [JL73]: Need to have a means of contesting the Administrator's decision - logically, it should then go to the elected body.

at any point during the operational lifespan of the C-WES, C-SES and/or C-BESS:

- a) The ownership of the C-WES, C-SES and/or C-BESS is transferred or otherwise altered in any way, including the primary contact information.
 - b) The Operator of the C-WES, C-SES and/or C-BESS has changed in any way, including the primary contact information.
 - c) The operations and maintenance procedures for the C-WES, C-SES and/or C-BESS have been altered in any substantial way.
2. The County shall be notified within forty-eight (48) hours if the emergency contract information for a C-WES, C-SES, and/or C-BESS has been modified in any way.

D. Inspections and Required Access.

1. The Administrator shall be allowed access to a permitted C-WES, C-SES or C-BESS at any time, in order to conduct an inspection and confirm compliance with all applicable provisions of this Ordinance. This shall apply during the construction phase, as well as at any point during the operational lifespan of the System, **or during decommissioning.**
 - a) The Administrator may utilize the assistance of a third-party consultant during such inspections, and any such consultant shall also be allowed access to the System.
2. Des Moines County Emergency Management and local Fire Departments shall also be allowed access to a permitted C-WES, C-SES or C-BESS at any time, in order to conduct training exercises and/or respond to an emergency in-progress.

ARTICLE X: ROAD USE AND MITIGATION OF DAMAGES

A. **Purpose.** The transport of heavy, oversized equipment associated with a Wind, Solar or Battery Energy System is likely to cause substantial traffic disruptions along public roadways in the project area. It is also likely to generate excessive dust and cause serious damage to or deterioration of County roadways and other associated infrastructure. Therefore, it is necessary to ensure that local residents and officials are fully prepared for the anticipated traffic disruptions and that adequate mitigation efforts are undertaken for the damages incurred, without the placement of any financial burden on the County and its taxpayers.

Commented [JL74]: "NEW" The purpose statement originally referenced only 'construction'.

B. **Road Use Agreement.** The Developer of a Commercial Wind or Solar Energy System, and/or a Commercial Battery Energy Storage System, shall enter into a Road Use Agreement with the Des Moines County Secondary Roads Department, prior to any usage of local roadways for the transport of oversized equipment for a C-WES, C-SES, and/or C-BESS.

1. For the initial construction of a C-WES, C-SES and/or C-BESS, the Developer shall enter into a Road Use Agreement and submit documentation of such agreement to the Administrator, prior to approval of a Siting Permit by the Board of Supervisors.

Commented [JL75]: "NEW" It previously just said 'construction', and the decommissioning section was at the end of this chapter. The chapter was reorganized so that all of these similar requirements are listed in the same place.

2. For the planned decommissioning of a C-WES, C-SES and/or C-BESS at the end of its operational lifespan, the Owner and/or Operator shall contact the County Engineer no less than three-hundred sixty-five (365) days prior to the planned decommissioning, in order to begin development of the agreement.

Commented [JL76]: "NEW" It previously just said, 'decommissioning' - this makes it clear that the 365-day notice applies only to the final decommissioning of an entire wind or solar farm - not just individual pieces that may have been damaged over time. Decommissioning was originally referenced under a separate section at the end of this article, but it was moved in order to logically consolidate every instance where such a road use agreement would be required.

3. For any targeted repowering or decommissioning activities within the operational lifespan of a C-WES, C-SES, and/or C-BESS, the Owner and/or Operator shall contact the County Engineer no less than thirty (30) days prior to the planned transportation of any oversized equipment.

4. Under no circumstances shall any oversized equipment associated with the construction, repowering or decommissioning of a C-WES, C-SES and/or C-BESS be transported on Des Moines County roadways prior to the adoption of a Road Use Agreement that covers such transportation activities.

Commented [JL77]: "NEW" Added at the suggestion of the County Engineer, just so that this is explicitly stated somewhere in this chapter.

C. **Road Use Agreement – Submission Requirements.**

1. The Road Use Agreement shall clearly outline the roles and responsibilities regarding the use of County roadways during the construction or decommissioning of the C-WES, C-SES and/or C-BESS, as well as the repair of any such roadways that are damaged as a result of the construction activity.

Commented [JL78]: "NEW" Sections B and C used to all be a single section - it was broken up after a bunch of new text was added (now under Section B).

2. In developing the Agreement, the Developer, Owner and/or Operator shall supply the County Engineer with the following information:

a) The anticipated start and end dates of construction or decommissioning activity for the C-WES, C-SES and/or C-BESS

Commented [JL79]: "NEW" As defined by this ordinance, the different terms will apply during construction vs. repowering or decommissioning.

b) A map of all proposed routes to be used for the transport of C-WES, C-SES, and/or C-BESS equipment, materials and personnel during the

construction process.

- c) A description of any necessary traffic control activities and/or formal detours for local motorists during the construction period.
- d) A summary and description of the types and quantities of construction materials to be transported during the construction of the C-WES, C-SES and/or C-BESS.
- e) A summary and description of the anticipated overweight/oversize loads to be transported to the construction site, based on the quantity, weight, and size dimensions of the loads.
- f) A description of the planned communication process between the County Engineer and the Developer, Owner, and/or Developer during the development of the Agreement, and throughout the construction, repowering or decommissioning. This shall include details regarding the timing, location and format of meetings, and coordination of reviewing and refining the draft document prior to adoption.

Commented [JL80]: "NEW" An additional item in this list was removed, as it was deemed unnecessary - "a map and description of all road segments to be utilized in regular operations and maintenance activities for the C-WES, C-SES and/or C-BESS."

- 3. The Agreement shall be accompanied by an estimate of the total cost for the repair of roadways and other infrastructure that are likely to be damaged during the construction of the C-WES, C-SES, and/or C-BESS.
- 4. The Developer shall be responsible for any administrative fees associated with developing a Road Use Agreement with Des Moines County Secondary Roads.

Commented [JL81]: "NEW" This new section was requested by the County Engineer.

D. **Cost Estimate.** The following requirements shall apply to the cost estimate supplied by the Developer, as stipulated in Section B(3) of this Article.

- 1. At the Developer's expense, the cost estimate shall be prepared by a professional engineer licensed in the State of Iowa.
- 2. A baseline survey shall be conducted, in order to assess and evaluate existing roadway conditions prior to construction of the C-WES, C-SES and/or C-BESS.
 - a) The survey shall factor in the presence and condition of any other infrastructure that may be damaged as a result of the construction of the C-WES, C-SES and/or C-BESS, including above or below-ground utility lines, drainage tile networks, private driveway entrances, and the components of a levee and drainage system.
 - b) The survey shall include video with metadata to aid in geolocation and compatibility with the Des Moines County GIS system.
- 3. The cost estimate shall encompass the total cost of any and all dust mitigation measures and repairs necessary to return the roadway and all other impacted infrastructure to the condition observed in the baseline survey.
- 4. The cost estimate shall also include the cost of providing liability insurance coverage to the County, in the event that the Developer's liability insurance coverage lapses for any reason.
- 5. The County shall obtain an independent third-party review of the supplied cost estimate, and the Developer shall reimburse the County for the cost of conducting

Commented [JL82]: Added at the request of Lee County Secondary Roads

Commented [JL83]: Removed the phrase, 'at an amount deemed acceptable to the Board of Supervisors'.

this review.

- a) If the third-party review does not support the estimate supplied by the Developer, the Developer shall supply the County with an explanation of the discrepancy, obtained either through further consultation with their engineer, the third-party reviewer, and/or other licensed professional(s).
- b) Approval of the Siting Permit shall be contingent on the submittal of a revised cost estimate that is supported by the third-party reviewer.

E. **Financial Security.** Any and all costs associated with the repair of roadways and other infrastructure damaged as a result of the construction of the C-WES, C-SES and/or C-BESS shall be paid for entirely by the Developer, without assistance from the County.

1. Prior to the approval of a Siting Permit for a C-WES, C-SES and/or C-BESS, the Developer shall provide the Board of Supervisors with a surety bond **for financial security**, to be prepared and furnished at the Developer's own expense.
2. The **bond** shall cover no less than **one-hundred fifty (150) percent** of the cost estimate outlined in Section C of this Article.
3. The **bond** shall only be released when the County Engineer determines, following inspection, that the roadways and associated infrastructure have been repaired to their pre-construction condition.

Commented [JL84]: "NEW" It originally said, "with a surety bond or another acceptable form of financial security". All subsequent references to 'financial security' were changed to specifically say, 'bond'.

Commented [JL85]: "NEW" The figure was originally 300%.

F. **Construction – Notification of Local Officials.**

1. At least thirty (30) days prior to the commencement of construction for a C-WES, C-SES and/or C-BESS, a set of detailed plans for roadway usage, traffic control, and the timing and duration of operations shall be provided to the Administrator and County Engineer, along with all of the following:
 - a) The Des Moines County Emergency Management Agency
 - b) The Fire Department(s) that cover any portion of the C-WES, C-SES and/or C-BESS project area, **and any other Fire Departments with Mutual Aid agreements to provide services within that area**
 - c) **The EMS/ambulance service(s) that cover any portion of the C-WES, C-SES and/or C-BESS project area, and any other EMS/ambulance services with Mutual Aid agreements to provide service within that area**
 - d) The Des Moines County Sheriff's Department, and all Fire Departments and EMS/ambulance services that serve the project area (including through Mutual Aid agreements)
 - e) **Representatives of any School District(s) that provide bus transportation within the project area.**
2. The Administrator and the other aforementioned entities shall be notified in the event that any substantial delays in the completion of construction will be necessary, and the details shall be provided regarding the revised timeframe and duration of the project.

Commented [JL86]: "NEW" This list was modified to match a similar section in the Emergency Response chapter (though School Districts is unique to this section). It was originally a single sentence listing all of them, but it has been modified to turn it into a bulleted list, with the addition of EMS and school districts,

G. **Construction – Notification of Property Owners.** At least thirty (30) days prior to the commencement of construction for a C-WES, C-SES and/or C-BESS, the Developer shall, at their own expense, provide mailed notification to the owners and occupants of all property within one and one-quarter (1.25) miles of any public roadway segment to be utilized for the transport of wind turbine towers and blades.

1. This notification shall identify the roadway segments to be utilized, any necessary detours or other traffic control plans, and the anticipated timing and duration of the activities, with specific dates identified whenever possible.
2. In order for the County to confirm compliance with this requirement, a copy of the notification letter shall be provided to the Administrator and County Engineer, along with a list and/or map of the property owners that were contacted.

H. **Construction Monitoring and Emergency Repairs.** The Administrator and County Engineer shall monitor the construction process and notify the Developer if any major damages to County roadways or utility infrastructure have occurred as a result of these activities, rendering those roads or utilities unusable without immediate repair.

1. If deemed necessary to ensure the safe and efficient movement of traffic on the County Roadway system, the Administrator may require the Developer to cease all transportation associated with the project until the area of major damage has been rectified.
 - a) The use of detours as a result of such unforeseen damages shall not be implemented until the Administrator and Engineer have been notified of any additional roadways to be used in transporting the equipment.
 - b) The costs for completing such emergency repairs shall be borne entirely by the Developer, the same as any other repair activities after construction is complete, as outlined in Section D of this Article.

I. **Certificate of Completion.**

1. Following the conclusion of all construction, repowering, or decommissioning activities, the County Engineer shall inspect the condition of all roadways covered by the Road Use Agreement.
2. Once all such roadways are determined to be in acceptable condition under the terms of the Agreement, the Engineer shall issue a Certificate of Completion to the Developer, Owner, and/or Operator, attesting to the same.

Commented [JL87]: "NEW" Such a certificate would provide an official record that the process has been resolved - beneficial to both the County and the developer/owner. Conversely, the lack of one would make it clear that further improvements are necessary.

ARTICLE XI: WILDLIFE MONITORING AND MITIGATION

- A. **Purpose.** Wind, Solar and Battery Energy Systems are likely to create safety hazards to certain kinds of wildlife, especially birds and bats. While these hazards are not entirely avoidable, they can be successfully reduced and mitigated through careful planning during the design phase, as well as monitoring and modifications during the operational lifespan of the System.
- B. **Wildlife Monitoring and Mitigation Plan – Submission Requirements.** Prior to the approval of a Siting Permit for a Commercial Wind or Solar Energy System, and/or a Commercial Battery Energy Storage System, the Developer shall submit a Wildlife Monitoring and Mitigation Plan, which demonstrates that the project will not have a substantial negative impact on wildlife, including migratory birds, bats, and other endangered species. The Plan shall include all of the following:
1. Field studies, conducted by a licensed third party professional, that document existing wildlife conditions within the proposed C-WES, C-SES and/or C-BESS project area to be used as a baseline for comparison with post-construction conditions.
 - a) Such field studies shall be conducted in compliance with the Land-Based Wind Energy Guidelines (WEG) from the U.S. Fish and Wildlife Service.
 - b) Such studies shall include, but not be limited to, the following: acoustic bat monitoring, migratory bird observations and radar monitoring, raptor and eagle nesting surveys, and assessments of wetlands, riparian corridors and hibernacula.
 2. Documentation of consultation and/or correspondence with the Des Moines County Conservation Board, Iowa Department of Natural Resources, and U.S. Fish and Wildlife Service, regarding the presence of any endangered species within the proposed project area.
 3. Demonstrable evidence that none of the components of the C-WES, C-SES and/or C-BESS will have a direct or indirect negative impact on any wildlife species that are protected under Chapter 481B of the Iowa Code, the Federal Endangered Species Act, or the Bald and Golden Eagle Protection Act.
 4. A list of stipulations associated with any required state or federal permit regarding wildlife impacts, along with an explanation of how the proposed C-WES, C-SES and/or C-BESS will comply with those requirements.
 5. A description of any active measures to be implemented during the design and construction of the C-WES, C-SES and/or C-BESS, to address such topics as:
 - a) Prevention of collisions and/or electrocution for avian and bat species, through both the physical location and design characteristics of the C-WES, C-SES and/or C-BESS infrastructure.
 - b) Avoidance of developing within or in close proximity to any especially sensitive environmental sites on private land within the proposed project area, including a documented habitat for endangered species or migratory

Commented [JL88]: "NEW" This language was added to be consistent with Section D, for the purpose of eliminating potential bias.

Commented [JL89]: "NEW" It previously required that such studies be conducted within the project area 'and a 2-mile buffer area surrounding it'. While this was used in Linn and Jackson Counties, it is an arbitrary figure that doesn't necessarily apply to all types of species. Some will be less than that and some will need to be higher.

Commented [JL90]: "NEW" Referencing this standard will ensure consistency and reliability for all such studies.

Commented [JL91]: "NEW" These specific examples were recommended by County Conservation. They recommended that such studies cover a period of at least 2 years, but this shouldn't use an arbitrary timeframe - instead it should be based on the Wind Energy Guidelines, which may vary depending on the species or type of physical environment.

Commented [JL92]: "NEW" It previously said 'Formal documentation', but it appears that the word 'formal' has a technical connotation within an environmental regulatory context, which is too specific for the County's purposes here.

Commented [JL93]: "NEW" It originally said 'and/or' - this was an oversight.

birds.

- c) An increase in distance beyond the minimum required setback between the components of a C-WES, C-SES and/or C-BESS and a public conservation area, in order to be consistent with the recommendations of the Iowa Department of Natural Resources and/or U.S. Fish and Wildlife Service, regarding a particular species or type of habitat area.
- d) Restoration efforts to establish a replacement wildlife habitat at an off-site location, in any instance where sensitive habitat losses are deemed to be unavoidable within the project area, following consultation with County, State and Federal Conservation agencies.
- e) Site design elements to minimize the fragmentation of wildlife habitat through the construction of the C-WES, C-SES and/or C-BESS.
- f) Efforts to minimize wildlife disruptions during the construction of the C-WES, C-SES and/or C-BESS.

Commented [JL94]: "NEW" It previously said, "if the specific ecological conditions of that conservation area justify a greater distance". This is too vague, and it needs to reference some kind of established standard.

Commented [JL95]: "NEW" Added this to ensure that such aggressive measures are justified and supported by those agencies beforehand.

- 6. A description of the operation and maintenance procedures to be conducted following the construction of the C-WES, C-SES and/or C-BESS, including the activities outlined in Section D of this Article.

C. **Review and Approval of Plan.** The Des Moines County Conservation Board shall review the Wildlife Monitoring and Mitigation Plan, in consultation with the Iowa Department of Natural Resources, U.S. Fish and Wildlife Service, and other applicable agencies.

- 1. As part of its review of the Plan, the Conservation Board shall solicit comments from property owners within and surrounding the C-WES, C-SES and/or C-BESS project area, and evaluate whether additional strategies should be incorporated into the Plan prior to its adoption.
- 2. The Conservation Board shall submit a recommendation to the Board of Supervisors as to whether the proposed Plan should be approved and adopted.
- 3. Prior to the approval of a Siting Permit for the C-WES, C-SES and/or C-BESS, the Board of Supervisors shall act to approve and adopt the Wildlife Monitoring and Mitigation Plan.

Commented [JL96]: "NEW" Added at the recommendation of the County Attorney and Conservation Director

Commented [JL97]: "NEW" Previously, approval authority rested with County Conservation. To ensure that another person or entity can't intentionally obstruct the process, the authority has been restored to the Supervisors, with the Conservation Board merely providing a recommendation.

D. **Post-Construction Monitoring and Mitigation.** Avian and bat populations in the project area shall be monitored by a licensed third-party professional for a minimum of three (3) years following the completion of construction.

- 1. This requirement shall apply anytime an existing C-WES, C-SES and/or C-BESS is expanded to include additional turbines, or substantially modify existing components (such as increasing the height of a turbine).
- 2. The Owner and/or Operator shall submit an Annual Monitoring Report to the Board of Supervisors and Des Moines County Conservation Board for each of the three (3) years within the post-construction monitoring period. Each report shall include the following:
 - a) The methods utilized for data collection
 - b) Listings of raw data and any observed trends

Commented [JL98]: "NEW" The Conservation Director recommended that a yearly report be filed, and that some general parameters be put in place for quality control purposes.

- c) Analysis of avian and bat mortality rates
3. If the observed mortality rate exceeds twenty-five (25) percent of the predicated rate in the Wildlife Monitoring and Mitigation Plan, the Owner and/or Operator shall identify and implement specific strategies for mitigating the problem, including but not limited to:
- a) Design modifications to the components of the C-WES, C-SES and/or C-BESS, such as painting one or more of the blades black or another dark color.
 - b) Implementation of deterrent technologies or operational adjustments to prevent wildlife mortality.
 - c) Modifications to the placement, intensity or duration of lighting used within the C-WES, C-SES and/or C-BESS.
 - d) Regular monitoring to remove litter, carrion, weeds and other unwanted items that serve to attract birds or bats to feed on the premises of the C-WES, C-SES and/or C-BESS.
 - e) Temporary shutdowns of C-WES, C-SES and/or C-BESS equipment.
 - f) Off-site habitat creation/restoration efforts to attract wildlife away from the C-WES, C-SES and/or C-BESS.
4. In the event that it is necessary to implement specific mitigation strategies during the post-construction monitoring period, the results of these strategies shall be identified in each subsequent Annual Monitoring Report, until such time as evidence shows that the mortality rate has been reduced to levels consistent with those established in the Wildlife Monitoring and Mitigation Plan.
5. All post-construction monitoring reports shall be made available for viewing by the general public.

Commented [JL99]: "NEW" Such strategies were originally required "if evidence of any negative wildlife impacts are observed during the monitoring period and brought to the attention of the Board of Supervisors". In hindsight, that language is too vague, and there needs to be a minimum standard that triggers this.

Commented [JL100]: "NEW" These additional examples were recommended by County Conservation.

ARTICLE XII: EMERGENCY RESPONSE

- A. **Purpose.** While Wind, Solar and Battery Storage Systems are subject to the same hazards as any other manmade infrastructure, the risks to life and property are especially significant, due to their large size and typically remote location. Therefore, it is necessary to ensure that plans have been prepared in advance, to facilitate a prompt, efficient response to any such emergency.
- B. **Emergency Response Plan – Submission Requirements.** Prior to the approval of a Siting Permit for a Commercial Wind or Solar Energy System, and/or a Commercial Battery Energy Storage System, the Developer shall submit an Emergency Response Plan, which contains response procedures to be followed in the event of any emergency related to a C-WES, C-SES or C-BESS.
1. The Emergency Response Plan shall address, **at minimum**, all of the following possible emergency incidents:
 - a) Natural disaster/severe weather, including lightning, hail, earthquakes, wildfires, and tornados and similar high wind events
 - b) Fire/explosion
 - c) Security breach
 - d) Capacity/transmission issues
 - e) Environmental/chemical issues, **including HAZMAT**
 - f) Medical emergency, involving construction or maintenance personnel
 - g) **Ice throw and the accumulation of ice on a wind turbine blade.**
 2. The Plan shall include emergency contact information for the Operator, to be readily accessible at any point within a twenty-four (24) hour period.
 3. The Plan shall provide adequate information to ensure that emergency response professionals are able to readily locate and safely obtain access to the C-WES, C-SES and/or C-BESS in the event of an emergency.
 4. The Plan shall demonstrate that the Operator's emergency contact will be able to readily coordinate the immediate deployment of their own personnel to the site once an emergency is reported.
 5. The Plan shall address the roles and responsibilities of local emergency response professionals, in relation to the Operator's own personnel, during an emergency event. It shall also demonstrate that the Operator's personnel will have sufficient training to safety and effectively exercise the responsibilities delegated to them by the Plan.
 6. An Emergency Response Plan for a C-WES shall include the designation of landing zones for medical evacuation aircraft within the vicinity of the C-WES.

Commented [JL101]: The ordinance already required the submittal of an Emergency Response Plan, but for Lee County, this was expanded to go into much greater detail about what was required for that.

Commented [JL102]: "NEW" This encourages a broader focus, to potential cover other topics that weren't thought of at the time the ordinance was developed.

Commented [JL103]: "NEW" County EMA suggested that we reference HAZMAT specifically.

Commented [JL104]: "NEW" Added at the request of County EMA, as this would be a safety issue if the ice were to be thrown off of a moving turbine blade.

Commented [JL105]: "NEW" This was added in response to concerns about whether company personnel would be living close enough to get to the site right away at a moment's notice. Plus, #5 addresses their preparedness for an emergency.

Commented [JL106]: "NEW" This was added at the request of the Yarmouth Fire Chief and several area residents.

7. An Emergency Response Plan for a C-BESS shall include the following, in order to reduce the risk of fire, electric shock and other injuries:

- a) Procedures for the safe shutdown, de-energizing and/or isolation of equipment and systems under emergency conditions, as well as their safe start-up following the cessation of such emergency conditions.
- b) Procedures for the inspection and testing of associated alarms, interlocks and controls.
- c) Procedures to be followed in response to notifications from the C-BESS, which when provided, could signify potentially dangerous conditions, including shutting down equipment, summoning service and repair personnel, and providing notification to emergency response professionals for potentially dangerous conditions in the event of a system failure.
- d) Procedures for conducting drills of the aforementioned procedures during training exercises for emergency response professionals.

Commented [JL107]: For Lee County, there was a lot of discussion centered around BESS specifically, given the disproportionate fire risk they offer (especially with lithium ion equipment).

8. The Plan shall accommodate specialized training for Fire Departments and other emergency response professionals, to be offered on an annual basis, as well as the acquisition of any specialized equipment necessary for responding to an emergency at a C-WES, C-SES and/or C-BESS. All such training and equipment shall be provided by the Owner and/or Operator at no cost to the applicable Fire Department(s).

Commented [JL108]: "NEW" It was previously 'Fire Department personnel', but it was modified to cover ALL emergency response professionals.

9. The Plan shall include the provision of an annual on-site tour for local emergency response professionals, to ensure adequate awareness with all critical infrastructure within the C-WES, C-SES and/or BESS in the event of an emergency.

10. The Plan shall include a schedule of fees for services by Fire Departments and other emergency response professionals in the event of an emergency, with appropriate rates for individual services, on either an hourly or per-incident basis.

Commented [JL109]: Recommended by the Fort Madison Fire Chief for Lee County, and the different departments coordinated to adopt a standard fee rate going forward.

11. The Plan shall provide a detailed explanation of the procedures associated with the cleanup of debris, along with the repair, reactivation, replacement, and/or decommissioning of C-WES, C-SES and/or C-BESS equipment as a result of any damage sustained in an emergency event.

C. **Review and Approval of Plan.**

1. The Emergency Response Plan shall be submitted to the following for review and adoption:

- a) The Des Moines County Emergency Management Agency
- b) The Fire Department(s) that cover any portion of the C-WES, C-SES and/or C-BESS project area, and any other Fire Departments with Mutual Aid agreements to provide service within that area
- c) The EMS/ambulance service(s) that cover any portion of the C-WES, C-SES and/or C-BESS project area, and any other EMS/ambulance services with Mutual Aid agreements to provide service within that area
- d) The Des Moines County Sheriff's Department

Commented [JL110]: "NEW" It previously said that the Plan 'shall be reviewed and formally adopted by the following.'. This was changed to ensure that a person or entity other than the Board of Supervisors cannot use this to purposely obstruct the process. The word 'shall' refers to the SUBMITTAL, not to their actual approval of it. #2 was added to provide a mechanism to ensure that the Board receives confirmation of its approval.

Commented [JL111]: "NEW" It previously didn't use the term 'mutual aid', or reference EMS/ambulance and Sheriff. Section C(1) was changed to a bulleted format to accommodate the larger list of entities involved.

2. The Developer shall provide documentation of such to the Board of Supervisors, confirming that the aforementioned entities have all had the opportunity to review and adopt the Plan prior to the approval of a Siting Permit by the Board.
3. The Owner and/or Operator shall submit the Emergency Response Plan to the County Emergency Management Agency, Fire Department(s), EMS/ambulance service(s) and County Sheriff's Department for review and re-adoption on an annual basis, and shall be responsible for making any necessary modifications to the Plan prior to its re-adoption.

Commented [JL112]: "NEW" This was adjusted at the request of EMA, in order to clarify that the owner/operator is responsible for initiating this process, and not EMA itself.

D. Response to Damaged Property. In any instance where an emergency event results in damage to the component(s) of a C-WES, C-SES and/or C-BESS, the Owner and/or Operator shall be responsible for all costs reasonably associated with the repair, reactivation, repowering, and/or decommissioning of those component(s), as well as the restoration of all damaged property whenever applicable, including non-participating properties..

Commented [JL113]: This new section is broken down into different kinds of emergencies, depending on whether any private property was damaged in the process. It gives strict standards for the cleanup of debris and equipment.

Commented [JL114]: "NEW" EMA felt that the qualifier 'reasonably' would help prevent a non-participating owner from interpreting this way too broadly, and getting the county caught up in an ongoing dispute over something trivial.

Commented [JL115]: "NEW" Added this term twice in this section, to ensure the consistent use of terminology throughout the ordinance.

Commented [JL116]: "NEW" This section was restructured and modified to place greater emphasis on the immediate cleanup of any damage that poses a risk to public safety. It originally required them to start cleaning up the property within 90 days. Now it requires 30 days to mitigate the danger, and then they'd have the rest of the year to fully decommission and restore the site.

1. If the emergency event results in conditions that present an imminent danger to public safety and private property, then the owner and/or operator shall mitigate all such danger within thirty (30) days of the damage event, through the removal and/or disassembling of all damaged components. Examples of such conditions include, but are not limited to, the following:
 - a) Major components of a C-WES, C-SES and/or C-BESS at imminent risk of collapse, due to being rendered structurally unsound as a result of storm or fire damage.
 - b) Oil and other chemicals leaking from the equipment of a C-WES, C-SES and/or C-BESS.
 - c) Exposed electrical wires or circuits at risk of spreading fire or causing electric shock.
 - d) An area of scattered debris containing glass, fiberglass, or similar materials that are unsafe to touch.

Commented [JL117]: "NEW" This would primarily be applicable to battery systems. Sub-sections b through d were added in order to provide additional examples of things that present a danger to the public.

2. All components and materials that were collected and/or disassembled in order to restore public safety shall be removed from the property within three-hundred sixty-five (365) days, and any such materials that are not immediately removed shall be temporarily stored on a participating property, in a manner that is fully secure and protected from any further dispersal or exposure to the general public.
3. For any participating or non-participating property that was damaged or contaminated by the components of a C-WES, C-SES and/or C-BESS, the property Owner and/or Operator shall ensure that the property is restored to its pre-damage condition within three hundred sixty-five (365) days of the damage event.
 - a) This shall apply to all structures as well as land and soil used for farming purposes, free from any debris or chemical contamination.
4. If any debris from the C-WES, C-SES and/or C-BESS happens to fall within the County road right-of-way, the Owner and/or Operator shall reimburse the County for the full cost of removing those materials and repairing any damaged

Commented [JL118]: "NEW" This section makes it clear that all such materials must be taken off of a non-participating property, though they can be kept at a secure location within the leased wind/solar property, so long as they are removed within 1 year.

infrastructure.

5. If the emergency event caused portion(s) of the C-WES, C-SES and/or C-BESS to become inoperative, while otherwise structurally sound, the Owner and/or Operator shall either repair and reactivate **or repower** them within three-hundred sixty-five (365) days of the damage event, or initiate decommissioning, subject to the requirements outlined in Article XIII of this Ordinance.
 - a) In any **applicable** instance where **decommissioning** has not commenced within three hundred sixty-five (365) days of the emergency event, the County may initiate the process using funds from the financial security set aside in Article XIII, Section E of this Ordinance.
 - b) If such funds are utilized by the County for cleanup purposes, the final cost of these activities shall be added onto the amount of the decommissioning **bond** any remaining portions of the C-WES, C-SES and/or BESS at the time of the next renewal, as outlined in Article XIII, Section E(3) of this Ordinance.
6. The Board of Supervisors may extend any of the preceding deadlines in any instance where the removal and restoration cannot be completed within that timeframe, **due to long-term weather conditions** and/or state or federal regulatory requirements.

Commented [JL119]: "NEW" It previously used the phrase 'restoration and removal process'. Also, the phrase 'any applicable instance' rules out any instance where the damaged equipment has been successfully reactivated.

Commented [JL120]: "NEW" Added the weather reference in order to be consistent with Article XIII.

ARTICLE XIII: DECOMMISSIONING AND ABANDONMENT

- A. **Purpose.** Given that the infrastructure associated with Wind, Solar and Battery Storage Systems has a useful life of limited duration, it is necessary to ensure that each System and all of its components are safely removed from the site once they cease to be operational, and that such removal activities do not place any financial obligation on the County and its taxpayers.
- B. **Decommissioning Standards.** The decommissioning of a Commercial Wind or Solar Energy System, and/or a Commercial Battery Energy Storage System, shall comply with the following minimum standards, **regardless of whether said decommissioning occurs as planned at the end of its operational lifespan, or as a result of abandonment or damage from an emergency event:**
1. All structures, utility lines, and equipment associated with the C-WES, C-SES and/or C-BESS shall be removed, **including the entirety of any such structures located below ground level.**
 - a) **The requirement for complete underground removal may be waived if written permission has been obtained from any individual participating property owner(s), and the waiver shall apply only to those specific property(ies). Such documentation shall be submitted to the Board of Supervisors prior to the start of decommissioning.**
 2. Following the removal of structures, utility lines and equipment, all remaining materials and debris shall be removed, and the site shall be inspected to identify the presence of any potentially hazardous substances or contaminants. Such substances shall be removed and remediated **in accordance with any and all applicable state and federal laws at the time of decommissioning.**
 3. **All structural components removed from the site of a C-WES, C-SES, and/or C-BESS shall be recycled to the maximum extent feasible, and under no circumstances shall any portion of a wind turbine, solar array or battery be disposed of in a landfill within Des Moines County.**
 4. All areas of **soil** that had been disturbed to construct and operate the C-WES, C-SES and/or C-BESS shall be graded, reseeded, and otherwise **restored to their condition prior to the establishment of the System(s), with the Corn Suitability Rating (CSR) value being no less than ninety-five (95) percent of the pre-construction CSR value for the same location.**
 - a) **The CSR requirement may be waived if written permission has been obtained by any individual participating property owner(s), and the waiver shall apply only to those specific property(ies). Such documentation shall be submitted to the Board of Supervisors prior to the start of decommissioning.**
 5. Deconstruction activities shall not exceed three-hundred sixty-five (365) consecutive days in total duration, from commencement to conclusion.
 - a) **The Board of Supervisors may extend this deadline in any instance where**

Commented [JL121]: "NEW" This caveat makes it clear that this section isn't referring ONLY to standard decommissioning that's planned well in advance.

Commented [JL122]: "NEW" It previously required structures to be removed to a depth of 10 feet or the depth of bedrock (whichever is greater). The height reference was removed, but the waiver option was added, in the event that a landowner would prefer to reduce the amount of soil displacement necessary to dig down to the bottom.

Commented [JL123]: "NEW" #2 and 3 both concluded with 'and to the satisfaction of the Board of Supervisors'. This was removed for being arbitrary. This is difficult to quantify, but the existing language should still give sufficient direction for assessing the outcome.

Commented [JL124]: "NEW" #3 and 4 were moved around, in order to establish a more logical flow. The wording was also changed from, "The materials comprising these components shall be..."

Commented [JL125]: "NEW" The statement about CSR was added, in order to provide an objective means of measuring the quality of restoration.

Commented [JL126]: "NEW" This would ensure that the owner wouldn't be forced to use 'prime ag' soil if they intended to develop the area for residential or something else after a wind or solar farm is decommissioned.

the removal of large equipment cannot be completed within that timeframe, due to long-term weather conditions that prevent their safe transport on County roadways.

Commented [JL127]: "NEW" This sub-section was added, in order to make sure that the 365-deadline wasn't so rigid as to discount the possibility of long-term muddy conditions that make the transport of turbines and blades impossible.

- C. **Decommissioning Plan – Submission Requirements.** Prior to the approval of a Siting Permit for a C-WES, C-SES and/or C-BESS, the Developer shall submit a Decommissioning Plan to the Administrator, which complies with all requirements listed in Section B of this Article and includes each of the following:
1. A description of the planned procedure to remove all structures, utility lines, and other equipment associated with the C-WES, C-SES and/or C-BESS, along with any remaining materials or debris.
 - a) This shall include a description of the process through which the site will be inspected to identify any hazardous substances or contaminants that may have been deposited on or below the ground surface, as well as the process to remove and remediate those materials.
 2. A description of the planned procedure to restore all previously disturbed land to its condition prior to the construction of the C-WES, C-SES and/or C-BESS.
 3. A description of the disposal process for the major components of each C-WES, C-SES and/or C-BESS, including wind turbines (tower, blade, and nacelle), solar arrays and battery equipment, which shall include evidence that the recycling of all such components was thoroughly evaluated and will be undertaken to the maximum extent feasible.
 4. Documentation of existing conditions prior to the establishment of the C-WES, C-SES and/or C-BESS.
 - a) This shall include aerial and ground level photographs, written descriptions, or any other such documentation that the Board deems necessary to document the existing condition of the properties involved.
 - b) Specific measurements shall be provided for the Corn Suitability Rating (CSR) and the extent of soil compaction.
 - c) Agricultural drainage systems shall be documented through field surveys and landowner input.
 5. An estimate of the total cost for the decommissioning of the C-WES, C-SES and/or C-BESS, as outlined further in Section D of this Article, along with a written financial plan that adequately ensures that the Owner and/or Operator will be able to supply the necessary funds at the time of decommissioning.
 - a) The financial plan shall stipulate that all costs associated with the decommissioning of the C-WES, C-SES and/or C-BESS shall be borne entirely by the Owner and/or Operator, without any assistance from the County.
 - b) The financial plan shall stipulate that the terms will apply to all future successors, assigns, or heirs to which responsibility for operating the System may be transferred at a later date.

Commented [JL128]: "NEW" The sentence originally concluded with: "and/or C-BESS, for the County to use as a baseline reference in determining whether the land has been restored to its pre-development condition during decommissioning."

6. An estimate for the length of time for on-site deconstruction activities, which shall not exceed three hundred sixty-five (365) consecutive days in total duration.
7. A statement that the Owner and/or Operator will notify the County at least three-hundred sixty-five (365) days in advance of the planned decommissioning of a C-WES, C-SES and/or C-BESS, and a description of the means by which the County will be notified.
8. A statement that Des Moines County shall have access to the C-WES, C-SES and/or C-BESS, and to the funds to effect or complete decommissioning no less than three hundred sixty-five (365) consecutive days after the structure(s) have ceased operations.

Commented [JL129]: Added to go along with Section B(5) of this article. Each addresses public concerns about the process taking unreasonably long to complete.

Commented [JL130]: Added this to be consistent with the timeframe for starting work on developing a Road Use Agreement

D. **Cost Estimate.** The following requirements shall apply to the cost estimate supplied by the Developer, as stipulated in Section C(5) of this Article.

1. At the Developer's expense, the cost estimate shall be prepared by a professional engineer licensed in the State of Iowa.
2. The cost estimate shall encompass all costs associated with the decommissioning of the C-WES, C-SES and/or C-BESS, including the deconstruction, transportation, and disposal of equipment, as well as restoration of the soil to the pre-development CSR value.
3. The cost estimate shall also include the anticipated cost of repairing roadways or other infrastructure following the removal and transport of all equipment, calculated under the same procedure outlined in Section C of Article VIII.
4. The cost estimate shall also include the cost of providing liability insurance coverage to the County, in the event that the Developer's liability insurance coverage lapses for any reason.
5. When preparing the cost estimate, under no circumstances shall the salvage value of the equipment be deducted from the total cost of decommissioning.
6. The County shall obtain an independent third-party review of the supplied cost estimate, and the Developer shall reimburse the County for the cost of conducting this review.
 - a) If the third-party review does not support the estimate supplied by the Developer, the Developer shall supply the County with an explanation of the discrepancy, obtained either through further consultation with their engineer, the third party reviewer, and/or other licensed professional(s).
 - b) Approval of the Decommissioning Plan shall be contingent on the submittal of a revised cost estimate that is supported by the third-party reviewer.
7. In order to account for inflation and any unanticipated future trends and influences, the cost estimate shall be reevaluated and updated three (3) years after the approval of a Siting Permit, and at every subsequent three (3) year interval, following the same process undertaken in the initial calculation.

Commented [JL131]: "NEW" Originally, the sentence concluded with: "and disposal of equipment, as well as site clean up activities".

Commented [JL132]: "NEW" Removed the statement, 'at an amount deemed acceptable to the Board of Supervisors'. We may need more guidance on how to structure this in a way that it is enforceable.