BEFORE THE PUBLIC UTILITIES COMMISSION

OF THE STATE OF SOUTH DAKOTA

IN THE MATTER OF THE APPLICATION BY WILD SPRINGS SOLAR, LLC FOR A PERMIT OF A SOLAR ENERGY FACILITY IN PENNINGTON COUNTY, SOUTH DAKOTA	* * * * * * * * *	**APPLICANT'S RESPONSES TO STAFF'S FIRST SET OF DATA REQUESTS TO APPLICANT** **EL 20-018**

Below, please find Wild Springs Solar, LLC's ("Applicant") responses to Staff's First Set of Data Requests to Applicant.

1-1) Refer to Page 5 of the Direct Testimony of Jay Hesse, lines 130 – 132. Please provide the solar development agreements for all three sets of contiguous landowners.

Jay Hesse: Wild Springs' Land Lease and Solar Easement form (Attachment 1-1(A)) is provided as a proprietary and confidential document. A Memorandum of Land Lease and Solar Easement and an Amendment to Land Lease and Solar Easement for each of the three sets of contiguous landowners are provided as Attachment 1-1(B).

1-2) Refer to Page 5 of the Direct Testimony of Jay Hesse, lines 143 – 149.

(a) Please confidentially provide the name and contact information of the owner of the residence adjacent to the facility that raised aesthetic concerns.

Jay Hesse: Please see Attachment 1-2, provided as a confidential document.

(b) Refer to Pages 80-81 of the Application. Can the Applicant provide the Commission with a more detailed description of the type of vegetation used in the screening? Please explain.

Melissa Schmit and Jay Hesse: The vegetative screening that will be utilized is pending consultation with a landscaping company. Historically, Geronimo has implemented a combination of evergreens (techny arborvitae) and shrubs (cardinal dogwood) to provide foliage and color variation year-round. Regardless of the final agreed upon vegetation, screening will be installed using youth-stage plants to provide greater probability of successful establishment. Older, mature vegetation

tends to be more difficult to transplant successfully and the options for procuring mature vegetation can be limited. Shrubs are installed around 2 feet tall, reaching approximately 8 feet in height at maturity. Evergreens would be installed at approximately 3-4 feet in height, reaching 12-15 feet in height at maturity.

(c) Please provide a detailed estimated cost of the vegetative screening.

Jay Hesse: Because the vegetation plan is still in development, we do not have a detailed estimated cost at this time.

(d) Is the proposed vegetation screening resolving the adjacent landowners' concern? Please explain.

Jay Hesse: The concern raised was based on aesthetics, and the proposed vegetative screening is designed to address the concern. We will provide further updates once a plan is finalized.

1-3) Refer to Page 14 of the Application. Please provide the power purchase agreement that Basin Electric Power Cooperative signed with Wild Springs.

Melissa Schmit: A redacted version of the power purchase agreement (Attachment 1-3) is provided as a proprietary and confidential document.

1-4) For each non-participating residence that is located within ¼ mile from the Preliminary Development Area, please provide the following information:

(a) Name of property owner;

Brie Anderson: There are three non-participating residences within a quarter mile of the Preliminary Development Area:

Daniel Hall
PO Box 237
New Underwood, SD 57761
147' from the Preliminary Development Area
582' from the closest inverter
Predicted sound level 38.6 dBA (see also Section 9.5.3.2 of the Facility Permit Application)

Knuppe Ranch LLP

PO Box 204
New Underwood, SD 57761
786' from the Preliminary Development Area
1228' from the closest inverter
Predicted sound level 32.2 dBA (based on logarithmic equation)

Clint Ness
22897 161st Avenue
New Underwood, SD 57761
1205' from the Preliminary Development Area
1482' from the closest inverter
Predicted sound level 30.6 dBA (based on logarithmic equation)

(b) Address;

Brie Anderson: Please see response to 1-4(a).

(c) Distance from Preliminary Development Area; and

Brie Anderson: Please see response to 1-4(a).

(d) Predicted sound level.

Brie Anderson: Please see response to 1-4(a).

1-5) Please provide a copy of Section 317-A-15 of the Pennington County Zoning Ordinance (July 10, 2019).

Melissa Schmit: Please see Attachment 1-5.

1-6) Referring to Section 4.6.3 of the Application, do the on-site meteorological stations actually track energy production, faults, and alarms or is that the function of the SCADA system?

Michael Morris: The meteorological stations only record weather parameters (e.g. irradiance, temperature, wind speed); system status and production fields are recorded by the SCADA system.

1-7) Referring to Section 4.6.5 of the Application, how will Wild Springs Solar determine that the panels need to be washed? Further, please explain the process for washing

the panels and identify any detergents or chemicals used in that process, as well as any waste stream generated from this process and the plans to properly collect and dispose of that waste stream, if needed.

Bree Maria, Geronimo: Given the amount of historical rainfall in the area, Wild Springs does not anticipate panels will need to be washed. In the unlikely scenario that panels would need to be washed, water will be brought in by truck and biodegradable soap and a pressure washer would be used. No chemicals would be used that would create waste or require the collection or disposal of the water.

1-8) Since a well will be used for the O&M building's water supply, please provide "…specifications of the aquifers to be used and definition of their characteristics, including the capacity of the aquifer to yield water, the estimated recharge rate, and the quality of ground water" as required by ARSD 20:10:22:15(4).

Brie Anderson: The O&M building may require a well; this building is planned within the Land Control Area. From Section 9.1.2.1.1 of the Facility Permit Application, according to the USGS Ground-Water Resources in the Black Hills Area, South Dakota, the principal aquifers within the Land Control Area listed by depth are the Deadwood, Madison, Minnelusa, Minnekahta, and Inyan Kara aquifers (USGS, 2003). The Inyan Kara Aquifer is the shallowest of the five aquifers east of the Black Hills, has a thickness of 900 feet, an aerial extent of 2,512 square miles, and a storage of 84.7 million acre-feet of water. The Minnekahta Aquifer follows with thinner thickness of 65 feet, but has an aerial extent of 3,082 square miles, and a storage of 4.9 million acre-feet. The Minnelusa aquifer has a thickness of 1,175 feet, an aerial extent of 3,623 square miles, and a storage of 70.9 million acre-feet. The Madison has a thickness of 1,000 feet, an aerial extent of 4,113 square miles, and a storage of 62.7 million acre-feet. The Deadwood aquifer, the deepest of the five aquifers, has a thickness of 500 feet, an aerial extent of 4,216 square miles, and a storage of 30.5 million acre-feet. Recharge of all five aquifers is primarily from infiltration of precipitation and lateral inflow but the Minnekahta and Minnelusa aquifers receive a substantial amount of recharge from stream flow losses. The water quality is good in all aquifers with the only large difference being an abrupt increase in concentrations of dissolved sulfate in the Minnelusa aquifer farther from outcrops. Well depth to these aquifers is typically at least 40 feet but can reach depths up to several thousand feet (Northern State University, undated).

1-9) Please provide an analysis on the potential for slope instability in the project area.

Brie Anderson: As described in Table 9.1-1, less than one percent of slopes in the Land Control Area exceed six percent (PeC and PeD, totaling 14.5 acres or 0.9 percent). Typically slopes of eight percent or greater can start to exhibit instability as a result of

slope, accounting for other soil properties such as soil texture and rock fragment distribution, erodibility, and moisture content. Because 99 percent of the soils in the Land Control Area fall well below eight percent slope, slope instability is not anticipated to be an issue at the Project.

1-10) Please provide an analysis on the susceptibility of erosion for the soil classifications found in the project area.

Brie Anderson: Please see updated Table 9.1-1 and supporting text provided in Attachment 1-10.

1-11) Please confirm no pipelines or channels will be required for water transmission.

Jay Hesse: Yes, that is correct.

1-12) What causes birds to collide with solar panels, resulting in an average of 1.82 fatalities/MW/Year?

Todd Mattson: To clarify, 1.82 fatalities/MW/year includes the average of all bird fatalities found at PV solar facilities; however, a majority of these fatalities are of unknown causes (Kosciuch et al. 2020). Possible sources of bird fatality (in general, not specific to PV solar facilities) may include impact trauma from collision, electrocution, predation, or stranding (of water obligate birds unable to take off after landing) (Kosciuch et al. 2020). While some of these causes are attributable to baseline mortality (e.g., natural predation), at least some portion of fatalities are likely from accidental collision with PV panels, overhead lines, or other infrastructure (e.g., buildings, fences, etc.) (Kosciuch et al. 2020). Birds collide with man-made objects for a number of reasons related to how they perceive the environment (Martin 2011). For example, birds may turn their heads to look down when in flight, either with the binocular field or with the lateral part of an eye's visual field. In these cases, some species might be temporarily blind in the direction of travel causing them to collide with objects that are not expected to be present in their path, and some species may actually be blind in the frontal direction whenever traveling in open air space (Martin 2011). Additionally, evidence suggests that birds cannot modify their flight speed to respond to new perceptual challenges, such as PV panels or overhead lines, while in flight (Martin 2011). It should be noted that bird fatalities due to collision are not specific to PV solar facilities; rather, above-ground structures, in general, may result in bird fatalities due to collision for the same reasons discussed above.

Sources:

Kosciuch K, D. Riser-Espinoza D, M. Gerringer, W. Erickson. 2020. A summary of bird mortality at photovoltaic utility scale solar facilities in the Southwestern U.S. PLoS ONE 15(4): e0232034. https://doi.org/10.1371/journal.pone.0232034.

Martin, G. 2011. Understanding bird collisions with man-made objects: a sensory ecology approach. IBIS, March 2011 DOI: 10.1111/j.1474-919X.2011.01117.x.

1-13) Pursuant to ARSD 20:10:22:16, please provide an analysis on the potential impact the project construction may have on breeding birds and any proposed mitigation measures.

Todd Mattson: The preliminary species observed during the first round of grassland breeding bird surveys conducted during May of 2020 are summarized in Table 1, below. Thirteen grassland species were observed, as well as one unidentified sparrow, and no federally or state-threatened or endangered species were recorded. Most of the grassland species observed within the Project area are considered common and do not have special protections in South Dakota. Two species are designated as U.S. Fish and Wildlife Service ("USFWS") birds of conservation concern: lark bunting and upland sandpiper (USFWS 2008). Lark bunting is also listed as species of greatest conservation need in South Dakota (SDGFP 2014). Additionally, lark bunting, savannah sparrow, upland sandpiper, and western meadowlark are designated as species of habitat fragmentation concern in South Dakota (Bakker 2020). One species, western meadowlark, has been found occurring within (and as fatalities at) operating solar PV in the western U.S. (Kosciuch et al. 2020). Although these thirteen grassland species were observed during this survey, not all of these were confirmed to be breeding within the Project site. In fact, species such as the red-winged blackbird and yellow-headed blackbird are actually unlikely to nest in the areas that will be disturbed by Project construction.

Table 1. Preliminary grassland bird species observed during the first round of breeding bird surveys conducted in May of 2020.

Species Code	Common Name	Scientific Name	# Observed	Status
BOBO	Bobolink	*Dolichonyx oryzivorus*	8	-
BHCO	brown-headed cowbird	*Molothrus ater*	53	-
CONI	common nighthawk	*Chordeiles minor*	3	-
HOLA	horned lark	*Eremophila alpestris*	2	-
KILL	Killdeer	*Charadrius vociferus*	8	-
LABU	lark bunting	*Calamospiza melanocorys*	23	BCC, SGCN, SHFC
MODO	mourning dove	*Zenaida macroura*	3	-
RWBL	red-winged blackbird	*Agelaius phoeniceus*	73	-
SAVS	Savannah sparrow	*Passerculus sandwichensis*	24	SHFC

UNSP	unidentified sparrow		1	-
UPSA	upland sandpiper	*Bartramia longicauda*	23	BCC, SHFC
WEME	western meadowlark	*Sturnella neglecta*	65	SHFC
YWAR	yellow warbler	*Setophaga petechia*	1	-
YHBL	yellow-headed blackbird	*Xanthocephalus xanthocephalus*	1	-

BCC = USFWS Birds of Conservation Concern, SGCN = SDGFP Species of Greatest Conservation Need, SHFC = USFWS Species of Habitat Fragmentation Concern

Project construction, like infrastructure construction generally, has the potential to impact breeding birds due to direct mortality, disturbance, or displacement. Construction leads to an increased risk of entrapment, physical injury, or mortality from vehicles or machinery. Increased human activity from construction, including human presence and generated noise and artificial light, can cause disturbance to normal wildlife activities and behaviors. For example, such disturbances, particularly for nesting birds, may cause adult bird species to alter their nest/egg tending activities, which can lead to reduced nest success during the construction period (Hockin et al. 1992, Coleman et al. 2003). Wild Springs plans to implement a series of measures to avoid or minimize potential impacts to breeding birds both during Project construction and operation, and a complete list of these measures is provided in Section 4 of the Natural Resource Strategy ("NRS"). Additionally, any construction-related impacts will be temporary. As described in the NRS, long-term use patterns by breeding birds may change somewhat after the Project goes to operations. However, the overall long-term impact of the Project on local breeding birds is expected to be minimal.

Sources:

Bakker, K.K. 2020. South Dakota Species of Habitat Fragmentation Concern: Grassland Birds. Report developed for: U.S. Fish and Wildlife Service, South Dakota Ecological Services Field Office, Pierre, SD, 38 pp.

Coleman, R.A., Salmon, N.A. and Hawkins, S.J., 2003. Sub-dispersive human disturbance of foraging oystercatchers Haematopus ostralegus. ARDEA-WAGENINGEN-, 91(2), pp.263-268.

Hockin, D., Ounsted, M., Gorman, M., Hill, D., Keller, V. and Barker, M.A., 1992. Examination of the effects of disturbance on birds with reference to its importance in ecological assessments. Journal of Environmental Management, 36(4), pp.253-286.

Kosciuch K, D. Riser-Espinoza D, M. Gerringer, W. Erickson. 2020. A summary of bird mortality at photovoltaic utility scale solar facilities in the Southwestern U.S.. PLoS ONE 15(4): e0232034. https://doi.org/10.1371/journal.pone.0232034.

South Dakota Department of Game, Fish and Parks (SDGFP). 2014. South Dakota Wildlife Action Plan. SDGFP, Pierre, South Dakota. Available online at: http://gfp.sd.gov/images/WebMaps/Viewer/WAP/Website/PlanSections/SD%20Wildlife%20Action%20Plan%20Revision%20Final.pdf .

US Fish and Wildlife Service (USFWS). 2008. Birds of Conservation Concern 2008. December 2008. Division of Migratory Bird Management, Arlington, Virginia. Available online: https://www.fws.gov/migratorybirds/pdf/grants/BirdsofConservationConcern2008.pdf.

1-14) Please identify the participating and non-participating residences on Figure 4 and Figure 5a-d.

Brie Anderson: Please see updated Figure 4 and Figure 5a-d, provided as Attachment 1-14(A) and Attachment 1-14(B), respectively.

1-15) Is the sound generated by the inverters and trackers constant? Please provide a detailed explanation on the type of sound, and duration, an individual may hear being generated from the inverters and trackers.

Chip LaCasse: Sound from the inverters will occur when the Project is operational during the day. They will not make noise when insolation drops off between dusk and dawn, or during heavy cloud cover. The sound generated from the inverters is made by the spinning of fans and moving air, similar to an air conditioner condenser. Similar to the inverters, the trackers will only produce sound when the Project is operational during the day. Tracker motors produce very little sound for a short duration of time throughout the day (roughly a few seconds every 15-20 minutes) to follow the sun. Trackers moving slowly throughout the day and through the full range of tilt at the end of the day will be undetectable, even if standing within the Project arrays.

1-16) Please identify if there is the potential for paleontological resources to occur in the project area. If paleontological resources have the potential to occur in the project area, please provide a discussion on Wild Springs' plans to protect and mitigate impacts to those resources.

Brie Anderson: The White River Group extends across the northern Great Plains and central Rocky Mountains and is known for containing, "…the most complete late Eocene and early Oligocene vertebrae record in North America, and somewhat less well-known invertebrate, sedimentologic, and volcaniclastic records." (Prothero and Berggren, 1992). In South Dakota, the White River Group encompasses 17 counties in the south and eastern portions of the state, including portions of Pennington County (USGS, Undated[a]). The White River Badlands of South Dakota are located south and east and outside of the Land Control Area; Badlands National Park is within the White River Badlands and is located approximately 20 miles south and east of the Land Control Area (NPS, Undated). The Project is located outside of the White River Badlands and the potential for encountering paleontological resources during construction or operation of the Project is low. Therefore, no impact on paleontological resources is anticipated. As described in Section 9.7.5.3, Wild Springs will prepare an Unanticipated Discoveries Plan that outlines the steps to be taken if previously unrecorded cultural resources or human remains are encountered during construction. This plan applies to paleontological resources and any remains identified would require confirmation they are not human remains.

1-17) Please identify if any chemicals or other products that require reporting in accordance with the Emergency Planning and Community Right-to-Know Act (EPCRA) will be stored at the O&M facility. If any such chemicals/products will be stored on site, please provide the name and expected quantity of each one.

Gemma Smith, Geronimo: No chemicals or other products that require reporting under the EPCRA will be stored at the O&M facility.

1-18) Referring to the South Dakota Game Fish and Parks (SD GFP) letter to WAPA, dated April 3, 2020, found in Appendix A:

i) The SD GFP believes some level of post-construction mortality monitoring would be useful. Since Wild Springs does not plan to complete post-construction mortality monitoring, please explain why the data collected during such a survey would not provide data that could help understand the potential impacts to avian species due to a solar project, which could then help inform future project planning in the region.

Todd Mattson: Based on prior post-construction mortality studies of PV solar facilities, the difficulty in identifying cause of death and the overall low rates of mortality limit the usefulness of post-construction mortality data. As described in the Wild Springs Facility Permit Application, a recent study reviewed 13 PV solar facilities in desert and grassland habitats of California and Nevada and concluded that the average annual fatality rate at PV solar facilities is 1.82 bird

fatalities/MW/year (Kosciuch et al. 2020). Because the majority of fatalities at PV facilities are of unknown causes due to fatalities usually being detected as feather spots, it is likely that a portion of fatalities are a result of natural mortalities in the area, such as predation (Kosciuch et al. 2020). Additionally, mortality at PV facilities is comparatively low compared to other sources of mortality (Sovacool 2009, WEST 2019). For example, other sources of bird mortality such as cat predation or collisions with building windows or automobiles are far more significant sources of bird fatalities (a single feral cat may kill from 23 to 46 birds per year) (Loss et al. 2015).

Given the difficulty in determining the cause of mortality and the low bird mortality rates at PV solar facilities, Wild Springs proposed to SDGFP and the United States Fish and Wildlife Service a comparative use study of the solar facility by birds. Existing studies have shown that indirect impacts vary widely across PV facilities where avian use patterns have been studied. Some studies have found evidence that birds avoid solar facilities once they become operational (Smith and Dwyer 2016, Visser et al. 2019), while others have documented no negative impacts to avian use and even an increase in species richness and biodiversity (Sinha et al. 2018, Griffiths et al. 2019). A comparison of breeding bird use before and after construction will provide a better understanding of the actual changes to the bird community and whether additional conservation measures (e.g., restoration measures, placement of bird boxes, etc.) could be implemented through adaptive management to further enhance wildlife use of the facility site in the future. This is consistent with the SDGFP recommendation from their letter dated April 3, 2020, which recommends post-construction surveys that use methods that are comparable to pre-construction surveys to gather research on the impacts of solar energy facilities sited in grassland and herbaceous habitat.

Sources:

Griffiths, J. L., J. D. Dart, and D. E. Meade. 2019. Avian Utilization and Species Richness at a Large-Scale Photovoltaic Solar Facility in San Luis Obispo County, California. Poster Session. Annual Wildlife Society – Western Section Conference.

Kosciuch K, D. Riser-Espinoza D, M. Gerringer, W. Erickson. 2020. A summary of bird mortality at photovoltaic utility scale solar facilities in the Southwestern U.S. PLoS ONE 15(4): e0232034. https://doi.org/10.1371/journal.pone.0232034.

Loss, S.R., T. Will, and P.P. Marra. 2015. Direct mortality of birds from accidental anthropogenic causes. Annual Review of Ecology Evolution and Systematics 46: 99-120.

Sinha, P., Hoffman, B., Sakers, J. and Althouse, L., 2018. Best Practices in Responsible Land Use for Improving Biodiversity at a Utility-Scale Solar Facility. Case Studies in the Environment.

Smith, J. A. and J. F. Dwyer. 2016. Avian Interactions with Renewable Energy Infrastructure: An Update. Condor 118(2): 411-423. doi: 10.1650/CONDOR-15-61.1.

Sovacool, B. K., 2009. Contextualizing avian mortality: A preliminary appraisal of bird and bat fatalities from wind, fossil-fuel, and nuclear electricity. Energy Policy, 37(6), pp.2241-2248.

Visser, E., Perold, V., Ralston-Paton, S., Cardenal, A.C. and Ryan, P.G., 2019. Assessing the Impacts of a Utility-Scale Photovoltaic Solar Energy Facility On Birds in the Northern Cape, South Africa. Renewable energy, 133, pp.1285-1294.

Western EcoSystems Technology, Inc. (WEST). 2019. Regional Summaries of Wildlife Fatalities at Wind Facilities in the United States. 2019 Report from the Renew Database. Published by WEST, Inc., Cheyenne, Wyoming, December 31, 2019.

ii) The SD GFP recommends that the project area be surveyed for tracts of untilled native prairie and that the Project make an effort to avoid or minimize impacts to untilled native prairie. Does Wild Springs plan to complete the recommended untilled native prairie survey? If not, please explain why the survey is not needed or would not be helpful for developing minimization/mitigation measures.

Melissa Schmit and Brie Anderson: As described in Section 9.5.1, the Land Control Area is heavily fragmented by roads, transmission lines, and pasture fences. Also, field observations indicate much of the land characterized as herbaceous land is heavily grazed, which can degrade grassland. Additionally, construction of the Project will not require removal of all vegetation for installation of facilities. Rather, ground disturbance during the life of the Project will be limited to the access roads, Project substation, O&M building, parking lot, and inverters (47.3 acres) and some areas with greater than 5 percent slope. As a result, only 138 acres of the Land Control Area will require ground disturbance to

areas of potentially undisturbed grassland; in other words, 91 percent of the Land Control Area will not require grading for facilities. Between existing land use, fragmentation, and design, Wild Springs has minimized potential impacts to potential untilled grassland. Given the minimal disturbance already achieved, conducting an untilled native prairie survey would not be helpful to develop further minimization/mitigation measures.

iii) **Does Wild Springs Solar plan to implement the SD GF&P's recommendation on establishing a 2-mile construction buffer during the lekking season and subsequent nesting period if a prairie grouse lek is found in or near the project area?**

Melissa Schmit: The SD GF&P letter dated April 3, 2020 recommended implementing a construction buffer around leks during the lekking and subsequent nesting season should any be identified during the 2020 surveys. No leks were identified during surveys completed in the spring of 2020.

1-19) Please provide a copy of the draft Environmental Assessment when it is submitted to WAPA.

Melissa Schmit: The applicant prepared an internal draft Environmental Assessment that was provided to WAPA on May 29, 2020. Wild Springs anticipates the draft will be released for public comment in July of 2020 and will provide the Commission with a copy at that time.

1-20) Refer to Page 13 of the Application. Does Wild Springs Solar have a list of the approximate 30 people that attended the WAPA public scoping meeting on March 3, 2020? If yes, please provide.

Melissa Schmit: Please see Attachment 1-20.

1-21) Refer to Page 37 of the Application. What type of decommissioning financial assurance is the Applicant proposing to satisfy the Pennington County Zoning Ordinance? Please provide the proposal for Commission consideration.

Melissa Schmit: Wild Springs will provide a performance or surety bond as required in Section 317-A-15-f of the Pennington County Zoning Ordinance.

1-22) Refer to Page 45 of the Application. The Applicant states it "will submit a CUP application to Pennington County for the Project in the second quarter of 2020." When does the Applicant anticipate receiving a decision from Pennington County on its CUP request?

Melissa Schmit: Please refer to page six of Melissa Schmit's direct testimony. Based on coordination with Pennington County the process typically takes approximately six weeks to complete. Wild Springs plans to submit the CUP application by the end of June with a decision anticipated in August.

1-23) Refer to Page 45 of the Application. The Pennington County setback from existing residences is 100 ft. Does the Applicant know the basis for this setback? Please explain.

Melissa Schmit: Wild Springs is not aware of the basis for the Pennington County setback.

Dated this 18th day of June, 2020.

By */s/ Mollie M. Smith*

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ATTACHMENT 1-1(B)

DRAFTED BY AND UPON RECORDING RETURN TO:
WILD SPRINGS SOLAR, LLC
c/o GERONIMO ENERGY, LLC
8400 NORMANDALE LAKE BLVD, SUITE 1200
BLOOMINGTON, MN 55437
952-988-9000

MEMORANDUM OF LAND LEASE AND SOLAR EASEMENT

THIS MEMORANDUM OF LAND LEASE AND SOLAR EASEMENT ("**Memorandum of Lease**") is entered into this 10th day of March, 2020 by and between Gale M. Bruns and Wendy Bruns, husband and wife ("**Lessor**"), with an address of 16115 230th Street, New Underwood, SD 57761 and Wild Springs Solar, LLC, a Minnesota limited liability company ("**Lessee**"), with an address of 7650 Edinborough Way, Suite 725, Edina, MN 55435.

RECITALS:

A. Lessor and Lessee have entered into a certain Land Lease and Solar Easement dated March 10th, 2020 (the "**Lease Agreement**"), whereby Lessor has agreed to lease to Lessee certain real property, together with access easement rights and a Solar Easement across said premises in the County of Pennington, State of South Dakota, and being more particularly described in Exhibit A attached hereto and made a part hereof (the "**Premises**").

B. The parties wish to give notice of the existence of such Lease Agreement.

IN CONSIDERATION of the sum of One and 00/100 Dollar ($1.00) and other good and valuable consideration, the receipt of which is hereby acknowledged, the parties hereto agree as follows:

1. Lessor and Lessee have entered into the Lease Agreement dated March 10th, 2020 (the "**Effective Date**") to lease and demise the Premises for solar energy purposes and to grant access and solar easements. Pursuant to the Lease Agreement, Lessee has the exclusive right to use the Premises for commercial solar energy purposes, together with certain related solar, access and other easement rights and other rights related to the Premises, all as more fully described in the Lease Agreement. Commercial solar energy purposes means converting solar energy into electrical energy and collecting and transmitting the electrical energy so converted, together with any and all activities related thereto.

2. The initial term of the Lease Agreement is for a period of five (5) years, commencing on the Effective Date and ending on the 10th day of March, 2025 (the "**Development Period**"). The Lease Agreement shall automatically be extended for a Construction Period, as defined below, upon the earlier of (i) the date when construction of solar facilities on the Premises commences ("**Construction Date**"); or (ii) date when Lessor receives written notice from Lessee of Lessee's election to extend the term of the Lease Agreement for the Construction Period ("**Construction Period Notice Date**"). The Construction Period of the Lease Agreement ("**Construction Period**") is two (2) years from the earlier of either of the Construction Date or the Extended Term Notice Date unless sooner terminated in accordance with the terms of the Lease Agreement. The Lease Agreement shall automatically be extended for an Extended Term, as defined below, upon the earlier of (i) the date when the Project begins commercial operation ("**Commercial Operation Date**"); or (ii) date when Lessor receives written notice from Lessee of Lessee's election to extend the term of the Lease Agreement for the Extended Term ("**Extended Term Notice Date**"). The Extended Term of the Lease Agreement ("**Extended Term**") is twenty (20) years from the commencement of the Extended Date unless sooner terminated in accordance with the terms of the Lease Agreement. Lessee has a right to renew the Extended Term for two (2) additional periods of ten (10) years upon written notice to Lessor.

3. Lessor shall have no ownership and other interest in any solar facilities installed on the Premises by Lessee, except as provided in Section 4.3 of the Lease and Lessee may remove any or all solar facilities at any time.

4. Except for any competing developers of solar energy projects, Lessee shall accommodate the reasonable development of essential services on the Premises, including any electric transmission and distribution lines and associated facilities, telecommunications facilities, and rural water systems, provided that such services do not interfere with the Solar Facilities.

5. Lessee and any successor or assign of Lessee has the right under the Lease, without need for Lessor's consent, to do any of the following, conditionally or unconditionally, with respect to all or any portion of the Premises for solar energy purposes: grant co-leases, separate leases, subleases, easements, licenses or similar rights (however denominated) to one or more third parties; or sell, convey, lease, assign, mortgage, encumber or transfer to one or more third parties or to any affiliate of Lessee's this Lease, or any right or interest in this Lease, or any or all right or interest of Lessee in the Premises or in any or all of the solar power facilities that Lessee or any other party may now or hereafter install on the Premises provided that (i) any such assignment, transfer or conveyance shall not be for a period beyond the term of the Lease; (ii) the assignee or transferee shall be subject to all of the obligations, covenants and conditions applicable to the Lessee; and (iii) Lessee shall not be relieved from liability for any of its obligations under the Lease by virtue of the assignment or conveyance unless Lessee assigns or conveys all of its interests under the Lease to the assignee or transferee, in which event Lessee shall have no continuing liability.

6. The Lease Agreement and the easement and rights granted Lessee therein shall burden the Premises and shall run with the land. The Lease Agreement shall inure to the benefit of and be binding upon and Lessee and, to the extent provided in any assignment or other transfer

under the Lease Agreement, any assignee or Lessee, and their respective heirs, transferees, successors and assigns, and all persons claiming under them.

7. This Memorandum of Lease has been executed and delivered by the parties for the purpose of recording and giving notice of the lease and easement rights in accordance with the terms, covenants and conditions of the Lease Agreement.

8. The terms and conditions of the Lease Agreement are incorporated by reference into this Memorandum of Lease as if set forth fully herein at length. In the event of any conflict between the terms and provisions of the Lease Agreement and this Memorandum of Lease, the Lease Agreement shall control.

The remainder of this page is intentionally blank.

LESSOR SIGNATURE PAGE

LESSOR

Gale M. Bruns

Gale M. Bruns

Wendy Bruns

Wendy Bruns

STATE OF Arizona)
) ss.
COUNTY OF Pinal)

The foregoing instrument was acknowledged before me this 28th day of February, 2020 by Gale M. Bruns and Wendy Bruns, husband and wife.

MARY ANN BROWN
Notary Public - Arizona
Pinal County
My Comm. Expires Jun 8, 2020

Notary Public
My commission expires Jun 8, 2020

LESSEE SIGNATURE PAGE

Wild Springs Solar, LLC

By: _____
Jeff Ringblom, Chief Financial Officer

STATE OF MINNESOTA)
) ss.
COUNTY OF HENNEPIN)

The foregoing instrument was acknowledged before me this 10th day of March, 2020, by Jeff Ringblom, the Chief Financial Officer of Wild Springs Solar, LLC, a Minnesota limited liability company, on behalf of the limited liability company.

_____
Notary Public

BRIANA MEGHAN SCHNAIBLE
Notary Public
Minnesota
My Commission Expires
Jan 31, 2025

EXHIBIT A
TO MEMORANDUM

DESCRIPTION OF PREMISES

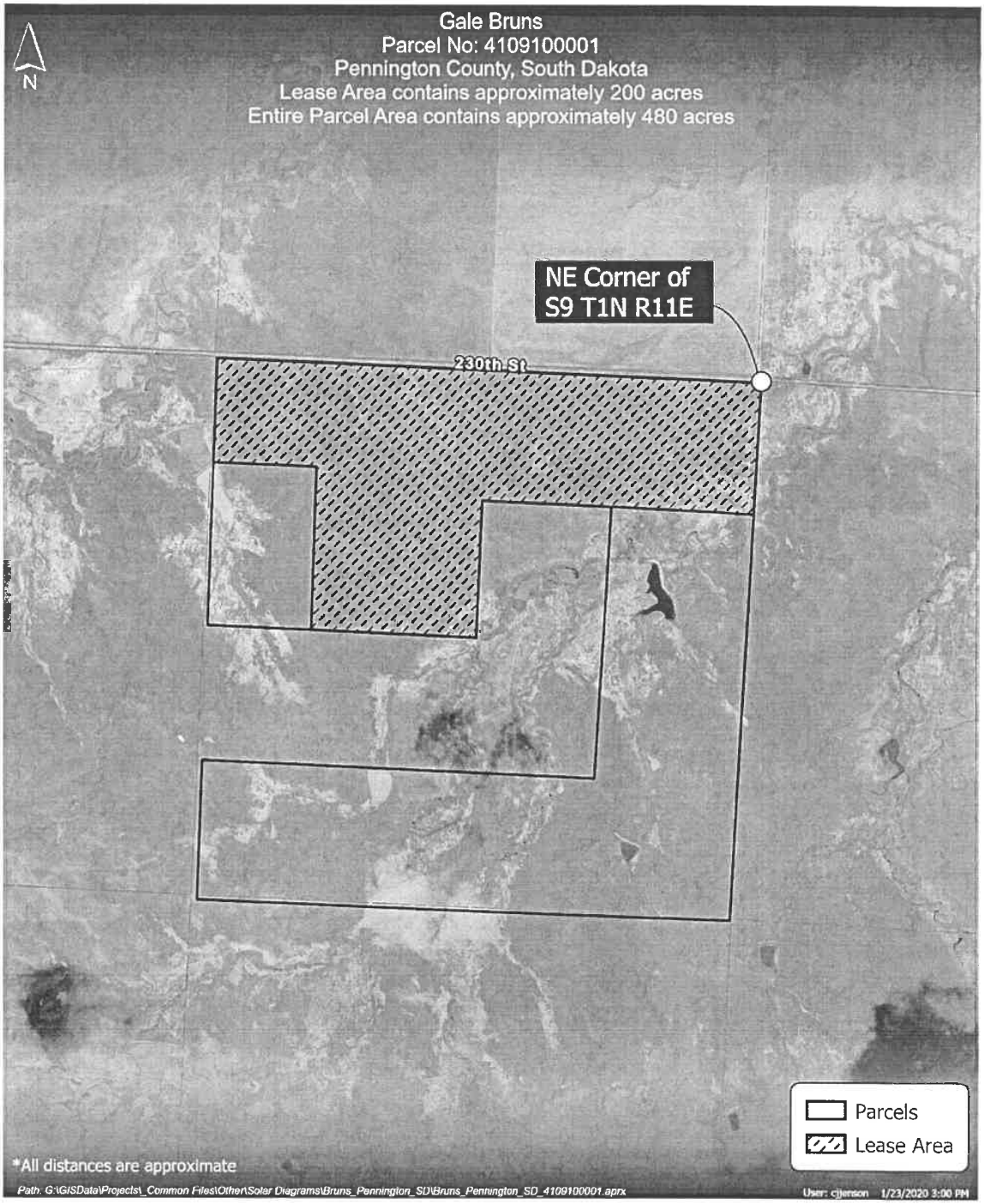
Tax Parcel No(s): 41-09-100-001

Government Lots 3 and 4 and the East Half of the Southwest Quarter (E ½ SW ¼) of Section 31, Township 2 North of Range 11 East of the Black Hills Meridian, Pennington County, South Dakota.

The parcel contains approximately 480 acres more or less.

EXHIBIT A-1
TO MEMORANDUM

SITE PLAN



DRAFTED BY AND UPON RECORDING RETURN TO:
WILD SPRINGS SOLAR, LLC
c/o GERONIMO ENERGY, LLC
8400 NORMANDALE LAKE BLVD, SUITE 1200
BLOOMINGTON, MN 55437

LAND LEASE AND SOLAR EASEMENT
SOUTH DAKOTA

Execution of Document

South Dakota law requires that this document may not be executed by the parties until at least 10 business days after it has been delivered to the property owner. The property owner acknowledges that this requirement has been satisfied by initialing below.

Property Owner, Execution Date, and Owner Initials		
Gale M. Bruns Printed Name	Execution Date: 2 / 28 / 2020	Initials: GMB
Wendy Bruns Printed Name	Execution Date: 2 / 28 / 2020	Initials: WB
_____ Printed Name	Execution Date: ____ / ____ / ____	Initials: _____
_____ Printed Name	Execution Date: ____ / ____ / ____	Initials: _____

AMENDMENT TO LAND LEASE AND SOLAR EASEMENT

THIS AMENDMENT TO LAND LEASE AND SOLAR EASEMENT (this "**Amendment**") is made and entered into as March 16, 2020 (the "**Effective Date**"), by and between Gale M. Bruns and Wendy Bruns, husband and wife, whose address is 16115 230th Street, New Underwood, SD 57761 ("**Lessor**"), and Wild Springs Solar, LLC, a Minnesota limited liability company, whose address is 8400 Normandale Lake Blvd, Suite 1200, Bloomington, MN 55437 ("**Lessee**").

RECITALS

A. Lessee and Lessor are parties to that certain Land Lease and Solar Easement dated June 19, 2019 ("**Agreement**") relating to certain real property in Pennington County, South Dakota (the "**Property**" as more fully described in the Lease), a memorandum of which was filed on July 29, 2019 as Document No. A201909295. Capitalized terms, unless otherwise defined herein, shall have the meanings ascribed to them in the Agreement.

B. The parties desire to amend the Lease as set forth herein.

AGREEMENT

NOW, THEREFORE, in consideration of the premises and the mutual covenants herein contained, Lessor and Lessee agree as follows:

1. The Recitals set forth above is true and correct in all material respects and incorporated herein by reference.

2. The "Site Plan" referred to in Section 1.1 (a) and attached as Exhibit A-1 of the Lease is hereby deleted in its entirety and replaced with the Site Plan on Exhibit A-1 attached hereto. From and after the Effective Date hereof, all references to the "Site Plan" in the Lease shall refer to the Site Plan attached hereto, and all references to the "Premises" in the Lease shall refer to the Premises as identified in the attached Site Plan.

3. The Lease, as amended by this Amendment, constitutes the entire agreement of the parties with respect to the matters contained herein and may be further amended only in writing signed by both of the parties hereto. Except as specifically set forth in this Amendment, all terms and conditions in the Lease shall remain in full force and effect.

4. This Amendment may be executed in counterparts, each of which shall be deemed an original, which together shall constitute one and the same agreement. A facsimile transmission of an executed signature page shall be deemed an original signature page for purposes of this Amendment.

The remainder of this page is intentionally blank.

IN WITNESS WHEREOF, the parties hereto have executed this Amendment as of the day and year first above written.

LESSOR:

Gale M. Bruns

Wendy Bruns

LESSEE:
WILD SPRINGS SOLAR, LLC

By: _____
Jeff Ringblom, CFO

STATE OF Arizona)
) ss.
COUNTY OF Pinal)

The foregoing instrument was acknowledged before me this 28th day of February, 2020 by Gale M. Bruns and Wendy Bruns, husband and wife.

MARY ANN BROWN
Notary Public - Arizona
Pinal County
My Comm. Expires Jun 8, 2020

Notary Public
My commission expires June 8, 2020

STATE OF MINNESOTA)
) ss.
COUNTY OF HENNEPIN)

This instrument was acknowledged before me on March 10, 2020, by Jeff Ringblom, as CFO of Wild Springs Solar, LLC, a Minnesota limited liability company, on behalf of the company.

BRIANA MEGHAN SCHNAIBLE
Notary Public
Minnesota
My Commission Expires
Jan 31, 2025

Briana Schnaible
Notary Public

EXHIBIT A
DESCRIPTION OF PROPERTY

Tax Parcel No(s): 24-31-300-001

Government Lots 3 and 4 and the East Half of the Southwest Quarter (E ½ SW ¼) of Section 31, Township 2 North of Range 11 East of the Black Hills Meridian, Pennington County, South Dakota.

Tax Parcel No(s): 41-05-300-002

The East Half of the Southwest Quarter (E ½ SW ¼) of Section Five (5), Township 1 North, Range 11 East of the Black Hills Meridian, Pennington County, South Dakota.

Tax Parcel No(s): 41-06-400-001

The East Half of the Southeast Quarter (E ½ SE ¼) of Section Six (6), Township 1 North, Range 11 East of the Black Hills Meridian, Pennington County, South Dakota.

Tax Parcel No(s): 41-07-200-001

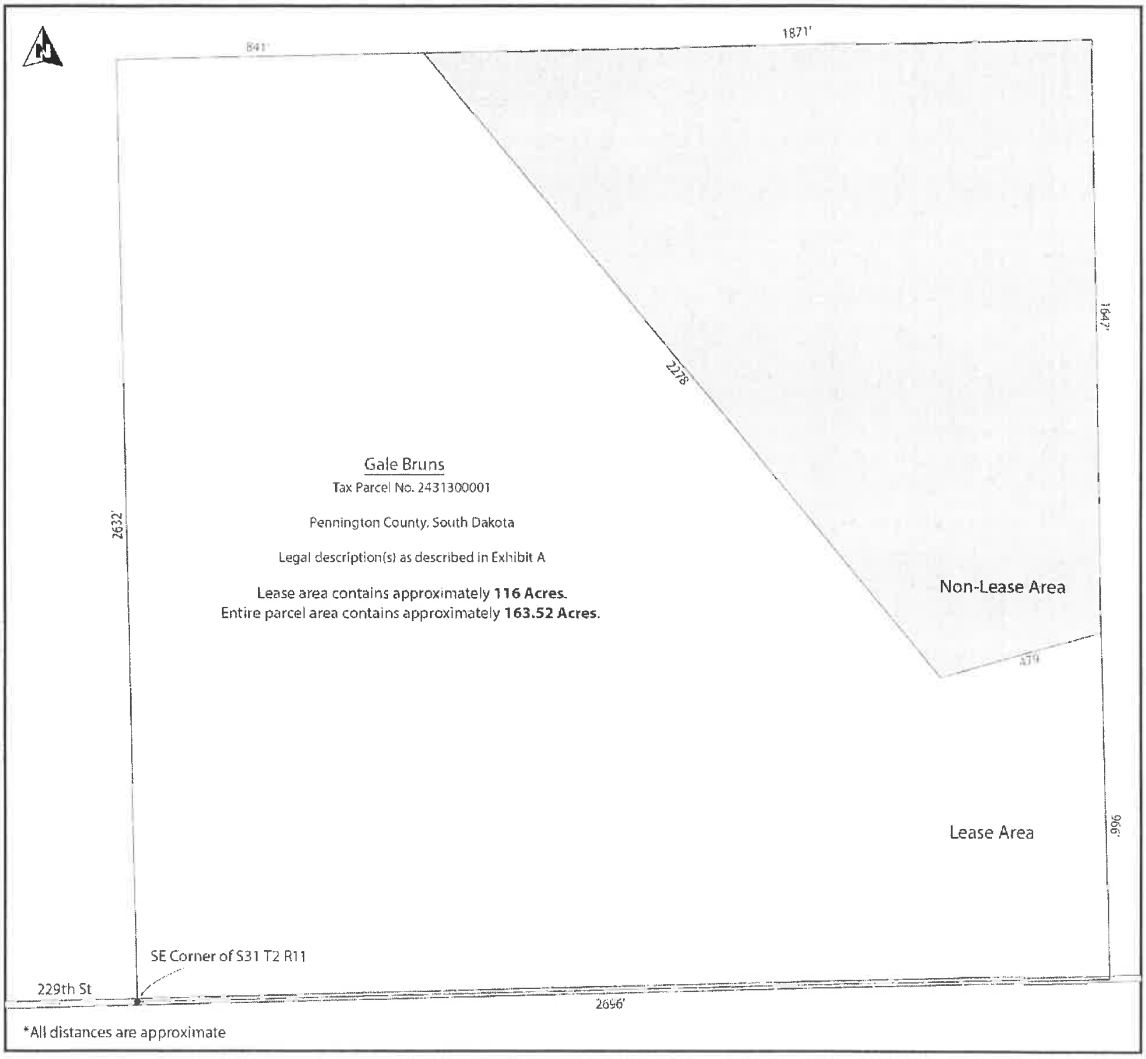
The East Half of the Northeast Quarter (E ½ NE ¼) of Section Seven (7), Township 1 North, Range 11 East of the Black Hills Meridian, Pennington County, South Dakota.

Tax Parcel No(s): 41-08-100-001

The South Half (S ½) and the Northeast Quarter (NE ¼) and the Northwest Quarter (NW ¼) of Section Eight (8), Township 1 North, Range 11 East of the Black Hills Meridian, Pennington County, South Dakota.

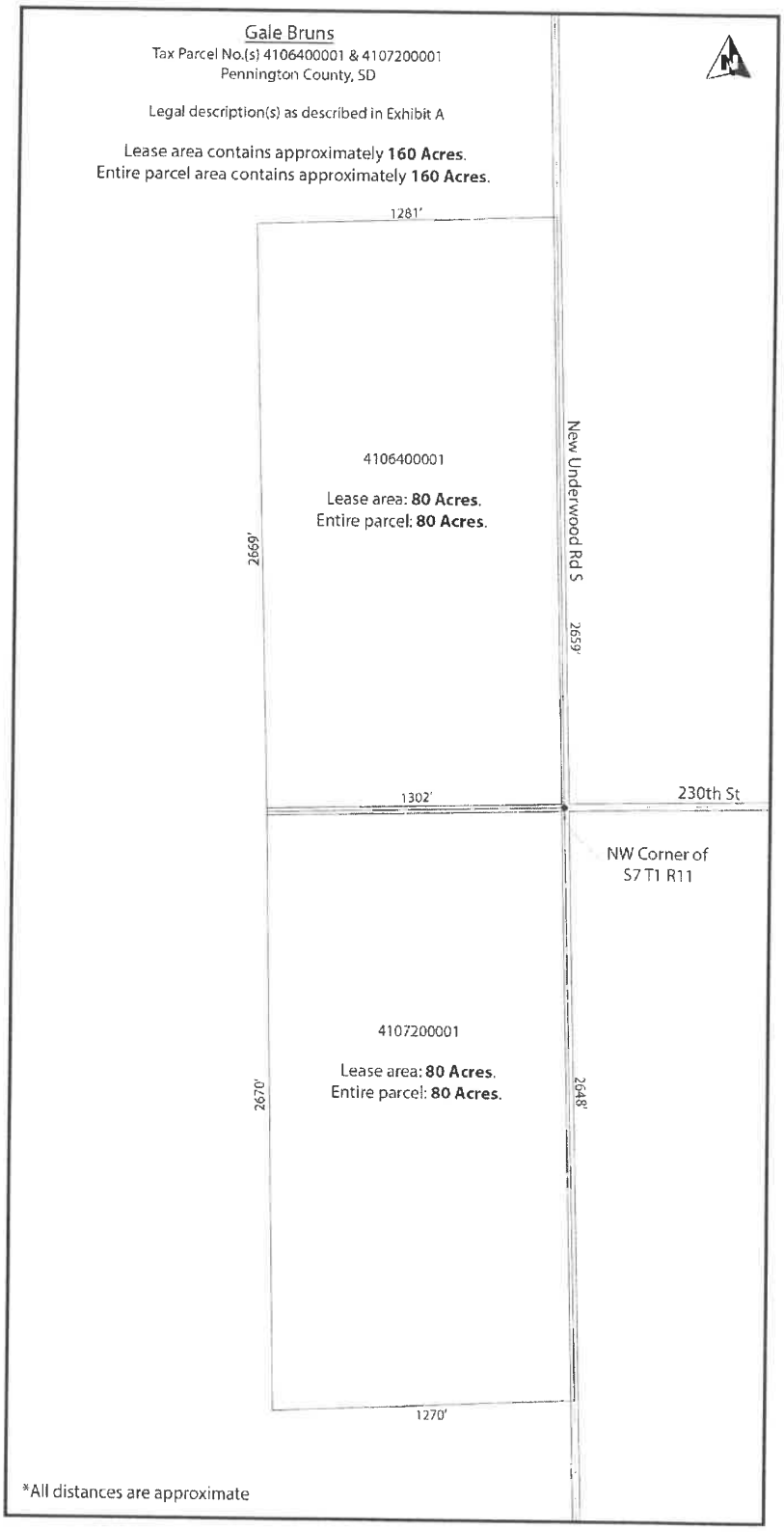
The parcels contain approximately 1,556 acres more or less.

EXHIBIT A-1
SITE PLAN



(Exhibit A-1 continued next page)

(Exhibit A-1 continued next page)


Gale Bruns
Tax Parcel No.(s) 4106400001 & 4107200001
Pennington County, SD
Legal description(s) as described in Exhibit A
Lease area contains approximately 160 Acres.
Entire parcel area contains approximately 160 Acres.
1281'
4106400001
Lease area: 80 Acres.
Entire parcel: 80 Acres.
2669'
New Underwood Rd S
2659'
1302'
230th St
NW Corner of
S7 T1 R11
4107200001
Lease area: 80 Acres.
Entire parcel: 80 Acres.
2670'
2648'
1270'
*All distances are approximate

$30.00
Pgs: 7
A201909296
July 29, 2019 9:09 AM
Donna M. Mayer
Pennington County, SD

Drafted by and upon recording return to:
Wild Springs Solar, LLC
c/o Geronimo Energy, LLC
Attn: Director of Real Estate
7650 Edinborough Way, Suite 725
Edina, MN 55435
952-988-9000

MEMORANDUM OF LAND LEASE AND SOLAR EASEMENT

THIS MEMORANDUM OF LAND LEASE AND SOLAR EASEMENT ("**Memorandum of Lease**") is entered into this 19th day of June, 2019 by and between Gene F. Crosbie and Alma M. Crosbie, husband and wife ("**Lessor**"), with an address of 23205 161st Ave, New Underwood, SD 57761 and Wild Springs Solar, LLC, a Minnesota limited liability company ("**Lessee**"), with an address of 7650 Edinborough Way, Suite 725, Edina, MN 55435.

RECITALS:

A. Lessor and Lessee have entered into a certain Land Lease and Solar Easement dated June 19th, 2019 (the "**Lease Agreement**"), whereby Lessor has agreed to lease to Lessee certain real property, together with access easement rights and a Solar Easement across said premises in the County of Pennington, State of South Dakota, and being more particularly described in Exhibit A attached hereto and made a part hereof (the "**Premises**").

B. The parties wish to give notice of the existence of such Lease Agreement.

IN CONSIDERATION of the sum of One and 00/100 Dollar ($1.00) and other good and valuable consideration, the receipt of which is hereby acknowledged, the parties hereto agree as follows:

1. Lessor and Lessee entered into that certain Land Lease and Solar Easement dated as of June 27, 2016, which was filed for record July 25, 2016 as Doc. No. A201609824, that certain Land Lease and Solar Easement dated as of June 27, 2016, which was filed for record July 25, 2016 as Doc. No. A201609825, that certain Land Lease and Solar Easement dated as of July 7, 2016, which was filed for record August 1, 2016 as Doc. No. A201610192 (the "**Original Agreements**"), relating to the Premises. The Lease Agreement terminates and supersedes the Original Agreements in their entirety.

2. Lessor and Lessee have entered into the Lease Agreement dated June 19, 2019 (the "**Effective Date**") to lease and demise the Premises for solar energy purposes and to grant access and solar easements. Pursuant to the Lease Agreement, Lessee has the exclusive right to use the Premises for commercial solar energy purposes, together with certain related solar, access and other easement rights and other rights related to the Premises, all as more fully described in the Lease Agreement. Commercial solar energy purposes means converting solar energy into electrical energy and collecting and transmitting the electrical energy so converted, together with any and all activities related thereto.

3. The initial term of the Lease Agreement is for a period of five (5) years, commencing on the Effective Date and ending on the 19 day of June, 2024 (the "**Development Period**"). The Lease Agreement shall automatically be extended for a Construction Period, as defined below, upon the earlier of (i) the date when construction of solar facilities on the Premises commences ("**Construction Date**"); or (ii) date when Lessor receives written notice from Lessee of Lessee's election to extend the term of the Lease Agreement for the Construction Period ("**Construction Period Notice Date**"). The Construction Period of the Lease Agreement ("**Construction Period**") is two (2) years from the earlier of either of the Construction Date or the Extended Term Notice Date unless sooner terminated in accordance with the terms of the Lease Agreement. The Lease Agreement shall automatically be extended for an Extended Term, as defined below, upon the earlier of (i) the date when the Project begins commercial operation ("**Commercial Operation Date**"); or (ii) date when Lessor receives written notice from Lessee of Lessee's election to extend the term of the Lease Agreement for the Extended Term ("**Extended Term Notice Date**"). The Extended Term of the Lease Agreement ("**Extended Term**") is twenty (20) years from the commencement of the Extended Date unless sooner terminated in accordance with the terms of the Lease Agreement. Lessee has a right to renew the Extended Term for two (2) additional periods of ten (10) years upon written notice to Lessor.

4. Lessor shall have no ownership and other interest in any solar facilities installed on the Premises by Lessee, except as provided in Section 4.3 of the Lease and Lessee may remove any or all solar facilities at any time.

5. Except for any competing developers of solar energy projects, Lessee shall accommodate the reasonable development of essential services on the Premises, including any electric transmission and distribution lines and associated facilities, telecommunications facilities, and rural water systems, provided that such services do not interfere with the Solar Facilities.

6. Lessee and any successor or assign of Lessee has the right under the Lease, without need for Lessor's consent, to do any of the following, conditionally or unconditionally, with respect to all or any portion of the Premises for solar energy purposes: grant co-leases, separate leases, subleases, easements, licenses or similar rights (however denominated) to one or more third parties; or sell, convey, lease, assign, mortgage, encumber or transfer to one or more third parties or to any affiliate of Lessee's this Lease, or any right or interest in this Lease, or any or all right or interest of Lessee in the Premises or in any or all of the solar power facilities that Lessee or any other party may now or hereafter install on the Premises provided that (i) any such assignment, transfer or conveyance shall not be for a period beyond the term of the Lease; (ii) the assignee or transferee shall be subject to all of the obligations, covenants and conditions applicable to the

Lessee; and (iii) Lessee shall not be relieved from liability for any of its obligations under the Lease by virtue of the assignment or conveyance unless Lessee assigns or conveys all of its interests under the Lease to the assignee or transferee, in which event Lessee shall have no continuing liability.

7. The Lease Agreement and the easement and rights granted Lessee therein shall burden the Premises and shall run with the land. The Lease Agreement shall inure to the benefit of and be binding upon and Lessee and, to the extent provided in any assignment or other transfer under the Lease Agreement, any assignee or Lessee, and their respective heirs, transferees, successors and assigns, and all persons claiming under them.

8. This Memorandum of Lease has been executed and delivered by the parties for the purpose of recording and giving notice of the lease and easement rights in accordance with the terms, covenants and conditions of the Lease Agreement.

9. The terms and conditions of the Lease Agreement are incorporated by reference into this Memorandum of Lease as if set forth fully herein at length. In the event of any conflict between the terms and provisions of the Lease Agreement and this Memorandum of Lease, the Lease Agreement shall control.

The remainder of this page is intentionally blank.

LESSOR SIGNATURE PAGE

LESSOR

Gene F. Crosbie

Gene F. Crosbie

Alma M. Crosbie

Alma M. Crosbie

STATE OF SOUTH DAKOTA)
) ss.
COUNTY OF Pennington)

On the 19th day of June, 2019, before me D Brett Hansen the undersigned, personally appeared Gene F. Crosbie and Alma M. Crosbie, husband and wife, known to me or satisfactorily proven to be the person(s) whose name(s) is (are) subscribed to the instrument and acknowledged that he/she/they executed the same for the purposes therein contained.

In witness whereof I hereunto set my hand and official seal.

D Brett Hansen

Notary Public
My commission expires 11-8-2019

LESSEE SIGNATURE PAGE

Wild Springs Solar, LLC

By: _____
Jeff Ringblom, Chief Financial Officer

STATE OF MINNESOTA)
) ss.
COUNTY OF HENNEPIN)

The foregoing instrument was acknowledged before me this 24th day of July, 2019, by Jeff Ringblom, the Chief Financial Officer of Wild Springs Solar, LLC, a Minnesota limited liability company, on behalf of the limited liability company.

BRIANA MEGHAN SCHNAIBLE
Notary Public
State of Minnesota
My Commission Expires
January 31, 2020

_____
Notary Public

EXHIBIT A
TO MEMORANDUM

DESCRIPTION OF PREMISES

Tax Parcel No(s): 41-06-300-002

Government Lots Six (6) and Seven (7) of Section Six (6), Township One (1) North, Range Eleven (11) East of the Black Hills Meridian, Pennington County, South Dakota.

Tax Parcel No(s): 40-01-100-001

The Northeast Quarter (NE ¼) of Section One (1), Township One (1) North, Range Ten (10) East of the Black Hills Meridian, Pennington County, South Dakota.

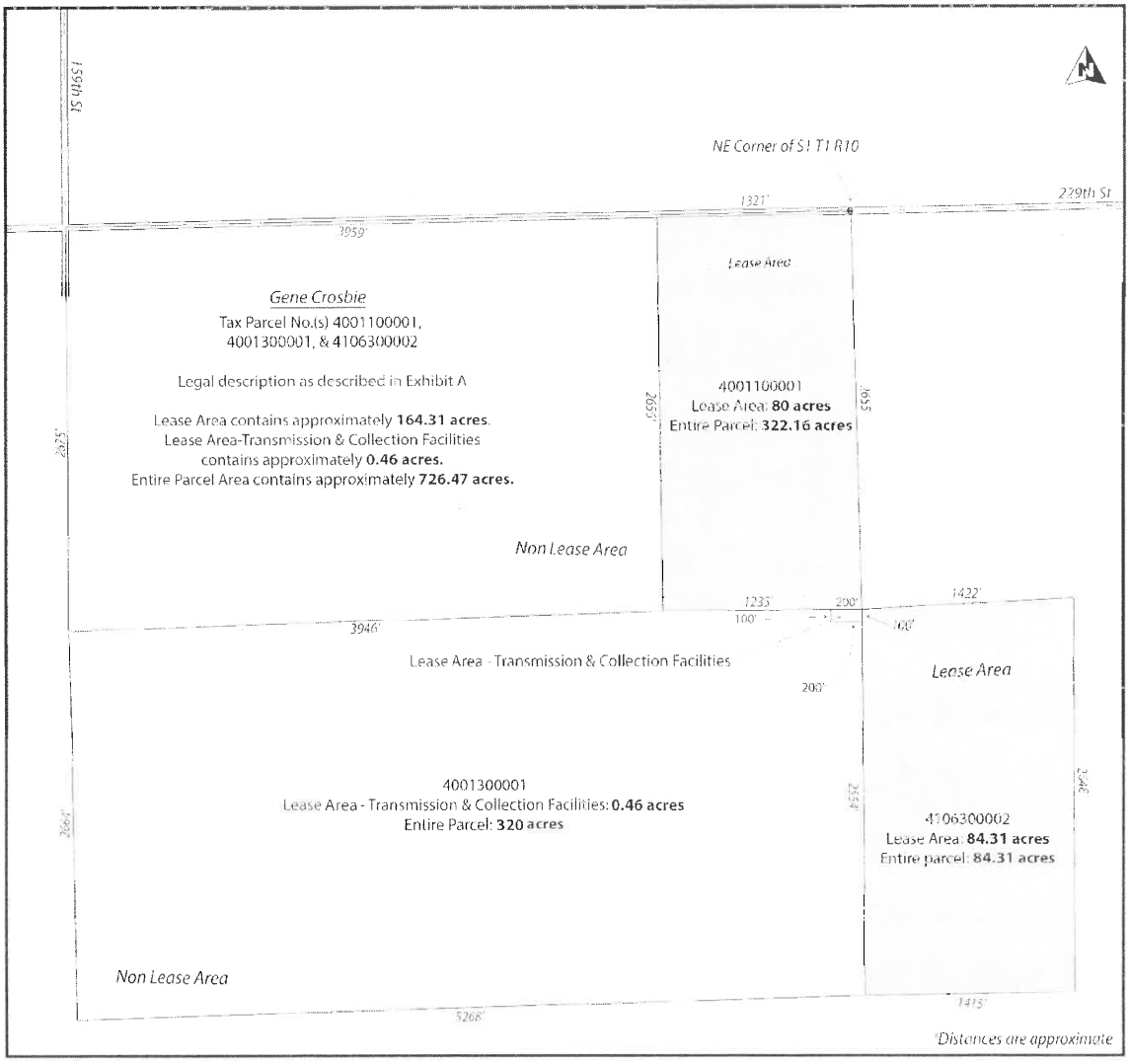
Tax Parcel No(s): 40-01-300-001

The South Half (S ½) of Section One (1), Township One (1) North, Range Ten (10) East of the Black Hills Meridian, Pennington County, South Dakota.

The parcels contain approximately 406.31 **acres.**

EXHIBIT A-1
TO MEMORANDUM

SITE PLAN



DRAFTED BY AND UPON RECORDING RETURN TO:
WILD SPRINGS SOLAR, LLC
c/o GERONIMO ENERGY, LLC
8400 NORMANDALE LAKE BLVD, SUITE 1200
BLOOMINGTON, MN 55437

LAND LEASE AND SOLAR EASEMENT
SOUTH DAKOTA

Execution of Document

South Dakota law requires that this document may not be executed by the parties until at least 10 business days after it has been delivered to the property owner. The property owner acknowledges that this requirement has been satisfied by initialing below.

Property Owner, Execution Date, and Owner Initials		
Gene F. Crosbie Printed Name	Execution Date: 02 / 06 / 2020	Initials: G.F.C.
Alma M. Crosbie Printed Name	Execution Date: 02 / 06 / 2020	Initials: AMC
_____ Printed Name	Execution Date: ____ / ____ / ____	Initials: _____
_____ Printed Name	Execution Date: ____ / ____ / ____	Initials: _____

AMENDMENT TO LAND LEASE AND SOLAR EASEMENT

THIS AMENDMENT TO LAND LEASE AND SOLAR EASEMENT (this "**Amendment**") is made and entered into as March 10, 2020 (the "**Effective Date**"), by and between Gene F. Crosbie and Alma M. Crosbie, husband and wife, whose address is 23205 161st Ave, New Underwood, SD 57761 ("**Lessor**"), and Wild Springs Solar, LLC, a Minnesota limited liability company, whose address is 8400 Normandale Lake Blvd, Suite 1200, Bloomington, MN 55437 ("**Lessee**").

RECITALS

A. Lessee and Lessor are parties to that certain Land Lease and Solar Easement dated June 19, 2019 ("**Agreement**") relating to certain real property in Pennington County, South Dakota (the "**Property**" as more fully described in the Lease), a memorandum of which was filed on July 29, 2019 as Document No. A201909296. Capitalized terms, unless otherwise defined herein, shall have the meanings ascribed to them in the Agreement.

B. The parties desire to amend the Lease as set forth herein.

AGREEMENT

NOW, THEREFORE, in consideration of the premises and the mutual covenants herein contained, Lessor and Lessee agree as follows:

1. The Recitals set forth above is true and correct in all material respects and incorporated herein by reference.

2. The "Site Plan" referred to in Section 1.1 (a) and attached as Exhibit A-1 of the Lease is hereby deleted in its entirety and replaced with the Site Plan on Exhibit A-1 attached hereto. From and after the Effective Date hereof, all references to the "Site Plan" in the Lease shall refer to the Site Plan attached hereto, and all references to the "Premises" in the Lease shall refer to the Premises as identified in the attached Site Plan.

3. The Lease, as amended by this Amendment, constitutes the entire agreement of the parties with respect to the matters contained herein and may be further amended only in writing signed by both of the parties hereto. Except as specifically set forth in this Amendment, all terms and conditions in the Lease shall remain in full force and effect.

4. This Amendment may be executed in counterparts, each of which shall be deemed an original, which together shall constitute one and the same agreement. A facsimile transmission of an executed signature page shall be deemed an original signature page for purposes of this Amendment.

The remainder of this page is intentionally blank.

IN WITNESS WHEREOF, the parties hereto have executed this Amendment as of the day and year first above written.

LESSOR:

Gene F Crosbie
Gene F. Crosbie

Alma M. Crosbie
Alma M. Crosbie

LESSEE:
WILD SPRINGS SOLAR, LLC

By: _____
Jeff Ringblom, CFO

STATE OF SOUTH DAKOTA)
) ss.
COUNTY OF Pennington)

On the 6th day of February, 2024 before me D Brett Hanson the undersigned, personally appeared Gene F. Crosbie and Alma M. Crosbie, husband and wife, known to me or satisfactorily proven to be the person(s) whose name(s) is (are) subscribed to the instrument and acknowledged that he/she/they executed the same for the purposes therein contained.

In witness whereof I hereunto set my hand and official seal.

_____
Notary Public
My commission expires 12-12-2025

STATE OF MINNESOTA)
) ss.
COUNTY OF HENNEPIN)

This instrument was acknowledged before me on March 10, 2020, by Jeff Ringblom, as CFO of Wild Springs Solar, LLC, a Minnesota limited liability company, on behalf of the company.

BRIANA MEGHAN SCHNAIBLE
Notary Public
Minnesota
My Commission Expires
Jan 31, 2025

Briana Schnaible
Notary Public

EXHIBIT A
DESCRIPTION OF PROPERTY

Tax Parcel No(s): 41-06-300-002

Government Lots Six (6) and Seven (7) of Section Six (6), Township One (1) North, Range Eleven (11) East of the Black Hills Meridian, Pennington County, South Dakota.

Tax Parcel No(s): 40-01-100-001

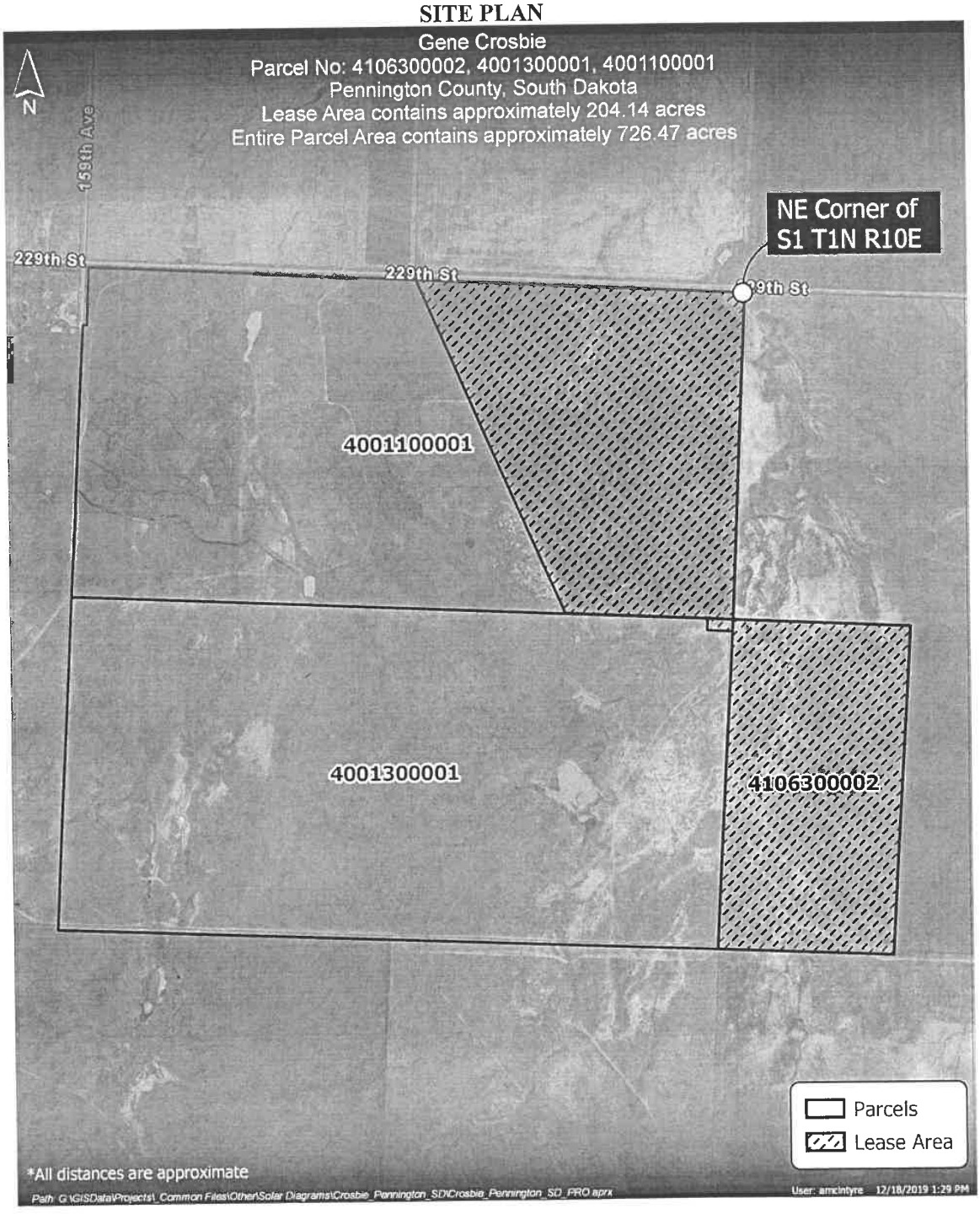
The Northeast Quarter (NE ¼) of Section One (1), Township One (1) North, Range Ten (10) East of the Black Hills Meridian, Pennington County, South Dakota.

Tax Parcel No(s): 40-01-300-001

The South Half (S ½) of Section One (1), Township One (1) North, Range Ten (10) East of the Black Hills Meridian, Pennington County, South Dakota.

The parcels contain approximately 406.31 **acres.**

EXHIBIT A-1
SITE PLAN



A201909293
July 29, 2019 9:09 AM
Donna M. Mayer
Pennington County, SD
$30.00
Pgs: 7

Drafted by and upon recording return to:
Wild Springs Solar, LLC
c/o Geronimo Energy, LLC
Attn: Director of Real Estate
7650 Edinborough Way, Suite 725
Edina, MN 55435
952-988-9000

MEMORANDUM OF LAND LEASE AND SOLAR EASEMENT

THIS MEMORANDUM OF LAND LEASE AND SOLAR EASEMENT ("**Memorandum of Lease**") is entered into this 19th day of June, 2019 by and between Laurie A. Swanson and Steven G. Swanson, wife and husband ("**Lessor**"), with an address of 904 S A Ave, New Underwood, SD 57761 and Wild Springs Solar, LLC, a Minnesota limited liability company ("**Lessee**"), with an address of 7650 Edinborough Way, Suite 725, Edina, MN 55435.

RECITALS:

A. Lessor and Lessee have entered into a certain Land Lease and Solar Easement dated June 19, 2019 (the "**Lease Agreement**"), whereby Lessor has agreed to lease to Lessee certain real property, together with access easement rights and a Solar Easement across said premises in the County of Pennington, State of South Dakota, and being more particularly described in Exhibit A attached hereto and made a part hereof (the "**Premises**").

B. The parties wish to give notice of the existence of such Lease Agreement.

IN CONSIDERATION of the sum of One and 00/100 Dollar ($1.00) and other good and valuable consideration, the receipt of which is hereby acknowledged, the parties hereto agree as follows:

1. Lessor and Lessee have entered into the Lease Agreement dated June 19, 2019 (the "**Effective Date**") to lease and demise the Premises for solar energy purposes and to grant access and solar easements. Pursuant to the Lease Agreement, Lessee has the exclusive right to use the Premises for commercial solar energy purposes, together with certain related solar, access and other easement rights and other rights related to the Premises, all as more fully described in the Lease Agreement. Commercial solar energy purposes means converting solar energy into electrical energy and collecting and transmitting the electrical energy so converted, together with any and all activities related thereto.

2. The initial term of the Lease Agreement is for a period of five (5) years, commencing on the Effective Date and ending on the 19 day of June, 2024 (the "**Development Period**"). The Lease Agreement shall automatically be extended for a

Construction Period, as defined below, upon the earlier of (i) the date when construction of solar facilities on the Premises commences ("**Construction Date**"); or (ii) date when Lessor receives written notice from Lessee of Lessee's election to extend the term of the Lease Agreement for the Construction Period ("**Construction Period Notice Date**"). The Construction Period of the Lease Agreement ("**Construction Period**") is two (2) years from the earlier of either of the Construction Date or the Extended Term Notice Date unless sooner terminated in accordance with the terms of the Lease Agreement. The Lease Agreement shall automatically be extended for an Extended Term, as defined below, upon the earlier of (i) the date when the Project begins commercial operation ("**Commercial Operation Date**"); or (ii) date when Lessor receives written notice from Lessee of Lessee's election to extend the term of the Lease Agreement for the Extended Term ("**Extended Term Notice Date**"). The Extended Term of the Lease Agreement ("**Extended Term**") is twenty (20) years from the commencement of the Extended Date unless sooner terminated in accordance with the terms of the Lease Agreement. Lessee has a right to renew the Extended Term for two (2) additional periods of ten (10) years upon written notice to Lessor.

3. Lessor shall have no ownership and other interest in any solar facilities installed on the Premises by Lessee, except as provided in Section 4.3 of the Lease and Lessee may remove any or all solar facilities at any time.

4. Except for any competing developers of solar energy projects, Lessee shall accommodate the reasonable development of essential services on the Premises, including any electric transmission and distribution lines and associated facilities, telecommunications facilities, and rural water systems, provided that such services do not interfere with the Solar Facilities.

5. Lessee and any successor or assign of Lessee has the right under the Lease, without need for Lessor's consent, to do any of the following, conditionally or unconditionally, with respect to all or any portion of the Premises for solar energy purposes: grant co-leases, separate leases, subleases, easements, licenses or similar rights (however denominated) to one or more third parties; or sell, convey, lease, assign, mortgage, encumber or transfer to one or more third parties or to any affiliate of Lessee's this Lease, or any right or interest in this Lease, or any or all right or interest of Lessee in the Premises or in any or all of the solar power facilities that Lessee or any other party may now or hereafter install on the Premises provided that (i) any such assignment, transfer or conveyance shall not be for a period beyond the term of the Lease; (ii) the assignee or transferee shall be subject to all of the obligations, covenants and conditions applicable to the Lessee; and (iii) Lessee shall not be relieved from liability for any of its obligations under the Lease by virtue of the assignment or conveyance unless Lessee assigns or conveys all of its interests under the Lease to the assignee or transferee, in which event Lessee shall have no continuing liability.

6. The Lease Agreement and the easement and rights granted Lessee therein shall burden the Premises and shall run with the land. The Lease Agreement shall inure to the benefit of and be binding upon and Lessee and, to the extent provided in any assignment or other transfer under the Lease Agreement, any assignee or Lessee, and their respective heirs, transferees, successors and assigns, and all persons claiming under them.

7. This Memorandum of Lease has been executed and delivered by the parties for the purpose of recording and giving notice of the lease and easement rights in accordance with the terms, covenants and conditions of the Lease Agreement.

8. The terms and conditions of the Lease Agreement are incorporated by reference into this Memorandum of Lease as if set forth fully herein at length. In the event of any conflict between the terms and provisions of the Lease Agreement and this Memorandum of Lease, the Lease Agreement shall control.

The remainder of this page is intentionally blank.

LESSOR SIGNATURE PAGE

LESSOR

Laurie A. Swanson

Steven G. Swanson

STATE OF SOUTH DAKOTA)
) ss.
COUNTY OF Pennington)

On the 19th day of June, 2019, before me D. Brett Hanson the undersigned, personally appeared Laurie A. Swanson and Steven G. Swanson, wife and husband, known to me or satisfactorily proven to be the person(s) whose name(s) is (are) subscribed to the instrument and acknowledged that he/she/they executed the same for the purposes therein contained.

In witness whereof I hereunto set my hand and official seal.

D. BRETT HANSON NOTARY PUBLIC Seal STATE OF SOUTH DAKOTA

Notary Public
My commission expires 11-08-19

LESSEE SIGNATURE PAGE

Wild Springs Solar, LLC

By:_____
Jeff Ringblom, Chief Financial Officer

STATE OF MINNESOTA)
) ss.
COUNTY OF HENNEPIN)

The foregoing instrument was acknowledged before me this 24th day of July, 2019, by Jeff Ringblom, the Chief Financial Officer of Wild Springs Solar, LLC, a Minnesota limited liability company, on behalf of the limited liability company.

BRIANA MEGHAN SCHNAIBLE
Notary Public
State of Minnesota
My Commission Expires
January 31, 2020

_____
Notary Public

EXHIBIT A
TO MEMORANDUM

DESCRIPTION OF PREMISES

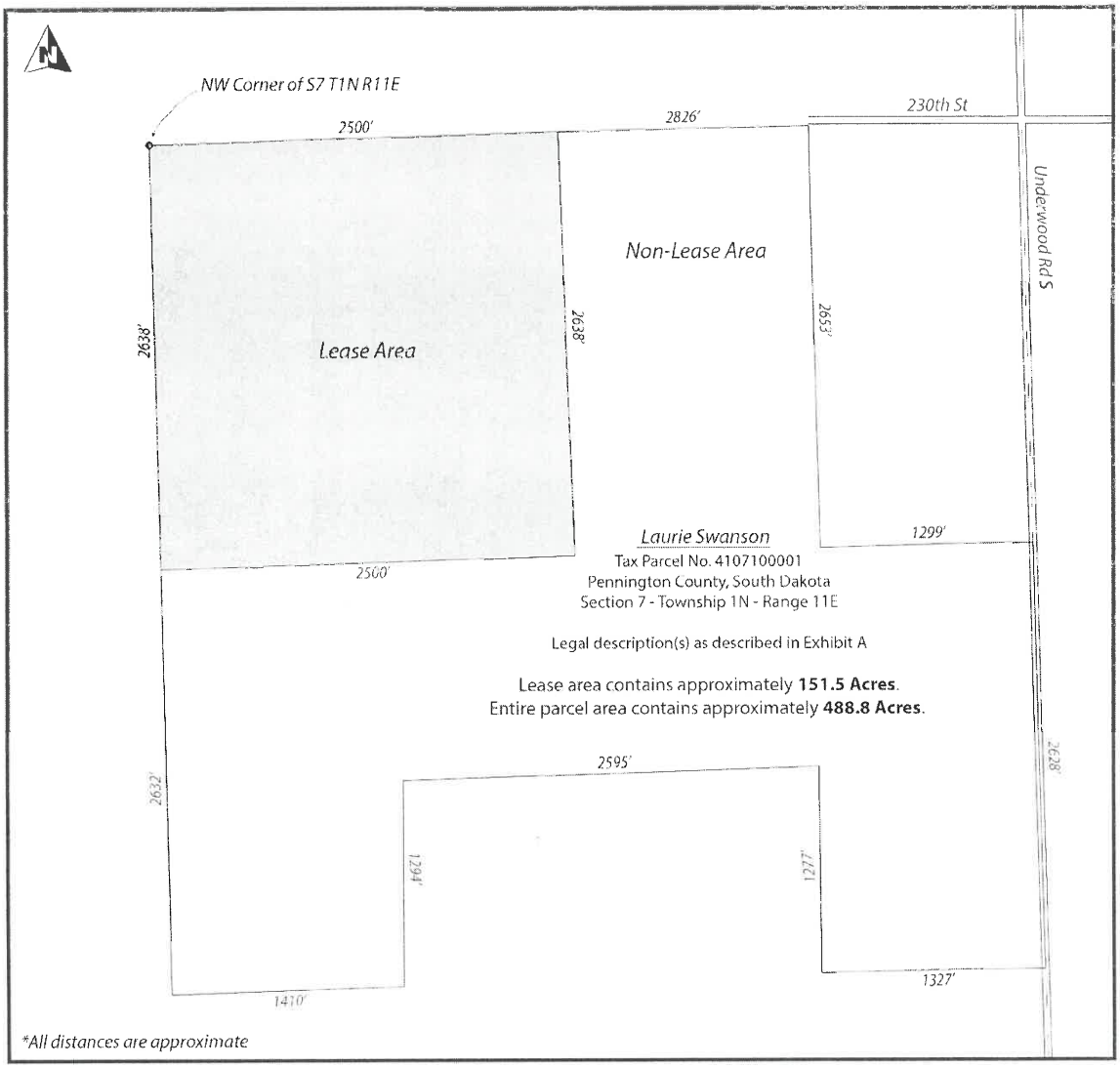
Tax Parcel No(s): 41-07-100-001

The W ½ NE ¼, E ½ NW ¼; Government Lots 1, 2, 3, and 4; the NE ¼ SW ¼, N ½ SE ¼, SE ¼ SE ¼, Less the ROW, in Section 7, Township 1 North, Range 11 East of the Black Hillis Meridian, Pennington County, South Dakota.

The parcels contain approximately 488.8 **acres more or less.**

EXHIBIT A-1
TO MEMORANDUM

SITE PLAN



A201909294
July 29, 2019 9:09 AM
Donna M. Mayer
Pennington County, SD
$30.00
Pgs: 8

Drafted by and upon recording return to:
Wild Springs Solar, LLC
c/o Geronimo Energy, LLC
Attn: Director of Real Estate
7650 Edinborough Way, Suite 725
Edina, MN 55435
952-988-9000

MEMORANDUM OF LAND LEASE AND SOLAR EASEMENT

THIS MEMORANDUM OF LAND LEASE AND SOLAR EASEMENT ("**Memorandum of Lease**") is entered into this 19th day of June, 2019 by and between Laurie A. Swanson and Steven G. Swanson, wife and husband ("**Lessor**"), with an address of 904 S A Ave, New Underwood, SD 57761 and Wild Springs Solar, LLC, a Minnesota limited liability company ("**Lessee**"), with an address of 7650 Edinborough Way, Suite 725, Edina, MN 55435.

RECITALS:

A. Lessor and Lessee have entered into a certain Land Lease and Solar Easement dated June 19th, 2019 (the "**Lease Agreement**"), whereby Lessor has agreed to lease to Lessee certain real property, together with access easement rights and a Solar Easement across said premises in the County of Pennington, State of South Dakota, and being more particularly described in Exhibit A attached hereto and made a part hereof (the "**Premises**").

B. The parties wish to give notice of the existence of such Lease Agreement.

IN CONSIDERATION of the sum of One and 00/100 Dollar ($1.00) and other good and valuable consideration, the receipt of which is hereby acknowledged, the parties hereto agree as follows:

1. Lessor and Lessee entered into that certain Land Lease and Solar Easement dated as of June 27, 2016, which was filed for record July 25, 2016 as Doc. No. A201609822, that certain Land Lease and Solar Easement dated as of June 27, 2016, which was filed for record July 25, 2016 as Doc. No. A201609823 (the "**Original Agreements**"), relating to the Premises. The Lease Agreement terminates and supersedes the Original Agreements in their entirety.

2. Lessor and Lessee have entered into the Lease Agreement dated June 19th, 2019 (the "**Effective Date**") to lease and demise the Premises for solar energy purposes and to grant access and solar easements. Pursuant to the Lease Agreement, Lessee has the exclusive right to use the Premises for commercial solar energy purposes, together with certain related solar, access and other easement rights and other rights related to the Premises, all as more fully described in the Lease Agreement. Commercial solar energy purposes means converting solar energy into electrical energy and collecting and transmitting the electrical energy so converted, together with any and all activities related thereto.

3. The initial term of the Lease Agreement is for a period of five (5) years, commencing on the Effective Date and ending on the 19th day of June, 2024 (the "**Development Period**"). The Lease Agreement shall automatically be extended for a Construction Period, as defined below, upon the earlier of (i) the date when construction of solar facilities on the Premises commences ("**Construction Date**"); or (ii) date when Lessor receives written notice from Lessee of Lessee's election to extend the term of the Lease Agreement for the Construction Period ("**Construction Period Notice Date**"). The Construction Period of the Lease Agreement ("**Construction Period**") is two (2) years from the earlier of either of the Construction Date or the Extended Term Notice Date unless sooner terminated in accordance with the terms of the Lease Agreement. The Lease Agreement shall automatically be extended for an Extended Term, as defined below, upon the earlier of (i) the date when the Project begins commercial operation ("**Commercial Operation Date**"); or (ii) date when Lessor receives written notice from Lessee of Lessee's election to extend the term of the Lease Agreement for the Extended Term ("**Extended Term Notice Date**"). The Extended Term of the Lease Agreement ("**Extended Term**") is twenty (20) years from the commencement of the Extended Date unless sooner terminated in accordance with the terms of the Lease Agreement. Lessee has a right to renew the Extended Term for two (2) additional periods of ten (10) years upon written notice to Lessor.

4. Lessor shall have no ownership and other interest in any solar facilities installed on the Premises by Lessee, except as provided in Section 4.3 of the Lease and Lessee may remove any or all solar facilities at any time.

5. Except for any competing developers of solar energy projects, Lessee shall accommodate the reasonable development of essential services on the Premises, including any electric transmission and distribution lines and associated facilities, telecommunications facilities, and rural water systems, provided that such services do not interfere with the Solar Facilities.

6. Lessee and any successor or assign of Lessee has the right under the Lease, without need for Lessor's consent, to do any of the following, conditionally or unconditionally, with respect to all or any portion of the Premises for solar energy purposes: grant co-leases, separate leases, subleases, easements, licenses or similar rights (however denominated) to one or more third parties; or sell, convey, lease, assign, mortgage, encumber or transfer to one or more third parties or to any affiliate of Lessee's this Lease, or any right or interest in this Lease, or any or all right or interest of Lessee in the Premises or in any or all of the solar power facilities that Lessee or any other party may now or hereafter install on the Premises provided that (i) any such assignment, transfer or conveyance shall not be for a period beyond the term of the Lease; (ii) the assignee or transferee shall be subject to all of the obligations, covenants and conditions applicable to the

Lessee; and (iii) Lessee shall not be relieved from liability for any of its obligations under the Lease by virtue of the assignment or conveyance unless Lessee assigns or conveys all of its interests under the Lease to the assignee or transferee, in which event Lessee shall have no continuing liability.

7. The Lease Agreement and the easement and rights granted Lessee therein shall burden the Premises and shall run with the land. The Lease Agreement shall inure to the benefit of and be binding upon and Lessee and, to the extent provided in any assignment or other transfer under the Lease Agreement, any assignee or Lessee, and their respective heirs, transferees, successors and assigns, and all persons claiming under them.

8. This Memorandum of Lease has been executed and delivered by the parties for the purpose of recording and giving notice of the lease and easement rights in accordance with the terms, covenants and conditions of the Lease Agreement.

9. The terms and conditions of the Lease Agreement are incorporated by reference into this Memorandum of Lease as if set forth fully herein at length. In the event of any conflict between the terms and provisions of the Lease Agreement and this Memorandum of Lease, the Lease Agreement shall control.

The remainder of this page is intentionally blank.

LESSOR SIGNATURE PAGE

LESSOR

Laurie A. Swanson

Steven G. Swanson

STATE OF SOUTH DAKOTA)
) ss.
COUNTY OF Pennington)

On the 19th day of June, 2019, before me D Brett Hansen the undersigned, personally appeared Laurie A. Swanson and Steven G. Swanson, wife and husband, known to me or satisfactorily proven to be the person(s) whose name(s) is (are) subscribed to the instrument and acknowledged that he/she/they executed the same for the purposes therein contained.

In witness whereof I hereunto set my hand and official seal.

D. BRETT HANSEN NOTARY PUBLIC STATE OF SOUTH DAKOTA Seal

Notary Public
My commission expires 11-08-2019

LESSEE SIGNATURE PAGE

Wild Springs Solar, LLC

By:_____
Jeff Ringblom, Chief Financial Officer

STATE OF MINNESOTA)
) ss.
COUNTY OF HENNEPIN)

The foregoing instrument was acknowledged before me this 24th day of July, 2019, by Jeff Ringblom, the Chief Financial Officer of Wild Springs Solar, LLC, a Minnesota limited liability company, on behalf of the limited liability company.

_____
Notary Public

BRIANA MEGHAN SCHNAIBLE
Notary Public
State of Minnesota
My Commission Expires
January 31, 2020

EXHIBIT A
TO MEMORANDUM

DESCRIPTION OF PREMISES

Tax Parcel No(s): 23-36-400-001

The Southeast Quarter (SE ¼) in Section 36, Township 2 North, Range 10 East of the Black Hills Meridian, Pennington County, South Dakota.

Tax Parcel No(s): 23-36-200-002

That part of the South Half of the Northeast Quarter (S ½ NE ¼) lying south of the railroad right of way in Section 36, Township 2 North, Range 10 East of the Black Hills Meridian, Pennington County, South Dakota.

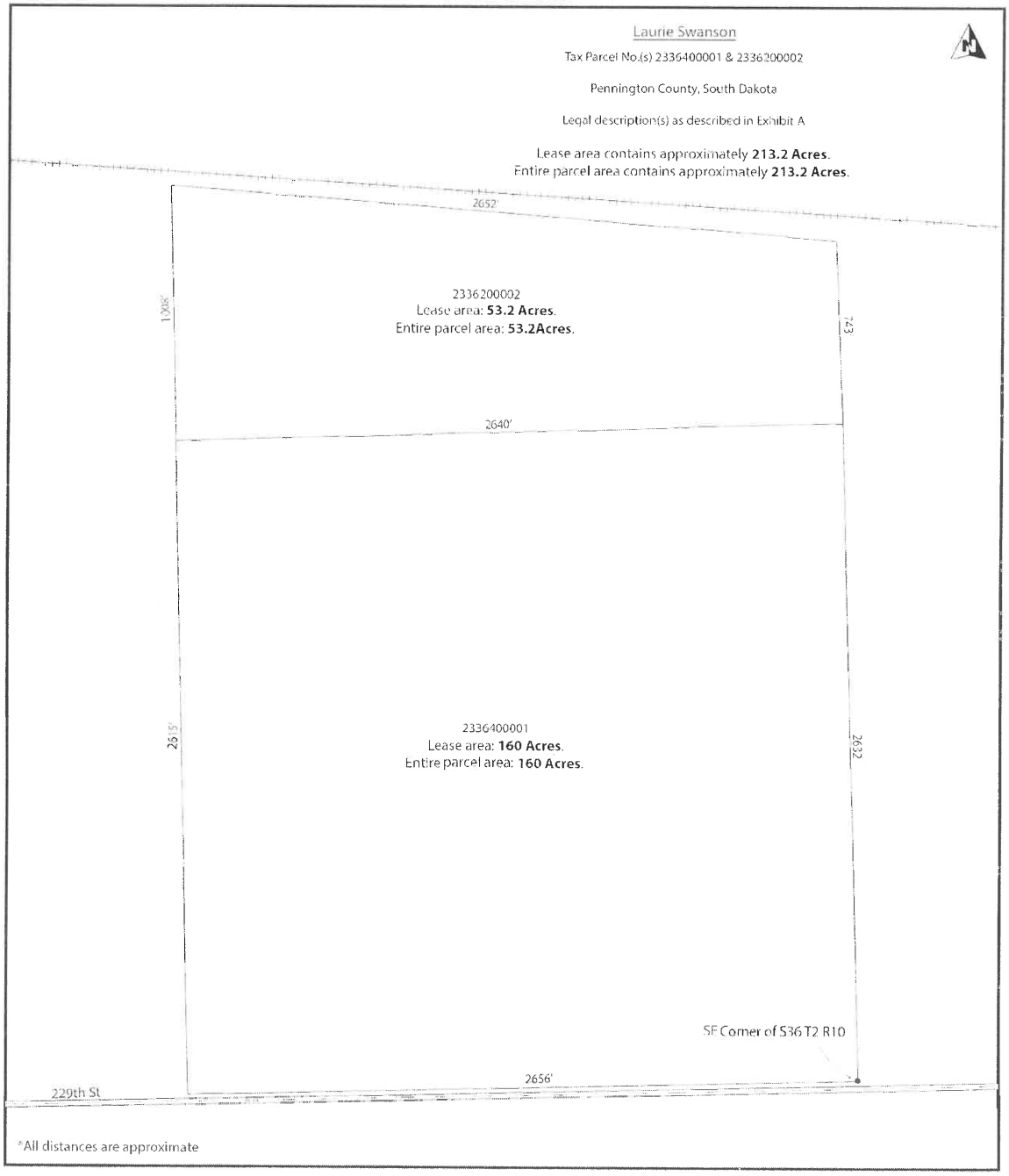
Tax Parcel No(s): 41-06-300-001

The East Half of the Southwest Quarter (E ½ SW ¼) and the West Half of the Southeast Quarter (W ½ SE ¼) of Section Six (6), Township 1 North, Range 11 East of the Black Hills Meridian, Pennington County, South Dakota.

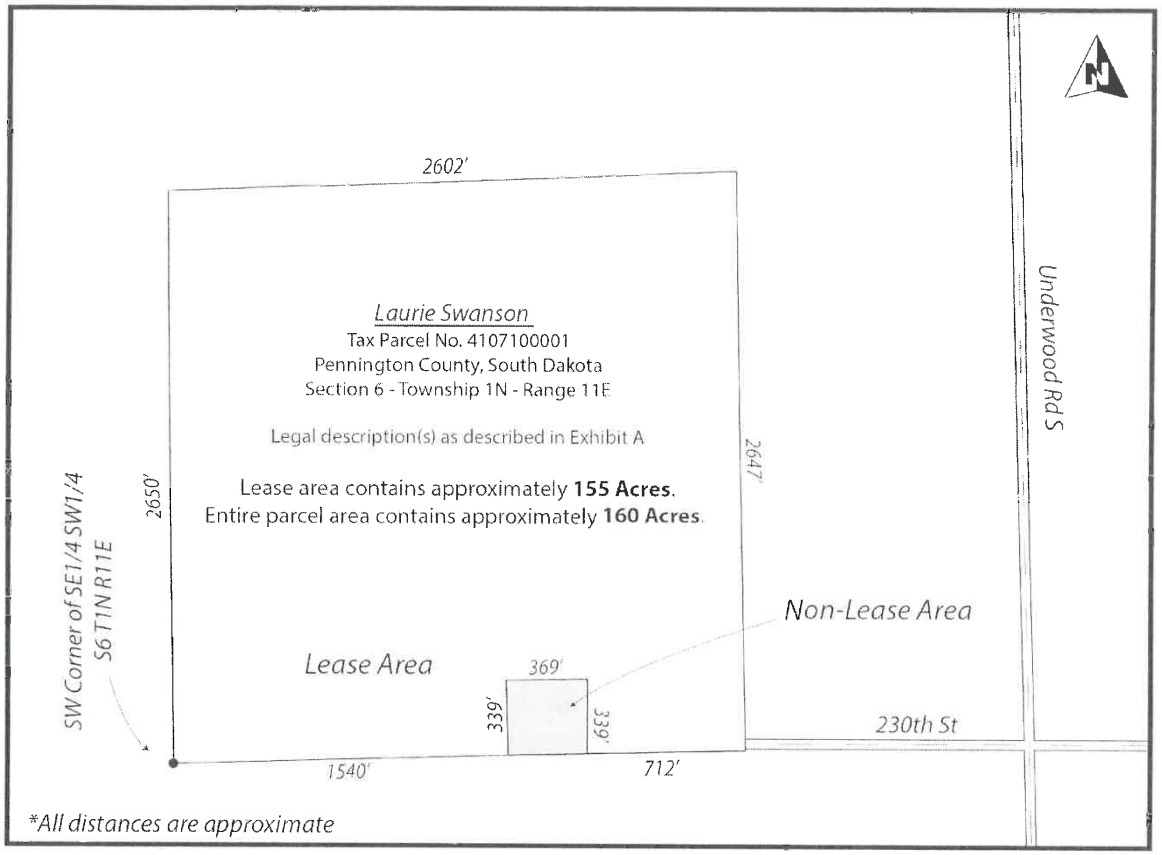
The parcels contain approximately 373.2 **acres more or less.**

EXHIBIT A-1
TO MEMORANDUM

SITE PLAN



(Exhibit A-1 continued next page)


2602'
Laurie Swanson
Tax Parcel No. 4107100001
Pennington County, South Dakota
Section 6 - Township 1N - Range 11E
Legal description(s) as described in Exhibit A
Lease area contains approximately 155 Acres.
Entire parcel area contains approximately 160 Acres.
2647'
2650'
SW Corner of SE1/4 SW1/4
S6 T1N R11E
Underwood Rd S
Non-Lease Area
Lease Area
369'
339'
339'
230th St
1540'
712'
*All distances are approximate

DRAFTED BY AND UPON RECORDING RETURN TO:
WILD SPRINGS SOLAR, LLC
c/o GERONIMO ENERGY, LLC
8400 NORMANDALE LAKE BLVD, SUITE 1200
BLOOMINGTON, MN 55437

LAND LEASE AND SOLAR EASEMENT
SOUTH DAKOTA

Execution of Document

South Dakota law requires that this document may not be executed by the parties until at least 10 business days after it has been delivered to the property owner. The property owner acknowledges that this requirement has been satisfied by initialing below.

Property Owner, Execution Date, and Owner Initials		
Laurie A. Swanson Printed Name	Execution Date: 2 / 6 / 2020	Initials: LAS
Steven G. Swanson Printed Name	Execution Date: 2 / 6 / 2020	Initials: SS
_____ Printed Name	Execution Date: ____ / ____ / ____	Initials: _____
_____ Printed Name	Execution Date: ____ / ____ / ____	Initials: _____

AMENDMENT TO LAND LEASE AND SOLAR EASEMENT

THIS AMENDMENT TO LAND LEASE AND SOLAR EASEMENT (this "**Amendment**") is made and entered into as March 10, 2020 (the "**Effective Date**"), by and between Laurie A. Swanson and Steven G. Swanson, wife and husband, whose address is 904 S A Ave, New Underwood, SD 57761 ("**Lessor**"), and Wild Springs Solar, LLC, a Minnesota limited liability company, whose address is 8400 Normandale Lake Blvd, Suite 1200, Bloomington, MN 55437 ("**Lessee**").

RECITALS

A. Lessee and Lessor are parties to that certain Land Lease and Solar Easement dated June 19, 2019 ("**Agreement**") relating to certain real property in Pennington County, South Dakota (the "**Property**" as more fully described in the Lease), a memorandum of which was filed on July 29, 2019 as Document No. A201909293. Capitalized terms, unless otherwise defined herein, shall have the meanings ascribed to them in the Agreement.

B. The parties desire to amend the Lease as set forth herein.

AGREEMENT

NOW, THEREFORE, in consideration of the premises and the mutual covenants herein contained, Lessor and Lessee agree as follows:

1. The Recitals set forth above is true and correct in all material respects and incorporated herein by reference.

2. The "Site Plan" referred to in Section 1.1 (a) and attached as Exhibit A-1 of the Lease is hereby deleted in its entirety and replaced with the Site Plan on Exhibit A-1 attached hereto. From and after the Effective Date hereof, all references to the "Site Plan" in the Lease shall refer to the Site Plan attached hereto, and all references to the "Premises" in the Lease shall refer to the Premises as identified in the attached Site Plan.

3. The Lease, as amended by this Amendment, constitutes the entire agreement of the parties with respect to the matters contained herein and may be further amended only in writing signed by both of the parties hereto. Except as specifically set forth in this Amendment, all terms and conditions in the Lease shall remain in full force and effect.

4. This Amendment may be executed in counterparts, each of which shall be deemed an original, which together shall constitute one and the same agreement. A facsimile transmission of an executed signature page shall be deemed an original signature page for purposes of this Amendment.

The remainder of this page is intentionally blank.

IN WITNESS WHEREOF, the parties hereto have executed this Amendment as of the day and year first above written.

LESSOR:

Laurie A. Swanson

Steven G. Swanson

LESSEE:
WILD SPRINGS SOLAR, LLC

By: _____
Jeff Ringblom, CFO

STATE OF SOUTH DAKOTA)
) ss.
COUNTY OF Pennington)

On the 6th day of February, 2020, before me D Brett Hanson the undersigned, personally appeared Laurie A. Swanson and Steven G. Swanson, wife and husband, known to me or satisfactorily proven to be the person(s) whose name(s) is (are) subscribed to the instrument and acknowledged that he/she/they executed the same for the purposes therein contained.

In witness whereof I hereunto set my hand and official seal.

Notary Public
My commission expires 12-12-2025

STATE OF MINNESOTA)
) ss.
COUNTY OF HENNEPIN)

This instrument was acknowledged before me on March 10, 2020, by Jeff Ringblom, as CFO of Wild Springs Solar, LLC, a Minnesota limited liability company, on behalf of the company.

Notary Public

BRIANA MEGHAN SCHNAIBLE
Notary Public
Minnesota
My Commission Expires
Jan 31, 2025

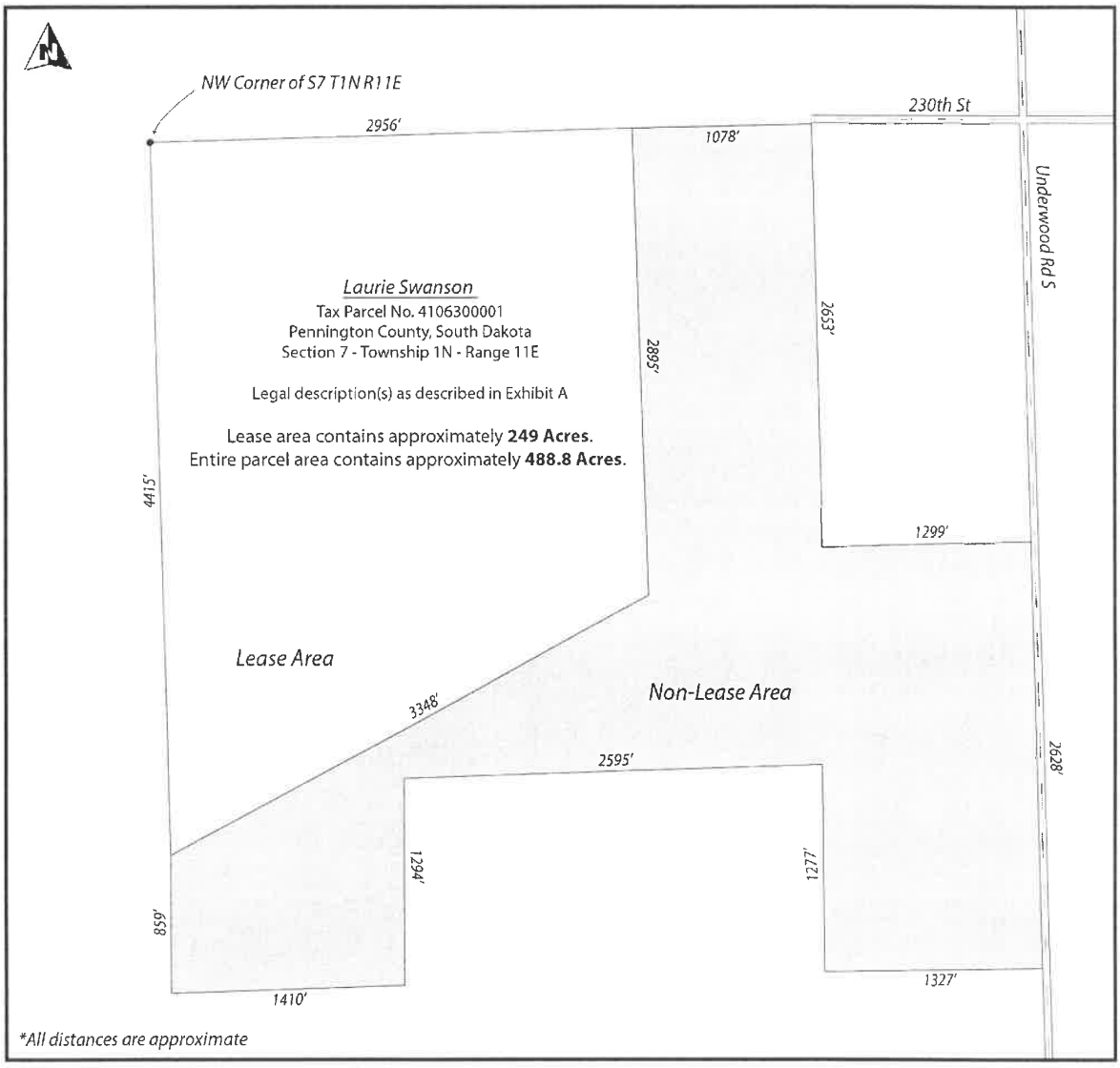
EXHIBIT A
DESCRIPTION OF PROPERTY

Tax Parcel No(s): 41-07-100-001

The W ½ NE ¼, E ½ NW ¼; Government Lots 1, 2, 3, and 4; the NE ¼ SW ¼, N ½ SE ¼, SE ¼ SE ¼, Less the ROW, in Section 7, Township 1 North, Range 11 East of the Black Hillis Meridian, Pennington County, South Dakota.

The parcels contain approximately 488.8 acres more or less.

EXHIBIT A-1
SITE PLAN



ATTACHMENT 1-5

14. Post-Construction

Upon completion of construction of the project, the applicant shall supply an "as-built" ALTA survey indicating that the proposed facility comply with the setbacks in the permit within ninety (90) days.

15. Decommissioning:

To be provided at the time of Conditional Use Permit submittal.

a. Cost Responsibility: The owner or operator of a project is responsible for decommissioning that facility and for all costs associated with decommissioning that facility and associated facilities. The decommissioning plan must clearly identify the responsible party.

b. Useful Life: A project is presumed to be at the end of its useful life if the facility generates no electricity for a continuous period of twelve (12) months. The presumption may be rebutted by submitting to the Planning Commission for approval of a plan outlining the steps and schedule for returning the project to service within twelve (12) months of the submission.

c. Decommissioning Period: The facility owner or operator must begin decommissioning a project facility within eight (8) months after the time the SES and SES facilities reaches the end of its useful life, as determined in 12(b). Decommissioning must be completed within eighteen (18) months after the facility or solar energy system reaches the end of its useful life.

d. Decommissioning Plan: Prior to approval of a Conditional Use Permit for an USES facility, the facility owner or operator must file the following documents with the Planning Director: the estimated decommissioning cost; USES and for restoring each haul road, in current dollars at the time of the application, for the proposed facility; a decommissioning plan that describes how the facility owner will ensure that resources are available to pay for decommissioning the facility at the appropriate time. The Planning Commission will review a plan filed under this section and shall approve or disapprove the plan in conjunction with the Conditional Use Permit application. The Planning Commission or Planning Director may at any time require the owner or operator of a project to file a report describing how the project owner or operator is fulfilling this obligation.

e. Decommissioning Requirements: To the extent possible, the site must be restored and reclaimed to the topography and topsoil quality that existed just prior to the beginning of the construction of the project. The landowner may request in writing that the access roads be retained. Decommissioning and site restoration, includes signing appropriate haul road agreements for the decommissioning process. Dismantling and removal of all USES-related equipment, foundations, buildings and ancillary equipment to a depth of forty-two (42) inches. Removal of

surface road material and restoration of the roads and USES sites to substantially the same physical condition that existed immediately before construction of the project.

f. Financial Assurance: Before construction begins on the project, the facility owner shall provide to the Planning Department a certificate of insurance, including either a performance or surety bond, which covers the total cost to decommission the facility. The certificate of insurance shall be renewed and a copy submitted to the Planning Department each year the facility is in operation.

g. Failure to Decommission: If the project facility owner or operator does not complete decommissioning, the Planning Commission may take such action, as may be necessary, to complete decommissioning, including requiring forfeiture of the bond. The entry into a participating landowner agreement constitutes agreement and consent of the parties to the agreement, their respective heirs, successors, and assigns, that the Planning Commission may take such action as may be necessary to decommission a project facility and seek additional expenditures necessary to do so from the facility owner.

16. Violation

It is unlawful for any person to construct, install, or operate a Solar Energy System that is not in compliance with this section or with any condition contained in a Building Permit issued pursuant to this section. Solar Energy System facilities installed prior to the adoption of this section are exempt.

B. WIND ENERGY SYSTEMS

1. Purpose

a. The purpose of this section is to ensure that the placement, construction and modification of a Wind Energy System (WES) facility is consistent with the County's land use policies, to minimize the impact of WES facilities, to establish a fair and efficient process for review and approval of applications, to assure a comprehensive review of such facilities, and to protect the health, safety, and welfare of Pennington County's citizens.

2 Federal, State, and Local Requirements

a. All Wind Energy System (WES) facilities must meet or exceed standards and regulations of the Federal Aviation Administration (FAA) and South Dakota Statutes and any other agency of federal or state government with the authority to regulate WES facilities.

Updated Table 9.1-1 Soil Map Units within the Land Control Area

Map Unit Symbol	Map Unit Name	Wind Erosion		Water Erosion			Acres in Land Control Area	Percent of Land Control Area
		WEG	*Rating*	*Slope*	*Kw*	*Rating*		
ArA	Arvada loam, 0 to 3 percent slopes	5	Not highly wind erodible	2	0.49	Not highly water erodible	14.0	0.9
BfA	Beckton silt loam, 0 to 4 percent slopes	6	Not highly wind erodible	2	0.37	Not highly water erodible	11.7	0.8
HpB	Hisle silt loam, 0 to 6 percent slopes	6	Not highly wind erodible	3	0.43	Not highly water erodible	182.0	12.1
KyA	Kyle clay, 0 to 2 percent slopes	4	Not highly wind erodible	1	0.37	Not highly water erodible	531.4	35.6
KyB	Kyle clay, 2 to 6 percent slopes	4	Not highly wind erodible	4	0.37	Not highly water erodible	204.3	13.6
Lo	Lohmiller silty clay	4	Not highly wind erodible	1	0.20	Not highly water erodible	22.7	1.5
NuA	Nunn loam, 0 to 2 percent slopes	6	Not highly wind erodible	1	0.28	Not highly water erodible	98.2	6.5
NuB	Nunn loam, 2 to 6 percent slopes	6	Not highly wind erodible	4	0.28	Not highly water erodible	97.2	6.5
PeB	Pierre clay, 2 to 6 percent slopes	4	Not highly wind erodible	4	0.37	Not highly water erodible	235.7	15.8
PeC	Pierre clay, 6 to 9 percent slopes	4	Not highly wind erodible	8	0.37	Highly water erodible	10.9	0.7
PeD	Pierre clay, 6 to 20 percent slopes	4	Not highly wind erodible	13	0.37	Highly water erodible	3.6	0.2
SzB	Swanboy clay, 0 to 3 percent slopes	4	Not highly wind erodible	1	0.37	Not highly water erodible	84.3	5.6
W	Water	N/A	N/A	N/A	N/A	N/A	2.6	0.2
	Totals						**1,498.6**	**100**

Erodible Soils

Erosion is a natural process where surface soils are worn away, generally resulting from water and wind forces that can be accelerated by human disturbance. Factors that influence the magnitude of erosion include soil texture, soil structure, length and percent of slope, existing vegetative cover, and rainfall. The most erosion-prone soils are generally bare or sparsely vegetated, non-cohesive, fine textured, and situated on moderate to steep slopes. Soils on steep, long slopes are much more susceptible to water erosion than those on short slopes because the steeper slopes accelerate the flow of surface runoff. Soils more resistant to erosion include those that are well-vegetated, well-structured with high percolation rates, and situated on flat to nearly level terrain.

Water Erodible Soils

Definition/Context:

Soils most susceptible to water erosion are typified by bare or sparse vegetative cover, non-cohesive soil particles, low infiltration rates, and/or moderate to steep slopes. Soils more typically resistant to water erosion include those that occupy low relief areas, are well vegetated, and have high infiltration capacity and internal permeability. The potential for soils to be eroded by water was evaluated based on the K factor, where available, and slope. The K factor represents a relative quantitative index of the susceptibility of bare soil to particle detachment and transport by water and is one of the factors used in the Revised Universal Soil Loss Equation to calculate soil loss. K factor values range from 0.02 to 0.69. Soils with a slope greater than 15 percent or soils with a K value of greater than 0.35 and slopes greater than 5 percent are considered highly erodible by water.

Criteria:

For soils to be considered water erodible, they must have a slope greater than 15 percent ***or*** have a K value greater than 0.35 and slopes greater than 5 percent. None of the soils in the Land Control Area are considered water erodible.

Wind Erodible Soils

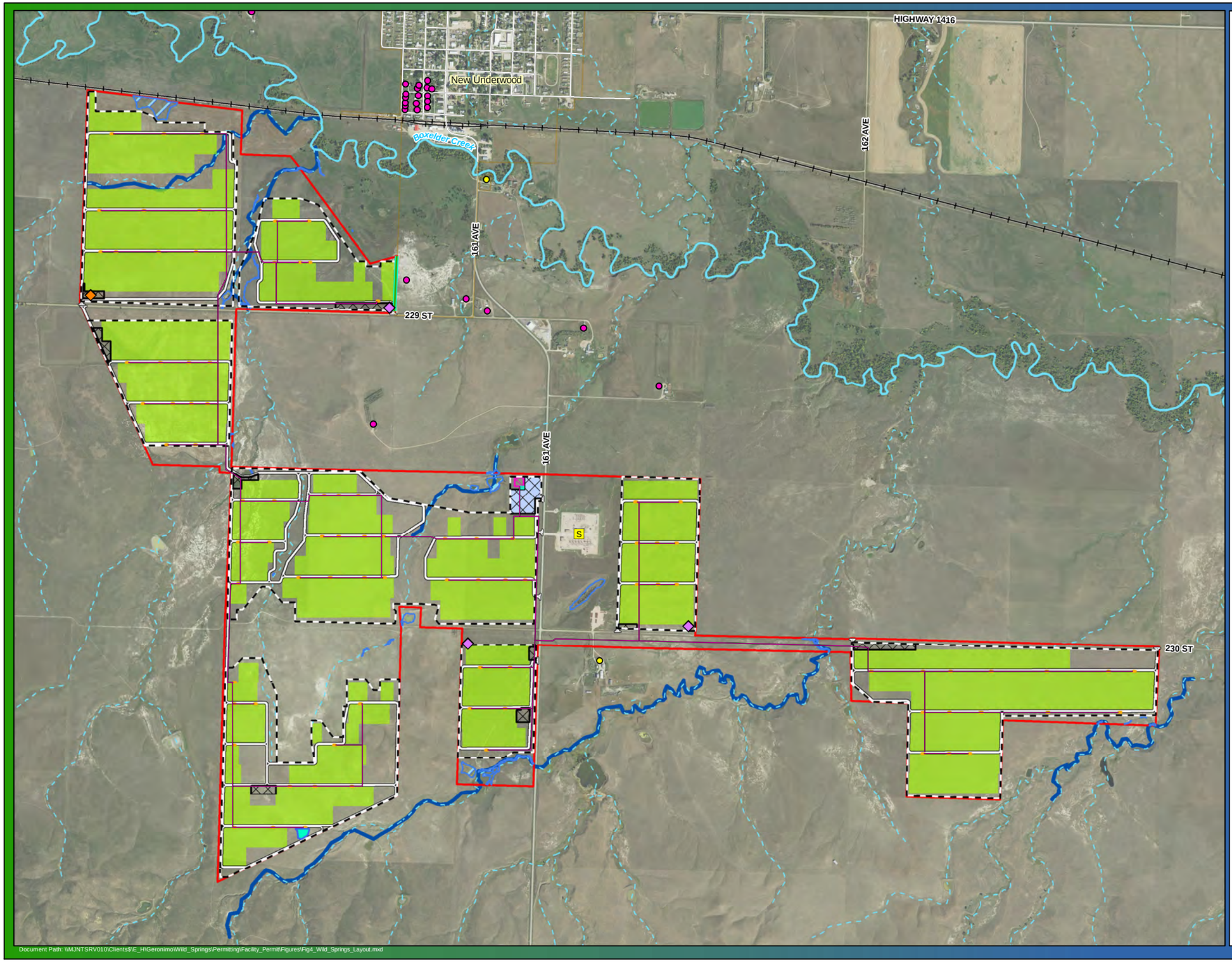
Definition/Context:

Susceptibility to wind erosion is less affected by slope angles and is more directly influenced by physical soil factors including moisture, texture, calcium carbonate content, and organic matter; and landform and landscape conditions including soil roughness factors, unsheltered distance, and vegetative cover. Wind Erodibility Groups (WEGs) are a direct indicator of the inherent susceptibility of soils to wind erosion. WEGs may range from 1 to 8, with 1 being the highest potential for wind erosion, and 8 the lowest (USDA NRCS 2020). Soils with WEGs of 2 or less are considered highly erodible due to wind.

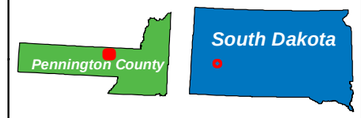
Criteria:

For soils to be considered wind erodible, they must have a WEG designation of 1 or 2. None of the soils in the Land Control Area are wind erodible.

U.S. Department of Agriculture, Natural Resources Conservation Service. National soil survey handbook, title 430-VI. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/ref/?cid=nrcs142p2_054242. Accessed April 2020.



ATTACHMENT 1-14(A)



0 0.1 0.2 0.4
Miles

N

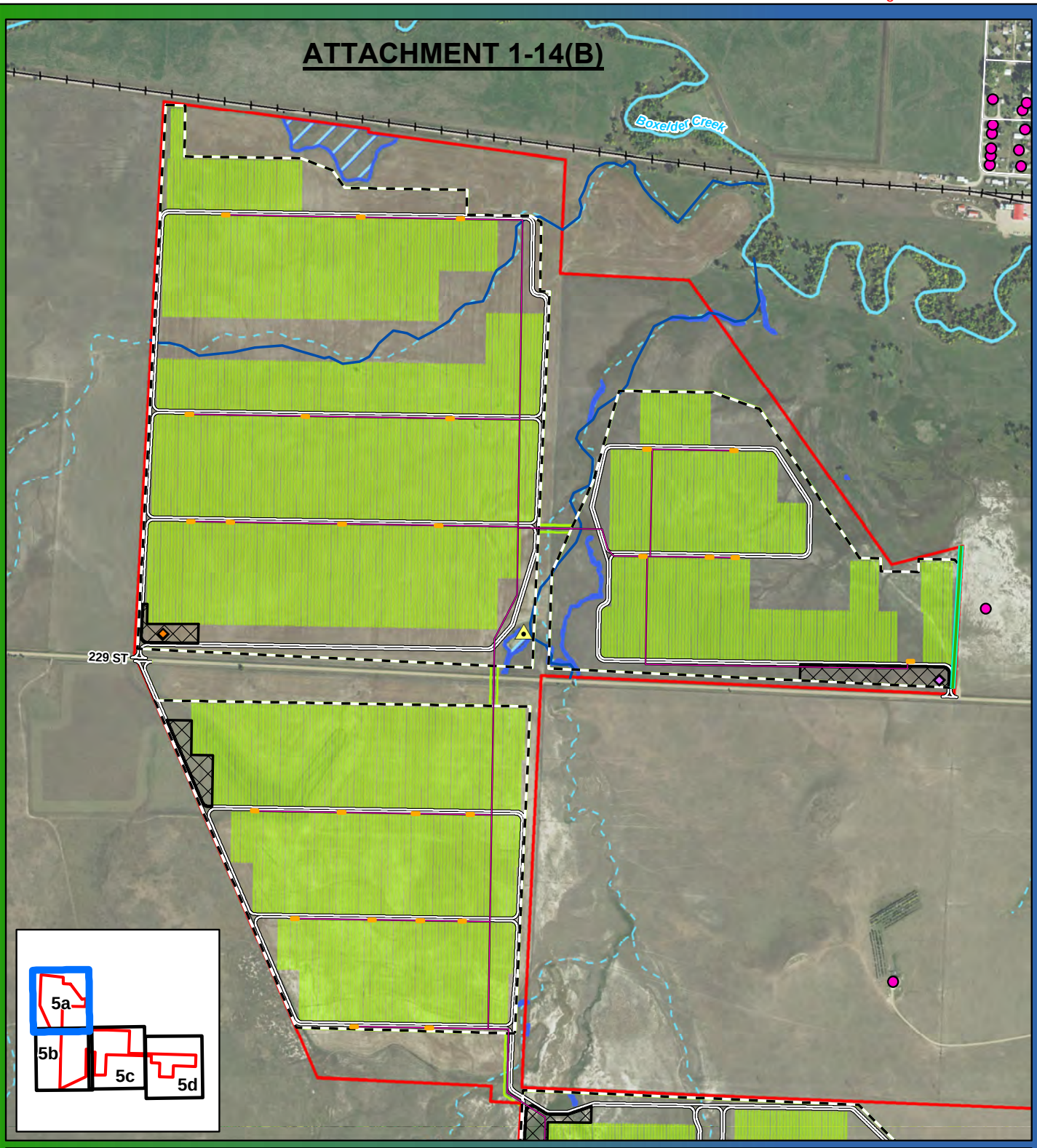
- Existing Substation
- Participating Residence
- Non-Participating Residence
- Proposed Weather Station
- Existing Weather Station
- Vegetative Screening
- Collection Line
- Inverter
- Security Fence
- O&M Facility
- Project Substation
- Stormwater Basin
- Laydown Area
- Laydown/Parking Area
- Access Road
- Solar Array
- Land Control Area
- Field Delineated Wetlands
- Perennial Stream (NHD)
- Intermittent Stream (NHD)
- COE Jurisdictional Waterway
- Railroad

Figure 4
Preliminary
Project Layout
Wild Springs Solar Project
Pennington County, SD

WILD SPRINGS SOLAR

Document Path: \\MJNTSRV010\Clients$\E_H\Geronimo\Wild_Springs\Permitting\Facility_Permit\Figures\Fig4_Wild_Springs_Layout.mxd

ATTACHMENT 1-14(B)



WILD SPRINGS SOLAR

0 0.1 0.2 Miles

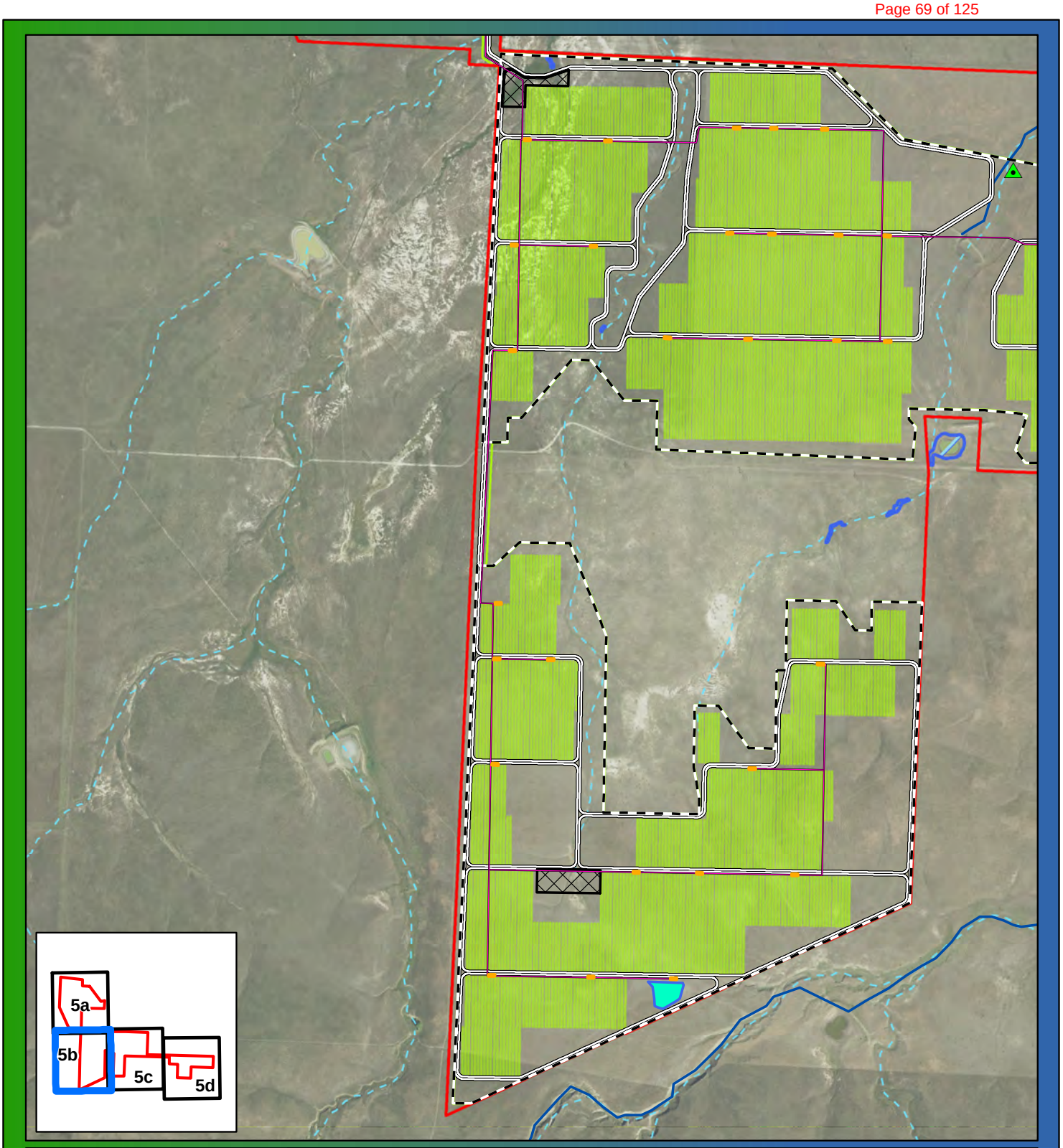
1:10,000

Figure 5a
Detailed Preliminary Project Layout
Wild Springs Solar Project
Pennington County, SD

- Water Rights
- Non-Participating Residence
- Proposed Weather Station
- Existing Weather Station
- Collection Line
- Vegetative Screening
- Land Control Area
- Laydown Area
- Inverter
- Security Fence
- Access Road
- Solar Array
- Field Delineated Wetlands
- Perennial Stream (NHD)
- Intermittent Stream (NHD)
- COE Jurisdictional Waterway
- Railroad

Document Path: \\MJNTSRV010\Clients$\E_H\Geronimo\Wild_Springs\Permitting\Facility_Permit\Figures\Fig5a_Wild_Springs_Layout_Detail.mxd

brian.schreurs Date: 6/10/2020



WILD SPRINGS SOLAR

0 0.1 0.2 Miles

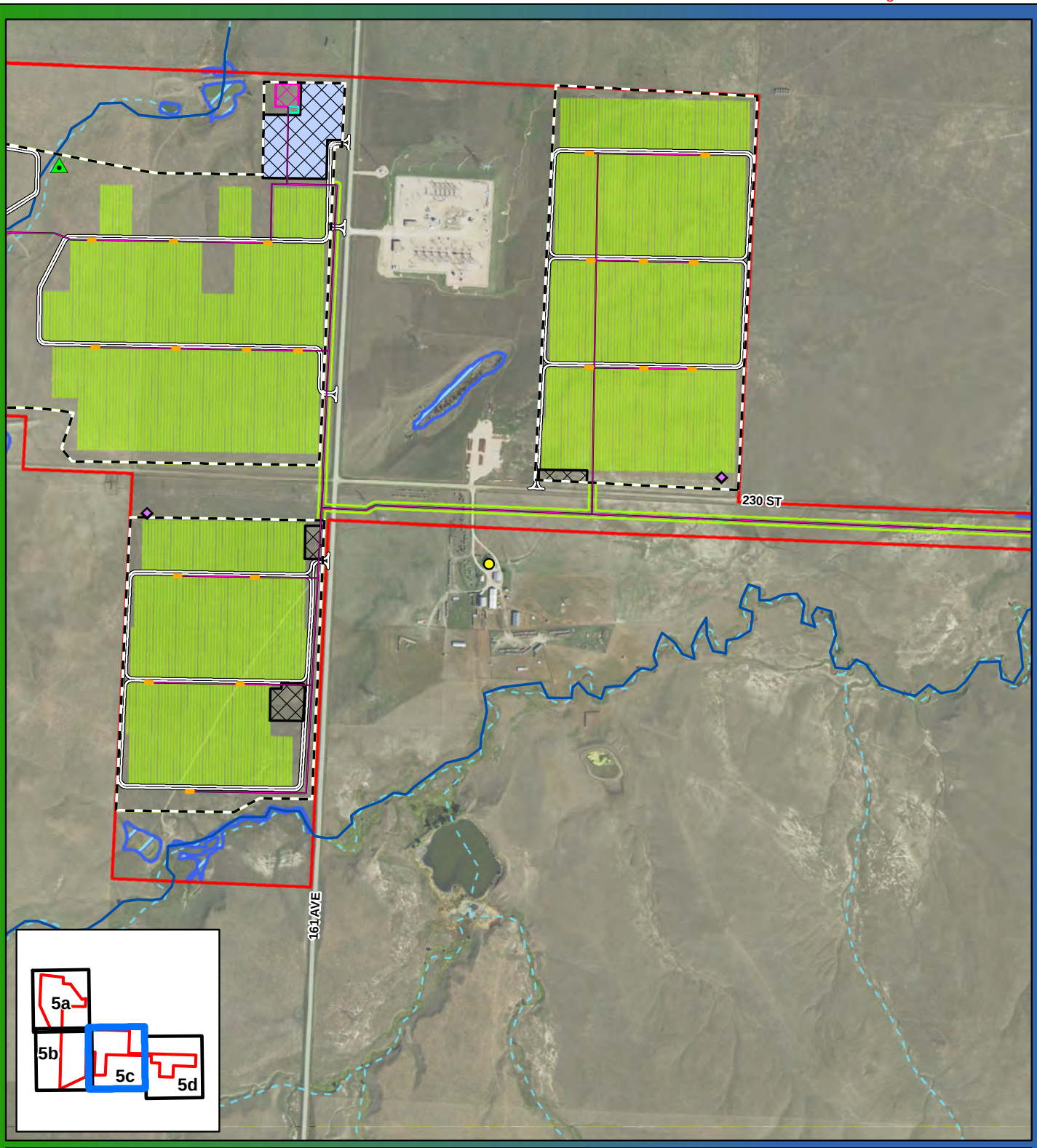
1:10,000

Figure 5b
Detailed Preliminary Project Layout
Wild Springs Solar Project
Pennington County, SD

- Dry Draw Location Notice
- Collection Line
- Land Control Area
- Laydown Area
- Inverter
- Security Fence
- Access Road
- Solar Array
- Stormwater Basin
- Field Delineated Wetlands
- Intermittent Stream (NHD)
- COE Jurisdictional Waterway

Document Path: \\MJNTSRV010\Clients$\E_H\Geronimo\Wild_Springs\Permitting\Facility_Permit\Figures\Fig5a_Wild_Springs_Layout_Detail.mxd

brian.schreurs Date: 6/10/2020



WILD SPRINGS SOLAR

0 0.1 0.2 Miles

1:10,000

Figure 5c
Detailed Preliminary Project Layout
Wild Springs Solar Project
Pennington County, SD

- Dry Draw Location Notice
- Participating Residence
- Proposed Weather Station
- Collection Line
- Land Control Area
- Laydown Area
- Laydown/Parking Area
- Inverter
- Security Fence
- Access Road
- O&M Facility
- Project Substation
- Solar Array
- Field Delineated Wetlands
- Intermittent Stream (NHD)
- COE Jurisdictional Waterway

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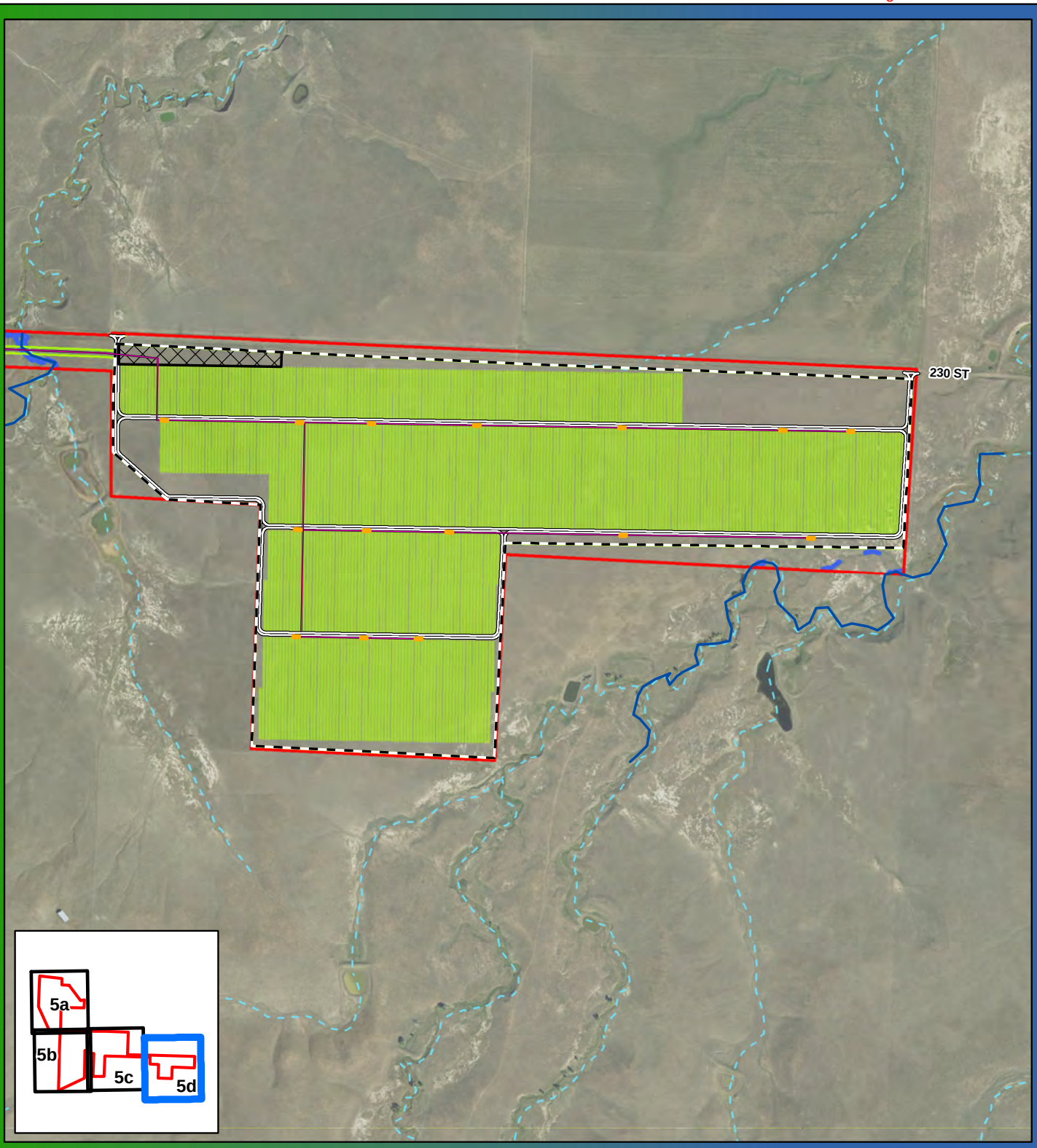
brian.schreurs Date: 6/10/2020



WILD SPRINGS SOLAR

0 0.1 0.2 Miles

1:10,000

Figure 5d
Detailed Preliminary Project Layout
Wild Springs Solar Project
Pennington County, SD

- Collection Line
- Land Control Area
- Laydown Area
- Inverter
- Security Fence
- Access Road
- Solar Array
- Field Delineated Wetlands
- Intermittent Stream (NHD)
- COE Jurisdictional Waterway

Document Path: \\MJNTSRV010\Clients$\E_H\Geronimo\Wild_Springs\Permitting\Facility_Permit\Figures\Fig5a_Wild_Springs_Layout_Detail.mxd

brian.schreurs Date: 6/10/2020

Western Area Power Administration

Wild Springs Solar Project
Scoping Meeting – Open House
New Underwood Community Center
Tuesday, March 3rd, 2020

ATTACHMENT 1-20

- Please Print -

First	Last	Street/PO Address, City, State, Zip	Email (*optional*)	Organization (*optional*)
Tammy	Bills	16147 233rd St	billstammy586@gmail	—
David	Gunderson	PO Box 1032 Box Elder 57719		
Carol Phillips	Phillips	17310 Hwy 14/16 Owanka		
Lorraine ~~Holliday~~	HOLLIDAY	16250 - 233rd St New Underwood, SD	mlholliday@gwtc.net	—
Truly	Brassfield	22145 158th Ave N. 11 SD 57761		
James	Szymonski	1015. Monroe Ave. New Underwood SD 57761	papajim4u@hotmail.com	—
Howard	Knuppe	New Underwood		

- Please Print -

First	Last	Street/PO Address, City, State, Zip	Email	Organization
Scott	Edoff	16494 Lower Spring Creek Rd Hermosa SD		
Ryan	Gustafson	2715 Jackson Blvd Rapid city SD 57702	Ryang@heavyconstructorscom	Heavy Constructors
Sandy	Hale	421 E Enchanted Pines R.C. 57701	—	—
James	Halverson	426 St Joseph St Rapid City, SD 57701	Jamesh@southdakotastockgrowers.org	SD Stockgrowers
Meri Jo	Anderson	22545 160th Ave		City of New Underwood
Robert	Raker	3250 E Hwy 44		
Jack	Trullinger	PO Box 86	JWTRULL@GWTC.net	City of New Underwood (mayor)
Duane	Anderson	22690 159 Ave NU		
Cory Trapp	Trapp	22420 154th Ave BE SD 57769		REPC

- Please Print -

First	Last	Street/PO Address, City, State, Zip	Email	Organization
Dean	Hachens	Pioneer Rd New Underwood S.D. 57761		
Gene & Alma	Crosbie	New Underwood, SD		
Arlen	Carmichael	New Underwood SD		
Taylor/ Haven	Stuck	[redacted] Caputa	Taylor.Stuck@gmail.com	
Brady	Carmichael	161 ST Ave New Underwood, SD		
Teresa	Gossard	16056 229th St PO Box 3 New Underwood	tgossard@gwtc.net	
Roger	Bills	NU		
Larry	Gossard	New Underwood, SD		
Larry L.	Graham	P.O. Box 87 New Underwood, SD 57761	grahampa@gwtc.net	

BEFORE THE PUBLIC UTILITIES COMMISSION

OF THE STATE OF SOUTH DAKOTA

IN THE MATTER OF THE APPLICATION BY WILD SPRINGS SOLAR, LLC FOR A PERMIT OF A SOLAR ENERGY FACILITY IN PENNINGTON COUNTY, SOUTH DAKOTA	* * * * * * * *	**APPLICANT'S RESPONSES TO STAFF'S SECOND SET OF DATA REQUESTS TO APPLICANT** **EL 20-018**

Below, please find Wild Springs Solar, LLC's ("Applicant") responses to Staff's Second Set of Data Requests to Applicant.

2-1) Referring to Applicant's response to data request 1-2, please provide an update on the vegetative screening plan. If the plan has not yet been finalized, please identify when the Applicant expects to finalize the plan.

Jay Hesse: Based on input from the Pennington County Soil Conservation Service, soil conditioning should occur before vegetative screening is planted to help support vegetative screening growth. Wild Springs and the landowners are currently determining whether to plant vegetative screening in the future (after the landowners have planted other soil-conditioning vegetation for a season or two), or install a privacy fence instead of vegetative screening. A final decision has not been made at this time, but Wild Springs continues to work with the landowners to determine the best approach.

2-2) Referring to Appendix D, the Decommissioning Plan, please provide documentation supporting the salvage value unit cost assigned to each component type. In addition, please explain what the per unit cost of $23.87 for PV modules represents and why it is a reasonable assumption to use.

Melissa Schmit: Wild Springs is in the process of obtaining an updated Decommissioning Plan and will provide the updated plan and a response to Request 2-2 in the near future.

2-3) Refer to the Supplemental Testimony of Ms. Melissa Schmit, lines 73 – 85. Regarding the inverter, please provide the following information:

a) Please provide the noise modeling data for the inverter referenced in testimony.

Melissa Schmit: The SMA Sunny Central SC-4200-UP data sheet includes noise emission information. See Attachment 2-3(a). The data sheet indicates an estimated sound level of 67.0 dBA at a distance of 10 meters. In consultation with the manufacturer, the manufacturer confirmed the sound emission estimates in the data sheet include a margin. The manufacturer provided a White Paper, which includes the results of sound testing conducted on the inverter. The sound testing results confirm sound is reduced by 6 dBA each time the distance from the inverter is doubled, and demonstrates that the sound levels provided in the Facility Application (based on the data sheet) are conservative and actual sound levels will be less. See Attachment 2-3(b) (**CONFIDENTIAL AND PROPRIETARY**).

b) Please provide the manufacturer and model of the proposed inverter.

Melissa Schmit: The inverter referenced in Table 9A-1 of Melissa Schmit's Supplemental Testimony is a SMA Sunny Central SC-4200-UP and represents an inverter under consideration that would require the longest separation distance to reach 55 dBA.

c) Has the inverter noise modeling data provided by the manufacturer been verified by an independent third party? Please explain.

Melissa Schmit: The sound testing was performed by SMA Engineering.

d) Has this model of inverter been used at other Geronimo Energy, LLC's solar facilities? If yes, has the inverter sound level been verified for those projects? Please explain.

Melissa Schmit: Geronimo has not installed this model of inverter.

2-4) Refer to Page 13 of the Application. The Applicant states "while WAPA must analyze impacts of the entire Project, WAPA's federal action is limited to the approval of the interconnection." Please elaborate on this statement and explain what the Applicant is trying to convey to the Commission with that statement.

Brie Anderson: This is language from WAPA on their role in the federal process and how the Proposed Action in the Environmental Assessment is evaluated. Wild Springs is simply noting the Project is subject to a federal review process, who is completing it, and how it is assessed.

2-5) Refer to the Supplemental Testimony of Ms. Melissa Schmit, lines 140 – 146. Please provide the CUP issued by Pennington County with a reference to the specific condition included in the permit regarding the decommissioning financial assurance.

Melissa Schmit: Pennington County does not issue a written CUP and, instead, relies upon the minutes of the meeting at which the public hearing was held and the decision made. Pennington

County Planning Commission Minutes from the August 24, 2020 meeting at which the CUP was issued are provided as Attachment 2-5.

2-6) Refer to the Applicant's response to data request 1-1. Please provide the section of the lease agreement that establishes the lease payment (Article III. Payments and Taxes) for each of the three sets of contiguous landowners.

Jay Hesse: Article III with payment terms is provided as Attachment 2-6 (**CONFIDENTIAL AND PROPRIETARY**). The same terms apply to all three contiguous landowners.

2-7) Refer to the Applicant's response to data request 1-3. Please provide the unredacted version of the power purchase agreement.

Melissa Schmit: In response to Staff's Request 1-3, Wild Springs provided a redacted version of the Power Purchase Agreement ("PPA") with Basin Electric Power Cooperative ("Basin"). See Attachment 1-3. Pursuant to the terms of the PPA with Basin, Wild Springs is required to obtain Basin's authorization before providing an unredacted version of the PPA to Staff. Wild Springs conveyed Staff's request for an unredacted version of the PPA to Basin. Basin declined to authorize the disclosure, noting concerns regarding the agreement potentially being subject to South Dakota's open records laws and that the request seems outside of the scope of the siting regulations. Since Basin has declined to authorize disclosure of an unredacted PPA, the terms of the PPA prohibit Wild Springs from providing the unredacted PPA to Staff.

Dated this 21st day of September, 2020.

By */s/ Mollie M. Smith*

Mollie M. Smith
Haley Waller Pitts
FREDRIKSON & BYRON, P.A.
Attorneys for Applicant
200 South Sixth Street, Suite 4000
Minneapolis, MN 55402
Phone: (612) 492-7000
Fax: (612) 492-7077

ATTACHMENT 2–3(A)

SUNNY CENTRAL
4000 UP-US / 4200 UP-US / 4400 UP-US / 4600 UP-US

Efficient
- Up to 4 inverters can be transported in one standard shipping container
- Overdimensioning up to 150% is possible
- Full power at ambient temperatures of up to 25°C

Robust
- Intelligent air cooling system OptiCool for efficient cooling
- Suitable for outdoor use in all climatic ambient conditions worldwide

Flexible
- Conforms to all known grid requirements worldwide
- Q on demand
- Available as a single device or turn-key solution, including medium-voltage block

Easy to Use
- Improved DC connection area
- Connection area for customer equipment
- Integrated voltage support for internal and external loads

SUNNY CENTRAL
4000 UP-US / 4200 UP-US / 4400 UP-US / 4600 UP-US

The new Sunny Central: more power per cubic meter

With an output of up to 4600 kVA and system voltages of 1500 V DC, the SMA central inverter allows for more efficient system design and a reduction in specific costs for PV power plants. A separate voltage supply and additional space are available for the installation of customer equipment. True 1500 V technology and the intelligent cooling system OptiCool ensure smooth operation even in extreme ambient temperature as well as a long service life of 25 years.

SUNNY CENTRAL 4000 UP-US / 4200 UP-US

Technical data*	SC 4000 UP-US	SC 4200 UP-US
Input (DC)		
MPP voltage range V_{DC} (at 25 °C / at 50 °C)	880 to 1325 V / 1100 V	921 to 1325 V / 1100 V
Min. input voltage $V_{DC, min}$ / Start voltage $V_{DC, Start}$	849 V / 1030 V	891 V / 1071 V
Max. input voltage $V_{DC, max}$	1500 V	1500 V
Max. input current $I_{DC, max}$	4750 A	4750 A
Max. short-circuit current $I_{DC, sc}$	6400 A	6400 A
Number of DC inputs	24 double pole fused (32 single pole fused)	
Max. number of DC cables per DC input (for each polarity)	2 x 800 kcmil, 2 x 400 mm²	
Integrated zone monitoring	o	
Available PV fuse sizes (per input)	200 A, 250 A, 315 A, 350 A, 400 A, 450 A, 500 A	
Available battery fuse size (per input)	750 A	
Output (AC)		
Nominal AC power at cos ϕ =1 (at 25°C / at 50°C)	4000 kVA / 3400 kVA	4200 kVA / 3570 kVA
Nominal AC power at cos ϕ =0.8 (at 25°C / at 50°C)	3200 kW / 2720 kW	3360 kW / 2856 kW
Nominal AC current $I_{AC, nom}$ (at 25°C / at 50°C)	3850 A / 3273 A	3850 A / 3273 A
Max. total harmonic distortion	< 3% at nominal power	< 3% at nominal power
Nominal AC voltage / nominal AC voltage range[1) 8)]	600 V / 480 V to 720 V	630 V / 504 V to 756 V
AC power frequency / range	50 Hz / 47 Hz to 53 Hz 60 Hz / 57 Hz to 63 Hz	
Min. short-circuit ratio at the AC terminals[9)]	> 2	
Power factor at rated power / displacement power factor adjustable[8) 10)]	1 / 0.8 overexcited to 0.8 underexcited	
Efficiency		
Max. efficiency[2)] / European efficiency[2)] / CEC efficiency[3)]	98.7%* / 98.6%* / 98.5%*	98.7%* / 98.6%* / 98.5%*
Protective Devices		
Input-side disconnection point	DC load break switch	
Output-side disconnection point	AC circuit breaker	
DC overvoltage protection	Surge arrester, type I	
AC overvoltage protection (optional)	Surge arrester, class I	
Lightning protection (according to IEC 62305-1)	Lightning Protection Level III	
Ground-fault monitoring / remote ground-fault monitoring	o / o	
Insulation monitoring	o	
Degree of protection	NEMA 3R	
General Data		
Dimensions (W / H / D)	2780 / 2318 / 1588 mm (109.4 / 91.3 / 62.5 inch)	
Weight	< 4000 kg / < 8818.5 lb	
Self-consumption (max.[4)] / partial load[5)] / average[6)])	< 8100 W / < 1800 W / < 2000 W	
Self-consumption (standby)	< 370 W	
Internal auxiliary power supply	o Integrated 8.4 kVA transformer	
Operating temperature range[8)]	−25°C to 60°C / −13°F to 140°F	
Noise emission[7)]	67.0 dB(A)*	
Temperature range (standby)	−40°C to 60°C / −40°F to 140°F	
Temperature range (storage)	−40°C to 70°C / −40°F to 158°F	
Max. permissible value for relative humidity (condensing / non-condensing)	95% to 100% (2 month/year) / 0% to 95%	
Maximum operating altitude above MSL[8)] 1000 m / 2000 m	● / o (earlier temperature-dependent derating)	
Fresh air consumption	6500 m³/h	
Features		
DC connection	Terminal lug on each input (without fuse)	
AC connection	With busbar system (three busbars, one per line conductor)	
Communication	Ethernet, Modbus Master, Modbus Slave	
Communication with SMA string monitor (transmission medium)	Modbus TCP / Ethernet (FO MM, Cat-5)	
Enclosure / roof color	RAL 9016 / RAL 7004	
Supply transformer for external loads	o (2.5 kVA)	
Standards and directives complied with	UL 62109-1, UL 1741 (Chapter 31, CDR 6I), UL 1741-SA, UL 1998, IEEE 1547, MIL-STD-810G	
EMC standards	FCC Part 15 Class A	
Quality standards and directives complied with	VDI/VDE 2862 page 2, DIN EN ISO 9001	

● Standard features o Optional * preliminary

1) At nominal AC voltage, nominal AC power decreases in the same proportion
2) Efficiency measured without internal power supply
3) Efficiency measured with internal power supply
4) Self-consumption at rated operation
5) Self-consumption at < 75% Pn at 25°C
6) Self-consumption averaged out from 5% to 100% Pn at 25°C
7) Sound pressure level at a distance of 10 m
8) Values apply only to inverters. Permissible values for SMA MV solutions from SMA can be found in the corresponding data sheets.
9) A short-circuit ratio of < 2 requires a special approval from SMA
10) Depending on the DC voltage

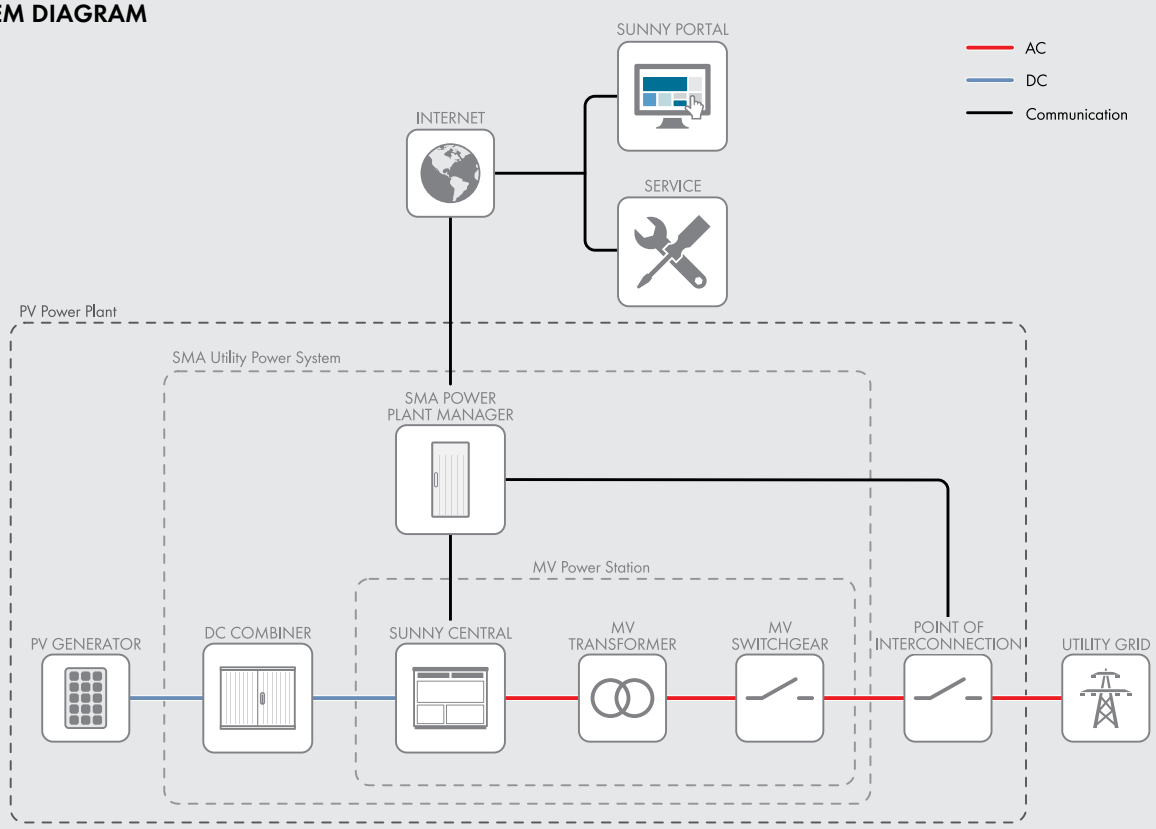
SUNNY CENTRAL 4400 UP-US / 4600 UP-US

Technical data*	SC 4400 UP-US	SC 4600 UP-US
Input (DC)		
MPP voltage range V_{DC} (at 25 °C / at 50 °C)	962 to 1325 V / 1100 V	1003 to 1325 V / 1100 V
Min. input voltage $V_{DC, min}$ / Start voltage $V_{DC, Start}$	934 V / 1112 V	976 V / 1153 V
Max. input voltage $V_{DC, max}$	1500 V	1500 V
Max. input current $I_{DC, max}$	4750 A	4750 A
Max. short-circuit current $I_{DC, sc}$	6400 A	6400 A
Number of DC inputs	24 double pole fused (32 single pole fused)	
Max. number of DC cables per DC input (for each polarity)	2 x 800 kcmil, 2 x 400 mm²	
Integrated zone monitoring	o	
Available PV fuse sizes (per input)	200 A, 250 A, 315 A, 350 A, 400 A, 450 A, 500 A	
Available battery fuse size (per input)	750 A	
Output (AC)		
Nominal AC power at cos ϕ =1 (at 25°C / at 50°C)	4400 kVA / 3740 kVA	4600 kVA / 3910 kVA
Nominal AC power at cos ϕ =0.8 (at 25°C / at 50°C)	3520 kW / 2992 kW	3680 kW / 3128 kW
Nominal AC current $I_{AC, nom}$ (at 25°C / at 50°C)	3850 A / 3273 A	3850 A / 3273 A
Max. total harmonic distortion	< 3% at nominal power	< 3% at nominal power
Nominal AC voltage / nominal AC voltage range[1) 8)]	660 V / 528 V to 759 V	690 V / 552 V to 759 V
AC power frequency / range	50 Hz / 47 Hz to 53 Hz 60 Hz / 57 Hz to 63 Hz	
Min. short-circuit ratio at the AC terminals[9)]	> 2	
Power factor at rated power / displacement power factor adjustable[8) 10)]	1 / 0.8 overexcited to 0.8 underexcited	
Efficiency		
Max. efficiency[2)] / European efficiency[2)] / CEC efficiency[3)]	98.7%* / 98.6%* / 98.5%*	98.7%* / 98.6%* / 98.5%*
Protective Devices		
Input-side disconnection point	DC load break switch	
Output-side disconnection point	AC circuit breaker	
DC overvoltage protection	Surge arrester, type I	
AC overvoltage protection (optional)	Surge arrester, class I	
Lightning protection (according to IEC 62305-1)	Lightning Protection Level III	
Ground-fault monitoring / remote ground-fault monitoring	o / o	
Insulation monitoring	o	
Degree of protection	NEMA 3R	
General Data		
Dimensions (W / H / D)	2780 / 2318 / 1588 mm (109.4 / 91.3 / 62.5 inch)	
Weight	< 4000 kg / < 8818.5 lb	
Self-consumption (max.[4)] / partial load[5)] / average[6)])	< 8100 W / < 1800 W / < 2000 W	
Self-consumption (standby)	< 370 W	
Internal auxiliary power supply	o Integrated 8.4 kVA transformer	
Operating temperature range[8)]	−25°C to 60°C / −13°F to 140°F	
Noise emission[7)]	67.0 dB(A)*	
Temperature range (standby)	−40°C to 60°C / −40°F to 140°F	
Temperature range (storage)	−40°C to 70°C / −40°F to 158°F	
Max. permissible value for relative humidity (condensing / non-condensing)	95% to 100% (2 month/year) / 0% to 95%	
Maximum operating altitude above MSL[8)] 1000 m / 2000 m	● / o (earlier temperature-dependent derating)	
Fresh air consumption	6500 m³/h	
Features		
DC connection	Terminal lug on each input (without fuse)	
AC connection	With busbar system (three busbars, one per line conductor)	
Communication	Ethernet, Modbus Master, Modbus Slave	
Communication with SMA string monitor (transmission medium)	Modbus TCP / Ethernet (FO MM, Cat-5)	
Enclosure / roof color	RAL 9016 / RAL 7004	
Supply transformer for external loads	o (2.5 kVA)	
Standards and directives complied with	UL 62109-1, UL 1741 (Chapter 31, CDR 6I), UL 1741-SA, UL 1998 IEEE 1547, MIL-STD-810G	
EMC standards	FCC Part 15 Class A	
Quality standards and directives complied with	VDI/VDE 2862 page 2, DIN EN ISO 9001	

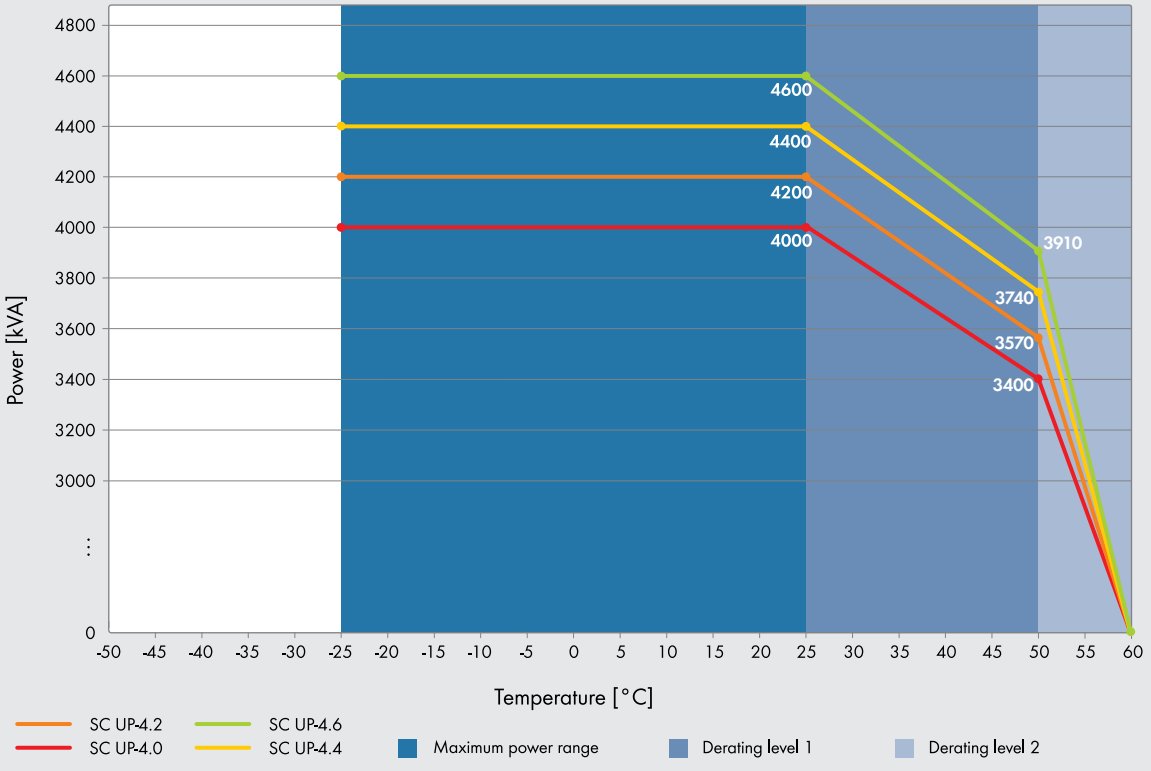
● Standard features o Optional * preliminary

1) At nominal AC voltage, nominal AC power decreases in the same proportion
2) Efficiency measured without internal power supply
3) Efficiency measured with internal power supply
4) Self-consumption at rated operation
5) Self-consumption at < 75% Pn at 25°C
6) Self-consumption averaged out from 5% to 100% Pn at 25°C
7) Sound pressure level at a distance of 10 m
8) Values apply only to inverters. Permissible values for SMA MV solutions from SMA can be found in the corresponding data sheets.
9) A short-circuit ratio of < 2 requires a special approval from SMA
10) Depending on the DC voltage

SYSTEM DIAGRAM



TEMPERATURE BEHAVIOR (at 1000 m)



ATTACHMENT 2-5

MINUTES
PENNINGTON COUNTY PLANNING COMMISSION
August 24, 2020 @ 9:00 a.m.

County Commissioners' Meeting Room - Pennington County Administration Building

MEMBERS PRESENT: Kathy Johnson Travis Lasseter, Charlie Johnson, Sandra Runde, and Gary Drewes.

STAFF PRESENT: Brittney Molitor, Cody Sack, Jason Theunissen, Cullen McNeece (SAO) and Jeri Ervin.

ROLL CALL

1. APPROVAL OF THE AUGUST 10, 2020, MINUTES
Moved by Drewes and seconded by Lasseter to approve the Minutes of the August 10, 2020, Planning Commission meeting. Vote: unanimous 5 to 0.

2. APPROVAL OF THE AGENDA
Moved by Runde and seconded by Lasseter to approve the Agenda of the August 24, 2020, Planning Commission meeting. Vote: unanimous 5 to 0.

Moved by Drewes and seconded by K. Johnson to approve the Consent Agenda of the August 24, 2020, Planning Commission meeting, with the removal of Item #6. Vote: unanimous 5 to 0.

CONSENT AGENDA

The following items have been placed on the Consent Agenda for action to be taken on all items in accordance with staff's recommendation by a single vote. Any item may be removed from the Consent Agenda, by any Planning Commissioner, staff member, or audience member for separate consideration. The findings of this Planning Commission are recommendations to the Pennington County Board of Commissioners who will make the final decision.

3. CONDITIONAL USE PERMIT REVIEW / CU 18-35: Lorrie Behl. To review a single-wide mobile home to be used as a single-family residence on the subject property in a Suburban Residential District in accordance with Sections 208 and 510 of the Pennington County Zoning Ordinance.

Lot 6 of Lot L of E1/2SE1/4, Section 9, T1N, R8E, BHM, Pennington County, South Dakota.

To end Conditional Use Permit / CU 18-35 as it is no longer needed.

Vote: unanimous 5 to 0.

4. **PLANNED UNIT DEVELOPMENT REVIEW / PU 08-01:** Leslie McGourty. To review a Planned Unit Development in accordance with Section 213 of the Pennington County Zoning Ordinance.

   Lot 1 of Voshall Addition, Section 10, T2S, R6E, BHM, Pennington County, South Dakota.

   To end Planned Unit Development / PU 08-01 as it is no longer needed.

   Vote: unanimous 5 to 0.

5. **ROAD NAMING:** Richard and Lorayna Papousek. To name a 20-foot-wide Section Line road providing access to properties located in Sections 25 and 36, T1N, R16E, BHM, South Dakota, to Papousek Road.

   To recommend approval of the Road Naming of Papousek Road.

   Vote: unanimous 5 to 0.

7. **PRELIMINARY PLAT / PPL 20-21:** David Grover. To create Lots A, B, C, and D of Buzmar Subdivision in accordance with Section 400.2 of the Pennington County Subdivision Regulations.

   EXISTING LEGAL: Lot 1 of Buzmar Subdivision, Section 32, T1S, R5E, BHM, Pennington County, South Dakota.

   PROPOSED LEGAL: Lots A, B, C, and D of Buzmar Subdivision, Section 32, T1S, R5E, BHM, Pennington County, South Dakota.

   To recommend approval of Preliminary Plat / PPL 20-21 with the following five (5) conditions:

   1. **That the applicant ensures all natural drainage ways are maintained and are not blocked;**

   2. **That the Certifications on the plat be in accordance with Section 400.2 of the Pennington County Subdivision Regulations and as deemed appropriate by the Register of Deeds;**

   3. **That prior to filing the plat with the Register of Deeds, all the requirements of Pennington County Subdivision Regulations are met, or approved Variances to the Subdivision Regulations be obtained waiving any of these requirements that are not met;**

   4. **That following platting of the proposed lots, any on-site wastewater treatment system(s) be subject to the requirements of Section 204(J) of the Pennington County Zoning Ordinance; and,**

5. **That an approved Building Permit be obtained for any structure(s) exceeding 144 square feet or permanently anchored to the ground, which requires a site plan to be reviewed and approved by the Planning Director.**

Vote: unanimous 5 to 0.

END OF CONSENT AGENDA

6. MINING PERMIT REVIEW / MP 19-02: Pete Lien & Sons. To review the extension of an existing sand and gravel mining operation on the subject property.

All Less Right-of-Way, Section 19, T1N, R14E, BHM, Pennington County, South Dakota.

Commissioner C. Johnson asked to have this Item removed from the Consent Agenda for discussion.

Staff recommended approval of the extension of Mining Permit / MP 19-02 with conditions.

Discussion followed.

Moved by Drewes and seconded by Lasseter to approve the extension of the expansion of Mining Permit / MP 19-02 with the following eight (8) conditions:

1. **That the conditions of approval of the South Dakota Department of Environment and Natural Resources Mine License be continually met;**

2. **That the conditions of the approval of the South Dakota Department of Environment and Natural Resources General Permit be continually met;**

3. **That the Conditions of Approval of Construction Permit / CP 19-17 are continually met;**

4. **That the applicants follow the reclamation plan that was submitted to the SDDENR to reclaim the site when work is completed;**

5. **That the applicant submits a copy of the Mine License, issued by the South Dakota Department of Environment and Natural Resources, to the Planning Department and copies of any annual Mine License Reports by December 1st of each year;**

6. **That if there is a proposed change in operation from this Mining Permit, that the change be submitted to the Planning Director within thirty (30) days and the Mining Permit reviewed and approved by the Planning Commission;**

7. **That if there is a change in the floodplain or the work within the floodplain, the applicant submits a new Floodplain Development Permit;**

8. **That the applicant signs a Statement of Understanding within ten (10) business days of Mining Permit approval, which is available at the Planning Office; and,**

9. **That this Mining Permit be reviewed in two (2) years from approval date, and may be reviewed on a complaint basis, or as directed by the Planning Commission and/or the Board of Commissioners to verify that all Conditions of Approval are being met.**

All voting aye, the Motion carried 5 to 0.

8. CONDITIONAL USE PERMIT / CU 20-19: Heather and Aaron Mills. To allow for a home occupation, a one-chair hair salon, in a Suburban Residential District in accordance with Sections 208 and 510 of the Pennington County Zoning Ordinance.

Lot 12, Block 2, Highland Hills Subdivision, Section 32, T1N, R7E, BHM, Pennington County, South Dakota.

Sack reviewed the Staff Report indicating the applicant has applied for a Conditional Use Permit to allow a home occupation, a one-chair hair salon, in a Suburban Residential District.

Staff recommended approval of Conditional Use Permit / CU 20-19 with the following fourteen (14) conditions:

1. That an approved Building Permit be obtained for the new garage and any structure(s) exceeding 144 square feet or permanently anchored to the ground, which requires a site plan to be reviewed and approved by the Planning Director;

2. That before a Building Permit can be applied for and prior to operation, the applicant obtain approval from SD DENR, the City of Rapid City, and the EPA, for a new Onsite Waste Water Treatment System;

3. That hours of operation be from 8:00 a.m. to 7:00 p.m. Monday through Saturday;

4. That no additional employees be allowed beyond the applicant, Heather Mills;

5. That no more than 8 clients are allowed each day;

6. That no off-premise signs be allowed;

7. That one (1) home occupation sign be allowed that does not exceed six (6) square feet in area, in accordance with Pennington County Zoning Ordinance Section 312, and that a Sign Permit be obtained prior to installation;

8. That there be a minimum of two (2) off street parking spaces available at all times;

9. That all necessary Local, State, and Federal licenses and permits be obtained prior to the operation of the home occupation and that copies of these licenses and permits be provided to the Planning Department upon request and that the applicant continually comply with all applicable Local, State, and Federal laws and regulations;

10. That the property remain free of debris and junk vehicles;

11. That an address be assigned for the garage that contains the hair salon,

12. That an address be posted on the garage, residence, and at the end of the driveway so that it is visible from Highland Hills Road, in accordance with Pennington County's Ordinance #20;

13. That if any sale or transfer of the subject property from the current owner(s) of record occur, that this CUP for a home occupation automatically end; and,

14. That Conditional Use Permit / CU 20-19 be reviewed in one (1) year, on a complaint basis, or as deemed necessary by the Pennington County Planning Commission or Board of Commissioners to verify that all Conditions of Approval are being met.

Discussion followed.

Moved by K. Johnson and seconded by Drewes to approve of Conditional Use Permit / CU 20-19 with the following fourteen (14) conditions:

1. That an approved Building Permit be obtained for the new garage and any structure(s) exceeding 144 square feet or permanently anchored to the ground, which requires a site plan to be reviewed and approved by the Planning Director;

2. That before a Building Permit can be applied for and prior to operation, the applicant obtain approval from SD DENR, the City of Rapid City, and the EPA, for a new Onsite Waste Water Treatment System;

3. That hours of customer appointments be from 8:00 a.m. to 6:00 p.m. Monday through Saturday;

4. That no additional employees be allowed beyond the applicant, Heather Mills;

5. **That no more than four (4) work days are allowed and no more than eight (8) clients are allowed each day;**

6. **That no off-premise signs be allowed;**

7. **That one (1) home occupation sign be allowed that does not exceed six (6) square feet in area, in accordance with Pennington County Zoning Ordinance Section 312, and that a Sign Permit be obtained prior to installation;**

8. **That there be a minimum of two (2) off street parking spaces available at all times;**

9. **That all necessary Local, State, and Federal licenses and permits be obtained prior to the operation of the home occupation and that copies of these licenses and permits be provided to the Planning Department upon request and that the applicant continually comply with all applicable Local, State, and Federal laws and regulations;**

10. **That the property remain free of debris and junk vehicles;**

11. **That an address be assigned for the garage that contains the hair salon,**

12. **That an address be posted on the garage, residence, and at the end of the driveway so that it is visible from Highland Hills Road, in accordance with Pennington County's Ordinance #20;**

13. **That if any sale or transfer of the subject property from the current owner(s) of record occur, that this CUP for a home occupation automatically end; and,**

14. **That Conditional Use Permit / CU 20-19 be reviewed in one (1) year, on a complaint basis, or as deemed necessary by the Pennington County Planning Commission or Board of Commissioners to verify that all Conditions of Approval are being met.**

All voting aye, the Motion carried 5 to 0.

9. CONDITIONAL USE PERMIT / CU 20-17: Julia Rombough. To allow for a Bed and Breakfast on the subject property in accordance with Sections 207 and 510 of the Pennington County Zoning Ordinance.

Lot E, Battle Creek Mountain Estates Subdivision, Section 18, T2S, R7E, BHM, Pennington County, South Dakota.

Molitor reviewed the Staff Report indicating the applicant has applied for a Conditional Use Permit to allow the existing residence to be used as a Bed and Breakfast.

Staff recommended approval of Conditional Use Permit / CU 20-17 with the following fourteen (14) conditions:

1. That the maximum overnight occupancy, based on SD DENR approval, be limited to six (6) people, which includes the on-site caretakers, and the maximum daytime occupancy be limited to twelve (12) people, per Pennington County Zoning Ordinance (PCZO) Section 319(F)(13);

2. That an approved Building Permit be obtained for any structure(s) exceeding 144 square feet or permanently anchored to the ground, which requires a site plan to be reviewed and approved by the Planning Director;

3. That the minimum required setbacks of a Low Density Residential District be continually maintained on the subject property, or approved Setback Variance(s) be obtained;

4. That the address for the residence (24381 Lost Cave Road) be posted on the primary residence / Bed and Breakfast at all times and so it is clearly visible from Lost Cave Road, in accordance with Pennington County's Ordinance #20 within 30 days of approval of this Conditional Use Permit;

5. That an On-Site Wastewater Construction Permit be obtained prior to any additional on-site wastewater treatment systems being installed on the subject property, which will also require review and approval by the South Dakota Department of Environmental and Natural Resources;

6. That the minimum number of required parking spaces be provided in accordance with Pennington County Zoning Ordinance Section 310, which requires one (1) parking space per guest bedroom for the Bed and Breakfast;

7. That a Sign Permit be obtained prior to the installation of any signs on the subject property. All signs must meet the requirements of Section 312 of the Pennington County Zoning Ordinance;

8. That prior to operation of the Bed and Breakfast, the applicant obtains all necessary permits from other governing bodies for the operation of the Recreational Resort, including, but not limited to, approval from the South Dakota Department of Health and a Sales Tax License from the South Dakota Department of Revenue;

9. That the applicant maintains an Evacuation (Emergency) Plan and provide copies to all overnight guests in case there is a need to evacuate guests from the property in the event of an emergency and that a copy of said plan be kept on file at the Planning Department;

10. That the property remains free of debris and junk vehicles and all structures be well-maintained;

11. That portable fire extinguishers be placed on each floor level of the Bed and Breakfast so they are accessible to all guests at all times and the fire extinguishers shall be inspected and tagged annually;

12. That quiet hours for the Bed and Breakfast be between 10 p.m. and 8 a.m.;

13. That the applicant comply with SDCL 34-18-9.4 which regulates Bed and Breakfast establishments and requires a guest list to be maintained; and,

14. That this Conditional Use Permit be reviewed in one (1) year, on a complaint basis, or as deemed necessary by the Pennington County Planning Commission or Board of Commissioners to verify that all Conditions of Approval are being met.

Discussion followed.

Moved by Lasseter and seconded by Runde to approve of Conditional Use Permit / CU 20-17 with the following fourteen (14) conditions:

1. That the maximum overnight occupancy, based on SD DENR approval, be limited to six (6) people, which includes the on-site caretakers, and the maximum daytime occupancy be limited to twelve (12) people, per Pennington County Zoning Ordinance (PCZO) Section 319(F)(13);

2. That an approved Building Permit be obtained for any structure(s) exceeding 144 square feet or permanently anchored to the ground, which requires a site plan to be reviewed and approved by the Planning Director;

3. That the minimum required setbacks of a Low Density Residential District be continually maintained on the subject property, or approved Setback Variance(s) be obtained;

4. That the address for the residence (24381 Lost Cave Road) be posted on the primary residence / Bed and Breakfast at all times and so it is clearly visible from Lost Cave Road, in accordance with Pennington County's Ordinance #20 within 30 days of approval of this Conditional Use Permit;

5. That an On-Site Wastewater Construction Permit be obtained prior to any additional on-site wastewater treatment systems being installed on the subject property, which will also require review and approval by the South Dakota Department of Environmental and Natural Resources;

6. That the minimum number of required parking spaces be provided in accordance with Pennington County Zoning Ordinance Section 310, which requires one (1) parking space per guest bedroom for the Bed and Breakfast;

7. That a Sign Permit be obtained prior to the installation of any signs on the subject property. All signs must meet the requirements of Section 312 of the Pennington County Zoning Ordinance;

8. **That prior to operation of the Bed and Breakfast, the applicant obtains all necessary permits from other governing bodies for the operation of the Recreational Resort, including, but not limited to, approval from the South Dakota Department of Health and a Sales Tax License from the South Dakota Department of Revenue;**

9. **That the applicant maintains an Evacuation (Emergency) Plan and provide copies to all overnight guests in case there is a need to evacuate guests from the property in the event of an emergency and that a copy of said plan be kept on file at the Planning Department;**

10. **That the property remains free of debris and junk vehicles and all structures be well-maintained;**

11. **That portable fire extinguishers be placed on each floor level of the Bed and Breakfast so they are accessible to all guests at all times and the fire extinguishers shall be inspected and tagged annually;**

12. **That quiet hours for the Bed and Breakfast be between 10 p.m. and 8 a.m.;**

13. **That the applicant comply with SDCL 34-18-9.4 which regulates Bed and Breakfast establishments and requires a guest list to be maintained; and,**

14. **That this Conditional Use Permit be reviewed in one (1) year, on a complaint basis, or as deemed necessary by the Pennington County Planning Commission or Board of Commissioners to verify that all Conditions of Approval are being met.**

All voting aye, the Motion carried 5 to 0.

10. LAYOUT PLAN / LPL 20-23: Link SD Ranches, LLC; Dwight Gubbrud - Agent. To create Tract A, Tract B, Tract C, Tract D, and Tract E of Denke Ranch Addition in accordance with Section 400.1 of the Pennington County Subdivision Regulations.

EXISTING LEGAL: PT NW1/4SW1/4 Lying S and E of Hwy ROW; PT NE1/4NW1/4 Lying S and W of Hwy ROW; S1/2SW1/4; PT SE1/4 Lying S and W of HWY ROW and PT SW1/4 Lying S and W of Hwy ROW, Sections 21 and 22, T5N, R16E, BHM, Pennington County, South Dakota.

PROPOSED LEGAL: Tract A, Tract B, Tract C, Tract D, and Tract E of Denke Ranch Addition, Sections 21 and 22, T5N, R16E, BHM, Pennington County, South Dakota.

Molitor reviewed the Staff Report indicating the applicant has applied for a Layout Plan to create Tract A, Tract B, Tract C, Tract D, and Tract E of Denke Ranch Addition.

Staff recommended approval of Layout Plan / LPL 20-23 with the following eight (8) conditions:

1. That at the time of Minor Plat submittal, eight (8) foot Minor Drainage Easements to be dedicated on the interior sides of all lot lines, or an approved Subdivision Regulations Variance be obtained waiving this requirement;

2. That at the time of the Minor Plat submittal, the proposed Plat be prepared by a Registered Land Surveyor;

3. That prior to the Plat being recorded with the Register of Deeds, the Notary Certificate for the Acknowledgement of Owner be corrected;

4. That prior to the Plat being recorded with the Register of Deeds, the plat meets all requirements of Pennington County Subdivision Regulations, or approved Subdivision Regulations Variance(s) be obtained waiving any of the requirements that are not met. A Variance request for the Subdivision Regulations shall be submitted per Section 700 of Pennington County Subdivision Regulations;

5. That the applicant ensures that all natural drainage ways are maintained and are not blocked;

6. That following platting of the proposed lots, any on-site wastewater treatment system(s) be subject to the requirements of Section 204(J) of the Pennington County Zoning Ordinance, including the requirement to obtain an Operating Permit;

7. That an approved Building Permit be obtained for any structure(s) exceeding 144 square feet or permanently anchored to the ground, which requires a site plan to be reviewed and approved by the Planning Director; and,

8. That approval of this Layout Plan does not constitute approval of any further applications to be submitted for the above-described property.

Discussion followed.

Moved by K. Johnson and seconded by Drewes to approve of Layout Plan / LPL 20-23 with the following eight (8) conditions:

1. That at the time of Minor Plat submittal, eight (8) foot Minor Drainage Easements to be dedicated on the interior sides of all lot lines, or an approved Subdivision Regulations Variance be obtained waiving this requirement;

2. That at the time of the Minor Plat submittal, the proposed Plat be prepared by a Registered Land Surveyor;

3. That prior to the Plat being recorded with the Register of Deeds, the Notary Certificate for the Acknowledgement of Owner be corrected;

4. **That prior to the Plat being recorded with the Register of Deeds, the plat meets all requirements of Pennington County Subdivision Regulations, or approved Subdivision Regulations Variance(s) be obtained waiving any of the requirements that are not met. A Variance request for the Subdivision Regulations shall be submitted per Section 700 of Pennington County Subdivision Regulations;**

5. **That the applicant ensures that all natural drainage ways are maintained and are not blocked;**

6. **That following platting of the proposed lots, any on-site wastewater treatment system(s) be subject to the requirements of Section 204(J) of the Pennington County Zoning Ordinance, including the requirement to obtain an Operating Permit;**

7. **That an approved Building Permit be obtained for any structure(s) exceeding 144 square feet or permanently anchored to the ground, which requires a site plan to be reviewed and approved by the Planning Director; and,**

8. **That approval of this Layout Plan does not constitute approval of any further applications to be submitted for the above-described property.**

All voting aye, the Motion carried 5 to 0.

11. MINOR PLANNED UNIT DEVELOPMENT AMENDMENT / PU 20-04: All American Sales / Doug Bellinger. To amend an existing Planned Unit Development to allow for the sale of retail and wholesale seasonal fireworks on the subject property in accordance with Section 213 of the Pennington County Zoning Ordinance.

Lot 1R of Lot B, Block 16, Trailwood Village Subdivision, Section 10, T1N, R8E, BHM, Pennington County, South Dakota.

Theunissen reviewed the Staff Report indicating the applicant applied to amend the existing Planned Unit Development to allow for the sale of retail and wholesale seasonal fireworks on the subject property.

Staff recommended approval of Minor Planned Unit Development Amendment / PU 20-04 with the following sixteen (16) conditions:

1. That the Conditions of Approval of Planned Unit Development / PU 05-19 be continually adhered to;

2. That prior to operation, the applicant submit all necessary permits/licenses from other governing bodies for operation of the Class C Fireworks, including, but not limited to: written approval from the South Dakota State Fire Marshal's office and a Sales Tax License from the South Dakota Department of Revenue;

3. That an address be assigned to the property and that it be posted on the structure or tent where fireworks are being sold, in accordance with Pennington County Ordinance #20;

4. That the uses allowed on Lot 1R of Lot B of Trailwood Village be limited to: seasonal retail and wholesale sales of Class C fireworks, in accordance with South Dakota Codified Laws;

5. That the sale of fireworks be limited to the hours of 7 a.m. to 12 a.m.;

6. That an approved Building Permit be obtained for any structure(s) exceeding 144 square feet or permanently anchored to the ground, which requires a site plan to be reviewed and approved by the Planning Director;

7. That prior to approval of a Building Permit for a commercial structure on Lot 1R of Lot B of Trailwood Village, the applicant have an engineering study performed to determine the need for storm water detention and the study be submitted to the Planning Department and Highway Drainage Engineer for review;

8. That an approved Building Permit be obtained for any structure(s) exceeding 144 square feet or permanently anchored to the ground, which requires a site plan to be reviewed and approved by the Planning Director;

9. That a minimum of twenty-five (25) parking spaces be provided on-site, each parking space must be a minimum of 9 feet x 18 feet and be maintained in a dust free manner;

10. That a minimum of one (1) port-a-potty be available to the public during fireworks sales and be accessible for pumping and/or removal when necessary;

11. That the applicant ensures the safety of the customers by providing adequate security, fire protection, and a phone available to the public in case of an emergency;

12. That no parking be allowed along the frontage roads;

13. That the applicant obtains approved Sign Permits prior to any signs being placed on the property, in accordance with Section 312 of the Pennington County Zoning Ordinance (PCZO);

14. That temporary structures (which may require temporary Building Permits), such as tents, only be erected when needed and not on a permanent basis;

15. That no fireworks be stored on the subject property outside of the Retail and/or Wholesale selling seasons, as defined by South Dakota Codified Law; and,

16. That this Minor Planned Unit Development Amendment be reviewed in June 2021, on a complaint basis, or as directed by the Pennington County Planning

Commission or Board of Commissioners to verify that all Conditions of Approval are being met.

Discussion followed.

Moved by Runde and seconded by Lasseter to approve of Minor Planned Unit Development Amendment / PU 20-04 with the following sixteen (16) conditions:

1. **That the Conditions of Approval of Planned Unit Development / PU 05-19 be continually adhered to;**

2. **That prior to operation, the applicant submit all necessary permits/licenses from other governing bodies for operation of the Class C Fireworks, including, but not limited to: written approval from the South Dakota State Fire Marshal's office and a Sales Tax License from the South Dakota Department of Revenue;**

3. **That an address be assigned to the property and that it be posted on the structure or tent where fireworks are being sold, in accordance with Pennington County Ordinance #20;**

4. **That the uses allowed on Lot 1R of Lot B of Trailwood Village be limited to: seasonal retail and wholesale sales of Class C fireworks, in accordance with South Dakota Codified Laws;**

5. **That the sale of fireworks be limited to the hours of 7 a.m. to 12 a.m.;**

6. **That an approved Building Permit be obtained for any structure(s) exceeding 144 square feet or permanently anchored to the ground, which requires a site plan to be reviewed and approved by the Planning Director;**

7. **That prior to approval of a Building Permit for a commercial structure on Lot 1R of Lot B of Trailwood Village, the applicant have an engineering study performed to determine the need for storm water detention and the study be submitted to the Planning Department and Highway Drainage Engineer for review;**

8. **That an approved Building Permit be obtained for any structure(s) exceeding 144 square feet or permanently anchored to the ground, which requires a site plan to be reviewed and approved by the Planning Director;**

9. **That a minimum of twenty-five (25) parking spaces be provided on-site, each parking space must be a minimum of 9 feet x 18 feet and be maintained in a dust free manner;**

10. **That a minimum of one (1) port-a-potty be available to the public during fireworks sales and be accessible for pumping and/or removal when necessary;**

11. That the applicant ensures the safety of the customers by providing adequate security, fire protection, and a phone available to the public in case of an emergency;

12. That no parking be allowed along the frontage roads;

13. That the applicant obtains approved Sign Permits prior to any signs being placed on the property, in accordance with Section 312 of the Pennington County Zoning Ordinance (PCZO);

14. That temporary structures (which may require temporary Building Permits), such as tents, only be erected when needed and not on a permanent basis;

15. That no fireworks be stored on the subject property outside of the Retail and/or Wholesale selling seasons, as defined by South Dakota Codified Law; and,

16. That this Minor Planned Unit Development Amendment be reviewed in June 2021, on a complaint basis, or as directed by the Pennington County Planning Commission or Board of Commissioners to verify that all Conditions of Approval are being met.

All voting aye, the Motion carried 5 to 0.

12. LAYOUT PLAN / LPL 20-22: David and Kari Kelting; Fisk Land Surveying – Agent. To subdivide and create Lots 4A and 4B of Tract 3 of Tigerville Subdivision in accordance with Section 400.1 of the Pennington County Subdivision Regulations.

EXISTING LEGAL: Lot 4 of Tract 3, Tigerville Subdivision, Section 9, T1S, R4E, BHM, Pennington County, South Dakota.

PROPOSED LEGAL: Lots 4A and 4B of Tract 3 of Tigerville Subdivision, Section 9, T1S, R4E, BHM, Pennington County, South Dakota.

Theunissen reviewed the Staff Report indicating the applicant has applied for a Layout Plan to subdivide and create Lots 4A and 4B of Tract 3 of Tigerville Subdivision.

Staff recommended approval of Layout Plan / LPL 20-22 with the following nine (9) conditions:

1. That the applicants obtain approved Approach Permits from the Tigerville Road District prior to installation of any approaches off of Tigerville Road;

2. That prior to Minor Plat submittal, the applicant improve Tigerville Road to Pennington County Road Standards or obtain an approved Subdivision Regulations Variance to waive these requirements;

3. That prior to Minor Plat submittal, the applicant provide percolation tests and soil profile hole information or obtain an approved Subdivision Regulations Variance to waive these requirements;

4. That the applicant ensures all natural drainage ways are maintained and not blocked;

5. That prior to Minor Plat submittal, the Certifications on the Minor Plat be in accordance with Section 400.3.1(n) of the Pennington County Subdivision Regulations;

6. That at the time of Minor Plat submittal, the plat meets the requirements of Section 400.3 of the Pennington County Subdivision Regulations, or an approved Subdivision Regulations Variance be obtained waiving any of these requirements that are not met;

7. That at the time of Minor Plat submittal, eight (8) foot Minor Drainage and Utility Easements be dedicated on the interior sides of all lot lines, or an approved Subdivision Regulations Variance be obtained waiving this requirement;

8. That following platting of the proposed lot, any on-site wastewater treatment system(s) be subject to the requirements of Section 204(J) of the Pennington County Zoning Ordinance, including the requirement to obtain an Operating Permit; and,

9. That approval of this Layout Plan does not constitute approval of any further applications to be submitted for the above-described property.

Discussion followed.

Moved by Runde and seconded by K. Johnson approve of Layout Plan / LPL 20-22 with the following nine (9) conditions:

1. That the applicants obtain approved Approach Permits from the Tigerville Road District prior to installation of any approaches off of Tigerville Road;

2. That prior to Minor Plat submittal, the applicant improve Tigerville Road to Pennington County Road Standards or obtain an approved Subdivision Regulations Variance to waive these requirements;

3. That prior to Minor Plat submittal, the applicant provide percolation tests and soil profile hole information or obtain an approved Subdivision Regulations Variance to waive these requirements;

4. That the applicant ensures all natural drainage ways are maintained and not blocked;

5. That prior to Minor Plat submittal, the Certifications on the Minor Plat be in accordance with Section 400.3.1(n) of the Pennington County Subdivision Regulations;

6. That at the time of Minor Plat submittal, the plat meets the requirements of Section 400.3 of the Pennington County Subdivision Regulations, or an approved Subdivision Regulations Variance be obtained waiving any of these requirements that are not met;

7. That at the time of Minor Plat submittal, eight (8) foot Minor Drainage and Utility Easements be dedicated on the interior sides of all lot lines, or an approved Subdivision Regulations Variance be obtained waiving this requirement;

8. That following platting of the proposed lot, any on-site wastewater treatment system(s) be subject to the requirements of Section 204(J) of the Pennington County Zoning Ordinance, including the requirement to obtain an Operating Permit; and,

9. That approval of this Layout Plan does not constitute approval of any further applications to be submitted for the above-described property.

All voting aye, the Motion carried 5 to 0.

The Planning Commission recessed at 10:00 a.m.
The Planning Commission reconvened at 10:10 a.m.

13. CONDITIONAL USE PERMIT / CU 20-18: Wild Springs Solar, LLC / Melissa Schmit. To allow for a utility-scale solar energy system in a General Agriculture District and Limited Agriculture District in accordance with Sections 205, 206, 317, and 510 of the Pennington County Zoning Ordinance.

That PT of NE1/4 S of Chicago Northwestern RR; SE1/4 of Section 36, T2N, R10E; GL3-4; E1/2SW1/4, Less ROW of Section 31, T2N, R11E; GL 1-4; S1/2NE1/4; S1/2NW1/4, Less ROW of Section 1, T1N, R10E; GL 6-7; E1/2SW1/4, W1/2SE1/4; E1/2SE1/4 of Section 6, T1N, R11E; E1/2NE1/4; W1/2NE1/4, E1/2NW1/4; GL 1-4; NE1/4SW1/4, N1/2SE1/4, SE1/4SE1/4, Less ROW of Section 7, T1N, R11E; W1/2SW1/4; E1/2SW1/4 of Section 5, T1N, R11E; N1/2NE1/4, SE1/4NE1/4, S1/2SW1/4, E1/2SE1/4, SW1/4SE1/4, NW1/4, Less ROW of Section 9, T1N, R11E, BHM, Pennington County, South Dakota.

Ms. Melissa Schmit, Geronimo Energy, appeared and provided a presentation for Wild Springs Solar, LLC to allow for the utility-scale solar energy system.

Molitor reviewed the Staff Report indicating the applicant applied for a Conditional Use Permit to allow for a utility-scale solar energy system in a General Agriculture District and Limited Agriculture District and further stated that another condition will be added to

the Conditionals of Approval to address a Letter of Credit or cash surety/bond be submitted for the decommissioning of the project.

Staff recommended approval of Conditional Use Permit / CU 20-18 with the following twenty-six (26) conditions:

1. That Building Permits are obtained for all solar modules prior to construction;

2. That a security fence, measuring at least seven (7) feet in height, be installed and maintained around the Project area;

3. That the address of all operational structures (i.e. O&M building) be posted in accordance with Ordinance #20 following completion of the structure;

4. That setbacks from the property lines and all utilities be maintained for all structures located on the property, or an approved Setback Variance(s) be obtained;

5. That an approved Approach Permit(s) be obtained, if necessary, from the approving Street Authority and that a copy of the approved Approach Permit be sent to the Pennington County Planning Director with a note identifying the Permit for CU 20-18;

6. That an approved Floodplain Development Permit is obtained prior to any disturbance or placement of structures in the designated Special Flood Hazard Area;

7. That a Storm Water Permit is obtained to prior to any land disturbance;

8. That the applicant sign the Noxious Weed Plan and it be followed at all times;

9. That the design of the solar energy system must conform to applicable local, state and national solar codes and standards at all times;

10. That a Conditional Use Permit is obtained for the temporary contractor's equipment storage yard prior to construction of all solar modules;

11. That no junk material, vehicles, or debris is stored on the site at any given time;

12. That any natural drainage ways and paths be continually maintained;

13. That all exterior lights must use hoods and lens that cast light downward;

14. That a Building Permit be obtained for any structure exceeding 144 square feet or permanently anchored to the ground, which includes the necessary site plans to be reviewed and approved by the Planning Director;

15. The requirements, guidelines, and criteria for storm water and erosion control in the Pennington County Storm Water Manual shall be followed;

16. That the Planning Department is provided with the safety/access information in case of an emergency;

17. That the proposed structure(s) maintain the 35-foot height requirement, with the exception of utility poles as exempted in Section 204(E) of the PCZO, or an approved Variance(s) be obtained;

18. That the solar panels be non-reflective and unobtrusive at all times;

19. That temporary fencing is installed during construction to ensure livestock are protected;

20. That a Haul Road Agreement, if required, is in place with the County Highway Department prior to construction of the Project;

21. That all design and installation work shall comply with all applicable provisions in the National Electric Code, International Building Code, the International Residential Code, International Commercial Building Code, and state fire code;

22. That no advertising signage shall be placed on any portion of the solar facility;

23. That any on-site wastewater treatment system(s) are subject to the requirements of Section 204(J) of the Pennington County Zoning Ordinance;

24. That the solar facility, at no time, shall exceed 55 dBA as measured at the closest property line;

25. That a Letter of Credit or cash surety/bond in the amount of $2.323 million be submitted for the decommissioning of the solar modules. If a Letter of Credit is submitted, it be reviewed on a yearly basis; and,

26. That this Conditional Use Permit be reviewed in one (1) year, on a complaint basis, or as directed by the Planning Commission.

Discussion followed.

Moved by Lasseter and seconded by Runde to approve of Conditional Use Permit / CU 20-18 with the following twenty-six (26) conditions:

1. That Building Permits are obtained for all solar modules prior to construction;

2. That a security fence, measuring at least seven (7) feet in height, be installed and maintained around the Project area;

3. **That the address of all operational structures (i.e. O&M building) be posted in accordance with Ordinance #20 following completion of the structure;**

4. **That setbacks from the property lines and all utilities be maintained for all structures located on the property, or an approved Setback Variance(s) be obtained;**

5. **That an approved Approach Permit(s) be obtained, if necessary, from the approving Street Authority and that a copy of the approved Approach Permit be sent to the Pennington County Planning Director with a note identifying the Permit for CU 20-18;**

6. **That an approved Floodplain Development Permit is obtained prior to any disturbance or placement of structures in the designated Special Flood Hazard Area;**

7. **That a Storm Water Permit is obtained to prior to any land disturbance;**

8. **That the applicant sign the Noxious Weed Plan and it be followed at all times;**

9. **That the design of the solar energy system must conform to applicable local, state and national solar codes and standards at all times;**

10. **That a Conditional Use Permit is obtained for the temporary contractor's equipment storage yard prior to construction of all solar modules;**

11. **That no junk material, vehicles, or debris is stored on the site at any given time;**

12. **That any natural drainage ways and paths be continually maintained;**

13. **That all exterior lights must use hoods and lens that cast light downward;**

14. **That a Building Permit be obtained for any structure exceeding 144 square feet or permanently anchored to the ground, which includes the necessary site plans to be reviewed and approved by the Planning Director;**

15. **The requirements, guidelines, and criteria for storm water and erosion control in the Pennington County Storm Water Manual shall be followed;**

16. **That the Planning Department is provided with the safety/access information in case of an emergency;**

17. **That the proposed structure(s) maintain the 35-foot height requirement, with the exception of utility poles as exempted in Section 204(E) of the PCZO, or an approved Variance(s) be obtained;**

18. That the solar panels be non-reflective and unobtrusive at all times;

19. That temporary fencing is installed during construction to ensure livestock are protected;

20. That a Haul Road Agreement, if required, is in place with the County Highway Department prior to construction of the Project;

21. That all design and installation work shall comply with all applicable provisions in the National Electric Code, International Building Code, the International Residential Code, International Commercial Building Code, and state fire code;

22. That no advertising signage shall be placed on any portion of the solar facility;

23. That any on-site wastewater treatment system(s) are subject to the requirements of Section 204(J) of the Pennington County Zoning Ordinance;

24. That the solar facility, at no time, shall exceed 55 dBA as measured at the closest property line;

25. That a Letter of Credit or cash surety/bond, in the amount of $2.323 million, be submitted for the decommissioning of the solar modules. If a Letter of Credit is submitted, it be reviewed on a yearly basis, and the decommissioning cost estimate be submitted after ten years of operation and if the cost estimate for the decommissioning is more than $2.323 million, the surety/bond estimate must meet the most current estimate; and,

26. That this Conditional Use Permit be reviewed in one (1) year, on a complaint basis, or as directed by the Planning Commission.

All voting aye, the Motion carried 5 to 0.

14. COUNTY BOARD REPORT

The Board of Commissioners concurred with the Planning Commission's recommendations from the August 10, 2020, Planning Commission meeting.

15. ITEMS FROM THE PUBLIC

No motions or actions were taken at this time.

16. ITEMS FROM THE STAFF

There were no items from staff.

17. ITEMS FROM THE MEMBERSHIP

There were no items from the membership.

18. ADJOURNMENT

Moved by Lasseter and seconded by K. Johnson to adjourn.

All voting aye, the Motion carried 5 to 0.

The meeting adjourned at 11:10 a.m.

_____

Charlie Johnson, Second Chairperson

BEFORE THE PUBLIC UTILITIES COMMISSION

OF THE STATE OF SOUTH DAKOTA

IN THE MATTER OF THE APPLICATION BY WILD SPRINGS SOLAR, LLC FOR A PERMIT OF A SOLAR ENERGY FACILITY IN PENNINGTON COUNTY, SOUTH DAKOTA	* * * * * * * *	**APPLICANT'S UPDATED RESPONSE TO STAFF'S DATA REQUEST 2-2 TO APPLICANT** **EL 20-018**

Below, please find Wild Springs Solar, LLC's ("Applicant") updated response to Staff's Data Request 2-2 to Applicant.

2-2) Referring to Appendix D, the Decommissioning Plan, please provide documentation supporting the salvage value unit cost assigned to each component type. In addition, please explain what the per unit cost of $23.87 for PV modules represents and why it is a reasonable assumption to use.

Melissa Schmit: In responding to this request, Westwood Engineering ("Westwood") determined that its decommissioning cost estimate provided with the Decommissioning Plan (Appendix D to the Facility Permit Application) was based on a prior design, and not the current design included in the Facility Permit Application. Therefore, Westwood provided an updated decommissioning cost estimate for the current design, which is included with an updated Decommissioning Plan (see Attachment 2-2a). Wild Springs will provide the updated Decommissioning Plan to Pennington County, as well.

Westwood also provided a memorandum that explains the updates made to the decommissioning cost estimate and the assumptions used to support its calculations, including salvage value and the PV module costs (see Attachment 2-2b).

Dated this 28th day of September, 2020.

By */s/ Mollie M. Smith*

Mollie M. Smith
Haley Waller Pitts
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ATTACHMENT 2-2a

Wild Springs Decommissioning Plan

Wild Springs Solar, LLC (Wild Springs), is committed to ensuring the Wild Springs Solar Project (Project) is properly decommissioned at the end of its useful life in compliance with the decommissioning requirements set forth in Section 317-A-15 of the Pennington County Zoning Ordinance (July 10, 2019). Therefore, Wild Springs commits to the following with respect to decommissioning restoration and financial assurance for the Project.

Project Decommissioning and Site Restoration:

Decommissioning of the Project would begin within eight (8) months after the Project reaches the end of its useful life and would be completed within eighteen (18) months after the Project reaches the end of its useful life, unless the Planning Commission approves a different schedule. Project decommissioning will include:

- Dismantling and removing all Project-related equipment, foundations, and ancillary equipment to a depth of forty-two (42) inches below grade. Any soil disturbance associated with decommissioning would include topsoil segregation.
- Removing the operation and maintenance facility and access roads, unless the landowners request in writing that all or any portion of the facility and/or access roads remain in place. Access road restoration will include removal of surface road material and restoration of the roads to substantially the same physical condition that existed immediately before construction of the Project.
- Restoration of the Project site, including: decompaction; revegetation; and to the extent possible, reclamation to the approximate original topography and original or better topsoil quality that existed immediately prior to construction of the Project.
- Executing haul road agreements, as appropriate, for the decommissioning process. Haul road agreements will address the Project's use, improvement, and post-decommissioning restoration and repair of existing, maintained roads, including any associated road restoration and repair costs.

Following decommissioning, the site will be restored so as to be able to return to the agricultural production that existed prior to construction of the solar facilities.

Decommissioning Financial Assurance:

A decommissioning cost estimate for the Project's current design has been prepared by Westwood Engineering (a South Dakota-licensed engineering firm) is attached as **Exhibit A**. Based on current recycling costs and salvage values, the cost of decommissioning the Project using the current design is estimated to be approximately $4,480,000.00.

Once the Project's design is finalized, Wild Springs will have an updated decommissioning cost estimate prepared and will submit the updated estimate to Pennington County and the South Dakota Public Service Commission ("Commission"). Based on the updated cost estimate, and in accordance with the decommissioning condition imposed by Pennington County when issuing a Conditional Use Permit for the Project, Wild Springs would provide a letter of credit or surety

bond in the amount of the updated cost estimate. Wild Springs proposes to name both Pennington County and the Commission as beneficiaries in the decommissioning financial assurance instrument.

Wild Springs also proposes that an updated decommissioning cost estimate be provided to Pennington County and the Commission at year 10 of operation, which would be used to update, as needed, the decommissioning cost financial security.

Westwood

Estimated Decommissioning Costs
Including Dismantling/Removal Costs
and Salvage Value

Project Name: Wild Springs Solar Project
Date:09/17/2020
WPS Project Number: 0007627.00
By: JLB

Project Size	166.00	MW-DC	128.00	MW-AC
	Quantity	Unit	Unit Cost	Total Cost
Mobilization/Demobilization	1	Lump Sum	$1,022,000.00	$1,022,000
Mobilization was estimated to be approximately 7% of total cost of other items. This number was developed from speaking with contractors.				
Permitting				
State Permits	1	Lump Sum	$10,000.00	$10,000
Subtotal Permitting				$10,000
Decommissioning will require a SWPPP and SPCC plan, cost is an estimate of the permit preparation cost.				
Civil Infrastructure				
Removal Gravel Surfacing from Road	41,899	Cubic Yards (BV)	$4.48	$187,845
Haul Gravel Removed from Road	52,374	Cubic Yards (LV)	$14.71	$770,430
Disposal of Gravel Removal from Road	67,876	Tons	$0.00	$0
Grade Road Corridor (Re-spread Topsoil)	106,057	Linear Feet	$1.14	$120,905
Erosion and Sediment Control for Road Restoration	79,543	Linear Feet	$1.91	$151,927
Turf Establishment on Removed Road Area	58.43	Acres	$3,850.00	$224,956
Removal of Security Fence	91,680	Linear Feet	$6.58	$603,254
Subtotal Civil Infrastructure				$2,059,316
Civil removal costs are a combination of SDDOT unit costs where applicable, RS Means cost for project zip area and industry standards provided to Westwood. Based on the Landfill, many landfills do not charge for "inert" materials, the gravel can be used for daily cover and other uses at a landfill.				
Structural Infrastructure				
Removal Tracker Steel Foundation Posts	107,448	Each	$13.18	$1,416,268
Haul Tracker Steel Post	8,596	Tons	$7.54	$64,813
Removal Drive Motor Posts	9,688	Each	$115.03	$1,114,411
Haul Drive Motor Posts	18,419	Ton	$7.54	$138,882
Remove and Load Metstation Foundation	5	EA	$743.60	$3,718
Haul Concrete	73	Tons	$14.22	$1,031
Disposal of Concrete from Foundation	73	Tons	$40.25	$2,918
Subtotal Structural Infrastructure				$2,742,040
Steel removal costs were calculated by using information from array manufacturers for installation rates and using the same rates to calculate total days to remove equipment. Hauling calculations are based on the locations of metals recyclers in Rapid City, 26 miles away. Assuming a $0.29/ton mile rate and $40.25/ton for tipping fees.				
Electrical Collection/Transmission System				
Removal of PV Panels	391,529	Each	$12.07	$4,726,494
Removal of Combiner Boxes	1,211	Each	$60.00	$72,660
Removal of PCU Station (Inverters/Panelboard/Transformer)	88	Each	$2,029.56	$178,601
Haul Inverters and Transformers to Recycler	88	Each	$150.80	$13,270
Removal of Scada Equipment	1	Each	$5,000.00	$5,000
Removal of DC Collector System Cables (copper)	9,600.0	LF	$0.43	$4,155
Removal of Underground (AC) Medium Voltage System Cables	258,167	Linear Foot	$0.48	$124,643
Load and Haul Cables for Recycling	343.3	Ton	$7.54	$2,589
Removal of Fiber Optic Cable	86,055.7	LF	$0.13	$11,359
Removal of Grounding Wire	95,655.7	LF	$0.16	$14,970
Subtotal Electrical Collection/Transmission System				$5,153,742

Electrical removal costs of PV Panels and Combiner Boxes were based industry standards on installation rates of a three man work crew. PCU

Westwood

Estimated Decommissioning Costs
Including Dismantling/Removal Costs
and Salvage Value

Station, MV Equipment and Scada Equipment removal cost are based on removal of equipment, concrete pads, and conduits using a truck mounted crane and contractor provided information on installation rates. Cable to be left in the ground, stub up removal at combiner boxes and inverters assumed, standard industry production rates from RS Means. Metal and cable salvage value is based on 75 percent of current scrap metal prices for steel copper, and aluminum. Hauling calculations are based on the locations of metals recyclers in Rapid City, 26 miles away. Resale of PV Panels is based on 85 percent of the price quoted by We Recycle Solar on a recent similar project.

Site Restoration				
Stabilized Construction Entrance	11	Each	$2,000.00	$22,000
Permanent Seeding on area within Removed Array	1,080	Acres	$3,484.80	$3,763,584
Subtotal Site Restoration				$3,785,584
Site restoration costs are based on past solar project experience.				
Substation				
Drain and Dispose of Transformer Oil	1	LS	$11,000.00	$11,000.00
Disassembly and Removal of Transformer(s)	1	LS	$4,500.00	$4,500.00
Freight Transformer(s) Offsite	1	LS	$2,500.00	$2,500.00
Excavate Around Transformer Foundation(s)	1	LS	$40,000.00	$40,000.00
Remove Complete Transformer Foundation(s)	1	LS	$4,900.00	$4,900.00
Backfill Excavation Area from Transformer Foundation Removal	1	LS	$55,000.00	$55,000.00
Haul scrap reinforcing steel (Transformer Foundation)	6	Tons	$10.00	$60.00
Haul Concrete (Transformer Foundation)	140	CY	$18.00	$2,520.00
subtotal - substation transformer removal				$120,480.00
Demolish Substation Site Improvements (fences, etc)	1	LS	$3,500.00	$3,500.00
Demolish Control Building and Foundation	1	LS	$12,000.00	$12,000.00
Remove Medium/High Voltage Equipment	1	LS	$3,500.00	$3,500.00
Remove Structural Steel Substation Frame	1	LS	$3,500.00	$3,500.00
Freight - Demolition Materials, Removed Equipment & Structural Steel Offsite	1	LS	$1,250.00	$1,250.00
Disposal of Demolition Materials, Removed Equipment and Structural Steel	1	LS	$0.00	
subtotal - demolition/disposal of imp materials				$23,750.00
Remove Gravel Surfacing from Substation Site	6,200	CY	$8.00	$49,600.00
Disposal of Gravel from Substation Site	6,200	CY	$6.00	$37,200.00
Grade Substation Site	1	LS	$25,000.00	$25,000.00
Erosion and Sediment Control at Substation Site	1	LS	$12,000.00	$12,000.00
Topsoil and Revegetation at Substation Site	1	LS	$16,000.00	$16,000.00
subtotal - substation site gravel removal & restoration				$139,800.00
Project Management	Quantity	Unit	Unit Cost	Total Cost
Project Manager	25	weeks	$3,800.00	$95,000.00
Superintendent	50	weeks	$3,525.00	$176,250.00
Field Engineer	100	weeks	$2,325.00	$232,500.00
Clerk	50	weeks	$750.00	$37,500.00
subtotal -Project Management				$541,250.00
Salvage				
Fencing	440	Tons	$165.00	$72,600
Steel Posts	8,596	Tons	$165.00	$1,418,340
Module Racking	18,419	Tons	$165.00	$3,039,135
PV Modules	371,953	EA (5% loss)	$23.87	$8,878,539
Inverters and Transformers	264,000	Pounds	$0.37	$97,680
Scada Equipment	1	Each	$1,000.00	$1,000
DC Collection Lines	18,240	LBS (5% loss)	$0.48	$8,755
AC Collection Lines	613,147	LBS (5% loss)	$0.20	$122,629
Grounding Wire	20,901	Pounds	$1.79	$37,308

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Estimated Decommissioning Costs
Including Dismantling/Removal Costs
and Salvage Value

Substation Tranformer Oil	1	LS	$3,500.00	$3,500
Substation Transformers	1	LS	$33,300.00	$33,300
Scrap reinforcing steel from Substation Transformer Foundation	6	Tons	$80.00	$480.00
Substation Demolition Materials, Removed Equipment and Structural Steel	1	LS	$1,750.00	$1,750.00

Salvage values are a combination of the following factors; current market metal salvage prices, current secondary market for solar panel module recycling, discussions with national companies that specialize in recycling and reselling electrical transformers and inverters, and the assumption that care is taken to prevent any damage or breakage of equipment.

Construction Subtotal		$15,597,961
Contingency		$2,158,425
15% of construction total (minus Mobilization/Demobilization/Permitting) based on previous project estimations.		
County Administration Costs (2.5%)		$439,123.15
	Construction Total	$18,195,509.52
Subtotal Salvage		$13,715,017
Total Demolition Minus Salvage		$4,480,492

Notes:
1. Prices used in analysis are estimated based on research of current average costs and salvage values.
2. Prices provided are estimates and may fluctuate over the life of the project.
3. Contractor means and methods may vary and price will be affected by these.

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ATTACHMENT 2-2b

MEMORANDUM

Date: September 25, 2020

Re: Wild Springs Decommissioning Cost Estimate
File 0007627.00

To: Melissa Schmit, Geronimo Energy

From: August Christensen

Please find below an explanation of the decommissioning cost estimate update and the assumptions used for calculating the decommissioning values and salvage vales for the Wild Springs Solar Project.

Decommissioning Cost Estimate Update

It was identified during our latest review that the decommissioning estimate provided on March 19, 2020 was based off of a prior Project design and the estimate needed to be updated with quantities from the current design. The subtotals for both Construction and Salvage values have been revised after the updates, resulting in a higher end cost for Total Demolition Minus Salvage. Below is a summary of the changes made to the estimate.

1. *Mobilization/Demobilization* – the Unit/Total Cost has been revised as it is based on a percentage of the total decommissioning cost.
2. *Civil Infrastructure* – the total civil infrastructure cost has been reduced due to the following items being revised:
    a. *Removal Gravel Surfacing from Road* – the Quantity and Total Cost have been lowered because the linear footage of roads was reduced in the current design, reducing the volume of surface material to be removed.
    b. *Haul Gravel Removed from Road* – the Quantity and Total Cost have been lowered because of the reduction of volume of surface material being removed for the roads.
    c. *Disposal of Gravel Removal from Road* – the Quantity has been lowered due to less volume being hauled from the site. No adjustment to the Total Cost.
    d. *Grade Road Corridor (Re-spread Topsoil)* – the Quantity and Total Cost have been lowered because the linear footage of roads was reduced in the current design.
    e. *Erosion and Sediment Control for Road Restoration* – the Quantity and Total Cost have been lowered because the linear footage of roads was reduced in the current design.
    f. *Turf Establishment on Removed Road Area* – the Quantity and Total Cost have been lowered because the linear footage of roads was reduced in the current design.
    g. *Removal of Security Fence* – the Quantity and Total Cost have been increased because of an increase of security fencing for the project area in the current Project design.
3. *Electrical Collection/Transmission System* – the total electrical collection/transmission system cost has been reduced due to the following items being revised:

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   a. *Removal of PV Panels* – the Quantity and Total Cost have been lowered due to the total number of PV Panels being reduced in the current Project design.
4. *Salvage* – the Total Value has been reduced due to the following items being revised:
   a. *PV Modules* - the Quantity and Total Cost have been lowered due to the total number of PV Panels being reduced in the current Project design.
   b. *Inverters and Transformers* – the Quantity and Unit value originally provided was incorrect, providing the total number of units. The salvage cost is based off of the total weight in pounds multiplied by the unit cost ($/lb). The Quantity and Unit have been adjusted accordingly.

Decommissioning Assumptions

To develop a cost estimate for the decommissioning of the Wild Springs Solar Project, Westwood engineers made the following assumptions and used the following pricing references: Costs were estimated based on current pricing, technology, and regulatory requirements. The assumptions are listed in order from top to bottom of the estimate spreadsheet. We developed time and material based estimates considering composition of work crews and equipment and material required using RSMeans data. When materials have a salvage value at the end of the project life, the construction activity costs and the hauling/freight cost are separated from the disposal costs or salvage value to make revisions to salvage values more transparent.

1. Decommissioning year is based on a 35 year projected life of the project.
2. This Cost Estimate is based on the Westwood Submittal Set Preliminary Permit Plan dated 05/06/2020.
3. A project of this size and complexity requires a full time project manager or support staff.
4. Common labor will be used for the majority of the tasks except for heavy equipment operation. Since SDDOT unit prices are used, where possible, the labor rates will reflect union labor rates.
5. Mobilization was estimated at approximately 7% of total cost of other items.
6. Permit applications required include the preparation of a Storm Water Pollution Prevention Plan (SWPPP) and a Spill Prevention Control and Countermeasure (SPCC) Plan.
7. Road aggregate removal was estimated on a time and material basis using a 16 foot width and an 8 inch thickness for the access roads. Substation aggregate is included in the substation quantities. Since the material will not remain on site, a hauling cost is added to the removal cost. Road aggregate can often be disposed of by giving to landowners for use on driveways and parking areas. Many landfills will accept clean aggregate for use as “daily cover” and do not charge for the disposal.
8. Grade Road Corridor reflects the cost of mobilizing and operating light equipment to spread and smooth the topsoil stockpiled on site to replace the aggregate removed from the road.
9. Erosion and sediment control along road reflects the cost of silt fence on the downhill side of the road and surrounding all on-site wetlands.

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10. Topsoil is required to be stockpiled on site during construction, therefore this top soil is available on site to replace the road aggregate, once removed. Subsoiling cost to de-compact roadway areas is estimated as $350 per acre (based on state DOT bid prices), and revegetation on removed road area, which includes seed, fertilizer, lime, and care until vegetation is established is $4,937 per acre. The majority of the project area is "over-seeded" since the decommissioning activities are not expected to eliminate the existing grasses and vegetation under the arrays or heavily compact the soils. Over-seeding does not include fertilizer and lime, and is estimated at $3,484.8 per acre.
11. Fence removal includes loading, hauling, and recycling or disposal. Fence and posts weigh approximately 10 pounds per foot.
12. Array support posts are generally lightweight "I" beam sections installed with a piece of specialized tracked equipment. Crew productivity is approximately 240 posts per day, and the same crew and equipment should have a similar productivity removing the posts, resulting in a per post cost of approximately $13.00.
13. A metal recycling facility is located in Rapid City, SD is 26 miles from the project site. Pricing was acquired from www.scrapmonster.com. The posts weigh approximately 150 pounds each, and we estimate the hauling costs at approximately $0.28 per ton mile. The pricing from Scrapmonster is adjusted to 75 percent of the published price to reflect the processing required for the posts to fit recycling requirements and the facility's margin.
14. Based on the review of a manufacturer's details of the array support structures the structures weigh approximately one pound per square foot. The arrays are made of light weight steel and aluminum angles, mounted on the foundation piles, which the panels are bolted to. So a crew with hand tools can disassemble and cut the pieces to sizes for recycling at a rate of about 30 arrays per person four man crew per day based on RS Means cost data.
15. Hauling the steel to Rapid City, SD at $0.28 per ton.
16. The solar panels rated at 425 watts are estimated to be 4 feet by 6 feet and weigh 50 pounds so they can easily be disconnected, removed, and packed by a three person crew at a rate we estimate at 12 panels per hour.
17. Inverters used on this project have been estimated based off of projects of similar size. Pad mounted Inverters are modular medium sized enclosures (18'-4" long, 7'-3" tall, and 5'-3" deep) that are mounted on a concrete slab. They weigh 13,220 pounds, and can be disconnected by a crew of electricians. They must be lifted by a truck mounted crane for transport to the recycler. They contain copper or aluminum windings.
18. Transformers for this project will likely be mounted on the same concrete pads as the inverters. The transformers and associated cabinets weigh approximately 15,000 pounds and contain either copper, or more commonly, aluminum windings that have significant salvage value. They are typically oil filled, and most transformer recyclers will accept the

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transformers with oil. The estimated costs include removal of the concrete pads and conduits feeding the equipment.

19. Medium voltage (MV) equipment and SCADA equipment are mounted on the same concrete pad as the transformer and enclosed in weather proof cabinets. Their size requires light equipment to remove them. The costs shown include the removal of the concrete pads.
20. The underground collector system cables are placed in trenches, inside of PVC conduits, with a minimum of 3 feet of cover.
21. To reduce tracking of sediment off-site by trucks removing materials, we have included a rock construction entrance priced based on state DOT bid prices.
22. Perimeter control pricing is based on a sediment fence placed on the downgrade side of the work area perimeters towards neighboring properties, and protecting wetlands and drainage swales within the project area. Pricing is based on RSMeans unit prices.
23. No topsoil is planned to be removed from the site during decommissioning and most of the site will not have been compacted by heavy truck or equipment traffic so the site turf establishment cost is based on RS Means unit prices for applying lime, fertilizer, seed, and mulch at the price of $4,937 per acre plus an allowance for some areas to be de-compacted. For areas within the array, that are receive over-seeding, the price is adjusted to $3,484.8 to reflect the low seeding rate, and the lack of fertilizer and lime applied.
24. Metal salvage prices (steel, aluminum, copper) are based on quotes from www.scrapmonster.com for the U.S. Midwest from January 2020. These prices are based on delivery to the recycling facility with the material prepared to meet size, thickness, cleanliness and other specifications. A reduction of 25% has been taken from this price to reflect the difficulty of realizing the full spot prices posted. The prices are three months old at the time they are displayed on the website.
25. The steel posts and array racking are priced based on 75 percent of the HMS (high melt steel) 80/20 the price listed on www.scrapmonster.com from April 2020. ($220 per ton)
26. There is currently a robust market for used solar panels and pricing can be found on, Solar Biz, eBay and other sites. We have assumed that as long as the modules are producing power they will have economic value. The panels will experience a degradation of output over the life of the facility. The manufacturer guarantees that panels will have an output of 98% of the rated capacity when new/installed. Solar module degradation rate is estimated at 0.50% per year, or 96% of capacity remaining after 5 years, and 82% capacity remaining after 35 years. By combining the guaranteed capacity at install and the degradation expected over 35 years, this estimate uses an output capacity of 80.5% for the modules at the time of decommissioning. Recycling/reuse programs have provided quotes to purchase used modules from solar facilities to be re-purposed for other types of projects. To avoid un-conservative pricing for this project, the price used to calculate the salvage value is roughly

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80 percent of the value that has been quoted for other projects, resulting in a value of $0.07 per watt. A 5% loss of modules has been assumed from removing panels from the support structure. The salvage value for modules is then calculated as the output capacity of modules (watts) at 80.5% multiplied by the total number of panels (less 5%) multiplied by $0.07 per watt. The price is based on the buyer transporting panels placed on pallets from the project site.

27. There is an active market for reselling and recycling electrical transformers and inverters with several national companies specializing in recycling. We have assumed that the electrical equipment will be obsolete at the time of decommissioning so we have based the pricing on a percentage of the weight that reflects the aluminum windings that can be salvaged. Pricing was obtained from www.scrapmonster.com from January 2020. We have assumed a 25% recovery of the weight of the transformers and inverters for copper or aluminum windings.
28. The collection lines are priced assuming copper conductor wire for the DC circuits, which is typical. The prices used reflect a reduced yield of the copper resulting from the insulation and other materials that must be stripped from the wire so that the copper can be recycled. The estimate uses the Midwest price of #2 copper wire with a 50 percent recovery rate as found on www.scrapmonster.com from January 2020. For the salvage value we have assumed 50 percent of the published price.
29. The underground collection lines are assumed to be aluminum conductor. The majority of the length of the collection lines will be buried deep enough so that it does not have to be removed. Those sections coming up out of the ground at junction boxes, or otherwise, can be salvaged. The salvage value is based on the Midwest price of E.C. Aluminum Wire as found on www.scrapmonster.com from January 2020. We have reduced the price to 50 percent of the quoted price to reflect the complications of stripping insulation and separating the materials.
30. Care to prevent damage and breakage of equipment, PV modules, inverters, capacitors, and SCADA must be exercised, but removal assumes unskilled common labor under supervision.
31. All salvage is based on the weights of bulk material or equipment.

Westwood

Estimated Decommissioning Costs
Including Dismantling/Removal Costs
and Salvage Value

Project Name: Wild Springs Solar Project
Date:09/25/2020
WPS Project Number: 0007627.00
By: JLB

Project Size	166.00	MW-DC	128.00	MW-AC	*3/19/2020*
	Quantity	Unit	Unit Cost	Total Cost	*Estimated Costs*
Mobilization/Demobilization	1	Lump Sum	$1,022,000.00	$1,022,000	*$1,354,000*
Mobilization was estimated to be approximately 7% of total cost of other items. This number was developed from speaking with contractors.					
Permitting					
State Permits	1	Lump Sum	$10,000.00	$10,000	*$10,000*
Subtotal Permitting				$10,000	*$10,000*
Decommissioning will require a SWPPP and SPCC plan, cost is an estimate of the permit preparation cost.					
Civil Infrastructure					
Removal Gravel Surfacing from Road	41,899	Cubic Yards (BV)	$4.48	$187,845	*$240,941*
**the Quantity and Total Cost have been lowered because the linear footage of roads was reduced in the current design, reducing the volume of surface material to be removed*					
Haul Gravel Removed from Road	52,374	Cubic Yards (LV)	$14.71	$770,430	*$988,200*
**the Quantity and Total Cost have been lowered because of the reduction of volume of surface material being removed for the roads.*					
Disposal of Gravel Removal from Road	67,876	Tons	$0.00	$0	*$0*
**the Quantity has been lowered due to less volume being hauled from the site. No adjustment to the Total Cost*					
Grade Road Corridor (Re-spread Topsoil)	106,057	Linear Feet	$1.14	$120,905	*$154,995*
**the Quantity and Total Cost have been lowered because the linear footage of roads was reduced in the current design.*					
Erosion and Sediment Control for Road Restoration	79,543	Linear Feet	$1.91	$151,927	*$194,870*
**the Quantity and Total Cost have been lowered because the linear footage of roads was reduced in the current design.*					
Turf Establishment on Removed Road Area	58.43	Acres	$3,850.00	$224,956	*$288,559*
**the Quantity and Total Cost have been lowered because the linear footage of roads was reduced in the current design.*					
Removal of Security Fence	91,680	Linear Feet	$6.58	$603,254	*$579,040*
**the Quantity and Total Cost have been increased because of an increase of security fencing for the project area in the current Project design.*					
Subtotal Civil Infrastructure				$2,059,316	*$2,446,606*
Civil removal costs are a combination of SDDOT unit costs where applicable, RS Means cost for project zip area and industry standards provided to Westwood. Based on the Landfill, many landfills do not charge for "inert" materials, the gravel can be used for daily cover and other uses at a landfill.					
Structural Infrastructure					
Removal Tracker Steel Foundation Posts	107,448	Each	$13.18	$1,416,268	*$1,416,268*
Haul Tracker Steel Post	8,596	Tons	$7.54	$64,813	*$64,813*
Removal Drive Motor Posts	9,688	Each	$115.03	$1,114,411	*$1,114,411*
Haul Drive Motor Posts	18,419	Ton	$7.54	$138,882	*$138,882*
Remove and Load Metstation Foundation	5	EA	$743.60	$3,718	*$3,718*
Haul Concrete	73	Tons	$14.22	$1,031	*$1,031*
Disposal of Concrete from Foundation	73	Tons	$40.25	$2,918	*$2,918*
Subtotal Structural Infrastructure				$2,742,040	*$2,742,040*
Steel removal costs were calculated by using information from array manufacturers for installation rates and using the same rates to calculate total days to remove equipment. Hauling calculations are based on the locations of metals recyclers in Rapid City, 26 miles away. Assuming a $0.29/ton mile rate and $40.25/ton for tipping fees.					
Electrical Collection/Transmission System					
Removal of PV Panels	391,529	Each	$12.07	$4,726,494	*$9,122,281*
**the Quantity and Total Cost have been lowered due to the total number of PV Panels being reduced in the current Project design.*					
Removal of Combiner Boxes	1,211	Each	$60.00	$72,660	*$72,660*
Removal of PCU Station (Inverters/Panelboard/Transformer)	88	Each	$2,029.56	$178,601	*$178,601*
Haul Inverters and Transformers to Recycler	88	Each	$150.80	$13,270	*$13,270*
Removal of Scada Equipment	1	Each	$5,000.00	$5,000	*$5,000*
Removal of DC Collector System Cables (copper)	9,600.0	LF	$0.43	$4,155	*$4,155*
Removal of Underground (AC) Medium Voltage System Cables	258,167	Linear Foot	$0.48	$124,643	*$124,643*
Load and Haul Cables for Recycling	343.3	Ton	$7.54	$2,589	*$2,589*
Removal of Fiber Optic Cable	86,055.7	LF	$0.13	$11,359	*$11,359*
Removal of Grounding Wire	95,655.7	LF	$0.16	$14,970	*$14,970*
Subtotal Electrical Collection/Transmission System				$5,153,742	*$9,549,529*
Electrical removal costs of PV Panels and Combiner Boxes were based industry standards on installation rates of a three man work crew. PCU					

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Station, MV Equipment and Scada Equipment removal cost are based on removal of equipment, concrete pads, and conduits using a truck mounted crane and contractor provided information on installation rates. Cable to be left in the ground, stub up removal at combiner boxes and inverters assumed, standard industry production rates from RS Means. Metal and cable salvage value is based on 75 percent of current scrap metal prices for steel copper, and aluminum. Hauling calculations are based on the locations of metals recyclers in Rapid City, 26 miles away. Resale of PV Panels is based on 85 percent of the price quoted by We Recycle Solar on a recent similar project.

Site Restoration					
Stabilized Construction Entrance	11	Each	$2,000.00	$22,000	*$22,000*
Permanent Seeding on area within Removed Array	1,080	Acres	$3,484.80	$3,763,584	*$3,761,892*
Subtotal Site Restoration				$3,785,584	*$3,783,892*
Site restoration costs are based on past solar project experience.					
Substation					
Drain and Dispose of Transformer Oil	1	LS	$11,000.00	$11,000.00	*$11,000.00*
Disassembly and Removal of Transformer(s)	1	LS	$4,500.00	$4,500.00	*$4,500.00*
Freight Transformer(s) Offsite	1	LS	$2,500.00	$2,500.00	*$2,500.00*
Excavate Around Transformer Foundation(s)	1	LS	$40,000.00	$40,000.00	*$40,000.00*
Remove Complete Transformer Foundation(s)	1	LS	$4,900.00	$4,900.00	*$4,900.00*
Backfill Excavation Area from Transformer Foundation Removal	1	LS	$55,000.00	$55,000.00	*$55,000.00*
Haul scrap reinforcing steel (Transformer Foundation)	6	Tons	$10.00	$60.00	*$60.00*
Haul Concrete (Transformer Foundation)	140	CY	$18.00	$2,520.00	*$2,520.00*
subtotal - substation transformer removal				$120,480.00	*$120,480.00*
Demolish Substation Site Improvements (fences, etc)	1	LS	$3,500.00	$3,500.00	*$3,500.00*
Demolish Control Building and Foundation	1	LS	$12,000.00	$12,000.00	*$12,000.00*
Remove Medium/High Voltage Equipment	1	LS	$3,500.00	$3,500.00	*$3,500.00*
Remove Structural Steel Substation Frame	1	LS	$3,500.00	$3,500.00	*$3,500.00*
Freight - Demolition Materials, Removed Equipment & Structural Steel Offsite	1	LS	$1,250.00	$1,250.00	*$1,250.00*
Disposal of Demolition Materials, Removed Equipment and Structural Steel	1	LS	$0.00		
subtotal - demolition/disposal of imp materials				$23,750.00	*$23,750.00*
Remove Gravel Surfacing from Substation Site	6,200	CY	$8.00	$49,600.00	*$49,600.00*
Disposal of Gravel from Substation Site	6,200	CY	$6.00	$37,200.00	*$37,200.00*
Grade Substation Site	1	LS	$25,000.00	$25,000.00	*$25,000.00*
Erosion and Sediment Control at Substation Site	1	LS	$12,000.00	$12,000.00	*$12,000.00*
Topsoil and Revegetation at Substation Site	1	LS	$16,000.00	$16,000.00	*$16,000.00*
subtotal - substation site gravel removal & restoration				$139,800.00	*$139,800.00*
Project Management	Quantity	Unit	Unit Cost	Total Cost	
Project Manager	25	weeks	$3,800.00	$95,000.00	*$95,000.00*
Superintendent	50	weeks	$3,525.00	$176,250.00	*$176,250.00*
Field Engineer	100	weeks	$2,325.00	$232,500.00	*$232,500.00*
Clerk	50	weeks	$750.00	$37,500.00	*$37,500.00*
subtotal -Project Management				$541,250.00	*$541,250.00*
Salvage					
Fencing	440	Tons	$165.00	$72,600	*$72,600*
Steel Posts	8,596	Tons	$165.00	$1,418,340	*$1,418,340*
Module Racking	18,419	Tons	$165.00	$3,039,135	*$3,039,135*
PV Modules	371,953	EA (5% loss)	$23.87	$8,878,539	*$17,135,819*
**the Quantity and Total Cost have been lowered due to the total number of PV Panels being reduced in the current Project design*					
Inverters and Transformers	264,000	Pounds	$0.37	$97,680	*$98*
**the Quantity and Unit value originally provided was incorrect, providing the total number of units. The salvage cost is based off of the total weight in pounds multiplied by the unit cost ($/lb). The Quantity and Unit have been adjusted accordingly.*					
Scada Equipment	1	Each	$1,000.00	$1,000	*$1,000*
DC Collection Lines	18,240	LBS (5% loss)	$0.48	$8,755	*$8,755*
AC Collection Lines	613,147	LBS (5% loss)	$0.20	$122,629	*$122,629*
Grounding Wire	20,901	Pounds	$1.79	$37,308	*$37,308*
Substation Tranformer Oil	1	LS	$3,500.00	$3,500	*$3,500*
Substation Transformers	1	LS	$33,300.00	$33,300	*$33,300*
Scrap reinforcing steel from Substation Transformer Foundation	6	Tons	$80.00	$480.00	*$480.00*
Substation Demolition Materials, Removed Equipment and Structural Steel	1	LS	$1,750.00	$1,750.00	*$1,750.00*

Salvage values are a combination of the following factors; current market metal salvage prices, current secondary market

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Estimated Decommissioning Costs
Including Dismantling/Removal Costs
and Salvage Value

for solar panel module recycling, discussions with national companies that specialize in recycling and reselling electrical transformers and inverters, and the assumption that care is taken to prevent any damage or breakage of equipment.		
Construction Subtotal	$15,597,961	*$20,711,347*
Contingency	$2,158,425	*$2,902,102*
15% of construction total (minus Mobilization/Demobilization/Permitting) based on previous project estimations.		
County Administration Costs (2.5%)	$439,123.15	*$590,336.22*
Construction Total	$18,195,509.52	*$24,203,784.88*
Subtotal Salvage	$13,715,017	*$21,874,715*
Total Demolition Minus Salvage	$4,480,492	*$2,329,070*

Notes:
1. Prices used in analysis are estimated based on research of current average costs and salvage values.
2. Prices provided are estimates and may fluctuate over the life of the project.
3. Contractor means and methods may vary and price will be affected by these.

BEFORE THE PUBLIC UTILITIES COMMISSION

OF THE STATE OF SOUTH DAKOTA

IN THE MATTER OF THE APPLICATION BY WILD SPRINGS SOLAR, LLC FOR A PERMIT OF A SOLAR ENERGY FACILITY IN PENNINGTON COUNTY, SOUTH DAKOTA	* * * * * * * *	**APPLICANT'S RESPONSES TO STAFF'S THIRD SET OF DATA REQUESTS TO APPLICANT** **EL 20-018**

Below, please find Wild Springs Solar, LLC's ("Applicant") responses to Staff's Third Set of Data Requests to Applicant.

3-1) Refer to Page 79 of the Application. The Applicant states that the sound levels from the inverter at the closest non-participating residence is anticipated to be 38.6 dBA.

a) Has the Applicant made any good faith efforts to minimize noise by optimizing the site plan, such as maximizing the distances from inverters and substation to any residence? If yes, please explain.

Melissa Schmit: Yes, the Wild Springs preliminary design incorporated sound considerations to ensure levels were in compliance with the Pennington County requirement.

b) Is it possible to move the inverter further from the non-participants house with an anticipated sound level of 38.6 dBA? If no, please explain. If yes, please provide the anticipated sound level at the new inverter location.

Melissa Schmit: In the Project's final design, it is possible that the inverter might be farther away from the closest non-participating residence. An increase in distance from the non-participating residence would result in a decrease in the anticipated sound level of the inverter at that residence. However, since the currently anticipated sound level is below 40 dBA, and the inverter will not operate at night, it is not anticipated that the inverter's sound will be distinguishable from existing ambient sounds even if the inverter remains in the location proposed in the current design. Additionally, Wild Springs will commit to not moving the inverter closer to the non-participating residence than its current location; thus, the anticipated sound level will not be above 38.6 dBA, and may be lower, depending on final design.

Dated this 28th day of September, 2020.

By */s/ Mollie M. Smith*

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BEFORE THE PUBLIC UTILITIES COMMISSION

OF THE STATE OF SOUTH DAKOTA

IN THE MATTER OF THE APPLICATION BY WILD SPRINGS SOLAR, LLC FOR A PERMIT OF A SOLAR ENERGY FACILITY IN PENNINGTON COUNTY, SOUTH DAKOTA	* * * * * * * *	**APPLICANT'S RESPONSES TO STAFF'S FOURTH SET OF DATA REQUESTS TO APPLICANT** **EL 20-018**

Below, please find Wild Springs Solar, LLC's ("Applicant") responses to Staff's Fourth Set of Data Requests to Applicant.

4-1) Refer to the Applicant's response Staff Data Request 3-1.

a) In response to Staff Data Request 3-1(b), the Applicant states that "it is not anticipated that the inverter's sound will be distinguishable from existing ambient sounds even if the inverter remains in the location proposed in the current design."

(i) Please provide all sound studies completed by the Applicant on the existing ambient sound levels near the residence.

Melissa Schmit: Wild Springs has not completed a project-specific ambient sound study. However, Wild Springs expects the ambient sound in the area to be similar to other rural areas in South Dakota. For example, an ambient sound study was conducted for the Crocker Wind Farm (see Appendix E to the Facility Permit Application, Docket EL 17-055). Per the study conducted for the Crocker Wind Farm, daytime ambient sound levels ranged from 41-50 dBA Leq (since the Wild Springs Project will not operate at night, daytime ambient sound levels are most relevant).

(ii) How far is this non-participating residence from Interstate 90?

Melissa Schmit: The non-participating residence is approximately 7,250 feet from I-90.

b) Refer to Figure 5a-d in the Application, Detailed Preliminary Project Layout, Page 1. The below questions will involve the closest non-participating residence identified by yellow circle, the closest inverter identified by orange rectangle, and the pink collection line.

(i) Please explain why the inverter nearest to the non-participating residence cannot be moved to the west along the collection line.

Michael Morris: The inverter placement is determined by the maximum length of DC wire connecting the array to the inverter, which is normally about 1,000 feet. Anything beyond this induces a voltage drop across the wire that can affect the inverter's reliability.

(ii) Are there any adverse technical considerations with moving the inverter to the west along the collection line?

Michael Morris: Since equipment selection has not been finalized, moving the inverter west may render portions of the array unusable due to the issue described above in subsection (b)(i).

(iii) Are there any adverse financial considerations with moving the inverter to the west along the collection line?

Michael Morris: We may have to remove portions of the array, which would affect the Project's energy output and overall revenue.

Dated this 12th day of October, 2020.

By */s/ Mollie M. Smith*

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BEFORE THE PUBLIC UTILITIES COMMISSION

OF THE STATE OF SOUTH DAKOTA

IN THE MATTER OF THE APPLICATION BY WILD SPRINGS SOLAR, LLC FOR A PERMIT OF A SOLAR ENERGY FACILITY IN PENNINGTON COUNTY, SOUTH DAKOTA	* * * * * * * *	**APPLICANT'S RESPONSES TO STAFF'S FIFTH SET OF DATA REQUESTS TO APPLICANT** **EL 20-018**

Below, please find Wild Springs Solar, LLC's ("Applicant") responses to Staff's Fifth Set of Data Requests to Applicant.

5-1) Refer to Page 85 of the Application. The Applicant states that it "will also establish the Wild Springs Education Fund, to which Wild Springs will contribute $25,000 annually (calculated at $200 per installed MW) for the first 20 years of Project operation." At $200 per installed MW, if the Applicant installed the maximum requested capacity of 128 MW, wouldn't the annual contribution be $25,600? Please explain.

Melissa Schmit: The Project is committed to providing $200/year per MW of capacity for the first 20 years of the Project. If the Project is constructed at 128 MW, this will be $25,600 per year.

5-2) Refer to Page 86 of the Application. Please provide the McGarr and Lines 2018 paired- sales study of properties adjacent to nine solar farms in Minnesota, Illinois, and Indiana. Please note that the link in the Application is broken, and the document referenced through the link provided to Ms. Bundorf only covered five solar farms.

Melissa Schmit: The reference to the paired sales study in the Application should have stated five solar farms in Illinois and Indiana, and below is the appropriate link: https://www.mcleancountyil.gov/DocumentCenter/View/13192/Patricia-L-McGarr--Property-Value-Impact-Study?bidId=.

5-3) Has the Applicant had any further discussions with the Pennington County Highway Department on designated travel/haul routes? Will the Applicant consult with the City of New Underwood on designated travel/haul routes regarding county roads? Please explain.

Melissa Schmit: Wild Springs has continued to coordinate with the Pennington County Highway Department, with the most recent discussion occurring on 8/26/2020. The Highway Department provided recommendations on potential travel routes and Wild Springs is analyzing what is

feasible as some of the routes would significantly increase the amount of travel time for each delivery. All routes under consideration are county or state roads, so Wild Springs is coordinating with the county and state regarding haul routes. However, Wild Springs plans to update the City of New Underwood regarding haul route plans once finalized, and will also provide updates on the anticipated timing of Project-related construction and hauling activities as the Project moves into the construction phase.

5-4) Refer to Page 37 of the Application. The Applicant proposes "that an updated decommissioning cost estimate be provided to Pennington County and the Commission at year 10 of operation, which would be used to update, as needed, the decommissioning cost financial security." Is the Applicant proposing to update decommissioning costs only once over the facility's useful life? Would the Applicant agree to provide an updated decommissioning cost estimate beginning in year 10 following commercial operation of the Project and each fifth year thereafter? Please explain.

Melissa Schmit: Please see the Rebuttal Testimony of Christopher Morgan regarding Wild Springs' proposed decommissioning condition. Updates to the decommissioning cost estimate are proposed after year ten of operations and every five years thereafter.

5-5) Refer to the Supplemental Testimony of Ms. Schmit, lines 135 – 157, regarding decommissioning financial assurance. Ms. Schmit states the "County included a condition in the CUP that Wild Springs provide decommissioning financial security prior to construction in the form of a letter of credit or surety bond in the amount of $2.323 million."

a) Does Section 317-A-15-f of the Pennington County Zoning Ordinance authorize the use of a letter of credit for decommissioning financial assurance? If yes, please explain. If no, please provide the authority that allows the County to authorize the use of a letter of credit.

Melissa Schmit/Mollie Smith: Objection, as this request calls for a legal conclusion. Subject to the foregoing, please see the August 24, 2020 Minutes of the Pennington County Planning Commission Meeting where a Conditional Use Permit was issued for the Wild Springs Solar Project and the Rebuttal Testimony of Christopher Morgan.

b) When will the Company determine whether it will use a letter of credit or surety bond to satisfy the condition? Please explain.

Christopher Morgan: Please see the Rebuttal Testimony of Christopher Morgan. Wild Springs proposes to provide a surety bond as decommissioning financial assurance.

c) Please provide a sample letter of credit for Commission Staff to review.

Christopher Morgan: Wild Springs is not proposing to provide a letter of credit, so has not obtained an example.

d) Please provide a sample surety bond for Commission Staff to review.

Christopher Morgan: Wild Springs is currently working with a surety company to prepare a draft surety bond. Once the draft surety bond is prepared, Wild Springs plans to supplement the Rebuttal Testimony of Christopher Morgan to add the draft surety bond as an exhibit.

e) Regarding a surety bond:

i. What is the estimated annual cost of a surety bond in the amount of $4.48 million? Please provide support.

Christopher Morgan: Please see the cost calculations provided in the Rebuttal Testimony of Christopher Morgan.

ii. What is the term of the bond as proposed? Please explain.

Christopher Morgan: Responsive information regarding the proposed term will be included in the draft surety bond, which will be provided once it is available.

iii. Does the Surety have the ability to terminate its liability during the term of the bond proposed in (ii)? Please explain.

Christopher Morgan: Responsive information will be included in the draft surety bond, which will be provided once it is available.

iv. How will the Commission, as the obligee, be notified if the bond is terminated? Please explain.

Christopher Morgan: Responsive information will be included in the draft surety bond, which will be provided once it is available.

v. Please explain what financial assurance would be available for decommissioning if the Surety does not renew the bond at the end of the term.

Christopher Morgan: Responsive information will be included in the draft surety bond, which will be provided once it is available.

f) Regarding a letter of credit:

i. What is the estimated annual cost of a letter of credit in the amount of $4.48 million? Please provide support.

ii. What is the term of the letter of credit as proposed? Please explain.

iii. Does the issuing credit institution have the ability to terminate the letter of credit during the term proposed in (ii)? Please explain.

iv. How will the Commission, as the beneficiary, be notified if the letter of credit is terminated? Please explain.

v. Please explain what financial assurance would be available for decommissioning if the Creditor does not renew the letter of credit at the end of the term.

Christopher Morgan: Since Wild Springs is not proposing to provide a letter of credit, it does not have information responsive to these requests.

Dated this 4th day of November, 2020.

By */s/ Mollie M. Smith*

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