

Public Service Commission of Wisconsin
Surrebuttal Testimony of Stacy T. Schumacher
Division of Energy Regulation

Two Creeks Solar, LLC
Docket 9696-CE-100

January 10, 2019

1 **Q. Please state your name.**

2 A. My name is Stacy Schumacher.

3 **Q. Did you file direct testimony in this docket on December 7, 2018?**

4 A. Yes, I did.

5 **Q. Have you reviewed the rebuttal testimony filed by Two Creeks LLC (Two Creeks)**
6 **staff and consultants in this proceeding?**

7 A. Yes, I have.

8 **Q. What is the purpose of your surrebuttal testimony?**

9 A. The purpose of my surrebuttal testimony is to respond to the rebuttal testimony of Two
10 Creeks' witnesses Ms. Toni Darwish, Mr. Dave Cook, and Ms. JoAnne Blank.
11 Specifically, I will address a few clarifications about fencing, order conditions, non-
12 participating landowners, and discuss the topic of avian studies.

13 **Q. Have you reviewed the perimeter fencing discussion provided by Mr. Cook in his**
14 **rebuttal testimony?**

15 A. Yes. Mr. Cook states in his rebuttal testimony (Rebuttal-Two Creeks-Cook-1-2) that
16 Two Creeks would review the 8-foot woven or welded wire fencing option I discussed in
17 my direct testimony to determine if it would be in compliance with applicable codes. Mr.
18 Cook states that a different fencing type would be required for the substation for public
19 safety reasons.

1 **Q. Do you agree with the use of different fencing around the substation site?**

2 A. Yes. My understanding is that the fencing requirements for substations are different from
3 the requirements for the rest of the solar facilities, and I do not suggest that both areas
4 should use the same fencing.

5 **Q. Do you have any response to Ms. Darwish's discussion regarding the impact of the**
6 **project on line-of-sight and broadcast communications (Rebuttal-Two Creeks-**
7 **Darwish-6)?**

8 A. Yes. On page 6, lines 1-3, Ms. Darwish states that I suggested order condition requiring
9 a line-of-sight and broadcast communications assessment. I want to clarify that, I am not
10 suggesting an order condition that would require Two Creeks provide an assessment of
11 any project impacts on line-of-sight and broadcast communications. Such an assessment
12 was provided in the Badger Hollow docket (Ex.-PSC-Schumacher-4). After reviewing
13 that document, I believe that it is unlikely the solar facilities would cause disruptions to
14 line-of-sight and broadcast communications. The proposed order condition I suggested is
15 for Two Creeks to mitigate any impacts or otherwise address concerns if any resident or
16 business is able to show impacts to line-of-sight communications or broadcast reception
17 that can be attributed to the new facility.

18 **Q. Please describe any differences between the complaint process Ms. Darwish**
19 **described and the complaint process you suggested the Commission consider**
20 **(Rebuttal-Two Creeks-Darwish-2-3).**

21 A. Ms. Darwish states that the process for addressing participating and non-participating
22 landowner concerns during and after construction would be the same process used by the
23 potential future owner of the project, Wisconsin Public Service Corporation

1 (WPSC). Ms. Darwish states in the section discussing “Good Neighbor Payments” that if
2 there are specific concerns raised by a non-participating landowner, Two Creeks Solar
3 will work directly with that landowner to address their concerns where practicable. The
4 description of the WPSC complaint process does not include details on how or when a
5 landowner has the ability to bring a complaint to the Commission. This appears to be the
6 difference between what I proposed in my direct testimony and the description of how
7 complaints would be addressed in Ms. Darwish’s rebuttal testimony. I suggest a
8 clarification that Two Creeks would utilize a complaint process that prioritized resolving
9 a landowner’s concern at the local level, and make clear that if a landowner felt their
10 complaint was not being sufficiently addressed, the issue could be brought before the
11 Commission for resolution.

12 **Q. Do you have any response to Ms. Darwish’s testimony in relation to good neighbor**
13 **payments (Rebuttal-Two Creeks-Darwish-4-5)?**

14 A. Yes. I would clarify that my testimony proposed a few different ways to address
15 concerns of non-participating landowners, and did not direct one specific type or way of
16 addressing any such concerns. It is good that Two Creeks has sponsored a range of
17 activities in the local community; however, the potential use of good neighbor payments
18 or other mitigation actions for non-participating landowners affected by the project may
19 still be warranted despite such activities. My recommendation is for the Commission to
20 consider an order condition that requires Two Creeks to submit a plan that provides more
21 information on how non-participating landowner concerns would be addressed.

1 **Q. Was the use of the non-participating landowner proximity analysis**
2 **(Ex.-PSC-Schumacher-2) intended to imply that similar impacts to those near wind**
3 **energy systems are expected at Two Creeks?**

4 A. No. The use of the non-participating landowner analysis was only to provide one
5 potential tool to assist in identifying potential residences that might be more impacted by
6 the project, not to imply or describe a direct correlation on the types of impacts that might
7 be expected. As noted by Ms. Darwish, Two Creeks will be considering reasonable
8 requests for screening vegetation or other similar measures if requested by non-
9 participating landowners on a case by case basis (Rebuttal-Two Creeks Solar-Darwish-4)
10 and will have a complaint process to address concerns. The analysis included in Ex. PSC
11 Schumacher-2 may be a useful tool in evaluating the need for such mitigation.

12 **Q. Do you have any response to Ms. Blank’s description of why an avian mortality**
13 **study is not needed for this project?**

14 A. Yes. Ms. Blank provides information showing that other anthropogenic causes of avian
15 mortality, such as collisions with buildings, are greater than what might be observed at
16 the solar facility. This argument does not address the situation I described in my direct
17 testimony, which is that we have no examples of how a facility of this size in the upper
18 Midwest, located as close to Lake Michigan as this project would be, may affect birds.
19 The Commission is tasked with reviewing the impacts of the project before it, and where
20 possible, find ways to mitigate or avoid that project’s undesirable impacts.

21 Ms. Blank is correct in that I was referencing the “lake effect” hypothesis as the
22 reason for observed impact trauma mortality at solar PV facilities in arid environments.

23 Ms. Blank states a belief that the presence of more natural waterbodies in the Two Creeks

1 project area would reduce the chance of this “lake effect” impact trauma occurring, but
2 such a statement depends on a hypothesis that the presence of such natural conditions
3 would render the solar facility entirely unattractive to birds. Because no such facilities
4 have been constructed and operated at this scale in this environment, absent additional
5 information on the project’s impact on avian mortality it is difficult to make any
6 assumptions of avian mortality for this solar project or any other solar project.

7 The purpose of the post-construction mortality study methodology is address this
8 deficiency in the literature by obtaining valuable information on this type of facility and
9 how it affects wildlife in this part of the country. Understanding any impacts this project
10 may have on avian mortality could lead to more informed siting and operation if any
11 mortality events are observed, or support the assertion that there are not expected to be
12 any significant impacts to avian resources.

13 **Q. Does this conclude your surrebuttal testimony?**

14 A. Yes, it does.

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