Hingtgen, Robert J

From: Fogg, Mindy
Sent: Tuesday, January 13, 2015 6:00 PM
To: Kelly Fuller; Gungle, Ashley
Cc: Hingtgen, Robert J
Subject: RE: POC comments on Soitec Solar FEIR

Thank you Kelly! I forwarded the letter to the Planning Commission secretary for distribution to the commissioners.

Mindy Fogg | Planning Manager | Project Planning
COUNTY OF SAN DIEGO | Planning & Development Services
5510 Overland Avenue | Suite 310 | San Diego | CA | 92123
T. 858.694.3831 | MS: O650
PDS Website http://www.sdcounty.ca.gov/pds

From: Kelly Fuller [mailto:kelly@kellyfuller.net]
Sent: Tuesday, January 13, 2015 4:59 PM
To: Gungle, Ashley
Cc: Fogg, Mindy; Hingtgen, Robert J
Subject: POC comments on Soitec Solar FEIR

Hi Ashley,

Attached are the Protect Our Communities Foundation's comments on the FEIR for the Soitec Solar projects. I do not know if we will be submitting additional comments.

Best wishes,

Kelly Fuller
Executive Director
Protect Our Communities
kelly@kellyfuller.net
www.protectourcommunities.org

Protect Our Communities defends communities and nature in San Diego County, Imperial County, and Northern Baja California from harmful energy projects and advances better energy solutions through advocacy and law.

The Protect Our Communities Foundation
P.O. Box 305
Santa Ysabel, CA 92070
send correspondence to kelly@kellyfuller.net

January 13, 2015

Ashley Gungle
Planning & Development Services (PDS)
Project Processing Counter
5510 Overland Avenue, Suite 110
San Diego, California 92123

Sent via email

Subject: Soitec Solar Project FEIR – Preliminary Comments

Dear Ms. Gungle:

Thank you for this opportunity to comment on the Final Environmental Impact Report (FEIR) for the Soitec Solar projects. These are preliminary comments of The Protect Our Communities Foundation (POC).

POC continues to oppose the Boulevard Soitec Solar projects but offers the following comments in the eventuality that the projects are built.

We are concerned that the newly proposed battery energy storage facility could become a hazard to migratory birds if the projects' mitigation conditions are not strengthened. As the County knows, migratory birds are protected under the federal Migratory Bird Treaty Act (MBTA), which implements international treaties with Canada, Russia, Japan, and Mexico. MBTA liability is strict, and killing or attempting to kill any bird protected by the MBTA without proper prior authorization violates the Act, regardless of intent. Furthermore, under section 3513 of the California Fish and Game Code, "[i]t is unlawful to take or possess any migratory nongame bird as designated in the Migratory Bird Treaty Act or any part of such migratory nongame bird except as provided by rules and regulations adopted by the Secretary of the Interior under provisions of the Migratory Treaty Act."[1]

In October 2011, approximately 500 birds were killed at the battery energy storage facility associated with the Laurel Mountain wind farm in West Virginia. (See Attachment A.) These deaths are believed to have occurred because dusk-to-dawn lighting at the facility attracted migrating birds during a time of inclement weather with a low cloud ceiling, thick fog, cold temperatures, and high winds. Those are weather conditions that sometimes also exist in the Soitec Solar projects' vicinity at times of the year

[1] The California Fish and Game Code's prohibition against killing birds protected by the MBTA (section 3513) is notably absent from the FEIR's discussion of Fish and Game Code protection of birds. See, for example, pages 2.3-89 and 2.3-90.

when there may be bird migration or resident birds present.[2] The association between night-time outdoor lighting and migratory bird mortality is well known, with reports dating back to at least the nineteenth century.[3]

The Soitec Solar projects' FEIR is unclear as to whether there will be outdoor night-time lighting at the battery energy storage facility. On the one hand, the FEIR's Additional Information Statement (AIS) says, "The installation of exterior lighting on individual containers, HVAC systems or step-up transformers is not anticipated to be necessary and therefore, no additional nighttime lighting sources would be added to the Rugged solar farm. As such, no new nighttime lighting impacts would occur due to the addition of the proposed energy storage system" (page 4). On the other hand, the FEIR's AIS states, "In addition, potentially reflective surfaces associated with the shipping container, HVAC systems and inverters and ***any outdoor lighting required for nighttime maintenance of energy storage system*** could affect night and daytime views in the area" (pages 3, AIS.0-8, emphasis added). This should be clarified in the FEIR. However, even if no outdoor night-time lighting is anticipated at the battery energy storage facility, the project developers, owners, or operators could always change their minds later. This is of concern because the FEIR contains a loophole that could allow the operation of night-time outdoor lighting at the battery energy storage facility. This loophole needs to be closed in order to protect birds and avoid violation of state and federal law.

The relevant proposed mitigation measure is PDF-AE-5 (restriction of outdoor lighting). However, PDF-AE-5 does not reference the proposed battery energy storage facility specifically:

> *PDF-AE-5 Outdoor lighting at each solar farm site shall conform to County of San Diego Light Pollution Code Zone A standards for lamp type and shielding requirements. More specifically, Zone A standards shall be applicable for all Class I (i.e., lighting for assembly areas where color rendition is important) and Class II (i.e., lighting for general illumination and security) lighting at the solar farm site and all outdoor lighting fixtures shall be fully shielded and directed downward. Further, fully shielded motion sensor lighting shall be installed at the on-site private substation yard, next to the entrance door to the substation control house, and mounted atop entrance gates and shall be turned off when no one is on site. When possible, tracker washing shall occur during evening and morning hours to reduce occurrences of dark sky illumination. Regarding operation of security measures, motion sensor infrared cameras shall be installed at the project site to avoid illumination of the site and surrounding area during nighttime hours.* (7.0-2)

We suggest specifying that no outdoor lighting will be allowed at the battery energy storage facility or that *any* outdoor lighting for *any* purpose at the site must be fully shielded motion sensor lights.

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[2] The FEIR acknowledges the presence or expected presence of migratory birds at the project sites, both generally (e.g., page 2.3-175) and species specifically, including Swainson's Hawk (e.g., page 2.3-60) and Northern Harrier (e.g., page 2.3-60). The potential for night migration at the projects is also acknowledged, for example in the final paragraph of page 2.3-124.

[3] See, for example, Stump, Jake (Sept. 30. 2008), "Hundreds of dead birds found outside high school," The Times West Virginian, available at http://idasouthflorida.org/?page_id=53. See also U.S. Fish and Wildlife Service (July 1978), "Avian Mortality at Man-Made Structures: An Annotated Bibliography," available at http://www.arlis.org/docs/vol2/hydropower/APA_DOC_no._2204.pdf.

Alternately, the battery energy storage facility could be added to the list of locations in this sentence: "Further, fully shielded motion sensor lighting shall be installed at the on-site private substation yard, next to the entrance door to the substation control house, and mounted atop entrance gates and shall be turned off when no one is on site" (FEIR 7.0-2). Otherwise, there is a loophole due to PDF-AE-5's limiting of motion sensor controlled lighting to lighting that is installed for security purposes (rather than illumination for other purposes) or at the three locations specified above.

Thank you for this opportunity to comment on the FEIR for the Soitec Solar projects.

Sincerely yours,

Kelly Fuller

Kelly Fuller
Executive Director

Appendix A

Stantec Consulting Services Inc.
30 Park Drive
Topsham ME 04086
Tel: (207) 729-1199
Fax: (207) 729-2715

Stantec

October 25, 2011

Laura Hill
Assistant Field Supervisor
West Virginia Field Office
U.S. Fish and Wildlife Service
694 Beverly Pike
Elkins, WV 26241

Subject: Bird Mortality Event at Laurel Mountain Substation

Dear Laura:

On Monday, October 3, 2011, AES staff working at the Battery Energy Storage System (BESS) located at the Leadsville substation notified Stantec that they had found a significant number of dead birds at the facility. A Stantec biologist immediately traveled to the site with AES staff and recovered carcasses of 314 birds within the BESS facility and the AES transformer of the Laurel Mountain substation. Additional carcasses could be seen in the central portion of the substation operated by First Energy (AP yard), although AES did not have access to this area. Carcasses were concentrated around the 24 battery containers in the BESS facility, with a number of carcasses on top of the structures, most of which were accessible. Only four carcasses were found in the AES transformer portion of the substation. Carcasses appeared very fresh, with mortality likely occurring on the previous one to three nights. Stantec conducted searches at several nearby wind turbines on October 3 and did not find any bird carcasses.

Stantec notified you and Richard Bailey of the West Virginia Division of Natural Resources (DNR) of the mortality event by telephone on the afternoon of October 3. Stantec collected the carcasses in individually labeled bags and placed them in a freezer for subsequent identification.

AES notified Stantec that the BESS facility contains dusk-to-dawn lighting consisting of 8 250-watt high pressure sodium lamps mounted on 5 utility poles surrounding the facility. Stantec recommended that these lights be extinguished at night through the remainder of the bird migration season, and AES disabled the lights on the afternoon of October 3. Figure 1 shows an aerial view of the BESS facility and substation, with lighting structures identified by yellow circles.

Weather over the weekend of October 1 and 2 was inclement, with low cloud ceiling, thick fog, cold temperatures, and high winds. These conditions would likely have caused nocturnal migrants to fly closer to the ground, where they could have been attracted to the night lighting at the substation facility. Based on the species composition of carcasses (primarily songbirds), the weather, and the presence of dusk-to-dawn lighting at the facility, Stantec concludes that nocturnal migrants were flying low due to the inclement weather and low visibility and became "trapped" in the light at the BESS and substation. They subsequently either collided with structures at the substation or circled to the point of exhaustion. Most structures at the substation are less than 15 feet tall, although the site includes approximately 10 to 12 50-foot tall masts supporting wires and/or lighting and security cameras. Close examination of carcasses suggested that many carcasses showed evidence of collision, including lacerations and trauma to the head and neck. Other carcasses such as those found on top of the battery storage crates appeared to have died from exhaustion.

OPTIONAL FORM 99 (7-90)
FAX TRANSMITTAL
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To Peter Shoenfeld
From USFWS
Dept./Agency
Phone #
Fax # 307-371-1163
NSN 7540-01-317-7368 5099-101 GENERAL SERVICES ADMINISTRATION

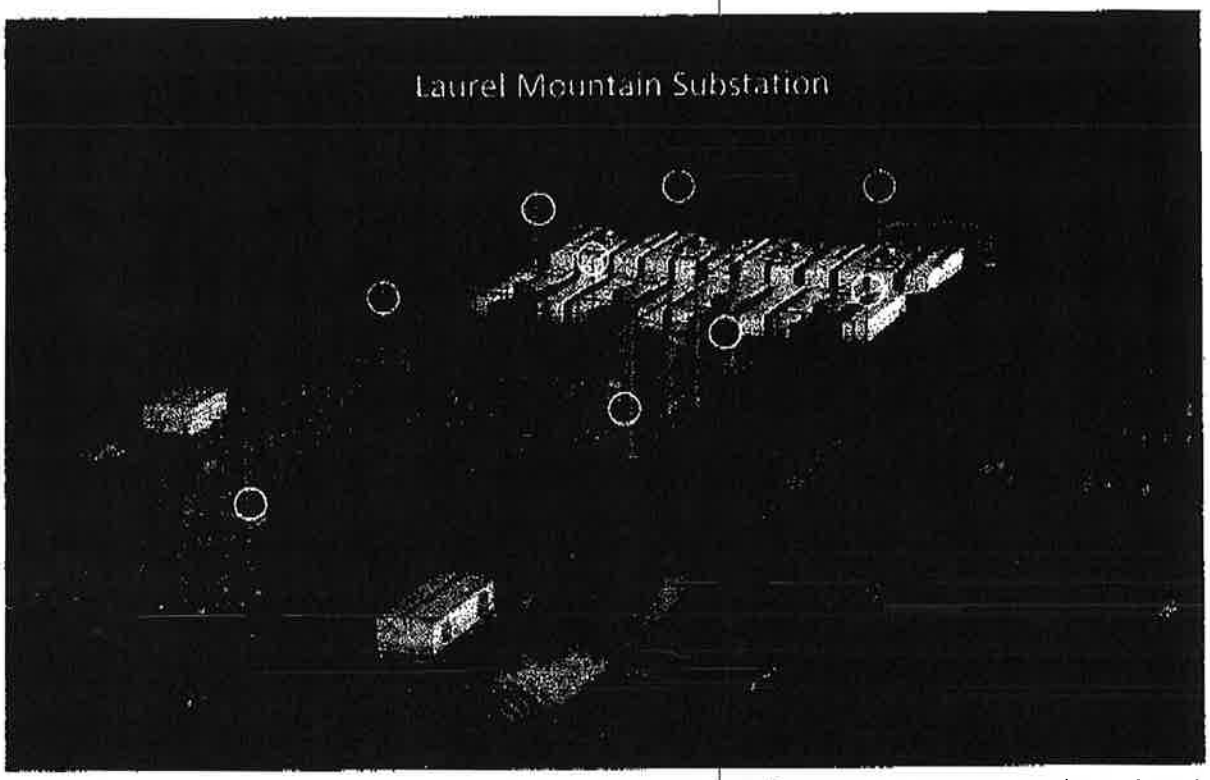

Figure 1. Aerial view of Leadsville substation showing the AES transformer (front left), AP yard (center), and BESS facility (far right). Yellow circles indicate pole-mounted light fixtures.

Representatives from AES and First Energy met Stantec on site on October 4, allowing a search of the entire substation facility. Stantec recovered carcasses of an additional 81 songbirds, 46 of which were within the AP yard that could not be searched the previous day. Eleven carcasses were found within the BESS section, six of which were likely missed during October 3 and five of which appeared fresh. The remaining 24 carcasses were found around the perimeter of the BESS facility and were likely overlooked on October 3. Stantec returned to the BESS facility on October 5 and found an additional 25 songbird carcasses, 10 of which were found between the battery containers and 15 of which were around the perimeter. Stantec was unable to search the AP yard on October 5. A total of 15 songbird carcasses were found on October 6 during surveys of the perimeter of the facility and the BESS facility, most of which were around the perimeter of the facility and appeared to have been overlooked during the previous search. Although the BESS lighting was off after October 3, additional lighting is present in the AP yard (three pole-mounted sets of lights and one building-mounted light) and in the AES transformer yard (two pole-mounted lights and one building-mounted light). AES shut off the additional lights within the transformer area as of the night of October 6. Stantec also contacted First Energy, who agreed to turn off their lights within the AP yard as of the night of October 6.

Representatives from First Energy and AES met with Stantec at the substation on October 7, allowing access to the entire substation. Twenty songbird carcasses were recovered from the AP yard, which were likely present the day before as well. No carcasses were found within the BESS facility or AES transformer. Stantec returned to the substation that afternoon and found 17 bird carcasses in the grassy area above the substation that was not previously surveyed. Stantec surveyed the substation on the night of October 7 to determine if any additional lighting was present in the area and noticed two wall-mounted lights on the control building to the east of the BESS facility that were not observed during daytime searches. No other substation

facility lights were active. Stantec notified AES about these last remaining lights during a search on the subsequent Tuesday, October 11, at which point AES turned these lights off as well.

Six bird carcasses were found on October 11 during a search of the BESS facility and perimeter. The time of death of these carcasses could not be reliably estimated due to partial scavenging. Stantec returned to the substation with AES personnel on October 18 and found no fresh bird carcasses, although four dried carcasses, apparently not retrieved on October 3, were found by AES personnel on top of the battery storage crates.

Collectively, searches at the substation between October 3 and 18 documented a total of 484 bird carcasses. No bat carcasses were found at the substation. Stantec has completed identification of the carcasses with assistance of Richard Bailey with the DNR, who identified approximately 200 of the carcasses and confirmed the identity of numerous birds with dull plumage or that had been damaged by scavengers or decomposition. Twenty-nine species were documented among the carcasses, with the ten most commonly found species comprising 91.1 percent of total carcasses found at the substation. Blackpoll warblers were the most common species (308 carcasses), comprising 64 percent of mortalities. Table 1 lists the total number of carcasses of each species found during searches of the substation between October 3 and 18, 2011.

Bird mortality documented at the substation is considered to have involved exclusively migrants as opposed to resident individuals. In particular, blackpoll warblers and Connecticut warblers, two of the species with highest mortality during the event, typically breed in northern boreal forest habitats and occur in West Virginia only as migrants, although both species have been frequently documented in mortality events at tall towers and buildings in the eastern U.S. Species such as the eastern towhee, which are extremely common resident species of the Laurel Mountain project area, were not identified among the carcasses at the substation. Similarly, suitable habitat for wetland species such as the sora, green heron, Virginia rail, and pied-billed grebe does not exist in the project area. Overall species diversity of the carcasses found at the substation was relatively low, suggesting that a species-specific migration pulse may have coincided with the inclement weather in early October, or that certain species were flying at a lower altitude and therefore more likely to become trapped in the light from the substation. For comparison, 60 bird species (1034 individuals) were banded at the Powdermill Avian Research Center, located approximately 90 miles north of Laurel Mountain in Rector, Pennsylvania between October 2 and 8, 2011.[1]

[1] Data available at http://www.powdermillarc.org/banding/4weeks.aspx, accessed October 24, 2011.

Stantec

October 25, 2011

Reference: Bird Mortality Event at Laurel Mountain Substation

Table 1. Species composition of bird carcasses found during searches at the Leadsville Substation between October 3 and 18, 2011.

Common Name	Species	#	Percent
Blackpoll Warbler	*Dendroica striata*	310	64.0%
Ovenbird	*Seiurus aurocapillus*	37	7.6%
Connecticut Warbler	*Oporornis agilis*	24	5.0%
Common Yellowthroat	*Geothlypis trichas*	22	4.5%
Cape May Warbler	*Dendroica tigrina*	18	3.7%
Red-eyed Vireo	*Vireo olivaceus*	12	2.5%
American Redstart	*Setophaga ruticilla*	5	1.0%
Magnolia Warbler	*Dendroica magnolia*	5	1.0%
Black-throated Blue Warbler	*Dendroica caerulescens*	4	0.8%
Indigo Bunting	*Passerina cyanea*	4	0.8%
Swainson's Thrush	*Catharus ustulatus*	4	0.8%
Yellow-billed Cuckoo	*Coccyzus americanus*	4	0.8%
Yellow-rumped Warbler	*Dendroica coronata*	4	0.8%
Mourning Warbler	*Oporornis philadelphia*	2	0.4%
Northern Waterthrush	*Seiurus noveboracensis*	2	0.4%
Rose-breasted Grosbeak	*Pheucticus ludovicianus*	2	0.4%
Palm Warbler (Western)	*Dendroica palmarum palmarum*	2	0.4%
Palm Warbler (Yellow)	*Dendroica palmarum hypochrysea*	2	0.4%
Acadian Flycatcher	*Empidonax virescens*	1	0.2%
Blackburnian Warbler	*Dendroica fusca*	1	0.2%
Black-throated Green Warbler	*Dendroica virens*	1	0.2%
Green Heron	*Butorides virescens*	1	0.2%
Hooded Warbler	*Wilsonia citrine*	1	0.2%
Northern Parula	*Parula americana*	1	0.2%
Pied-billed Grebe	*Podilymbus podiceps*	1	0.2%
Ruffed Grouse	*Bonasa umbellus*	1	0.2%
Sora	*Porzana carolina*	1	0.2%
Tennessee Warbler	*Vermivora peregrine*	1	0.2%
Virginia Rail	*Rallus limicola*	1	0.2%
Wood Thrush	*Hylocichla mustelina*	1	0.2%
Unknown	Unknown	9	1.9%
Total		484	100.0%

Stantec

Reference: Bird Mortality Event at Laurel Mountain Substation

Timing and species composition of the mortality event at the Leadsville substation bears comparison to a large mortality event documented on October 8, 1991, at a 191-meter tall antenna with white and red Federal Aviation Administration lighting maintained by the U.S. Coast Guard in Martin County, Florida. On this day, 617 songbird carcasses representing 9 species were found beneath the tower, all of which apparently collided with the tower and/or guy wires that morning. Blackpoll warblers comprised 95 percent of the carcasses, and the 4r next most common species were Cape May warbler, ovenbird, yellow-billed cuckoo, and Connecticut warbler.[2] Although the two incidents occurred 10 years apart and in different landscapes and regions, the primary species involved were similar.

Standardized mortality searches took place at turbines at Laurel Mountain between October 3 and 18, confirming that large bird mortality events did not occur at project turbines during this period. A total of 24 bird carcasses were recovered during 72 turbine searches conducted between October 3 and 18, with no more than 3 bird carcasses found during any single turbine search. Both turbines nearest the substation to the north and the south were included in standardized surveys, confirming that the mortality event did not also occur at nearby turbines. Mortality surveys will continue at the Laurel Mountain turbines through the end of October 2011. Stantec will continue to work with AES to confirm that all substation lighting remains off for the duration of the fall songbird migration and will develop a long-term strategy to prevent subsequent mortality events due to attraction to lighting at the substation facility. Potential solutions include some combination of seasonal shutdown of lighting, reduction in wattage of bulbs, redirecting lights downward, infra-red lighting, motion sensor-activated lighting, and timed shutdowns of lights within nights. Stantec will continue to search the substation for carcasses on at least a weekly basis to confirm that disabling the night-time lighting at the facility has prevented additional songbird mortality from occurring.

Sincerely,
STANTEC CONSULTING

Trevor Peterson

Trevor Peterson
Senior Wildlife Biologist

cc. Richard Bailey, DNR
Steve Abe, AES
Barry Sweitzer, AES
Sarah Scheel, Stantec
Adam Gravel, Stantec
File 195600729

[2] Roberts, R.E., and C.V. Tamborski. 1993. Blackpoll warbler mortality during fall migration at a tower in southeastern Florida. Florida Field Naturalist 21(4): 118-120.