
From: Doug Paulson [REDACTED]
Sent: Sunday, April 15, 2018 7:45 PM
To: PUC <PUC@state.sd.us>
Subject: [EXT] Comments on article about study and Guidance document for EL17-055

Dear PUC, I am writing you today to comment on an article from a study and a guidance document. FACT#1 CREDIT(August 31, 2017-Climate Change Dispatch-article written by Craig Idso)Article title(Another reason to Reject Wind Farms) This article states that thanks to the studious research of six Chinese scientists(Tang et al, 2017) there is another reason for opposing and avoiding wind farms and that is they reduce the productivity of surrounding vegetation. How did they reach this conclusion? Tang et al used remotely-sensed imaging data, including leaf area index(LAI) normalized difference vegetation index(EVI), gross primary production(GPP), and net primary production(NPP), coupled with other climate related data(temperature, soil moisture, evapotranspiration, albedo and wind) over the period 2003-2014, to analyze the effects of a recently built wind farm on summer(Jun-Aug) vegetative growth in the Bashang region of northern China. Their findings report the construction of wind turbines elevated both day and night temperatures which they said "suppressed soil moisture and enhanced water stress in the study area resulting in decreased local vegetative growth and productivity. Finally stated was these several findings led Tang et al. to conclude that their research "provides significant observational evidence that wind farms can inhibit the growth and productivity of the underlying vegetation." <http://climatechangedispatch.com/another-reason-to-reject-wind-farms/> (original document) FACT#2 Credit(March 2012-Scottish Natural Heritage)Title(Guidance-Assessing the cumulative impact of onshore wind energy developments) The document states that behavior displacement and avoidance, habitat loss, collision risk and the barrier effect are things that should be taken into consideration. This document gives an example of a cumulative effect-Windfarm A gives rise to a low level of bird mortality, which lies well within the capacity of that bird population for regeneration and hence has little effect on the overall bird population level. The same would apply to a second windfarm B on its own. However, the level of bird mortality caused by windfarms A and B taken together would exceed the capacity of the population for regeneration, in which case the population would go into decline. Whereas the impact of A and B is to cause population decrease which is of concern. This is an example of the barrier effect-Windfarms placed across migration corridors, or at key landfall sites for

migrants, may act as a barrier. Many migrants that fly at turbine height during migration (for example species of waterfowl), may have limited reserves of energy to climb above, or pass around wind farm sites on route. Most of the migrating waterfowl that end up in this area travel from Sand Lake Refuge to Reid Lake Refuge in Clark county. The Crocker Wind Farm would create a barrier effect between the 2

Refuges. <https://www.nature.scot/.../A675503%20-%20Assessing%20the%20cumulative%20im...> (original document)

The cumulative environmental impact of placing another wind farm between 2 other existing wind farms should be taken into consideration because that would make 26.2 miles of wind turbines from north to south.

I believe the study shows that wind farms have a negative impact on the surrounding soils and therefore the environment. I also want to make it clear that the other 62 people who were intervenors still have concerns about the Crocker Wind Farm but it was too expensive to have that many people go through all the steps required by an intervenor therefore dropping out but still having concerns. I want the PUC to know that there are a lot of people that still have concerns about the CWF even though they are not an intervenor anymore.

Sincerely, Doug Paulson [REDACTED] Clark, S.D. 57225 [REDACTED]