

**Special Use Permit Application
for the Black Diamond Solar Farm**

Submitted by:
Black Diamond Solar Power, LLC



August 19, 2020



August 19, 2020

Vince Harris
Christian County Zoning Administrator
300 South Baughman Road
Taylorville, IL 62568

RE: Special Use Application for the Black Diamond Solar Farm

Dear Mr. Harris,

Black Diamond Solar Power, LLC (the "Applicant"), a wholly owned subsidiary of Swift Current Energy, LLC ("Swift Current"), is pleased to submit this Special Use Permit (SUP) Application (the "SUP Application") to Christian County to construct a new solar power generation facility, the Black Diamond Wind Farm (the "Project"). This SUP Application has been made pursuant to Christian County Zoning Ordinance # O2017ZN012 (the "Ordinance"), which outlines the requirements for the development of solar energy facilities within Christian County, as well as Christian County's Zoning Ordinance Code, as amended and revised as of January 21, 2020.

The Project complies with the standards outlined in the Ordinance and the Zoning Ordinance Code and the application contained herein addresses the SUP application requirements and describes the actions that the Project has taken or will take in the future to minimize interference with the orderly land use and development plans of Christian County.

Swift Current looks forward to further developing the existing positive relationship with Christian County and working in collaboration to bring value to the community and promote economic development. During the application process, Swift Current staff, consultants, and experts will be available to answer questions that you or any members of the review committee may have.

Thank you in advance for your effort and consideration.

Sincerely,

Matt Birchby
Partner, Swift Current Energy LLC

TABLE OF CONTENTS

1	INTRODUCTION	5
2	PROJECT SUMMARY	6
	2.1 PROJECT DESCRIPTION	6
	2.2 PROJECT APPLICANT	6
	2.3 PROJECT PARTICIPANTS.....	7
	2.4 PROJECT COMPLIANCE WITH ORDINANCE	13
3	PROJECT DESIGN AND ENGINEERING.....	15
	3.1 PROJECT INFRASTRUCTURE.....	15
	3.2 SITING	15
	3.3 ACCESS	16
	3.4 GEOTECHNICAL	17
4	PROJECT ACTIVITIES.....	18
	4.1 CONSTRUCTION	18
	4.2 OPERATIONS	18
	4.3 DECOMMISSIONING	18
5	PROJECT IMPACTS.....	20
	5.1 LAND USE.....	20
	5.2 WILDLIFE	20
	5.3 WETLANDS	21
	5.4 CULTURAL RESOURCES.....	22
	5.5 AGRICULTURAL IMPACT MITIGATION AGREEMENT (AIMA)	22
	5.6 VEGETATION MANAGEMENT.....	22
	5.7 PUBLIC SAFETY	23
	5.8 STRAY VOLTAGE.....	23
	5.9 SIGNAL INTERFERENCE	23
	5.10 NOISE.....	24
	5.11 ECONOMIC IMPACTS	24
	5.12 PROPERTY VALUE IMPACT STUDY	24
	5.13 DRAINAGE	25
	5.14 GLARE.....	25
6	CONCLUSION.....	26

LIST OF SUPPORTING MATERIALS

LIST OF EXHIBITS

- EXHIBIT 01 PROJECT BOUNDARY MAP
- EXHIBIT 02 SITE PLAN
- EXHIBIT 03 EXISTING CONDITIONS MAP
- EXHIBIT 04 DRAINAGE AND EROSION CONTROL PLAN
- EXHIBIT 05 VEGETATIVE MAINTENANCE AND SCREENING PLAN

LIST OF ANNEXES

- ANNEX 01 BREEDING BIRD SURVEYS
- ANNEX 02 IDNR CONSULTATION
- ANNEX 03 USFWS CONSULTATION
- ANNEX 04 WETLAND DELINEATION STUDY
- ANNEX 05 CULTURAL RESOURCES STUDY
- ANNEX 06 ECONOMIC IMPACT AND LAND USE ANALYSIS
- ANNEX 07 PROPERTY VALUE IMPACT STUDY
- ANNEX 08 GLINT AND GLARE ANALYSIS

1 INTRODUCTION

Black Diamond Solar Power, LLC (the "Applicant" or "Black Diamond") hereby submits this Special Use Permit (SUP) Application (the "SUP Application") for the construction and operation of the proposed Black Diamond Solar Farm (the "Project"). This SUP Application has been made pursuant to Christian County Zoning Ordinance # O2017ZN012 (the "Ordinance"), which outlines the requirements for the development of solar energy facilities within Christian County, as well as Christian County's Zoning Ordinance Code, as amended and revised as of January 21, 2020.

2 PROJECT SUMMARY

2.1 Project Description

The Project is located within Christian County, approximately eight miles (mi) northwest of the City of Taylorville within the Township of South Fork (Exhibit 01- Project Boundary Map). The Project area encompasses approximately 2,378 acres of land, which is primarily used for agricultural purposes, with corn and soybeans as the predominant crops. All parcels of land contained within the Project area are zoned as AG-1 Agriculture.

The Project will have a capacity of 299 megawatts (MW) and will consist of solar photovoltaic (PV) panels mounted on single-axis trackers, internal access roads, underground collection lines, electrical inverters, collection substation, and a perimeter fence (Exhibit 02 – Site Plan). Construction of the Project is scheduled to commence in late 2021, with commercial operations anticipated to begin by summer 2022.

Interconnection to the electric grid will occur on-site at a switchyard ("ComEd Switchyard") that will be owned by the utility, Commonwealth Edison Company ("ComEd"). Exhibit 02 shows the locations of the Project collection substation and the ComEd Switchyard. The associated interconnection agreement is anticipated to be fully executed by summer 2021 with ComEd. Most of the electricity generated from the Project will be sold under a 12-year Power Purchase Agreement (PPA), which the Applicant has signed with a Fortune 500 company that will utilize the clean, renewable energy to power a portion of its facilities. The remaining electricity generated by the Project will be sold into the electric grid on a spot-price basis, or pursuant to a future PPA obtained with another entity.

2.2 Project Applicant

Black Diamond Solar Power, LLC is a wholly owned subsidiary of Swift Current Energy, LLC ("Swift Current"), an independent renewable energy company focused on developing, building, owning and operating utility-scale renewable generation facilities.

Swift Current's executive team has an established track record in the development, financing, construction management, asset management and operations in the renewable energy sector with more than 100 years of collective experience. In particular, Swift Current prides itself on community engagement and being responsive to our landowners and other stakeholders to ensure a successful project becomes a part of the community fabric. For more information on our team, please visit www.swiftcurrentenergy.com.

The mailing address of the Applicant is provided below:

Black Diamond Solar Power, LLC
c/o Swift Current Energy, LLC
184 High Street, Suite 701
Boston, MA 02110

2.3 Project Participants

The Project has entered into agreements with landowners representing approximately 2,378 acres of land (collectively, the "Participating Parcels"). The ownership information, tax identification numbers, and zoning classifications associated with the Participating Parcels has been presented in Table 1 below.

Table 1 – Project Participants

APN	Landowner	Infrastructure	Legal Description
15-12-08-200-001-01 & 15-12-08-100-001-00 (part)	Lawrence Land Holdings, LLC, a Missouri limited liability company and J.C. Dowson, Inc., an Illinois corporation	Solar panels, inverters, collection system, access road, fencing and other ancillary facilities	Part of the Southeast Quarter of the Southeast Quarter of Section 5 and part of the Northeast Quarter and the East Half of the Northwest Quarter of Section 8, all in Township 13 North, Range 3 West of the Third Principal Meridian, Christian County, Illinois, being more particularly described as follows: Beginning at the northwest corner of the Northeast Quarter of Section 8; thence along the north line of the said Northeast Quarter of Section 8, North 89 degrees 26 minutes 25 seconds East 1515.63 feet to a point at the water's edge of Sangchris Lake, being a contour line at the normal pool elevation of 585.0, Mean Sea Level; thence meandering in a general southerly direction along the said 585.0 contour line to a point that is directly measured South 4 degrees 45 minutes 41 seconds West 1704.18 feet from the previously described point; thence North 0 degrees 50 minutes 05 seconds West 171.34 feet; thence South 87 degrees 57 minutes 37 seconds West 500.00 feet; thence South 36 degrees 37 minutes 13 seconds West 782.74 feet to a point on the north right of way line of State Route 104; thence along the said north right of way line South 89 degrees 26 minutes 18 seconds West 925.00 feet; thence continuing along the said north right of way line South 67 degrees 38 minutes 13 seconds West 107.70 feet; thence continuing along the said north right of way line South 89 degrees 26 minutes 18 seconds West 687.38 feet to the west line of the East Half of the Northwest Quarter of Section 8; thence along the said west line North 0 degrees 38 minutes 58 seconds West 2204.67 feet to the northwest corner of the East Half of the Northwest Quarter of Section 8; thence along the north line of the Northwest Quarter of Section 8, North 89 degrees 33 minutes 00 seconds East 1331.93 feet to the point of beginning.
15-12-07-200-001-00 (part) & 15-12-08-100-001-00 (part)	Lawrence Land Holdings, LLC, a Missouri limited liability company and J.C. Dowson, Inc., an Illinois corporation	Solar panels, inverters, collection system, access road, fencing and other ancillary facilities	Part of the East Half of the Northeast Quarter of Section 7 and part of the West Half of the Northwest Quarter of Section 8, all in Township 13 North, Range 3 West of the Third Principal Meridian, Christian County, Illinois, being more particularly described as follows: Beginning at the northwest corner of Section 8; thence along the north line of Section 8, North 89 degrees 33 minutes 00 seconds East 721.93 feet; thence South 0 degrees 38 minutes 58 seconds East 660.00 feet; thence North 89 degrees 33 minutes 00 seconds East 610.00 feet to the east line of the West Half of the Northwest Quarter of Section 8; thence along the said east line South 0 degrees 38 minutes 58 seconds East 1544.67 feet to the north right of way line of State Route 104; thence along the said north right of way line South 89 degrees 26 minutes 18 seconds West 96.93 feet; thence continuing along the said north right of way line 1000.91 feet along an arc to the left, having a radius of 5411.48 feet, the chord of which is South 84 degrees 08 minutes 23 seconds West 999.49 feet; thence continuing along the said north right of way line South 78 degrees 50 minutes 27 seconds West 377.03 feet; thence continuing along the said north right of way line 982.05 feet along an arc to the right, having a radius of 5331.48 feet, the chord of which is South 84 degrees 07 minutes 04 seconds West 980.66 feet; thence continuing along the said north right of way line South 89 degrees 23 minutes 41 seconds West 220.55 feet to the west line of the East Half of the Northeast Quarter of Section 7; thence along the said west line North 0 degrees 49 minutes 54 seconds West 2462.30 feet to the northwest corner of the East Half of the Northeast Quarter of Section 7; thence along the north line of Section 7, North 89 degrees 32 minutes 09 seconds East 1336.02 feet to the point of beginning.
15-12-08-100-001-00 (part)	Lawrence Land Holdings, LLC, a Missouri limited liability company and J.C. Dowson,	Solar panels, inverters, collection system, access road, fencing and other ancillary facilities	Part of the East Half of the Northeast Quarter of Section 7 and part of the West Half of the Northwest Quarter of Section 8, all in Township 13 North, Range 3 West of the Third Principal Meridian, Christian County, Illinois, being more particularly described as follows: Commencing at the southeast corner of the Northeast Quarter of Section 7; thence along the

APN	Landowner	Infrastructure	Legal Description
	Inc., an Illinois corporation		east line of Section 7, North 0 degrees 33 minutes 19 seconds West 106.20 feet to a point on the north right of way line of C. & I. M. Railway, said point being the point of beginning; thence along the said north right of way line of C. & I. M. Railway South 89 degrees 23 minutes 41 seconds West 1103.52 feet to the south right of way line of State Route 104; thence along the said south right of way line 996.78 feet along an arc to the left, having a radius of 5411.48 feet, the chord of which is North 84 degrees 07 minutes 04 seconds East 995.38 feet; thence continuing along the said south right of way line North 78 degrees 50 minutes 27 seconds East 377.03 feet; thence continuing along the said south right of way line 986.12 feet along an arc to the right, having a radius of 5331.48 feet, the chord of which is North 84 degrees 08 minutes 23 seconds East 984.71 feet; thence continuing along the said south right of way line North 89 degrees 26 minutes 18 seconds East 97.05 feet to the east line of the West Half of the Northwest Quarter of Section 8; thence along the said east line South 0 degrees 38 minutes 58 seconds East 250.71 feet to the north right of way line of C. & I. M. Railway; thence along the said north right of way line of C. & I. M. Railway South 89 degrees 23 minutes 41 seconds West 1336.10 feet to the point of beginning.
15-12-08-100-001-00 (part)	Lawrence Land Holdings, LLC, a Missouri limited liability company and J.C. Dowson, Inc., an Illinois corporation	Solar panels, inverters, collection system, access road, fencing and other ancillary facilities	Part of the West Half of the Northwest Quarter of Section 8 in Township 13 North, Range 3 West of the Third Principal Meridian, Christian County, Illinois, being more particularly described as follows: Beginning at the northeast corner of the West Half of the Northwest Quarter of Section 8; thence along the east line of the West Half of the Northwest Quarter of Section 8, South 0 degrees 38 minutes 58 seconds East 660.00 feet; thence South 89 degrees 33 minutes 00 seconds West 610.00 feet; thence North 0 degrees 38 minutes 58 seconds West 660.00 feet to the north line of Section 8; thence along the north line of Section 8, North 89 degrees 33 minutes 00 seconds East 610.00 feet to the point of beginning.
15-12-06-400-001-04; 15-12-06-400-001-05; 15-12-07-200-001-01; 15-12-06-400-001-01 (part) & 15-12-07-200-001-00(part)	Lawrence Land Holdings, LLC, a Missouri limited liability company and J.C. Dowson, Inc., an Illinois corporation	Solar panels, inverters, collection system, access road, fencing and other ancillary facilities	Part of the Southwest Quarter of the Southeast Quarter of Section 6 and part of the West Half of the Northeast Quarter of Section 7, all in Township 13 North, Range 3 West of the Third Principal Meridian, Christian County, Illinois, being more particularly described as follows: Beginning at the northeast corner of the West Half of the Northeast Quarter of Section 7; thence along the east line of the West Half of the Northeast Quarter of Section 7, South 0 degrees 49 minutes 54 seconds East 2462.30 feet to the north right of way line of State Route 104; thence along the said north right of way line South 89 degrees 23 minutes 41 seconds West 1324.19 feet to the west line of the Northeast Quarter of Section 7; thence along the west line of the Northeast Quarter of Section 7, North 1 degrees 06 minutes 22 seconds West 2465.67 feet to the southwest corner of the Southeast Quarter of Section 6; thence along the west line of the Southeast Quarter of Section 6, North 0 degrees 53 minutes 31 seconds West 887.66 feet to a point at the water's edge of Sangchris Lake, being a contour line at the normal pool elevation of 585.0, Mean Sea Level; thence meandering in a general easterly direction along the said 585.0 contour line to a point that is directly measured South 60 degrees 34 minutes 08 seconds East 1197.15 feet from the previously described point, thence South 32 degrees 10 minutes 40 seconds East 342.02 feet to the north line of Section 7; thence along the north line of Section 7, North 89 degrees 32 minutes 09 seconds East 125.00 feet to the point of beginning.
15-12-06-300-001-01 & 15-12-07-100-001-01	Lawrence Land Holdings, LLC, a Missouri limited liability company and J.C. Dowson, Inc., an Illinois corporation	Solar panels, inverters, collection system, access road, fencing and other ancillary facilities	Part of the Southwest Quarter of Section 6 and part of the Northwest Quarter of Section 7, all in Township 13 North, Range 3 West of the Third Principal Meridian, Christian County, Illinois, being more particularly described as follows: Commencing at the southwest corner of the Northwest Quarter of Section 7; thence along the west line of Section 7, North 0 degrees 07 minutes 18 seconds West 34.10 feet to the southeast corner of the Northeast Quarter of Section 12, Township 13 North, Range 4 West; thence continuing along the west line of said Section 7, North 1 degree 12 minutes 11 seconds West 208.40 feet to a point on the north right of way line of State Route 104, said point also being the point of beginning; thence continuing along the west line of Section 7, North 1 degrees 12 minutes 11 seconds West 330.69 feet; thence North 0 degrees 39 minutes 40 seconds West 644.94 feet; thence 754.02 feet along an arc to the right, having a radius of 719.35 feet, the chord of which is North 29 degrees 22 minutes 04 seconds East 719.97 feet; thence North 59 degrees 23 minutes 48 seconds East 291.04 feet; thence 828.01 feet along an arc to the left, having a

APN	Landowner	Infrastructure	Legal Description
			<p>radius of 809.51 feet, the chord of which is North 30 degrees 05 minutes 39 seconds East 792.38 feet to the south line of the Southwest Quarter of Section 6; thence along the said south line North 88 degrees 16 minutes 11 seconds East 550.37 feet; thence along the east line of a State of Illinois Department of Conservation Boat Ramp and Parking Lot Easement as described in a deed recorded as Document No. 1992R3686 in the Christian County Recorder's Office North 0 degrees 34 minutes 54 seconds West 649.61 feet to a point at the water's edge of Sangchris Lake, being a contour line at the normal pool elevation of 585.0, Mean Sea Level; thence meandering in a general northeasterly direction along the said 585.0 contour line to a point on the east line of the Southwest Quarter of Section 6, said point is directly measured North 59 degrees 28 minutes 58 seconds East 494.41 feet from the previously described point; thence along the east line of the Southwest Quarter of Section 6, South 0 degrees 53 minutes 31 seconds East 887.66 feet to the northeast corner of the Northwest Quarter of Section 7; thence along the east line of the Northwest Quarter of Section 7, South 1 degrees 06 minutes 22 seconds East 2465.67 feet to a point on the north right of way line of State Route 104; thence along the said north right of way line South 89 degrees 23 minutes 41 seconds West 1749.08 feet; thence continuing along the said north right of way line North 79 degrees 15 minutes 18 seconds West 101.99 feet; thence continuing along the said north right of way line South 89 degrees 24 minutes 37 seconds West 168.21 feet to the point of beginning.</p>
<p>15-12-05-400-001-01 (part) & 15-12-05-300-001-00 (part)</p>	<p>Lawrence Land Holdings, LLC, a Missouri limited liability company and J.C. Dowson, Inc., an Illinois corporation</p>	<p>Solar panels, inverters, collection system, access road, fencing and other ancillary facilities</p>	<p>The Southeast Quarter of the Southwest Quarter and part of South Half of the Southeast Quarter of Section 5 in Township 13 North, Range 3 West of the Third Principal Meridian, Christian County, Illinois, being more particularly described as follow: Beginning at the southeast corner of the Southeast Quarter of the Southwest Quarter of Section 5; thence along the south line of Section 5 South 89 degrees 33 minutes 00 seconds West 1331.93 feet to the southwest corner of the Southeast Quarter of the Southwest Quarter of Section 5; thence along the west line of the Southeast Quarter of the Southwest Quarter of Section 5, North 0 degrees 52 minutes 25 seconds West 1333.47 feet to the northwest corner thereof; thence along the north line Southeast Quarter of the Southwest Quarter of Section 5, North 89 degrees 29 minutes 57 seconds East 1335.28 feet to the northeast corner thereof; thence along the north line of the South Half of the Southeast Quarter of Section 5, North 89 degrees 26 minutes 39 seconds East 1070.68 feet to a point at the water's edge of Sangchris Lake, being a contour line at the normal pool elevation of 585.0, Mean Sea Level; thence meandering in a general southerly direction along the said 585.0 contour line to a point on the south line of Section 5, said point is directly measured South 19 degrees 09 minutes 03 seconds East 1408.02 feet from the previously described point; thence along the south line of Section 5, South 89 degrees 26 minutes 25 seconds West 1515.63 feet to the point of beginning.</p>
<p>15-12-05-400-001-01 (part); 15-12-05-300-001-00 (part); 15-12-05-100-001-00 (part); & 15-12-05-200-001-01 (part)</p>	<p>Lawrence Land Holdings, LLC, a Missouri limited liability company and J.C. Dowson, Inc., an Illinois corporation</p>	<p>Solar panels, inverters, collection system, access road, fencing and other ancillary facilities</p>	<p>Part of Section 5 in Township 13 North, Range 3 West of the Third Principal Meridian, Christian County, Illinois, being more particularly described as follows: Beginning at the southwest corner of the Northeast Quarter of the Southwest Quarter of Section 5; thence along the west line of the said Northeast Quarter of the Southwest Quarter North 0 degrees 52 minutes 25 seconds West 1333.47 feet to the southwest corner of the Southeast Quarter of the Northwest Quarter of Section 5; thence along the west line of the said Southeast Quarter of the Northwest Quarter North 0 degrees 55 minutes 46 seconds West 1321.67 feet to the northwest corner thereof; thence along the north line of the Southeast Quarter of the Northwest Quarter of Section 5, North 89 degrees 27 minutes 47 seconds East 1343.26 feet to the northeast corner thereof-, thence along the north line of the South Half of the Northeast Quarter of Section 5, North 89 degrees 27 minutes 47 seconds East 523.14 feet to a point at the water's edge of Sangchris Lake, being a contour line at the normal pool elevation of 585.0, Mean Sea Level; thence meandering in a general southerly direction along the said 585.0 contour line to a point on the north line of the Southeast Quarter of Section 5, said point is directly measured South 24 degrees 41 minutes 19 seconds East 1447.73 feet from the previously described point; thence meandering in a general southerly direction along the said 585.0 contour line to a point on the south line of the Northwest Quarter of the Southeast Quarter of Section 5, said point is directly measured South 1 degrees 00 minutes 13 seconds West 1335.04 feet from the previously described point; thence along the south line of the said</p>

APN	Landowner	Infrastructure	Legal Description
			Northwest Quarter of the Southeast Quarter South 89 degrees 26 minutes 39 seconds West 1070.68 feet to the southwest corner thereof; thence along the south line of the Northeast Quarter of the Southwest Quarter of Section 5, South 89 degrees 29 minutes 57 seconds West 1335.28 feet to the point of beginning.
15-12-06-200-001-01; 15-12-06-400-001-02; 15-12-05-100-001-00 (part); 15-12-05-300-001-00 (part) & 15-12-06-200-001-02 (part)	Lawrence Land Holdings, LLC, a Missouri limited liability company and J.C. Dowson, Inc., an Illinois corporation	Solar panels, inverters, collection system, access road, fencing and other ancillary facilities	Part of the West half of the Southwest Quarter and part of the Southwest Quarter of the Northwest Quarter of Section 5; part of the Southeast Quarter and part of the South Half of the Northeast Quarter of Section 6, all in Township 13 North, Range 3 West of the Third Principal Meridian, Christian County, Illinois, being more particularly described as follows: Beginning at the southeast corner of the West Half of the Southwest Quarter Section 5; thence along the south line of the West Half of the Southwest Quarter Section 5, South 89 degrees 33 minutes 00 seconds West 1131.93 feet; thence North 17 degrees 48 minutes 45 seconds West 692.16 feet to a point at the intersection of the west line of Section 5 with the water's edge of Sangchris Lake, being a contour line at the normal pool elevation of 585.0, Mean Sea Level; thence meandering in the general northerly direction along the said 585.0 contour line to a point on the west line of Section 5, said point is directly measured North 1 degree 1 minute 05 seconds West 428.15 feet from the previously described point; thence meandering in a general northwesterly direction along the said 585.0 contour line to a point on the north line of the Southeast Quarter of Section 6, said point is directly measured North 28 degrees 37 minutes 32 seconds West 1772.96 feet from the previously described point; thence meandering in a general northeasterly direction along the said 585.0 contour line to a point on the west line of Section 5, said point is directly measured North 54 degrees 17 minutes 48 seconds East 997.89 feet from the previously described point; thence meandering along the said 585.0 contour line to a point on the west line of Section 5, said point is directly measured North 1 degree 07 minutes 35 seconds West 575.04 feet from the previously described point; thence meandering in a general northwesterly direction along said 585.0 contour to a point on the north line of the South Half of the Northeast Quarter of Section 6, said point is directly measured North 32 degrees 41 minutes 41 seconds West 215.37 feet from the previously described point; thence along the north line of the South Half of the Northeast Quarter of Section 6, North 88 degrees 41 minutes 09 seconds East 112.75 feet to the northeast corner thereof; thence along the north line of the Southwest Quarter of the Northwest Quarter of Section 5, North 89 degrees 27 minutes 47 seconds East 1343.18 feet to the northeast corner thereof; thence along the east line of the Southwest Quarter of the Northwest Quarter of Section 5, South 0 degrees 55 minutes 46 seconds East 1321.67 feet to the southeast corner thereof; thence along the east line of the West Half of Southwest Quarter of Section 5, South 0 degrees 52 minutes 25 seconds East 2666.93 feet to the point of beginning.
15-12-06-400-001-01 (part) & 15-12-05-300-001-00 (part)	Lawrence Land Holdings, LLC, a Missouri limited liability company and J.C. Dowson, Inc., an Illinois corporation	Solar panels, inverters, collection system, access road, fencing and other ancillary facilities	Part of the Southwest Quarter of the Southwest Quarter of Section 5 and part of the Southeast Quarter of Section 6, all in Township 13 North, Range 3 West of the Third Principal Meridian, Christian County, Illinois, being more particularly described as follows: Beginning at the southeast corner of said Section 6; thence along the south line of the said Southeast Quarter of Section 6, South 89 degrees 32 minutes 09 seconds West 1461.02 feet; thence North 32 degrees 10 minutes 40 seconds West 342.02 feet to a point at the water's edge of Sangchris Lake, being a contour line at the normal pool elevation of 585.0, Mean Sea Level; thence meandering along the said 585.0 contour line to a point on the east line of the Southeast Quarter of Section 6, said point is directly measured North 76 degrees 47 minutes 28 seconds East 1675.71 feet from the previously described point; thence South 17 degrees 48 minutes 45 seconds East 692.16 feet to the south line of Section 5; thence along the south line of Section 5, South 89 degrees 33 minutes 00 seconds West 200.00 feet to the point of beginning.
15-07-31-100-001-01; 15-07-32-300-001-01; 15-07-32-400-001-01; 15-07-32-100-001-01 (part); 15-12-05-100-	Lawrence Land Holdings, LLC, a Missouri limited liability company and J.C. Dowson, Inc., an Illinois corporation	Solar panels, inverters, collection system, access road, fencing and other ancillary facilities	Part of Sections 5 and 6 in Township 13 North, Range 3 West and part of Sections 31 and 32 in Township 14 North, Range 3 West, all being of the Third Principal Meridian, Christian County, Illinois and being more particularly described as follows: Commencing at the southeast corner of Section 31, Township 14 North, Range 3 West; thence along the south line of Section 31, South 89 degrees 44 minutes 24 seconds West 198.11 feet to a point at the water's edge of Sangchris Lake, being a contour line at the normal pool elevation of 585.0, Mean Sea Level, said point being the point of beginning; thence meandering along the said

APN	Landowner	Infrastructure	Legal Description
001-00 (part); 15-12-05-200-001-01 (part); & 15-12-06-200-001-02 (part)			585.0 contour line to a point on the west line of the Southwest Quarter of, Section 32, Township 14 North, Range 3 West, said point is directly measured North 25 degrees 55 minutes 20 seconds East 439.84 feet from the previously described point; thence meandering along the said 585.0 contour line to a point on the west line of the Southwest Quarter of Section 32, Township 14 North, Range 3 West, said point is directly measured North 0 degrees 50 minutes 48 seconds West 1634.27 feet from the previously described point; thence meandering along the said 585.0 contour line to a point on the south line of the Northwest Quarter of Section 32, Township 14 North, Range 3 West, said point is directly measured North 54 degrees 52 minutes 52 seconds East 1045.77 feet from the previously described point; thence meandering along the said 585.0 contour line in a generally northerly and then southerly direction through the Northwest Quarter of Section 32, Township 14 North, Range 3 West, to a point on the south line of the said Northwest Quarter of Section 32, said point is directly measured South 89 degrees 53 minutes 48 seconds East 667.24 feet from the previously described point; thence meandering along the said 585.0 contour line to a point on the west line of the Southeast Quarter of Section 32, Township 14 North, Range 3 West, said point is directly measured South 68 degrees 51 minutes 19 seconds East 1200.28. feet from the previously described point; thence meandering along the said 585.0 contour line to a point on the west line of the Southeast Quarter of Section 32, Township 14 North, Range 3 West, said point is directly measured South 0 degrees 56 minutes 08 seconds East 2023.03 feet from the previously described point; thence meandering along the said 585.0 contour line to a point on the south line of the Southeast Quarter of Section 32, Township 14 North, Range 3 West, said point is directly measured South 78 degrees 10 minutes 32 seconds East 947.88 feet from the previously described point; thence meandering along the said 585.0 contour line to a point on the west line of the Northeast Quarter of Section 5, Township 13 North, Range 3 West, said point is directly measured South 46 degrees 42 minutes 02 seconds West 1123.84 feet from the previously described point; thence meandering along the said 585.0 contour line to a point on the south line of the North Half of the Northeast Quarter of Section 5, Township 13 North, Range 3 West, said point is directly measured South 47 degrees 52 minutes 16 seconds East 713.66 feet from the previously described point; thence along said south line of the North Half of the Northeast Quarter of Section 5, South 89 degrees 27 minutes 47 seconds West 523.14 feet to the southeast corner of the North Half of the Northwest Quarter of said Section 5; thence along the south line of the said North Half of the Northwest Quarter of Section 5, South 89 degrees 27 minutes 47 seconds West 2686.44 feet to the southeast corner of the North Half of the Northeast Quarter of Section 6, Township 13 North, Range 3 West; thence along the south line of the said North Half of the Northeast Quarter of Section 6, South 88 degrees 41 minutes 09 seconds West 112.75 feet to a point at the water's edge of Sangchris Lake, being a contour line at the normal pool elevation of 585.0, Mean Sea Level; thence meandering along the said 585.0 contour line to the point of beginning, being North 7 degrees 00 minutes 58 seconds West 1311.82 feet from the previously described point.
15-12-07-400-003-00 & 15-12-07-400-002-00	Lawrence Land Holdings, LLC, a Missouri limited liability company and J.C. Dowson, Inc., an Illinois corporation	Solar panels, inverters, collection system, access road, fencing and other ancillary facilities	The East 145 acres of the Southeast Quarter of Section 7, Township 13 North, Range 3 West of the Third Principal Meridian, Christian County, Illinois, except that portion described as follows: Commencing at an iron pin found at the Northeast corner of said Southeast Quarter of Section 7, thence South 00° 51' 16" East, (assumed Bearing) on the East line of said Southeast Quarter 1173.85 feet to the point of beginning; thence continuing on said East line South 00° 51' 16" East 333.47 feet to a point; thence South 89° 08' 44" West 261.25 feet to an iron pin set; thence North 00° 51' 16" West, parallel with said East line 333.47 feet to a point being 10' West of an iron pin set; thence North 89° 08' 44" East 261.25 feet to the Point of Beginning.
15-12-08-300-001-00	Lawrence Land Holdings, LLC, a Missouri limited liability company and J.C. Dowson, Inc., an Illinois corporation	Solar panels, inverters, collection system, access road, fencing and other ancillary facilities	The West Half of the Southwest Quarter of Section 8, in Township 13 North, Range 3 West, of the Third Principal Meridian, in Christian County, Illinois, EXCEPT: the North 208.71 feet of the East 208.71 feet thereof; FURTHER EXCEPT: a parcel of land described as: Beginning at the Southwest corner of the Northeast Quarter of the Southwest Quarter of said Section 8, said point of beginning being further described as the Southwest corner of Tovey, Illinois; thence southerly 250' to an iron pipe; thence westerly on an angle of 90°00' to the right, with the last described line extended, a distance

APN	Landowner	Infrastructure	Legal Description
			of 300' to an iron pipe; thence northerly on an angle of 90°00' to the right, with the last described line extended, a distance of 450' to an iron pipe; thence easterly on an angle of 90°00' to the right, with the last described line extended, a distance of 300' to an iron pipe, said iron pipe being on the west line of Tovey, Illinois; thence southerly on an angle of 90°00' to the right, with the last described line extended a distance of 200' to the point of beginning, Southeast Part, South Fork Township, Christian County, Illinois.
15-12-18-200-001-00	Lawrence Land Holdings, LLC, a Missouri limited liability company and J.C. Dowson, Inc., an Illinois corporation	Solar panels, inverters, collection system, access road, fencing and other ancillary facilities	The Northwest Quarter of the Northeast Quarter of Section 18, Township 13 North, Range 3 West of the Third Principal Meridian, Christian County, Illinois.
15-12-18-200-002-00	John Dowson, Inc., an Illinois corporation	Solar panels, inverters, collection system, access road, fencing and other ancillary facilities	The Southwest Quarter of the Northeast Quarter; the Northeast Quarter of the Northeast Quarter; and the Southeast Quarter of the Northeast Quarter of Section 18, Township 13 North, Range 3 West of the Third Principal Meridian, Christian County, Illinois.
15-12-18-400-001-00	J.C. Dowson Inc., an Illinois corporation	Solar panels, inverters, collection system, access road, fencing and other ancillary facilities	The Northwest Quarter of the Southeast Quarter and the Northeast Quarter of the Southeast Quarter of Section 18, Township 13 North, Range 3 West of the Third Principal Meridian, Christian County, Illinois.
15-12-18-400-003-00	J.C. Dowson Inc., an Illinois corporation	Solar panels, inverters, collection system, access road, fencing and other ancillary facilities	The Southeast Quarter of the Southeast Quarter of Section 18, Township 13 North, Range 3 West of the Third Principal Meridian, Christian County, Illinois.
15-12-19-200-002-00	J.C. Dowson Inc., an Illinois corporation	Solar panels, inverters, collection system, access road, fencing and other ancillary facilities	The Northeast Quarter of the Northeast Quarter of Section 19, Township 13 North, Range 3 West of the Third Principal Meridian, Christian County, Illinois.
15-12-17-100-001-00	John and Nancy Dowson Family II, LP, an Illinois limited partnership	Solar panels, inverters, collection system, access road, fencing and other ancillary facilities	The North Half of the Northwest Quarter of Section 17 Township 13 North, Range 3 West of the Third Principal Meridian, Christian County, Illinois.
15-12-17-200-001-00	John and Nancy Dowson Family II, LP, an Illinois limited partnership	Solar panels, inverters, collection system, access road, fencing and other ancillary facilities	The Northwest Quarter of the Northeast Quarter of Section 17, Township 13 North, Range 3 West of the Third Principal Meridian, Christian County, Illinois.
15-12-20-100-002-00	J.C. Dowson Inc., an Illinois corporation	Solar panels, inverters, collection system, access road, fencing and other ancillary facilities	The Northeast Quarter of the Northwest Quarter of Section 20, in Township 13 North, Range 3 West of the Third Principal Meridian, in Christian County, Illinois.
15-12-20-100-003-00	J.C. Dowson Inc., an Illinois corporation	Solar panels, inverters, collection system, access road, fencing and other ancillary facilities	The South Half of the Northwest Quarter of Section 20, in Township 13 North, Range 3 West of the Third Principal Meridian, in Christian County, Illinois.
15-12-17-300-003-00	Lawrence Land Holdings, LLC, a Missouri limited liability company and J.C. Dowson, Inc., an Illinois corporation	Solar panels, inverters, collection system, access road, fencing and other ancillary facilities	The Southeast Quarter of the Southwest Quarter of Section 17, in Township 13 North, Range 3 West, of the Third Principal Meridian, in Christian County, Illinois.
15-12-20-300-001-00	John and Nancy Dowson Family II, LP, an Illinois limited partnership	Solar panels, inverters, collection system, access road, fencing and other ancillary facilities	The West Half of the Southwest Quarter of Section 20, in Township 13 North, Range 3 West of the Third Principal Meridian, in Christian County, Illinois.
15-12-08-400-005-00	Lawrence Land Holdings, LLC, a Missouri limited liability company and J.C. Dowson, Inc., an Illinois corporation	Solar panels, inverters, collection system, access road, fencing and other ancillary facilities	The South Quarter of the Southeast Quarter of the Southeast Quarter of Section 8, Township 13 North, Range 3 West of the Third Principal Meridian, Christian County, Illinois.
15-12-17-200-002-00	Lawrence Land Holdings, LLC, a Missouri limited liability company and J.C. Dowson,	Solar panels, inverters, collection system, access road, fencing and other ancillary facilities	The Northeast Quarter of the Northeast Quarter of Section 17, Township 13 North, Range 3 West of the Third Principal Meridian, Christian County, Illinois.

APN	Landowner	Infrastructure	Legal Description
	Inc., an Illinois corporation		
15-12-17-400-002-01	Lawrence Land Holdings, LLC, a Missouri limited liability company and J.C. Dowson, Inc., an Illinois corporation	Solar panels, inverters, collection system, access road, fencing and other ancillary facilities	The South Half of the Southeast Quarter of Section 17, Township 13 North, Range 3 West of the Third Principal Meridian, Christian County, Illinois.
15-12-17-200-004-00 & 15-12-17-400-002-00	Judith I. Smith, as Trustee under the provisions of a certain declaration of trust known as the Judith I. Smith 2017 Trust	Solar panels, inverters, collection system, access road, fencing and other ancillary facilities	The Southeast Quarter of the Northeast Quarter of Section 17 and the Northeast Quarter of the Southeast Quarter of Section 17, all in Township 13 North, Range 3 West of the Third Principal Meridian, Christian County, Illinois.
15-12-07-400-003-01	Nathan A. Rogers and Michelle A. Rogers	Solar panels, inverters, collection system, access road, fencing and other ancillary facilities	Part of the East Half of the Southeast Quarter of Section 7, Township 13 North, Range 3 West of the Third Principal Meridian, Christian County, Illinois, more particularly described as follows: Commencing at an iron pin found at the Northeast corner of said Southeast Quarter of Section 7, thence South 00° 51' 16" East, (assumed Bearing) on the East line of said Southeast Quarter 1173.85 feet to the point of beginning; thence continuing on said East line South 00° 51' 16" East 333.47 feet to a point; thence South 89° 08' 44" West 261.25 feet to an iron pin set; thence North 00° 51' 16" West, parallel with said East line 333.47 feet to a point being 10' West of an iron pin set; thence North 89° 08' 44" East 261.25 feet to the point of beginning.

**Note: Applicant has an option to purchase all of the above-listed property owned by Lawrence Land Holdings, LLC, J.C. Dowson, Inc., John Dowson, Inc. and John and Nancy Dowson Family II, LP; however, applicant and landowners are currently discussing the possibility of converting the purchase option to a long-term lease.*

2.4 Project Compliance with Ordinance

The information presented within this Application demonstrates that all studies, reports, certifications, and approvals required to comply with the Ordinance have been completed or initiated for the Project. To assist in the application review, the Applicant has provided a brief summary of how the Project will meet each of the applicable standards and requirements of the Ordinance in the bullets below:

- **Location:** The Project area is wholly located on parcels zoned as AG-1 Agriculture. See [Table 1](#) for specific information on parcel ownership and [Section 5.1](#) for a summary of existing Project land use.
- **Setbacks:** The Project is located a minimum of 100 feet from any residence or church. See [Section 3.1](#) for a detailed summary of the setbacks used by the Project.
- **Security:** A perimeter security fence that is a minimum 6 feet in height will be installed around the Project area and an information sign that includes the name and phone number of the facility operator will be posted and maintained at the entrance gate to the Project. See [Section 5.6](#) for further information on the actions that the Project will undertake to ensure security and public safety.
- **Equipment:** The collector cables for the Project will be installed below-ground and no transmission line infrastructure is required for the Project, with the exception of the connection between the collection substation and the ComEd Switchyard, which will be located adjacent to each other, as depicted in [Exhibit 02](#). The PV panel manufacturer information will also be posted on a clearly visible warning sign that is located on or near the PV panels. See [Section 3.1](#) for a detailed description of the equipment that will be utilized for the Project.
- **Building Permit:** Prior to construction, a building permit application accompanied by the appropriate fee will be submitted for the Project.

- **Expiration:** While Project construction is anticipated to occur within two years of the issuance of the SUP, the Applicant respectfully requests that Christian County extend the construction timeline to four years within the permit conditions in order to allow for unforeseeable schedule changes associated with the interconnection process, construction planning, and the procurement of Project materials.
- **Fees:** This SUP Application has been accompanied by the appropriate fee and the Applicant understands that the fee amount for a public hearing is \$1000.
- **Restoration Requirement:** In order to ensure that land is properly restored at the end of the Project's useful life, the Applicant will prepare and submit a decommissioning plan and the associated financial security to Christian County prior to the issuance of a building permit for the Project. See [Section 4.3](#) for further information on the decommissioning and end-of-life activities associated with the Project.
- **SUP Procedure:** This SUP Application is accompanied by 25 copies of the Site Plan ([Exhibit 02](#)), as well as numerous studies and reports that have been completed to satisfy the requirements of the Ordinance and demonstrate that issuance of an SUP for the Project will not unreasonably interfere with the orderly land use and development planning within Christian County. A copy of the SUP Application will also be provided to the company that will be purchasing the electricity for the Project, once the Applicant receives confirmation from the Christian County Code Administrator that the SUP Application has been deemed complete. Lastly, to proactively assist Christian County in the review and consideration of this SUP Application, the Applicant has specifically addressed each of below aspects that are listed as potential condition-setting factors within the Ordinance:
 - Proposed ingress and egress ([Section 3.3](#));
 - Proximity to transmission lines to link the system to the electric power grid ([Section 3.2](#));
 - Number of solar panels and their location ([Section 3.1](#) and [Exhibit 02](#));
 - Nature of land use on adjacent and nearby properties ([Section 5.1](#));
 - Location of energy systems in the surrounding area ([Section 5.1](#));
 - Surrounding topography ([Section 5.1](#));
 - Proximity to residential structures, residential zoning districts, or areas identified for future residential use ([Section 3.2](#));
 - Design characteristics that may reduce or eliminate visual obtrusiveness ([Section 5.6](#) and [Exhibit 05](#));
 - Possible adverse effects of stray voltage ([Section 5.8](#)), interference with broadcast signals ([Section 5.9](#)), and noise ([Section 5.10](#));
 - Impact on the orderly development, property values, and esthetic conditions within the County ([Section 5.11](#));
 - Drainage mapping and adherence to state drainage laws ([Exhibit 04](#) and [Section 5.11](#)); and
 - Weed control plan ([Section 5.6](#)).

3 PROJECT DESIGN AND ENGINEERING

3.1 Project Infrastructure

Project infrastructure will consist of the following:

- Approximately 900,000 PV panels mounted on a single axis-tracking system;
- Internal access roads within the Project area;
- Underground collection lines;
- Electrical inverter/transformer units mounted on top of concrete pads;
- Collection substation, including a control building, primary transformer, and security fencing (minimum 6 feet in height); and
- Security fencing (minimum 6 feet in height) around the perimeter of the Project area.

Temporary laydown areas for deliveries of materials and equipment will also be required during the construction and decommissioning phases of the Project.

3.2 Siting

The Project area was carefully selected and refined based on the requirements of the Ordinance, information obtained from environmental and cultural heritage studies, existing and adjacent land use, proximity to interconnection facilities, and feedback obtained from stakeholders. Once the Project area was solidified, the Applicant worked collaboratively with engineers, environmental specialists, regulatory agencies and landowners to obtain input on the siting of Project infrastructure and development of the preliminary layout for the Project.

A brief summary of the factors considered when selecting the Project area and siting Project infrastructure has been included below:

- **Zoning Classification:** The Project area will be wholly located on parcels zoned as AG-1 Agriculture.
- **Land Use:** The Project is complementary to existing agricultural land use within and adjacent to the Project area. The vegetation management practices proposed for the Project ([Section 5.6](#) and [Exhibit 05](#)) are expected to result in long-term positive impacts on soil and water quality, which will improve overall crop health and productivity within the Project area, as well as neighboring farmland.
- **Distance from residences:** Project infrastructure will be sited a minimum of 100 feet from residences.
- **Distance from road rights-of-way:** Project infrastructure will be sited a minimum of 50 feet from road rights-of-way.
- **Distance from non-participating property lines:** Project infrastructure will be sited a minimum of 50 feet from non-participating property lines.
- **Proximity to existing interconnection facilities:** The Project is strategically located in close proximity to an existing ComEd Switchyard, which will allow the Project to directly interconnect to the electrical grid without requiring the development of transmission line infrastructure, with the exception of the connection between the

collection substation and the ComEd Switchyard, which will be located adjacent to each other, as depicted in Exhibit 02. An interconnection studies are underway for the Project and it is anticipated that a fully executed interconnection agreement will be obtained by summer 2021.

- **Environmental and Cultural Considerations:** Project siting incorporated results of the wildlife, wetland, and cultural resource studies, as well as agency consultation, completed for the Project (Section 5.2, Section 5.3, and Section 5.4).

The preliminary design of the Project optimizes electricity generation, complies with the zoning and setback requirements of the Ordinance, and minimizes impacts to farmland, residential properties and other site-specific concerns. The Site Plan provides a visual depiction of the preliminary design of the Project and includes the proposed location and heights of all structures, dimensions of parcel boundaries, setback distances, and the point of interconnection (see Exhibit 02). The Applicant notes that the preliminary design of the Project will be further optimized based on additional engineering studies, technology selection, and continued consultation with landowners. However, infrastructure will remain within the limits of the Project area and the required setbacks will be adhered to within the final design plans, which will be submitted to Christian County as part of the building permit application process.

In addition to the Site Plan (Exhibit 02), the Applicant has included the following maps/plans to support the SUP Application:

- Project Boundary Map (Exhibit 01);
- Existing Conditions Map (Exhibit 03);
- Drainage and Erosion Control Plan (Exhibit 04); and
- Vegetative Screening Plan (Exhibit 05).

3.3 Access

Access routes that will be used during the construction, operation and decommissioning phases of the Project will be determined in consultation with the Christian County Engineer and South Fork Township Highway Commissioner, and a written agreement with these parties to address impacts and post-construction repairs to local roads, bridges and rights-of-way utilized for the construction of the Project will be obtained prior to commencement of Project construction. Impacts to the local transportation system are anticipated to be minimal. During the construction and decommissioning phases of the Project, County, township, and state roads will be temporarily used for the transportation of materials, workers and equipment. The Applicant will obtain access permits from Illinois Department of Transportation (IDOT) to utilize state roads. During the operations phase of the Project, the Project will require internal access roads to support operations and maintenance activities. These internal access roads will be designed and constructed in accordance with industry best practices and will be removed during the decommissioning phase of the Project, unless otherwise agreed to with the applicable landowners. Overall, the impacts to the local transportation system are anticipated to be minimal and short in duration.

3.4 Geotechnical

The Applicant engaged Barr Engineering Co. ("Barr") to conduct a geotechnical study for the Project to evaluate the suitability of the site for solar project development and provide recommendations for the civil and electrical design aspects of the Project. The study consisted of the following activities:

- Review of geotechnical and geological information including geological maps and reports, geophysical maps, topographic maps, wetland maps, Federal Emergency Management Agency (FEMA) flood maps, proposed development maps, and aerial photographs;
- Identification and qualification of geologic/geotechnical risks;
- Assessment of soil conditions within the context of electrical design parameters;
- Identification of preliminary seismic design parameters;
- Development of recommendations for feasible foundation options, and
- Identification of potential access road issues within the Project area.

The results of the study concluded that the Project area was suitable for solar project development and the recommendations provided were incorporated into the overall design of the Project.

4 PROJECT ACTIVITIES

The below subsections provide a brief description of the activities that will be undertaken during each phase of the Project, as well as a preliminary schedule for each of these phases. All Project-related activities will be conducted in accordance with local, state, and federal regulations.

4.1 Construction

Construction of the Project is currently scheduled to commence in late 2021. Activities associated with the construction phase of the Project are listed below:

- Surveying;
- Minor grading and leveling;
- Installation of sediment and erosion controls;
- Establishment of laydown area;
- Construction of access roads;
- Installation of perimeter fencing;
- Transportation of construction materials and Project components;
- Construction of foundations for PV panels and substation;
- Pile driving, racking, and installation of PV panels;
- Installation of underground collection lines via trenching;
- Installation of inverters;
- Installation of substation; and
- Site restoration and clean-up.

4.2 Operations

Operation of the Project is currently scheduled to commence by summer 2022. Activities associated with the operations phase of the Project are listed below:

- Grass maintenance and weed control;
- Monthly and annual inspections of key components; and
- Routine maintenance of PV panels and substation.

4.3 Decommissioning

Decommissioning of the Project is not anticipated to occur until after at least 35 years of operations. Activities associated with the decommissioning phase of the Project are listed below:

- Dismantling and removal of Project infrastructure;
- Transportation of Project infrastructure to approved disposal and/or recycling facilities; and
- Land restoration activities including grading and re-vegetation.

Decommissioning of the Project will be undertaken in accordance with the commitments contained within the Agricultural Impact Mitigation Agreement (AIMA; Section 5.5) and the Decommissioning Plan that the Applicant will submit, along with the appropriate financial security, to Christian County prior to issuance of the building permit. As per the Ordinance, these commitments will specifically include the removal of all foundations, pads, and underground collection lines to depth of four feet below surface and the removal and proper disposal of hazardous material in accordance with federal and state law. Once the Project has commenced operations, the Decommissioning Plan will be updated and submitted to Christian County starting in the 10th year of operations, and thereafter, every five years.

5 PROJECT IMPACTS

5.1 Land Use

The primary land cover within the Project area is cultivated agricultural land (95%), with the remaining Project area (5%) consisting of small amounts of bottomland forest, non-native grassland, developed land, and small waterbodies. There are no critical habitats for federally-listed species within Christian County and the Project area does not overlap any high priority Conservation Opportunity Areas (COAs), as designated in the Illinois Wildlife Action Plan (IWAP). There is the potential for one federally-listed and six state-listed species to occur within the Project area; however, the Project Site Plan was developed in consultation with the US Fish and Wildlife Services (USFWS) and the Illinois Department of Natural Resources (IDNR) to avoid these habitats. No federal- or state-listed plant species are expected to occur in the Project Area. Land use on adjacent and nearby properties is largely consistent with the land use within the Project area.

5.2 Wildlife

5.2.1 Wildlife Surveys

The Applicant engaged Western EcoSystems Technology, Inc. ("WEST") to conduct a pre-construction breeding bird survey to document the diversity of bird species occurring within the Project area during the nesting season, as well as record the occurrences of state- or federally listed species and USFWS designated birds of conservation concern (BCC) ([Annex 01](#)).

Three rounds of breeding bird surveys were conducted in accordance with methods used for the US Geological Survey's (USGS) Breeding Bird Surveys at thirteen sampling points between June 3 – July 24, 2019. A total of 641 individual birds were observed in 462 groups, representing 61 species. The most commonly observed species were dickcissel, red-winged blackbird, vesper sparrow, common grackle, and eastern meadowlark. Three state-listed species were observed within the Project area: upland sandpiper was observed in the Project area; black-crowned night heron was observed flying over the Project area; and black-billed cuckoo was heard calling from the forest bordering the northern portion of the Project area. However, the majority of the Project area does not consist of suitable habitat for these species and as a result, impacts to breeding birds are anticipated to be minimal.

In addition to breeding bird surveys, the Project conducted raptor surveys and field habitat mapping for Kirtland's Snake. During the raptor surveys, fourteen potential raptor nests were recorded. The observed nests were predominantly red-tailed hawk nests and no bald eagle nests were recorded. The field habitat mapping confirmed that potential habitat for Kirtland's Snake is restricted to the margins of the Project area and as a result, the Project layout avoids all suitable habitat.

5.2.2 IDNR Consultation

In accordance with Illinois state statutes, the Applicant filed an Ecological Compliance Assessment Tool (EcoCAT) submittal on August 23, 2018 (EcoCAT # 1901976) on behalf of Christian County. The EcoCAT filing, and its response, initiates a consultation process with IDNR.

IDNR has not yet provided an EcoCAT response; however, the Applicant has actively consulted with IDNR to ensure that the potential impacts to wildlife are minimized. Most recently, the Applicant participated in a meeting with IDNR on April 6, 2020 ([Annex 02](#)). A brief summary of this meeting has been included below:

- Due to the fact that the IDNR has indicated in previous conversations that there are records of Kirtland's Snake within the vicinity of the Project area, the Applicant stated that it has adopted a series of voluntary measures to follow during pre-construction and post-construction activities to avoid potential impacts to Kirtland's snake. These measures include removal of debris and vegetation prior to construction with oversight by a qualified biological monitor, installation of silt fencing, restriction of seasonal mowing, and implementation of wildlife friendly erosional control;
- IDNR was amenable to the avoidance and mitigation measures proposed; and
- IDNR recommended that panel shading needs to be taken into consideration for the Project. More information on vegetation management, including screening, is included in [Section 5.6](#).

5.2.3 USFWS Consultation

The Applicant and WEST participated in a webinar meeting with USFWS on September 26, 2019 to introduce the Project and discuss any questions or concerns that the USFWS had for the Project ([Annex 03](#)). A brief summary of this meeting has been included below:

- The Applicant noted that no tree clearing was anticipated to be required for the Project and, as a result, USFWS did not foresee any impacts to bats;
- USFWS indicated that eagle nest surveys and breeding bird surveys should be sufficient for the Project; and
- USFWS acknowledged that the Project area does not provide suitable eagle foraging areas.

5.3 Wetlands

The Applicant engaged WEST to complete a wetland delineation study of potentially jurisdictional waters within the Project area ([Annex 04](#)). The study determined that almost all of the land within the Project area had been converted to agricultural use through extensive drainage alteration and tile installation. While a total of eight wetlands and one stream are likely to be considered jurisdictional Waters of the U.S. (WOTUS), the Project will not impact more than 0.10 acres of wetland and the Project will self-certify that less than 0.10 acres of potentially jurisdictional waterways will be impacted. Since the Project will not impact any jurisdictional waters of the state or federal government, the Applicant anticipates that no approvals will be necessary from United States Army Corps of Engineers (USACE).

5.4 Cultural Resources

The Applicant engaged Cultural Resource Analysts ("CRA") to perform a cultural records review of the Project area to determine the potential or cultural resources within the Project area ([Annex 05](#)). Results of the records review indicated that eleven previously recorded archaeological sites were identified in the Project area; however, all eleven of these sites were determined to not be eligible for the National Register of Historic Places (NRHP). While there were are no previously recorded architectural resources identified within the Project area and 0.5 mile search radius, there is a number of unrecorded historic architectural resources within 0.5 mile of the Project area. No cemeteries or mounds are located within the Project area. To ensure minimal impacts to cultural resources, further archaeological and architectural studies will be completed for the Project in Fall 2020, the results of which will be considered in the final Project design.

5.5 Agricultural Impact Mitigation Agreement (AIMA)

The Illinois Renewable Energy Facilities Agricultural Impact Mitigation Act (505 ILCS 147-1, et seq.) requires the owner of a commercial solar energy facility to submit to the Illinois Department of Agriculture, within 45 days before construction of the facility commences, a signed AIMA that meets the Act's requirements. The intent of the AIMA is to preserve and/or restore the integrity of affected agricultural land during construction and decommissioning activities. The Project will provide the County with a fully-executed AIMA that qualifies under the Act a minimum of 45 days prior to construction.

5.6 Vegetation Management

The Preliminary Vegetation Establishment and Management Plan ([Exhibit 05](#)) outlines the proposed vegetation and screening strategy for the Project, which was developed to minimize and eventually eliminate any visual obtrusiveness associated with Project infrastructure, as well as benefit the overall natural ecosystem. Key components of the Vegetation Establish and Management Plan are listed below:

- Utilization of deciduous native shrubs at strategic locations along the perimeter of the Project area, that were determined based on a proximity to public roads and proximity to non-participating landowner homes;
- Selection of the shrubs was based on a variety of factors including aesthetic value, screening effectiveness, and high survival rates. In addition to screening benefits, the proposed shrubs will provide a source for pollinators, as well as shelter and foraging opportunities for wildlife;
- The plan also aims to benefit the natural ecosystem by creating pollinator habitat through the planting of low-growth native grasses beneath the PV panels and planting of pollinator-friendly wildflowers within buffer areas; and
- The native grasses selected will be based upon the low growth height of the species in order to allow the grasses to grow beneath the PV panels without interfering with the performance of the solar array. The planting of native grasses will improve soil health, water quality, and prevent soil erosion.

The Applicant notes that the seed mixes proposed and identified within [Exhibit 05](#) are to be considered preliminary and will be finalized prior to construction.

Other actions related to vegetation management that the Project will undertake include mowing and targeted spot-spraying of herbicides, on an as-needed basis, to minimize the growth of unwanted invasive vegetation.

5.7 Public Safety

Maintaining public safety is of utmost importance to the Applicant and the following actions will be prioritized and implemented throughout all phases of the Project:

- Installation of a security fence around the perimeter of the Project area that will be a minimum of 6 feet in height. Warning signage that provides information including 24-hour emergency contact and the Project's 911 address will be installed on the fence. Regular checks on the fence and signage will occur throughout operations;
- Installation of a security fence around the perimeter of the substation that will be a minimum of 6 feet in height. Warning signage that provides information regarding electrical safety, as well as the 24-hour emergency contact and the Project's 911 address will be installed on the fence. Regular checks on the fence and signage will occur throughout operations;
- Access to the site will be limited to Project and emergency personnel and a coded padlock will be used at the Project entrance;
- The final site plan will be provided to emergency personnel prior to the commencement of operations to ensure familiarity with the site. The access code for the coded padlock will also be provided to emergency personnel in order to allow access to the site during an emergency; and
- Perimeter and safety lights will be installed to ensure safe entry and exit. In order to minimize light pollution, motion-activated lighting will be installed at points of site ingress and egress, the substation, and around the PV panels. Lighting will be directed downwards to Project components and not towards natural areas.

5.8 Stray Voltage

The Applicant is committed to ensuring the prevention of stray voltage associated with the Project's collection lines. The design and installation of collection lines will be informed by detailed engineering studies and measures to prevent stray voltage will be implemented including the usage of thick insulation around the conductors, outside copper shielding, and copper grounding line in the collector line trench. The Project will also adhere to the commitments made within the ALMA regarding the burying of collection lines. Lastly, the Project control system will be able to recognize any fault current in the grounding system and alert Project personnel to quickly identify and implement corrective actions prior to stray voltage occurring.

5.9 Signal Interference

In compliance with the Ordinance, the Applicant must take commercially reasonable steps to prevent, eliminate or mitigate any interference with cellular, radio or television signals. Although the Project does not anticipate any signal

interference to occur throughout construction, operations and decommissioning, the Project commits to undertaking reasonable steps to respond to any written complaint related to interference caused by the Project.

5.10 Noise

Noise impacts associated with the Project are anticipated to be negligible during operations. While there will be low-level noise produced from Project infrastructure (i.e., inverters, tracking motors, and transformers), the noise is likely only to be audible by those within very close proximity to the Project (i.e., site personnel) and the setbacks applied from houses, rights-of-way and non-participating property lines will further ensure that noise will not be audible to nearby residences. Moreover, since solar projects are only operational during sunlit hours, there is no noise emitted at night. An increase in noise will occur during construction and decommissioning phases, but this noise will be limited in duration and will be similar to the noise levels produced from other common outdoor construction activities.

5.11 Economic Impacts

The proposed Project will provide substantial economic benefits to Christian County, Southfork Township, as well as the State of Illinois. Economic benefits of solar projects include short-term revenue for local communities during development, construction, and decommissioning as well as long-term benefits such as tax revenue and landowner payments during operations. To adequately assess and understand the impacts associated with the Project, the Applicant commissioned an Economic Impact and Land Use Analysis for the Project.

The Economic Impact and Land Use Analysis ([Annex -06](#)) was performed by Dr. G. Loomis, who has performed economic analyses at the county, region, state and national levels for utility-scale wind and solar generation. Key findings of the study are listed below:

- The Project represents an investment in excess of \$425 million;
- The Project will create approximately 892 new jobs in Christian County during construction;
- The Project will create approximately 13 new long-term jobs in Christian County during operations;
- The Project will generate over \$67 million in new output (GDP) for Christian County during construction;
- The Project will generate over \$1.3 million in new annual long-term output (GDP) for Christian County during operations; and
- Over \$45.8 million in property taxes in total for all taxing districts over the life of the Project, which will serve to benefit local school districts, South Fork Township and Christian County.

5.12 Property Value Impact Study

A Property Value Impact Study ([Annex 07](#)) was performed by Marous & Company, the purpose of which was to analyze the potential impact on the value of residential properties neighboring the Project. The results of the study concluded that there are no market data indicating that the Project will have a negative impact on rural residential or agricultural properties. In fact, the additional income from the leases on the properties that host Project infrastructure may increase the value and marketability of the properties.

5.13 Drainage

Maintenance of drain tile integrity is a major concern to landowners participating in the Project. Prior to construction, the Applicant will work with landowners to confirm the drainage tiles that intersect the Project area and ensure that the drainage tile locations are incorporated into construction plans and avoided, to the extent practicable, during the construction, operation and decommissioning phases of the Project. Should any drainage tiles be damaged, the tiles will be repaired in accordance with the drainage tile repair commitments made within both the AIMA and the Project leases. In addition, the Project follow applicable state drainage laws. Unless otherwise determined appropriate in consultation with landowners and regulatory agencies, the underground drainage capacity that existed prior to construction will be restored after the Project has been decommissioned.

5.14 Glare

The Applicant engaged Capital Airspace Group to perform a Glint and Glare Analysis for the Project ([Annex 08](#)). The analysis utilized the Solar Glare Hazard Analysis Tool (SGHAT) to identify any potential impacts from the Project on the Taylorville Municipal Airport, Tommy's Air Park, as well as impacts on residents and vehicular traffic. The results of the study concluded that there is no predicted glare from the Project on approaching aircraft, residents, and along identified routes for cars and large trucks. Furthermore, the study confirmed that the Project is compliant with the Federal Aviation Administration's (FAA) interim policy for Solar Energy System Projects on Federally Obligated Airports.

6 CONCLUSION

This SUP Application demonstrates that the Project fully complies with the requirements of the Ordinance as well as Christian County's Zoning Ordinance Code. Accordingly, the Applicant respectfully requests that the Christian County Board issue a SUP for the Project.

